

BITOU LOCAL MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

May 2013

BITOU LOCAL MUNICIPALITY

SPATIAL DEVELOPMENT FRAMEWORK

prepared for



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GLOSSARY OF TERMS

B&Bs	Bed and Breakfast establishments	LED	Local Economic Development
BEE	Black Economic Empowerment	LUMS	Land Use Management Schemes
CARA	Conservation of Agricultural Resources Act	MCM	Marine and Coastal Management
CBAs	Critical Biodiversity Areas	MEDS	Micro-Economic Development Strategy
CBD	Central Business District	MTAS	Municipal Turn Around Strategy
DFA	Development Facilitation Act	MTB	Mountain Bike
DHS	Department of Human Settlements	NBSAP	National Biodiversity Strategy and Action Plan
DMA	District Management Area	NDAs	New Development Areas
DME	Department of Minerals and Energy	NGO	Non Governmental Organisations
DTI	Department of Trade and Industry	NPDG	Neighbourhood Development Program Grant
DWAF	Department of Water Affairs and Forestry	NSDP	National Spatial Development Perspective
EMF	Environmental Management Framework	OECD	Organisation for Economic Cooperation and Development
EPWP	Extended Public Works Program	OICG	Overberg Integrated Conservation Group
GAP housing	The term that describes the shortfall, or 'gap' in the market between residential units supplied by the state and houses delivered by the private sector	PGDS	Provincial Growth and Development Strategy
GCB	General Waste, Communal Landfill and no significant leachate produced	PHP	Peoples Housing Process
GDP	Gross Domestic Product	RIDS	Regional Industrial Development Strategy
GLA	Gross Leasable Area	SA	South Africa
GP	General Plan	SANBI	South African National Biodiversity Institute
GRP	Gross Regional Product, i.e. for district or local Municipality	SDF	Spatial Development Framework
GVA	Gross Value Added	SDP	Site Development Plan
Ha	Hectare	SDP	Spatial Development Plan
I&AP	Interested and Affected Parties	SEA	Strategic Environmental Assessment
IDP	Integrated Development Plan	SIP	Strategic Infrastructure Plan
IEMP	Integrated Environmental Management Plan	SMME	Small, Medium and Micro Enterprises
IT	Information and Technology	SoER	State of the Environment Report
LASP	Local Area Structure Plan	SPC	Spatial Planning Category
		SWOT	Strengths, Weaknesses, Opportunities and Threats
		WWTW	Waste Water Treatment Works

1. INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The purpose of this report is to provide relevant background information regarding the bio-physical, economic and social context of Bitou Municipality, see Figure 1.1.1a, and the policy framework that must be taken into account in the SDF proposals for the Municipality.

1.2 STRUCTURE OF THIS REPORT

The report is structured in the following manner:

Section 1 describes the purpose and need for an SDF.

Section 2 describes how the SDF should take into account a number of national guidelines and concepts.

Section 3 describes the approach and overarching principles.

Section 4 describes the current situational analysis in the Bitou Municipality (WC051) under the following subsections:

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

Section 5 provides a summary of the main findings of this report.

1.3 WHAT IS AN SDF AND WHY IS IT NEEDED?

The spatial management of growth in urban and rural environments and the subsequent impact on resources was previously directed through rather inflexible master plans which were underpinned by the principles of discrimination and separate development.

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

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

The impact of SDFs is limited to providing policy to guide and inform land development and management. They do not change or confer real rights on land.

These are controlled through the second component, the Land Use Management System (LUMS), the new term for town planning or zoning schemes. In many instances where they haven't been replaced or repealed these still take the place of LUMS. In contrast to SDF's LUMS have a binding effect on the development rights attributed to land and confer real rights on properties.

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

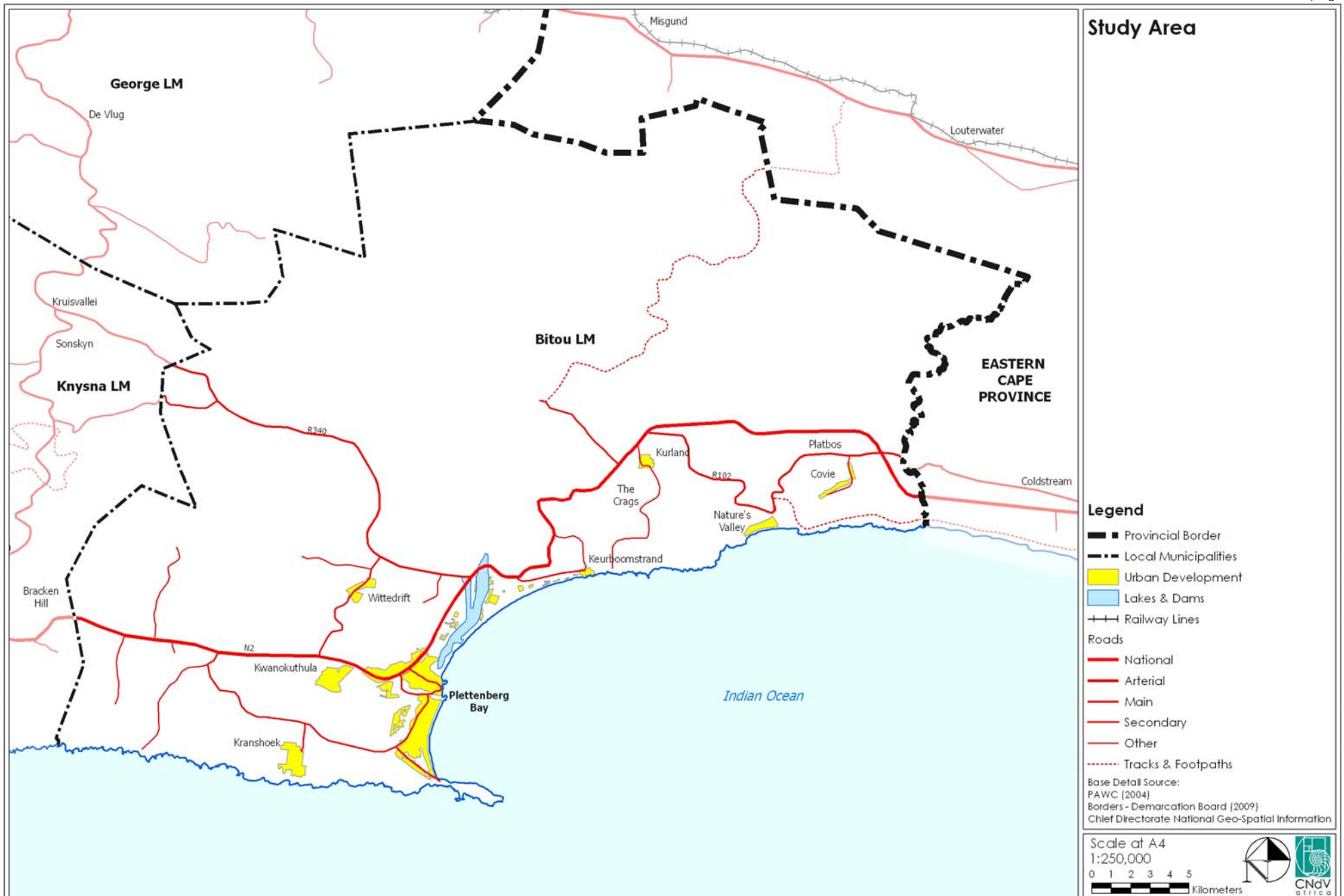
Because of their guiding and informing nature SDF's also have a number of other important roles in addition to guiding LUMS.

These include:

- Giving effect to the principles contained in the Development Facilitation Act Chapter 1, see Section 2.1.1 on page 12;
- Setting out objectives that reflect the desired spatial form including:

Defining strategies and policies to achieve these objectives which must indicate, amongst others:

- the desired pattern of land use;
- how spatial reconstruction will be addressed; and,
- providing strategic guidance in respect of the location and nature of development. (In this regard it should be noted that the SDF's should inform the investment decisions of the public *and the private* sectors.)



- Set out a capital investment framework for development programs; (this will mainly inform public sector investment priorities);
- Include a Strategic Environmental Assessment (SEA) in the compilation of the SDF;
- Identify programs and projects for development of land;
- Be aligned with neighbouring Municipal SDF's; and,
- Provide a visual representation of the designed spatial form with the Municipality in the form of a map which must indicate the following:
 - public and private land development and infrastructure investment;
 - desired and undesired use of land;
 - may delineate the Urban Edge;
 - identify areas for strategic investment;
 - where policy intervention is needed; and,
 - indicate where authority spending is required.

1.4 LEGAL STATUS OF THE SDF

Within the limitations of a SDF as laid down by the Local Government Municipal Systems Act, 2000 (Act 32 of 2000) i.e. that it should be a guiding and informing document and does not confer real rights on land, it is intended that the SDF should be a binding document endorsed by the Municipal Council and approved by the Provincial Administration in terms of Section 4(6) of the Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985). These endorsements will assist with the processing of development applications, demonstrating compliance with different sectoral policies and motivating project funding and budgets.

1.5 RELATIONSHIP WITH OTHER PLANS

The SDF links the development objectives taken from the Integrated Development Plan (IDP) and the Budget of a particular municipality. Therefore, the SDF becomes the spatial presentation of the IDP objectives that guide projects funded through the budget of the local municipality. This link between the SDF, IDP and Budget is shown in Figure 1.5.1.

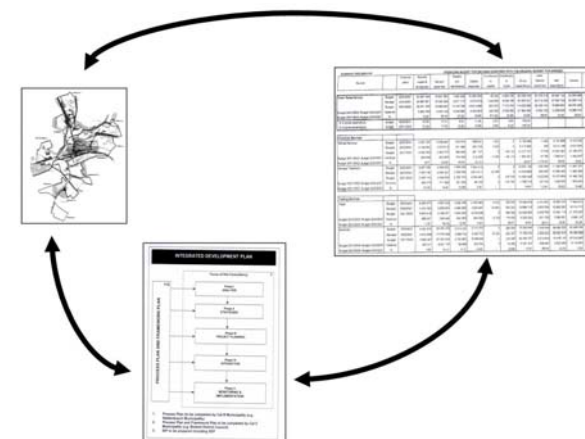


Figure 1.5.1 Link between SDF/IDP/Budget

The Bitou Municipal SDF is further linked to other spatial policies at different levels of detail depending on their level of jurisdiction. The National Spatial Development Perspective (NSDP) provides the broad national development goals, objectives and strategies. This informs the Western Cape Provincial SDF (WC-PSDF). The WC-PSDF in turn informs the District Municipal SDF. The Eden District Municipal SDF then informs the preparation of the Bitou Local Municipal SDF. It should be noted that the hierarchy is not only top down but also bottom up, i.e. the lower level plans also inform the higher level plans through the updating process as a result of more local level detailed information. The lower the level of the plan the more detailed the plan becomes and vice versa. This is illustrated in Figure 1.5.2.

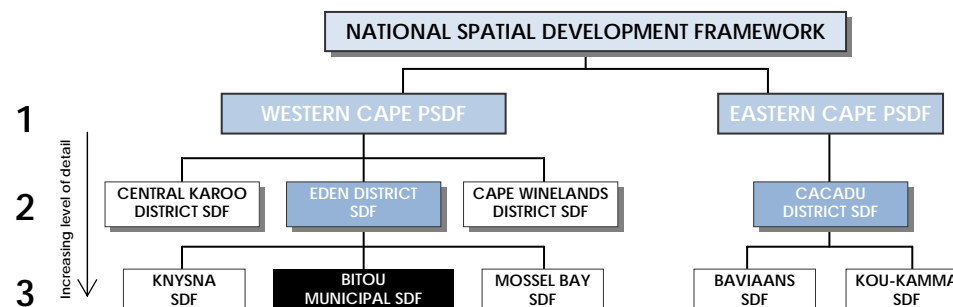


Figure 1.5.2 Layers of SDF and Level of Detail

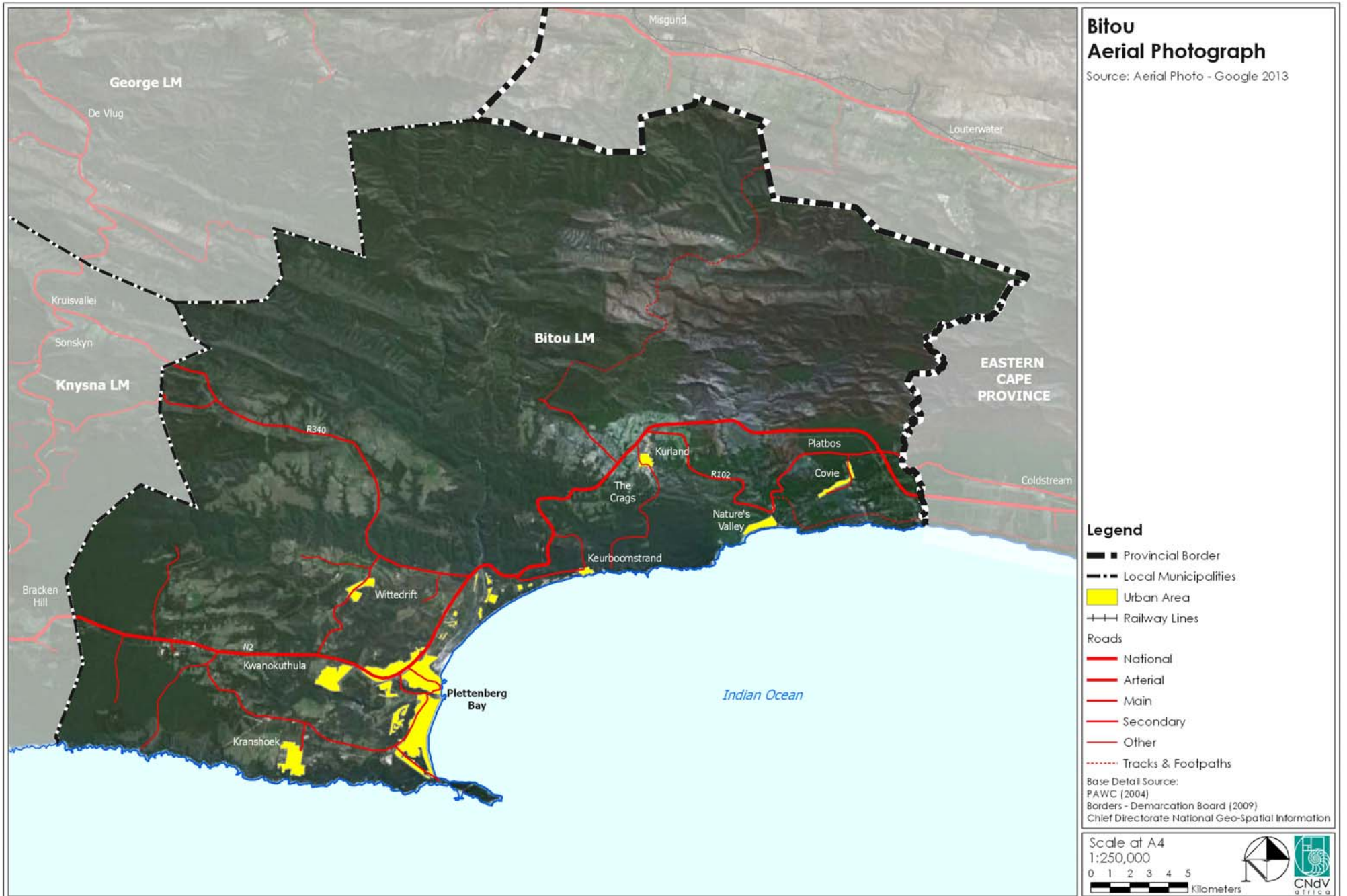


Figure 1.1.1b Aerial Photograph

The SDF should consider the impact of the natural environment (rivers, sensitive areas) as well as built environment aspects such as housing, infrastructure, etc. and socio-economic issues relating to economy, human development indicators, etc. Although prepared by the Department of Development the SDF must guide all of the Municipality's departments. Therefore, the SDF is informed by and in turn informs the plans and activities of the various line departments, see Figure 1.5.3.

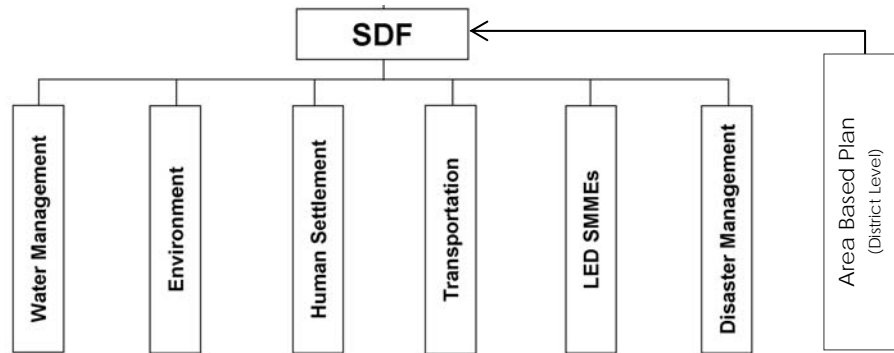


Figure 1.5.3 SDF relationship to sector plans

1.6 CONSULTANT'S BRIEF

The consultants brief is to prepare an SDF for the Bitou Municipality.

The following products will be produced as part of this SDF process for the Bitou Municipality:

Product One : Status Quo/ Situational Analysis Report

Product Two : Conceptual Framework (draft SDF)

Product Three : Implementation Strategies and Programmes

Product Four : Approval of SDF

The above mentioned products of the SDF will be produced in the phases shown below in Figure 1.6.1.

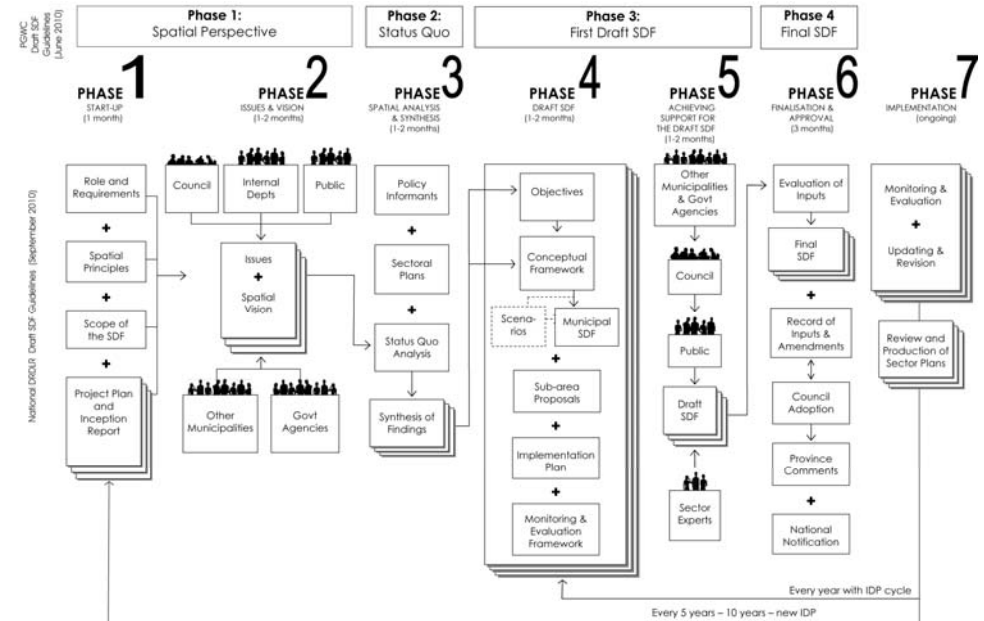


Figure 1.6.1 Phases in the process of completing an SDF (source: CNdV, 2010)

There is a correlation between the national and Western Cape guidelines. The national guidelines comprise of 7 phases and the Western Cape guidelines have 4 phases. For the process of compiling this SDF the National Guidelines (September 2010) will be used. The deliverables of the 4 provincial phases are:

- Provincial Phase 1: Spatial Perspective/Situational Analysis**

The National Guidelines have two phases in this regard. Phase 1: Start-up and Phase 2: Issues and Vision. The product from Phase 1 is a Project Plan and an Inception Report. Phase 2 is a public consultative process through which issues and a vision are obtained from the local/district council, internal departments, the public, other municipalities and government departments. From Phase 2 a summary of the issues and vision will be produced.

• Provincial Phase 2: Status Quo

A status quo report will be produced from Phase 3 of the National Guidelines. This phase is essentially a “Spatial Analysis and Synthesis” Phase which will involve an analysis of the applicable policy informants, existing sectoral plans and will include the issues and vision from Phase 2.

• Provincial Phase 3: First Draft SDF

Phase 4: Draft SDF and Phase 5: Achieving Support for the Draft SDF correlates with Phase 3: First Draft SDF of the Provincial Guidelines. The product from Phase 4 of the National Guidelines will be a Draft SDF containing objectives, a conceptual framework, sub-area proposals, an implementation plan and a monitoring and evaluation framework. Phase 5 of the National Guidelines is another public consultative process which is done to obtain inputs/comments from the various stakeholders on the draft SDF.

• Provincial Phase 4: Final SDF

Phase 6: Finalisation and Approval correlates with Phase 4: Final SDF of the Provincial Guidelines. The product from Phase 6 in the National Guidelines will be a final SDF which will incorporate the comments obtained on the draft SDF.

The National Guidelines have an additional phase which is not provided for in the Provincial Guidelines. Phase 7: Implementation of the National Guidelines will ensure ongoing monitoring and evaluation of the SDF and updating and reviewing the SDF where required. The review of existing sectoral plans and the production of new sectoral plans which address area specific conditions within the municipality/district should be implemented.

The following serves as specific foci:

CRITICAL MILESTONES AND DELIVERABLES

The following milestones are necessary phases of the project to ensure a credible and comprehensive SDF as required by the above policy and regulation:

- Spatial Interpretation of the IDP of the Municipality;
- Spatial Analysis of the Current Reality;
- Desired/Conceptual Spatial Goal and Development Pattern; and,
- Implementation Strategies and Programmes.

It is expected that each milestone should cover several deliverables.

Following below is a list of deliverables for each of the four milestones.

DELIVERABLE 1: SPATIAL PERSPECTIVE OF THE IDP OF THE MUNICIPALITY

Due to the fact that an SDF is a spatial representation of the IDP, understanding, but most importantly interpreting the IDP spatially is seen as the first phase of the process. The section should, *include the following*:

- Highlight the vision and mission of the IDP and its spatial implication;
- Confirm the interrelationship of the municipality’s vision and that of the district from a spatial planning point of view;
- Identify main relevant principles and strategies as contained in the IDP and how they translate spatially;
- Delineate the municipal boundary, settlements, farms and wards; and,
- Map the area where the main pressing needs and the proposed multi-sector project(s) are located.

DELIVERABLE 2: SPATIAL ANALYSIS OF THE CURRENT REALITY

This section should check whether the “environment” is spatially conducive, able or geared for the delivery of the IDP and the relevant sector plans. It should not repeat the status-quo information as contained in the IDP. This phase must contain a **spatial analysis with maps**, and should indicate the following:

- Municipal-wide rural spatial issues (in relation to the needs identified) and existing projects proposals (including their locality);

The municipal investment and spending patterns. For example, are the municipality spending patterns:

- in the interest of the DFA;
- is spending biased towards the urban areas; or,
- is the focus on the needy rural settlements?

- Is there a Comprehensive Rural Development Programme (CRDP) in the municipality; and how do the proposals relate spatially and economically to the adjacent settlements and towns? and,
- Summarise existing policies, plans, resolutions and by-laws in the municipality pertaining to spatial planning. Are they supportive of what the municipality wants to achieve in particular with regard to rural development; or do they need to be revised?

Highlight spatial implication of applicable provincial and national plans, legislation, policies, strategies and directives;

- Settlement spatial patterns and dysfunctionality:
 - Is there any sign of sprawl, integration or any other effects of apartheid?
 - Is the environment and its activities functioning efficiently as a system?
 - Can the proposals of the IDP be implemented?
- Identification and analysis of existing nodal points:
 - Are they viable and sustainable for promoting economic growth?
 - Should their development be enhanced, etc?
- Identification and analysis of strategic located vacant land and development potential land:
 - Note, only important vacant land should be described. Analysing every piece of land in the rural municipality should be avoided;
- Highlight major structuring elements, urbanisation trends and their spatial implication in the municipality;
- Identification of Strategic roads and transportation networks (district, provincial and municipal roads):
 - Are they systematically functional and supportive of each other?
 - Is there a need for new roads, and,
 - Identify which roads need to be upgraded and for what reason.
 - Where are the roads leading to and which ones will boost the economic growth of the municipality, etc;
- Location and trends of basic services and infrastructure:
 - Where does the municipality want the services and infrastructure to be placed?

- Is it aligned with where the relevant sectors want to implement their projects? If not, what kind of engagements is necessary?
- Housing (human settlements):
 - Where are low income houses located?
 - Are they in viable locations from an economic and access point of view?
 - Is there supporting infrastructure?
- Environmental degradation, conservation and sensitive areas and the impact which specific development may have on the environment:
 - In which areas should no development be allowed at all?
 - In which areas could some development be allowed with strict management?
- Agriculture:
 - Which land has agricultural potential/
 - Which land is currently affected by land claims?
 - Does the respective municipality need the land for other purposes?
- Land reform:
 - Which are suitable areas for land reform purposes?
- Sports:
 - Where are the major sporting nodes or areas and whether they are supported by the relevant infrastructure?
- Spatial relationships between urban and rural areas:
 - What form does this take?
 - Is there a harmonious relationship between the two? What form does this take?
 - Infrastructure, poverty, welfare grants, markets, economic activities or cultural?
- Surrounding Municipalities:
 - Analyse trends and alignment of adjacent municipalities with those of the site;
- Overarching policy:
 - What are the main spatial implications of:
 - the District SDF;
 - Provincial SDF; and,
 - the Growth and Development Strategy;
- The relationship between the spatial issues and the vision of the municipality:
 - Is there a correlation or disjuncture? and,

This information should be summarised to determine the way forward in terms of how the municipality should be shaped from a spatial point of view.

DELIVERABLE 3: DESIRED/CONCEPTUAL SPATIAL GOALS AND DEVELOPMENT PATTERN

In this phase the conceptual proposals are developed. It is about how the spatial form of the municipality should be shaped. It links with the outcomes of the two phases mentioned above. The section should include and map the following:

- Relevant objectives and principles that will translate the space or the environment into the desired spatial form;
- The macro-conceptual framework showing the desired spatial form. The municipality should be portrayed as to how it will function sustainably as a system;
- A micro spatial plan of the focus/growth/nodal points in the municipality;
- Horizontal and vertical alignments of the conceptual diagram with other relevant plans such as PGDS, NSDP, District SDF and District IDP, etc;
- Priority settlements for the implementation of the CRDP;
- Rural towns needing revitalisation;
- Strategic located land for agri-villages and agro-industries;
- Land to be acquired or reserved for land reform activities including land for proactive acquisition (PLAS) by the Department of Rural Development and Land Reform;
- Strategic areas requiring surveying;
- Point out strategic sites for Thusong Service Centres (also known as Multi Purpose Community Centres (MPCC's));
- Strategic development areas and priority areas for investment;
- Viable land for housing and other economic development and supporting infrastructure;
- Viable and functional nodal points, and identify potential nodes and how they should be developed.
- Identify nodes without development potential? Name or identify the nodes;
- Functional development corridors and how they should be developed to support the nodes;

- Urban edge and direction for growth for any of the different areas at micro framework level and for the municipality as a whole at macro level;
- Functional and integrating municipal/district roads and public passenger transportation network;
- Proposals for upgrading of or new roads; and,
- Proposed major bulk infrastructure for the whole municipality;
- Where appropriate include new bulk infrastructure and the relevant services;
- Environmental conservation and sensitive areas;
- Major sporting nodes as well as areas with tourism potential
- High agricultural potential and areas affected by claims which municipality needs the most for developmental purposes; and,
- Areas needing urgent policy intervention.

DELIVERABLE 4: IMPLEMENTATION STRATEGIES AND PROGRAMMES

This is the most important phase of the SDF to realise all the ideas as conceptualised in the previous phases. For implementation to succeed it is necessary to ensure the following from the start of the process:

- There is a strategic vision for the spatial structure of the municipality as a whole shared by councillors, all the municipal department's officials, the district in which the municipality is located, national the sector departments and the private sector;
- The development of the plan should be consultative from the beginning until to the end of the process; and,
- Strategies and processes should be in place to involve the relevant decision-makers and stakeholders.

Once this has been completed, the following deliverables should form part of the SDF:

- Relevant strategies and policies to implement the framework and determine the points of intervention by the municipality; and,
- Propose amendments to the relevant sector implementation plans to facilitate the implementation of the SDF. Sector plans must always be aligned to advance the interests of the SDF and hence the IDP, see Figure 1.6.2.

Note: Making recommendations for further studies needs to be conducted;

- Recommend for the revision of existing policies or strategies where necessary;
- Land ownership with updated cadastral information that could be utilised by the municipality as part of a land audit;
- Include or design relevant transportation, infrastructure and land use integration policy and plans;
- Include a land use management system guidelines or recommend for the formulation of land use schemes;

- An Implementation Plan that summarised from the sector implementation plans:
 - Capital Expenditure Framework for the municipality's development programmes and budget process;
 - Prioritised list of developmental interventions and spatial location;
 - Cost and budget estimates;
 - Timing and phasing of development;
 - Sources of finance;
 - Implementation agent and their roles and responsibilities;
 - Recommendations for the revision of existing policies or strategies, where necessary;
 - Proposals on how the SDF can be used for the implementation of projects by Sector Departments; and,
 - Institutional capacity recommendations.

Relationships with abutting Municipalities in the Western Cape Province including Knysna and George.

The following general deliverables are to be included:

- Resumes of meetings;
- Powerpoint slide shows and hand-outs of presentations;
- Reports to be developed incrementally as project progresses;
- An atlas of situational analysis maps;
- A set of proposals maps.

All of these products should be compatible with national, provincial and district GIS databases.

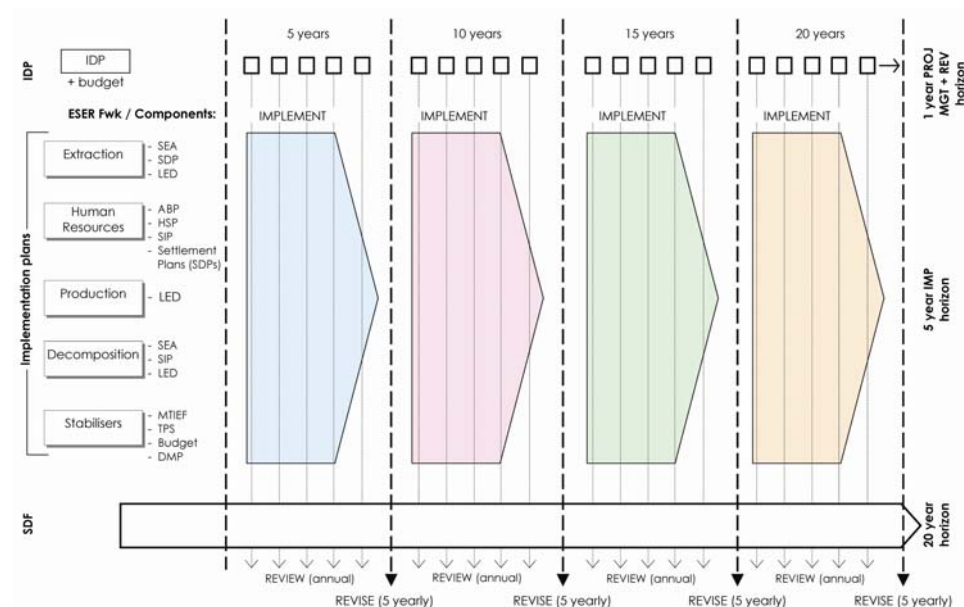


Figure 1.6.2 Proposed Relationship between IDPs, Implementation Plans, including HSPs and SDFs (source: CNdV 2010)

- Propose tools to facilitate urbanisation or migration onto the strategic development areas;
- Recommend strategies to facilitate the linkage between rural and urban areas;
- Proposals and strategies on how the municipality should be functionally integrated;
- Proposals on how to ensure the sustainability of land with high agricultural production potential; and,

2. GOVERNANCE AND LEGISLATION - IMPLICATIONS

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

2.1 NATIONAL POLICY

2.1.1 National Planning Commission: Key Driving Forces

The National Planning Commission (NPC) identified the following key driving forces:

- **Globalisation: The World Becoming More Joined Up**

Although in such a remote part of South Africa Bitou's main economic advantages are highly sensitive to world demand especially with regard to minerals, tourism and even fringe activities such as motor vehicle testing.

- **South Africa's political-economic dynamics**

- o Electricity costs are likely to continue to rise;
- o GHG emissions will increase by 25% to 2014;
- o After 2015 there will be oil shortages as global supply drops by 4% per annum;
- o Fuel shortage will be prevalent in the smaller cities in the interior and will present a strain on heavy industry and transport;
- o After 2025 there will be tougher energy laws and increased fuel and food prices; and
- o By 2050 the situation will improve due to more affordable renewable energy; alternative transport; energy and waste recycling; tourism and local food production.

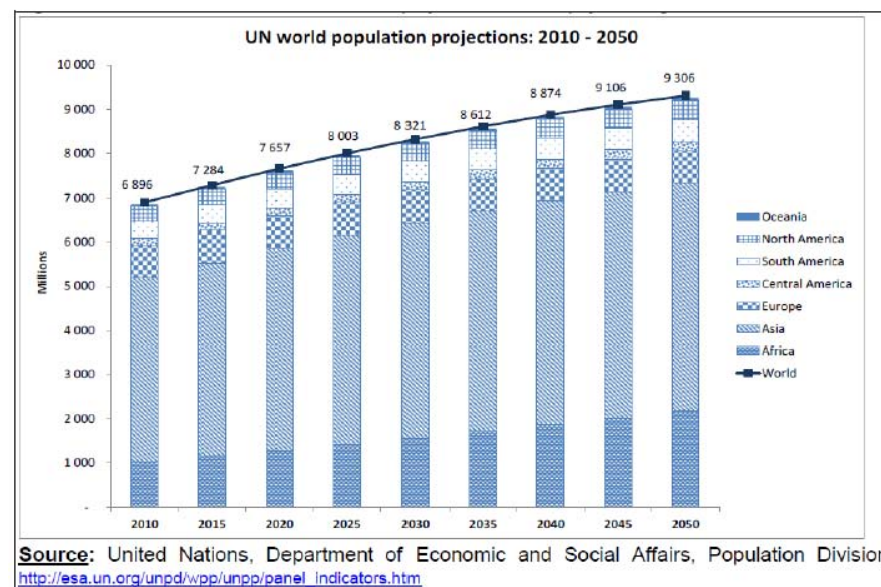
Bitou is relatively well placed to cope with the forthcoming structural changes in energy supplies as most of the municipality is located in a medium to high irradiation zone, this will provide the municipality with access to solar energy.

- **Population Growth and migration**

- o The Future of Africa and the world's fastest growing market: Africa has a compound annual growth rate of 2,3% (more than double that of Asia). It will have more than 2 billion people by 2044. Graph 2.1.1 shows the global population growth projection between 2010 and 2050.

- **Climate change and the world getting hotter**

- o Bitou municipality is already used to coping with climatic extremes;
- o Its ability to cope will be improved if it embraces the moves to renewable energy generation, green building technologies, and improved water management;



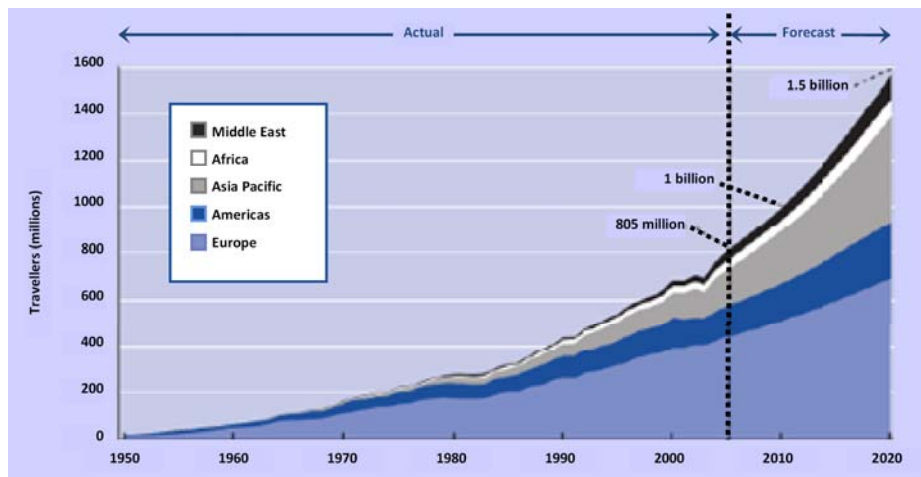
Graph 2.1.1 World Population growth projections 2010 to 2050 (Impact Economix, 2012)

- o In particular the quality of water in the river systems needs to be protected and this needs to be impressed upon upstream users through the appropriate forums;

- **Amazing new Technologies**
 - New development in information technology will help even remote rural areas of the municipality to become more connected.
- **World Tourism Boom**

The municipality has to capitalise off the forecast increase in world tourism as the international economy emerges out of recession in the medium term.

It has great scenic potential that could attract high income residents especially to Plettenberg Bay, although all of the settlements are in scenic settings and have attractive if often poorly maintained buildings and streets and tree avenues.



Graph 2.1.2 Projected growth in global and regional international tourist arrivals between 1950 and 2020 (Impact Economix, 2012)

Urban management in the settlements including crime, grime, maintenance and urban design and building controls will be important to realise the potential of the settlements.

There is also the important and interesting Griqua culture, with its focus at Kranshoek, which could be made more accessible to visitors.

Implications for Bitou Municipality

- Alternative energy resources to be implemented throughout the municipality to counter climate change.
- Emphasis to be placed on the growth of the tourism market and the promotion of Plettenberg Bay as a tourism destination.
- Technology to be used to facilitate growth in rural communities.

2.1.2 Neighbourhood Development Grant (NDPG) Requirements

Bitou already is the recipient of a NDPG award. The following is listed as it is important that the principles governing this award continue to be borne in mind when making urban development proposals.

The Neighbourhood Development Partnership Grant (NDPG) aims to "stimulate and accelerate investment in poor and underserved neighbourhoods." (Republic of South Africa: National Treasury, 2007) This stimulation is driven through technical assistance and capital grant financing for municipal projects that are linked to distinctive private sector element or intended to create such a link.

The NDPG seeks to address the lack of development (primarily economic) in townships, informal areas and low income settlements.

The following focus areas of challenges are identified:

2.1.2.1 Socio-Economic Challenges

The typical challenges on the socio-economic front, relating to townships, are:

- Large concentrations of poor households in both urban and rural locations;
- High levels of unemployment;
- Poorly performing residential property markets;
- Slower household income growth;
- Limited income retention;
- Undiversified and marginal local economies;
- Limited private sector investment; and
- Considerable fiscal burden.

2.1.2.2 Planning and Investment Challenges

The challenges to coordinated public sector planning and investment and its ability to creatively attract private and community investment include:

- Exclusion by design which limits investment leverage;
- Absence of township, and township nodal development plans and limited municipal capacity to develop integrated projects;
- Limited funding for capital works for public facilities and places;
- Low levels of private sector investment;
- Limited municipal capacity to assemble and align multiple funding sources;
- Risk of mismatch between capital investment made and maintenance and operational budgets of municipalities; and
- Focus on inner city metropolitan areas and established business centres.

2.1.2.3 Interventions that the NDPG Supports

NDPG supports the following types of interventions:

- Township area - to turn dormitory townships into fully functional neighbourhoods;
- Strategic economic development projects;
- Land use restructuring;
- Stimulating property markets;
- Purchasing power retention;
- Public sector investment as catalyst;
- Leveraging non-governmental investment;
- Ensuring municipal support; and
- Kick-starting township regeneration.

Given the above the target areas are:

- Township areas;
- New, post 1994 (generally), RDP housing and low-income housing estates developed using the same principles prevalent prior to 1994;
- Areas and town centres that are populated mainly by Black people and low-income; and
- Informal settlements.

2.1.2.4 Types of projects and eligibility

The focus is generally public infrastructure projects that will attract private and community investment to help achieve township regeneration. These projects include:

- Nodal and/or precinct projects;
- Linkage projects (internal and/or external); and
- Environmental Improvement projects.

Examples of these projects are:

- Public transport interchanges and linkages;
- Libraries as hubs of information, education and e-government;
- Tourism precincts;
- Heritage, cultural, social, and traditional amenities and/or precincts;
- Sports precincts (providing it can be demonstrated to fulfil a critical community and economic role in the township);
- Educational precincts;
- Revitalisation of existing nodes/ centres/ precincts/ high streets/ economic activity centres;
- Multi-Purpose Community Centres (MPCCs), including town halls and youth centres;
- Informal trading facilities;

Any element that may be required in order to secure private sector investment, providing it can form part of the project, and can be demonstrated to be instrumental in securing that investment into the project area.

2.1.3 DFA Principles

The Development Facilitation Act (DFA) provides an important set of overarching guidelines in the principles contained in Chapter 1 of the Act, see Figure 2.1.3.1.

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

Figure 2.1.3.1 DFA: Chapter 1 - Land Development Principles

Key themes contained in these principles include:

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

Implications for Bitou Municipality

- SDFs should provide guidelines or review how local SDF proposal effectively contribute to achieving these principles.
- Special attention should be paid to the access and integration of poorer communities across transport corridors;
- A more compact urban form and the reduction on the dependency on the motor vehicle, is to be encouraged.

2.1.4 NSDP Spatial Guidelines

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

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

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

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

There are five major principles of the NSDP:

- Economic growth is most likely to continue where it has previously occurred and therefore economic potential will be highest in these localities (NSDP, pg 24);
- Economically active people will tend to move to localities where jobs or other livelihoods are available (NSDP, pg 24);
- Efforts to address past social inequalities should focus on people and not in places where it will be difficult to promote sustainable and economic growth (NSDP, pg 24);
- It is important that people are trained and skilled to participate effectively in the economy. Because of the tendency of people to move to areas of greatest opportunity especially when they have skills, programs in areas with low economic development potential should focus on enhancing people skills rather than the construction of fixed infrastructure. This will avoid the risk of such investment becoming

redundant if people move away or there is not sufficient demand to justify high levels of expenditure;

- Future government spending on infrastructure and development should be in localities that would not become poverty traps (NSDP, pg 25);

Figure 2.1.4.1 illustrates the principles of the NSDP Spatial Guidelines.

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

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

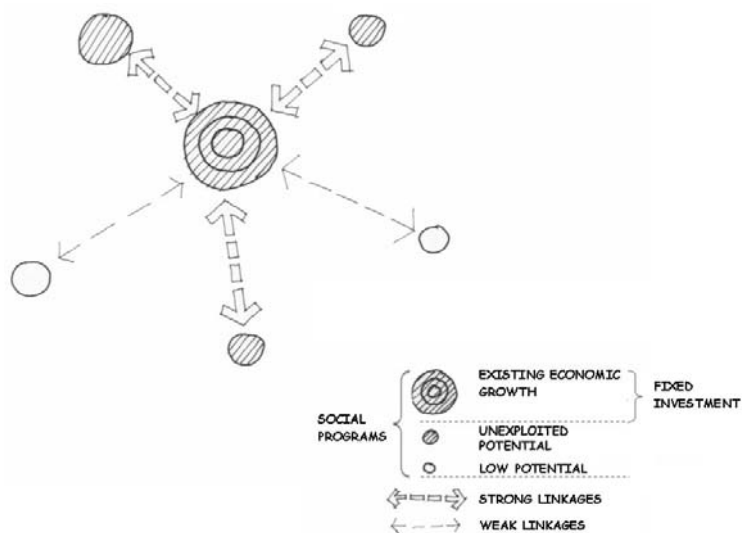


Figure 2.1.4.1 Principles of the NSDP Spatial Guidelines

The NSDP also recognises that development potential tends to be greatest along linear corridors or axes, see Figure 2.1.4.2. This is as a result of the relationship between urban nodes of opportunity and the transport and communication routes that connect them. In some instances a river whose banks also have enhanced economic opportunities could also give rise to linear development corridors as zones of investment priority.

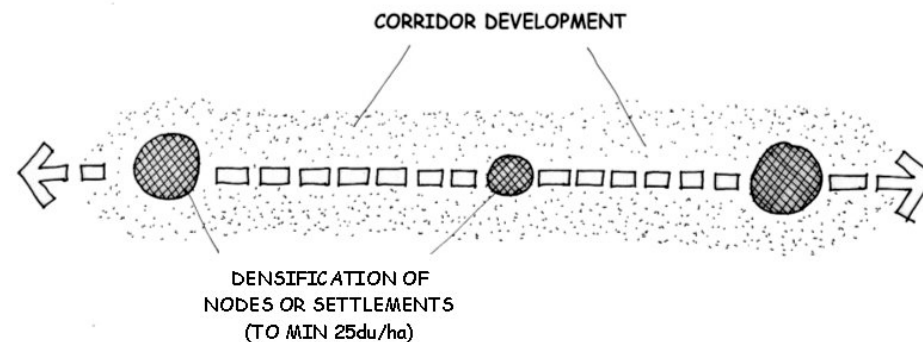


Figure 2.1.4.2 Development Potential along Linear Corridors



Figure 2.1.4.3 Bitou Municipality in respect to the Proposed Draft SDF for South Africa (source: DRDLR, 2010)

Implications for Bitou Municipality

- A large portion to the north of the Municipality is identified as a SANBI escarpment and Priority Areas.
- Large volumes of traffic passes through the Municipality via the N2, i.e. average annual daily traffic per day of 6500 – 14000

Difficult Choices and Decisions

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

Figure 2.1.4.4 illustrates the difference between ideal relationships where all space is equal, people are distributed evenly across that space, and resources and opportunities are also equally distributed and reality which is that space is warped by topography, the unequal distribution of mineral

resources, and the greater concentration of ecosystem services such as water, soil fertility, areas of biodiversity, in some areas than in others.

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

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

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

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

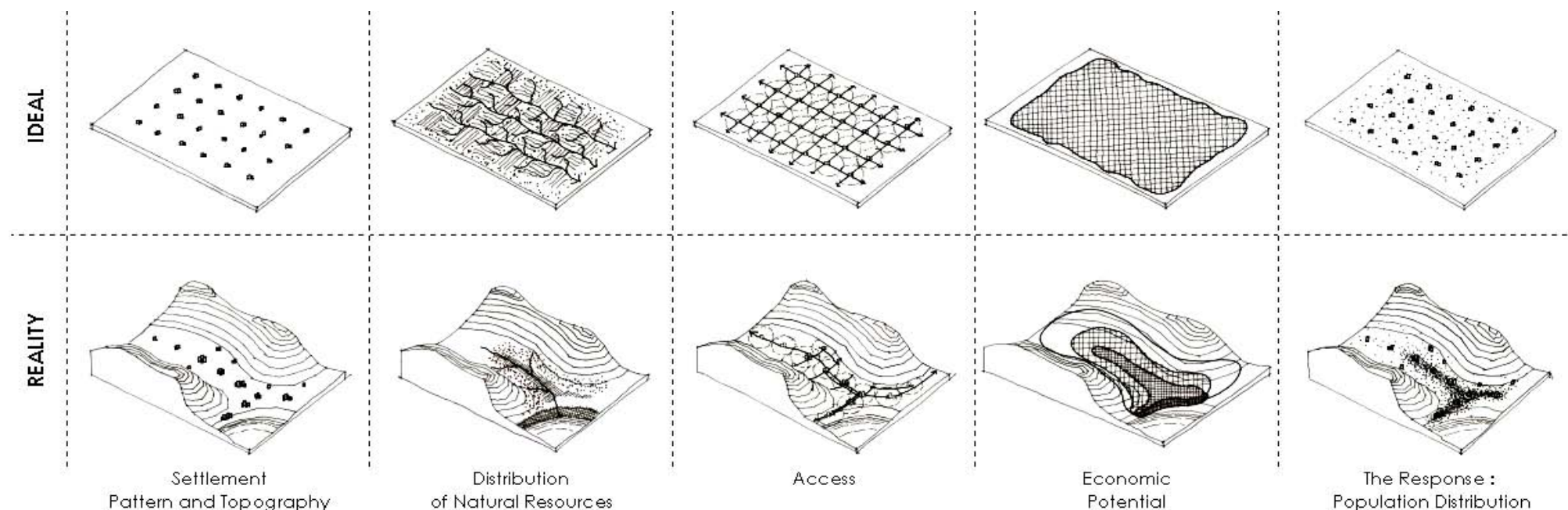


Figure 2.1.4.4 Differences between Ideal and Actual Patterns of Resources and Opportunities

investment, i.e. investing in people, in educating, empowering, and uplifting the people.

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

Implications for Bitou Municipality

- All settlements deserve human development programs.
- Fixed infrastructure to be strategically located so as to ensure compliance with above NSDP principle.
- Investigate an appropriate response for the delivery of services to the settlements with low economic growth potential. In this regard, Kurland and Nature's Valley should only investigate alternative ways to achieve service delivery.
- In terms of the NSDP principles, Plettenberg Bay, is a primary town that has the greatest economic growth potential. Therefore, major fixed infrastructure investment should be directed here over and above social capital spending.

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

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

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

These objectives and targets include:

- **Strategic Objective One:** A policy and legislative framework that allows the integration of biodiversity management objectives into the economy.
Targets:
 - South Africa is to meet its international obligations with regards to biodiversity
 - Biodiversity issues become integrated in the macro-economy, informing policy, planning, budgeting and decision making at all levels
- **Strategic Objective Two:** Ensure good governance in the biodiversity sector by enhancing institutional effectiveness and efficiency.
Targets:
 - Biodiversity concerns occupy a significant place on the national agenda
 - Government, stakeholders and role-players work together (effectively and efficiently) to achieve biodiversity management objectives
- **Strategic Objective Three:** Integrated terrestrial and aquatic management to minimise the impacts of threatening processes on biodiversity, enhances ecosystem services and improve socio-economic security.
Targets:
 - By focusing on programmes aimed at poverty alleviation, effective control of priority invasive species is achieved

- Meet biodiversity objectives within all biodiversity priority areas
- Produce disaster prevention and management plans incorporating wise ecosystem management principles and practices
- Genetically modified organisms which threaten biodiversity, are not to be released into the environment
- Consider biodiversity in all aspects of resource use

- **Strategic Objective Four:** Enhance human well-being and development by enhancing the sustainable use of biological resources and equitable sharing of benefits.

Targets:

- Economies based on the use of species and genetic resources are optimized and sustainably managed
- Priority fish stocks recover to sustainable levels
- No species status declines
- National products sector contribution to GDP grows by 50%
- With more effective and equitable resources, poverty is alleviated

- **Strategic Objective Five:** Maintain key ecological processes across the landscape and seascape.

Targets:

- Comprehensive biodiversity monitoring systems inform planning
- Protected area network in marine environmental hence contribution to representation targets in priority areas
- No further loss of endangered ecosystems
- Establish protected environments and manage effectively

Implications for Bitou Municipality

- The Municipality is home to a rich mix of dramatically scenic formally or informally conserved mountainous areas, river valleys and forest areas, which together create challenges for balancing urban expansion with reserve conservation

2.1.6 Regional Industrial Development Strategy (RIDS)

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

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

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

RIDS identifies four levels that determine systematic competitiveness, see Figure 2.1.6.1.

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

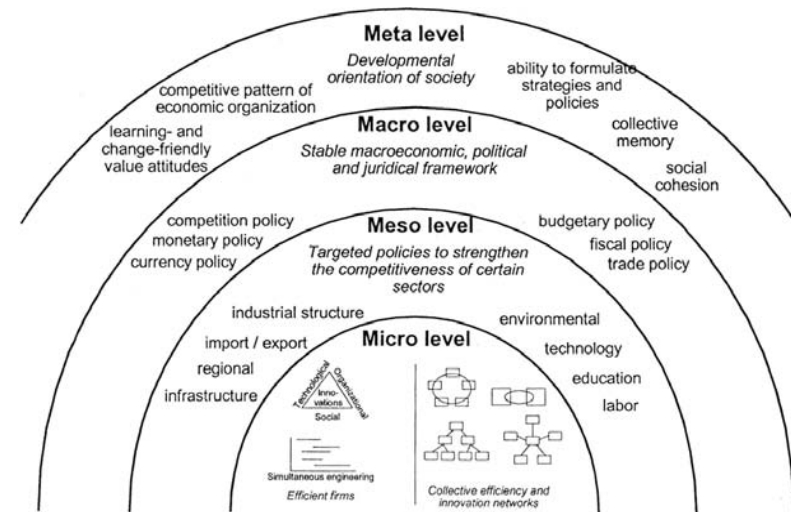


Figure 2.1.6.1 Determinants of Systemic Competitiveness

(source: Draft Regional Industrial Development Strategy, DTI, 2006, pg20)

Implications for Bitou Municipality

- Figure 2.1.6.2 overleaf, indicates that Bitou Municipality is considered to have high growth potential. It should be highlighted that the recent recession could reduce this potential and that increased growth potential could only be experienced once the recession passes.
- Plettenberg Bay is an important economic motor in the Municipality;
- However, there is a great dependency on tourism;
- Municipality needs to create an economy that is not tourism dependant.

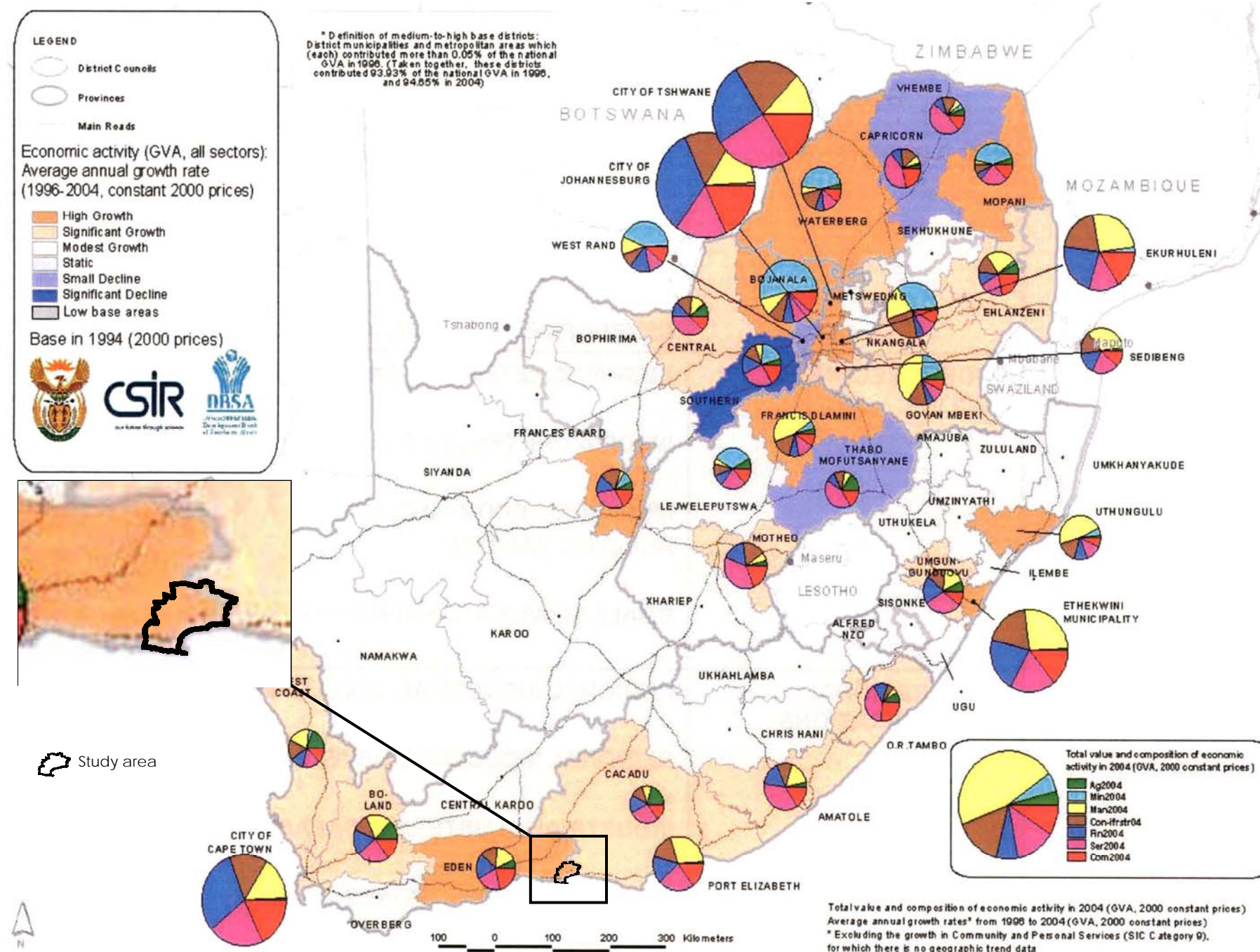


Figure 2.1.6.2 Medium to High Base Areas (source: CSIR, 2006)

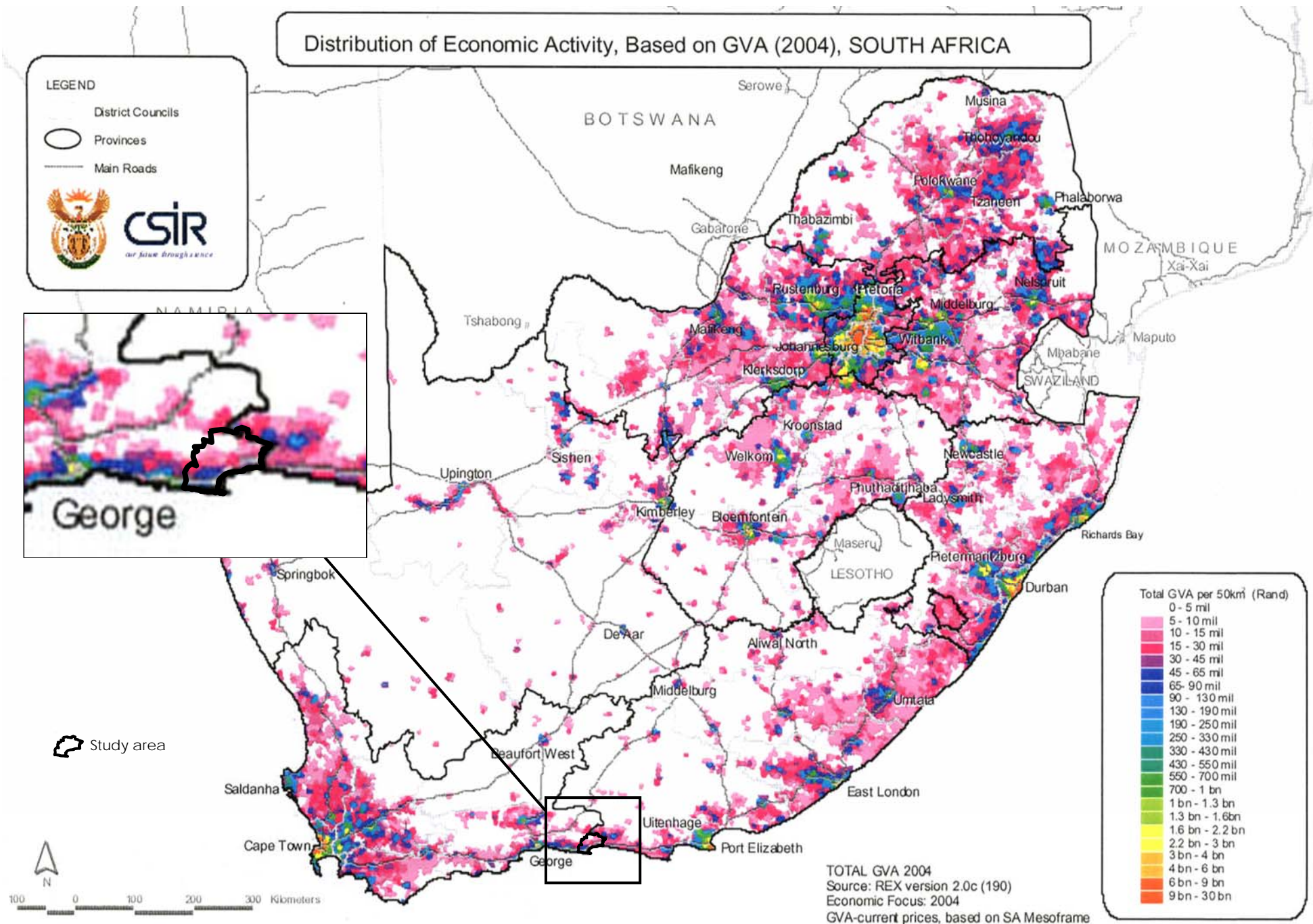


Figure 2.1.6.3 Distribution of Economic Activity, based on GVA (source: CSIR, 2006)

2.1.7 National Environmental Management: Integrated Coastal Management Act (No 24 of 2008)

The Integrated Coastal Management Act (Act No. 24 of 2008) (ICM Act) has been informed by the national policy embodied in the white paper for Sustainable Coastal Development in South Africa, adopted by cabinet in 2000. The White Paper was developed proactively and in line with International calls to ensure optimal utilization of our coast, while at the same time preserving ecosystems and not putting people and property at risk.

The ICM Act sets out a new approach to managing the nation's coastal resources to promote social equity and make best economic use of coastal resources, whilst protecting the natural environment. The purpose of the Act is to:

- Define and determine the extent of the coastal zone;
- Provide for the coordinated and integrated management of the coastal zone;
- Preserve, protect and enhance the status of the coastal environment as the heritage of all;
- Ensure there is equitable access to coastal public property; and to
- Give effect to certain of South Africa's international law obligations.

With reference to **coastal setback lines**, the Act states the following:

"These are described as lines determined by the MEC in order to demarcate an area within which development will be prohibited or controlled in order to achieve the objects of the Act or any coastal management objectives.

The MEC may by regulation establish or change a coastal set back line to-

- protect coastal public property;
- protect the coastal protection zone; or
- preserve the aesthetic values of the coastal zone."

The ICM Act focuses on regulating human activities within, or that affect the "coastal zone". The coastal zone is defined as the area comprising coastal public property (mainly Admiralty Reserve and land below the high water mark), the coastal protection zone (an area along the inland

edge of coastal public property), coastal access land (which the public may use to gain access to coastal public property), special management areas, and includes any aspect of the environment on, in and above them.

At the heart of the coastal zone is an area of land and water defined as coastal public property, which is the common property of the people of South Africa. The definition of coastal public property is:

- "seashore" (area between low and high water marks);
- "coastal waters" (all waters influenced by tides – estuary, harbour or river – and the sea, out to the limit of the territorial sea).

In order to protect and effectively regulate coastal public property, it is also necessary to impose controls and restrictions on certain areas adjacent to coastal public property that form part of coastal ecosystems. The Act addresses this by creating a **coastal protection zone**.

The Act provides that initially the coastal protection zone will operate as follows:

- 100 m inland from the high-water mark in areas that have already been zoned for residential, commercial, industrial or multiple use purposes; and,
- 1000 m inland in other areas.

The definition of the coastal protection zone is

- (a) land falling within an area declared in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), as a sensitive coastal area within which activities identified in terms of section 21(1) of that Act may not be undertaken without an authorisation;
- (b) any part of the littoral active zone that is not coastal public property;
- (c) any coastal protection area, or part of such area, which is not coastal public property;
- (d) any land unit situated wholly or partially within **one kilometre** of the highwater mark which, when this Act came into force—
 - (i) was zoned for agricultural or undetermined use; or
 - (ii) was not zoned and was not part of a lawfully established township, urban area or other human settlement;

- (e) any land unit not referred to in paragraph (d) that is situated wholly or partially within **100 metres** of the high-water mark;
- (f) any coastal wetland, lake, lagoon or dam which is situated wholly or partially within a land unit referred to in paragraph (d)(i) or (e);
- (g) any part of the seashore which is not coastal public property, including all privately owned land below the high-water mark;
- (h) any admiralty reserve which is not coastal public property: or
 - (i) any land that would be inundated by a 1:50 year flood or storm event.

"The coastal protection zone is established for enabling the use of land that is adjacent to coastal public property or that plays a significant role in a coastal ecosystem to be managed, regulated or restricted in order to:

- a) protect the ecological integrity, natural character and the economic, social and aesthetic value of coastal public property;
- b) avoid increasing the effect or severity of natural hazards in the coastal zone;
- c) protect people, property and economic activities from risks arising from dynamic coastal processes, including the risk of sea-level rise;
- d) maintain the natural functioning of the littoral active zone;
- e) maintain the productive capacity of the coastal zone by protecting the ecological integrity of the coastal environment; and,
- f) make land near the seashore available to organs of state and other authorised persons for:
 - (i) performing rescue operations; or
 - (ii) temporarily depositing objects and materials washed up by the sea or tidal waters."

Implications for the Municipality

- The Bitou Municipality coastal area will be managed by the Eden District Municipality in terms of its Coastal Management Programme.
- Development should be located in such a manner that it is not affected by potential hazards. This will require the determination of setback lines and buffer zones.
- No development may take place within determined setback lines.

2.1.8 National Development Plan 2030, November 2011

The purpose of the National Development Plan 2030 is to guide the long term development of South Africa in order to ensure a better future for all. The plan was prepared by the National Planning Commission in November 2011.

The approach of the plan is based on the following:

- The active efforts and participation of all South Africans in their own development;
- Redressing the injustices of the past effectively;
- Faster economic growth and higher investment and employment;
- Rising standards of education, a healthy population and effective social protection;
- Strengthening the links between economic and social strategies;
- An effective and capable government;
- Collaboration between the private and public sectors; and,
- Leadership from all sectors in society.

The plan aims to create a prosperous country where poverty, the effects of apartheid and colonial discrimination would be a thing of the past.

A total of nine central challenges were identified:

1. Too few people work;
2. The standard of education for most black learners is of poor quality;
3. Infrastructure is poorly located, under-maintained and insufficient to foster higher growth;
4. Spatial patterns exclude the poor from the fruits of development;
5. The economy is overly and unsustainable resource intensive;
6. A widespread disease burden is compounded by a failing public health system;
7. Public services are uneven and often of poor quality;
8. Corruption is widespread; and,
9. South Africa remains a divided society.

The commission identified that increasing employment and the quality of education available as the highest priorities.

The plan identified key demographic observations which need to be taken into account in national planning:

- The number of South Africans living in rural areas has decreased by 10% resulting in about 60% of the population living in urban areas. More than half of the poor live in cities. By 2030, it is expected that about 70% of the population will live in urban areas. Gauteng, eThekweni and Cape Town are the fastest growing city-regions in the country;
- Immigration will add between 0.1 percent and 0.2 percent to South Africa's population growth per year; and,
- The HIV/AIDS infection rate has stabilized at about 10%. New infections among young people has declined. Improved treatment has reduced the death rate and life expectancy is rising again.

External drivers of change affect South Africa's fortunes in a number of ways. These are briefly discussed below:

• International political and economic developments

South African policy makers did not adequately provide for the effects of the world economy on the local economy. Urbanisation and industrialization in China and India are likely to keep the demand for natural resources high for a decade or more which will broaden the opportunities for the South African economy.

• Globalisation

Globalisation has lead to increased complexity for countries and the way in which they contend with each other. South Africa should manage the risks that could develop when emerging powers may seek to exploit our vulnerabilities.

• Africa's development

Strong economic growth on the African continent has opened up major opportunities for South African firms and industries. Nevertheless, a number of structural weaknesses must be overcome if South African firms are to increase the benefits they can derive from, and the contributions

they can make to, growth and development in Africa. Poor transport links and infrastructure networks, as well as tariff and non-tariff barriers, raise the cost of doing business and stifle both investment and internal trade. Weak legal institutions and, in some cases, poor governance heighten the risks of investing.

- **Climate Change**

Climate change has led to parts of South Africa becoming noticeable dryer over the last 30 years. This has mainly been due to rising temperatures and changing rainfall patterns. These directly impact on food production and water supply. In an attempt to reduce the impacts of climate change, households and industries have to reduce their negative impact on the environment. Other innovative means of combating climate change should be sought with due consideration of regional and national contexts.

- **Technological change**

Technology has brought many benefits to South Africa. The commission has raised their concern regarding the cost of broadband internet connectivity to all South Africans.

The plan has a number of key priority areas in addressing current development trends in South Africa:

- An economy that will create more jobs;
- Improving infrastructure;
- Transition to a low-carbon economy;
- An inclusive and integrated rural economy;
- Reversing the spatial effects of apartheid;
- Improving the quality of education, training and innovation;
- Quality health care for all;
- Social protection;
- Building safer communities;
- Reforming the public service;
- Fighting corruption; and,
- Transforming society and uniting the country.

The priority areas aim to build, by 2030, a county that is fair, just, prosperous and equitable.

Implications for Bitou Municipality

- Have more people living closer to their places of work.
- Create better quality public transport.
- Develop more jobs in or close to dense, urban townships.
- Develop clear strategies for densifying cities through land use planning.
- Focus strategies on the housing gap market.

2.1.9 Policy Principles and Guidelines for Control of Development Affecting Natural Forests (September 2009)

The aim of the policy principles and guidelines are:

- To ensure the effective protection and sustainability of natural forests through proper control over development and land use change affecting forests in South Africa in a cooperative manner in all regions, and according to the DAFF mandates under the National Forests Act of 1998;
- The effective implementation of current environmental legislation pertaining to development affecting natural forests and associated ecosystems in South Africa; and,
- To serve as the basis for decision-making within DAFF and ensure a uniform approach by decision-makers to the control of development affecting forests.

The report states that no new land uses that will significantly impact on forest habitats (including residential development, capital infrastructure projects and agriculture), must be considered in or near any of the forest types.

Where limited building and infrastructure development of an ecotourist nature is allowed in forest types with ratings below the status of endangered, it must be ensured that these are placed in the least sensitive parts of the forest (preferably disturbed parts that can be rehabilitated).

Very exceptional cases, involving capital projects that can be proven to be of national or provincial strategic importance, may have to be referred to the relevant top management or ministers of relevant decision-making authorities. Should such projects be approved, then off-set agreements must be reached that will result in a net replacement of the habitat lost.

Table 2.1.9.1 indicates the land use guidelines for the various threatened status ratings of forests. These ratings should be used as a benchmark to determine whether the proposed land use will significantly transform a forest or not.

THREAT STATUS RATING OF FOREST TYPE AND FOREST PATCH	GUIDELINES	OFF-SET AGREEMENTS
Critically Endangered	Activities indicated below are the maximum allowable, but with due consideration of the sensitivity of the sites within a forest, occurrence of rare species etc. No activities or development must be considered that will destroy forest; Only low-impact eco-tourist facilities like boardwalks and bird-hides, but no buildings, infrastructure or bush camps.	Only for projects proven to be of national or provincial strategic importance, with no feasible alternatives.
Endangered	No activities or development must be considered that will destroy forest; Low-impact eco-tourist facilities like boardwalks and bird-hides, and small bush-camps, but no buildings and infrastructure.	Only for projects proven to be of national or provincial strategic importance, with no feasible alternatives.
Vulnerable and Lower	Low-impact eco-tourist facilities like boardwalks and bird-hides, and small bush-camps. Very limited building and infrastructure development of an eco-tourist nature, such as limited numbers of chalets. These should be placed outside forests as far as possible, with forest margins intact.	Can be considered for the above, and for limited building and infrastructure of an eco-tourist nature.

Table 2.1.9.1 Land use guidelines for the various threatened status threatened ratings of forests (Source: DAFF, 2009)

The report noted the following with respect development planning:

- No development authorisation should be given to land uses that will significantly transform forests, save in proven exceptional cases of national or provincial strategic importance where no alternatives are available;
- Where low-impact eco-tourist facilities (not the same as low density residential "eco-estates") and activities are authorized, these must be placed in the least sensitive parts of the forest, and care must be taken to limit the impacts;
- Development footprints must be limited, building or structure design and colour must blend with the forest, forest canopies must be kept intact, structures should be placed on stilts, and heavily used walkways should be placed on boardwalks to prevent soil compaction;
- In coastal and dune forest areas the positioning of pathways and structures must be such to prevent wind blowouts and the exposure of vegetation to salt spray;

- Development that will transform forests significantly but proven to be of national or provincial strategic importance could be authorized if there is no feasible alternative;
- Mitigation measures must be applied to limit impacts and off-set agreements should be reached that will result in a nett ecological gain of the habitat type lost (see description of off-set agreement under definitions); and,
- Proposed land uses or development that meet the requirements of the land use guidelines set for the various threatened status ratings of the forests, still require careful design and placement to minimise impacts.

Implications for Bitou Municipality

- All natural forests are considered sensitivity environments.
- No development may be allowed except limited eco-tourist facilities as specified in the guidelines for the various forest threatened status ratings.
- Where development of an eco-tourist nature or development proven to be of exceptional national or provincial strategic importance is allowed, the development footprint must be restricted.
- Building structures must usually be placed outside the forest with a sufficient buffer area to keep the forest margin intact (usually more than 20m).
- Where building structures are erected inside a forest, these must be built on stilts and fitted into disturbed areas as far as possible, may not protrude above the canopy (canopy must remain intact), and may not have gardens.
- Any paved areas and services must be kept to a minimum.
- Avoid placing cables underground or through the canopy, but these can be fixed to small poles about a metre above ground.
- Building structures must be in natural colours that blend with the surrounding environment.

2.2 PROVINCIAL POLICY

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

The Western Cape Provincial Spatial Development Framework was approved as a 4(6) Structure Plan in terms of the Land Use Planning Ordinance (No 15 of 1985) in 2009 and aims to give direction and guidance for the spatial development within the Western Cape.

This policy document formulates proposals that deal with the following areas of intervention: social economic development; urban restructuring and environmental sustainability.

The WCPSDF composite map indicates the broad spatial planning categories derived from the approach to bioregional planning. The five broad spatial categories provide policies for development and activities in the:

- Core areas;
- Buffer areas;
- Intensive agriculture areas;
- Urban development; and,
- The Urban Edge.

It is understood that the broad spatial planning categories will be refined at a detailed level by the district and local SDFs when those level SDFs are prepared.

The prioritisation of the provinces' urban settlements is indicated with respect to the relative levels of human need and economic potential so as to prioritise fixed investment and human need.

The study relating to the growth potential of towns outside of the City of Cape Town municipal jurisdiction has underpinned the proposals relating to the prioritisation of areas for fixed investment and those areas that would only receive human needs programs or social investment.

With regard to urban restructuring and integration proposals relating to the urban settlements, the WCPSDF proposes that urban edges be defined around current urban developed areas to contain the outward

growth of areas and to increase the densities within those areas to an average of 25du/ha. Only resort types of development will therefore be permitted outside of those urban edges.

The WCPSDF is underpinned by the following objectives:

- Objective 1: Align the future settlement pattern of the province with the location of environmental resources for economic opportunities
- Objective 2: Deliver human development and basic need programs wherever they may be required
- Objective 3: Strategically invest scarce public sector resources where they will generate the highest socio-economic returns
- Objective 4: Support land reform
- Objective 5: Confirm and strengthen the sense of place of important cultural landscapes, artefacts and buildings
- Objective 6: Heal the apartheid structure of urban settlements
- Objective 7: Conveniently locate urban activities and promote public and non-motorised transport
- Objective 8: Protect biodiversity and agricultural resources
- Objective 9: Minimize the consumption of scarce environmental resources particularly water, fuel, burning materials, mineral resources, electricity and land.

The WC-PSDF aims to:

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

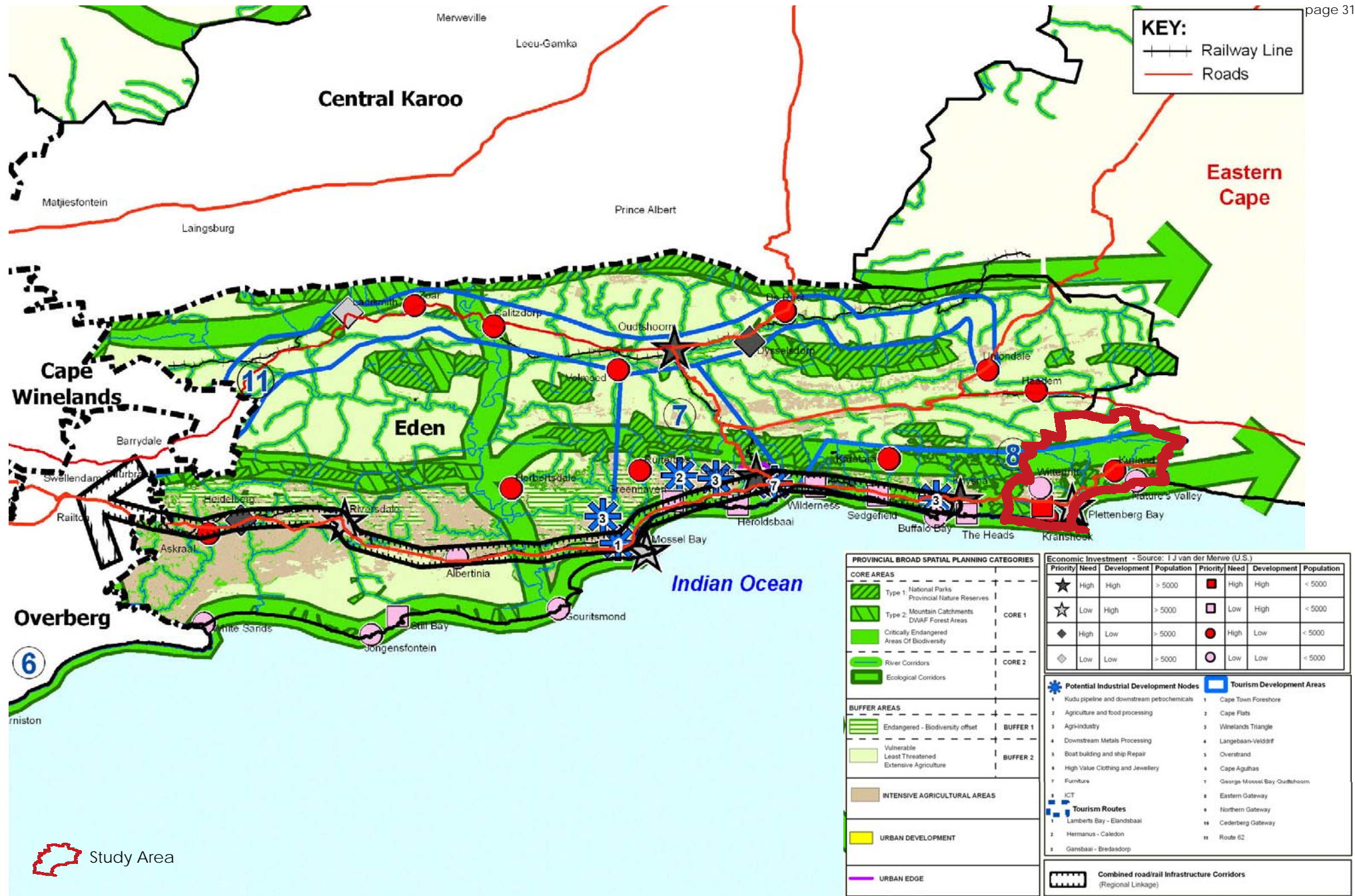


Figure 2.2.1.1 WCPSDF : Central Karoo (source: DEADP, 2009)

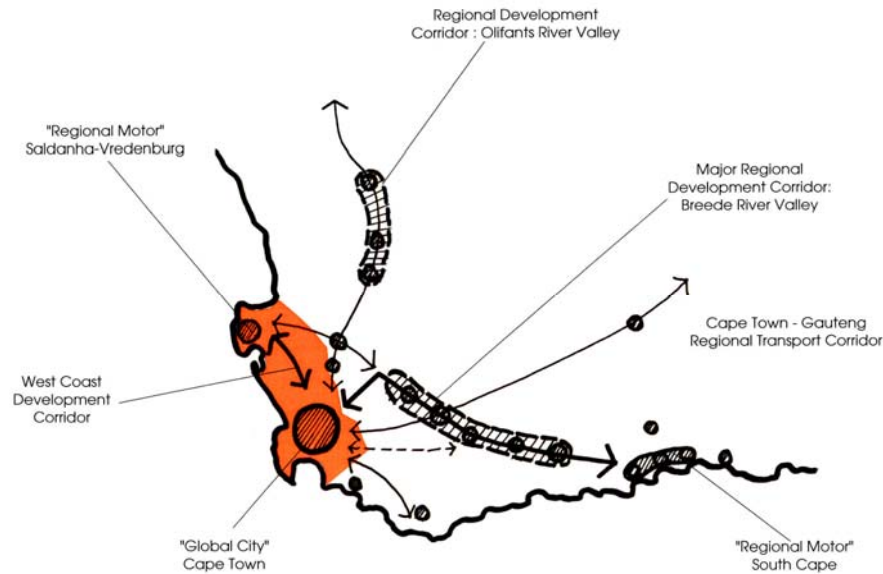


Figure 2.2.1.2 Patterns of Economic Activity (source: PSDF, 2009)

Figure 2.2.1.2 indicates the strategic direction of the WC-PSDF. The Eden District is identified as the "Regional Motor" of the South Cape.

The strategies of the PSDF for Eden, see Figure 2.2.1.1, are:

- Increase resource capacity of coastal towns by developing strategies for the minimisation of water, sewerage and energy use;
- Promote urban compaction and densification in George and Mossel Bay;
- Identify innovative urban development strategies to efficiently respond to the topography of Knysna;
- Develop an economy that will attract permanent residents and not only holiday goers over the peak tourism/golf season.

Implications for Bitou Municipality

- Plettenberg Bay is identified as a settlement with low social needs, with a population of more than 5000 and a high development need.
- Nature's Valley and Wittedrift are ranked as settlements with a populations of less than 5000 and low social and development needs.
- Kurland is identified as a settlement with a high social and low development need with a population less than 5000.
- The Municipality is home to large areas of core ecological areas.

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

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

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

The six key aims that have been identified by the SIP are:

- Increasing economic growth;
- Improve well-being;
- Linking with WC-PSDF to attain sustainability;
- Fostering creativity;
- Building communities; and
- Expanding opportunities.

The eleven sectors that have been identified aim to achieve results in terms of sustainable development, economic viability and social equity in the province:

Sector	Current status / proposals for Bitou
Transport	Bitou is not mentioned.
Land and Property	Bitou is not mentioned.
Information & communication technology	Bitou is not mentioned.
Energy	Bitou is not mentioned.
Environment	Bitou is not mentioned.
Community services	Bitou is not mentioned.
Health	Bitou is not mentioned.
Justice and security	Bitou is not mentioned.
Risk Reduction & Emergency Management	Bitou is not mentioned.
Tourism and Recreation	Bitou is not mentioned.
Education and skills	Bitou is not mentioned.

Table 2.2.2.1 Strategic Infrastructure Plan (SIP), Provincial Government: Western Cape Department of Public Works and Transport, May 2006 (source: SIP, 2006)

2.2.3 Provincial Urban Edge Guidelines

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

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

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

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

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

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

Smallholdings used for bona fide agricultural purposes would or should typically be excluded from the urban area by delineation of an Urban Edge.

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

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

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

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

- Exclude prominent landforms and environmental character areas from the urban area;
- Exclude valuable soils for agricultural purposes;
- Exclude valuable soils for mining purposes;
- Exclude surface and ground water resources that could be used to produce potable water;
- Exclude surface and ground water features;
- Exclude ecological resources and establish suitable; ecological corridors to link resource areas;
- Exclude all statutorily declared, proclaimed and protected natural areas;

- Exclude high intensity use and high potential agricultural resources and activity areas;
- Exclude scenic routes and routes of tourism significance;
- Exclude cultural and heritage resource areas and sites;
- Exclude areas that have visual sensitivity, skylines, mountainsides, ridgelines and hilltops; and
- Exclude the WC-PSDF defined core areas.

Implications for Bitou Municipality

In the case of Bitou Municipality the following informants, amongst others will play a critical role in the determination of the Urban Edge:

- Core conservation areas with the a focus on its preservation;
- Rivers, Wetlands and floodplains: 1:50 year flood plain, 1:100 year floodplain and the 30 m buffer zone around river corridors;
- Heritage aspects such as landscapes, viewsheds, landscapes and gateways;
- Topography: major topographical features, e.g. Hills, ridgelines and focal points; Visual or aesthetic quality or scenery, slopes;
- The policy plans for desired direction and pattern of growth.

2.2.4 Guidelines for Resort Developments in the Western Cape

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

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

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

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

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

- **Planning Policies**

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

- **Availability of a Resource**

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

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

Lastly, it must be a unique resource and the carrying capacity of the resources and surroundings must be taken into consideration. The guideline further proposes densities and floor areas:

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

In terms of area densities the following are proposed:

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

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

Figure 2.2.4.1 Area Densities (DEADP, 2005)

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

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

The following unit sizes are proposed:

	Resort Zone without holiday housing consent ⁸	Resort Zone outside urban edges	Resort Zone with holiday housing consent ⁹ within urban edges (but still within natural, relatively sensitive areas)
Maximum unit size floor space (m ²)	120m ²	120m ²	175m ²
Maximum number of storeys	Single storey only	Single storey only	Single storey, and possible expansion of habitable space into loft
Building height	6,5m	6,5m	6,5m
Individual exclusive use area	n/a	250m ²	300m ²

Figure 2.2.4.2 Unit Sizes (DEADP, 2005)

• Environmental Opportunities and Constraints

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

Implications for Bitou Municipality

- The Bitou Municipality should ensure strict adherence to the Guidelines for Resort Developments when receiving an application for a resort. Of importance is the proximity of a unique natural/man-made feature which serves as an attraction, densities of the resort and the envisaged environmental impact.

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

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

The objectives of the guidelines are:

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

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

• Urban Areas

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

- "In or immediately adjacent to the urban area, where it assists in defining an Urban Edge. Refer to the WCPSDF and provincial Urban Edge Guidelines;
- It forms part of the municipal open space system (to be read in conjunction with the following bullet), and
- Where residential components are added to existing amenities in urban areas, as a form of general/overarching densification, on

condition that the recreational and open space/green lung function of such amenities is not compromised and provided that:

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

- **Core Areas**

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

- **Buffer Areas**

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

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

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

- Does not remove traditional access, commonage etc.;
- Does not result in the inappropriate alteration of the landform (e.g. cut and fill); and
- Does not result in / contribute to visually obtrusive / ribbon development.

The following aspects must be considered in formulating development applications:

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

- **Intensive agricultural areas**

These are areas with either agricultural potential or that are being cultivated. They are considered an important resource for food security and the agricultural economy.

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

The SDF needs to indicate Urban Edge proposals, and should make policies to guide potential proposals for development outside the Urban Edge that could be seen as leapfrogging or urban sprawl.

Implications for Bitou Municipality

- The Bitou SDF must clearly demarcate areas for development and areas where development should be prohibited.

2.2.6 Draft Western Cape Strategic Plan, 2011

The Western Cape Government drafted a strategic plan to realise their vision of an open, opportunity society where inhabitants can live lives of value.

To achieve the vision a three step process was followed:

1. Develop a set of quantifiable objectives.
2. Determine the policy direction and key interventions required to achieve the identified objectives.
3. Design a management model to ensure implementation and to manage progress.

Each strategic objective will be briefly discussed and where targets have been set these will be included. As part of the above process the following objectives were developed:

1. *Create opportunities for growth and jobs*

The Provincial Government believes that economic growth is the most important aspect of all successful development. In this regard private sector businesses are seen as vitally important. Province will aim to create and maintain an enabling environment for business and provide a demand-led, private sector-driven support for growth sectors, industries and businesses. To achieve the above objective focus will be directed towards:

- Development of a provincial vision and brand;
- Development of a corruption-free, efficient public sector;
- Ensuring a regulatory environment that is efficient; and,
- An infrastructure and asset development strategy.

2. *Improve education outcomes*

Improvements to the lives of the children in the Western Cape will be ensured through improved education. To this end children will remain in school for as long as possible and achieve optimal results. To achieve these outcomes focus will be on:

- Literacy and numeracy;
- Accountability (officials and principles);
- Faster response times and support through the Western Cape Education Department;
- Improve teacher moral through additional support;
- Quality texts and materials;
- Poverty and crime at schools;
- School maintenance;
- Redress human and financial resources where they are most needed;
- New schools in areas of migration and growth; and,
- School management and leadership.

POLICY PRIORITY	PERFORMANCE AREA	CURRENT PERFORMANCE LEVELS	TARGETS			
			2010	2012	2014	2019
Improved academic performance in literacy and numeracy in Grades 3, 6 & 9 by testing the full cohort	Literacy Grade 3	53.5%	55%	65%	75%	90%
	Numeracy Grade 3	35%	40%	50%	60%	80%
	Literacy Grade 6	44%	45%	55%	65%	90%
	Numeracy Grade 6	14%	15%	25%	50%	80%
	Literacy Grade 9	40%	45%	55%	65%	90%
	Numeracy Grade 9	35%	40%	45%	55%	80%
Improved National Senior Certificate	Matric pass rate	75.7%	80%	82%	84%	87%
	Matric pass numbers	34 577	36 000	39 000	43 000	50 000
	University admission rates	33.04%	34%	35%	37%	45%
	Exemption numbers	14 522	15 000	16 500	18 500	25 000
	Maths numbers	13 003	13 500	15 000	17 000	22 000
Reduction in number of underperforming high schools	Physical Science passes	9 690	10 000	11 500	13 500	16 000
	No of schools with <60% pass rate	74	55	20	0	0

Table 2.2.6.1 Education targets (PGWC, 2011)

3. *Increase access to safe and efficient transport*

The Provincial Government wishes to create an opportunity society for all. Roads, rail, aviation and maritime including non-motorised transport is regarded as important. To achieve the desired outcome the following will be focussed on:

- Alignment with national interventions (Roads Infrastructure Strategic Framework of South Africa, National and regional rail plan, National Land Transport Act, Integrated Rapid Transport system;
- Provincial priority areas (Rural transport, rural passenger rail, investment in public transport over private roads, shifting freight from road to rail, reducing road fatalities and improved law enforcement); and,
- Alignment between municipal integrated transport plans and integrated development plans.

The main targets for increasing access to safe and efficient transport in the Western Cape are:

- Achieving a 13% modal shift from private to public transport by 2014 (meaning a 60:40 private:public transport split into the City of Cape Town CBD), through the promotion of improved rail transport; support to integrated transport networks including the provision of rapid trunk routes for existing public transport services; and formalising the minibus taxi industry
- Shifting contestable freight haulage from road to rail by 10% by 2014
- Reducing the number of fatalities on the Western Cape Roads by 50% by 2014
- Reducing transport infrastructure maintenance backlogs by 16% by 2014

Figure 2.2.6.1 Transport targets (PGWC, 2011)

4. Increase wellness

Increases in the quality of health care in the province will be achieved through addressing the factors that contribute to the burden of disease by providing quality primary and highly specialised health care services. To achieve this, the province will focus on:

- Healthcare 2020 (A health care vision for 2020 developed by the Department of Health);
- Immediate action in terms of improving quality of care, generating income for the public health service, ensuring a capacitated workforce, management capacity and health technology and infrastructure;

- Premier's summit on reducing the burden of disease; and,
- Decrease the incidence of infectious diseases (HIV and TB), injury, non-communicable diseases and childhood illness.

	BASLINE ESTIMATE	TARGET 2014
Maternal mortality ratio [MMR]		
Western Cape	98/ 100 000 live births : 2004	90/ 100 000 live births
South Africa	140–160/ 100 000 live births	100 or less/ 100 000 live births
Child mortality rate [under 5 years old mortality]		
Western Cape	38.8/ 1 000 live births [2007]	30 per 1 000 live births
South Africa	69 deaths per 1 000 live births	45 deaths or less per 1 000 live births
TB cure rate		
Western Cape	79.4% in 2009/10	80% is the target for 2012/13
South Africa	65%	85%
HIV and AIDS: Decrease the HIV prevalence in the age group 15–24 years to 8% in 2015		
Western Cape	15% in 2004	8%

Table 2.2.6.2 Health targets (PGWC, 2011)

5. Increase safety

Ensure that every community in the Western Cape is safe live, work, learn, relax and move in. In this regard the province has focussed on preventing crime rather than reacting to criminal activity. Focus will be on:

- Designing and establishing the institutions and approaches required to make safety everyone's responsibility;
- Optimising security services for the government's assets, personnel and visitors;
- Optimise civilian oversight over SAPS and other state law enforcement agencies; and,
- Optimise road safety.

6. Develop integrated and sustainable human settlements

The provincial government aims to ensure the development of integrated and sustainable human settlements with access to social and economic opportunities for all. They aim to achieve this even though a number of

challenges need to be faced. Among these being finances and the shortage of well located land. This has made it crucially important that money spent and every hectare of land being developed should be done in the most optimal and efficient way possible. Co-ordinating all spheres of government and the private sector in development was also given priority. The provincial government will focus on the following:

- Accelerated delivery of housing;
- Sense of ownership, rights and responsibilities amongst beneficiaries, owners and tenants; and,
- Optimal and sustainable use of resources.

POLICY PRIORITY AREA	PERFORMANCE INDICATOR	TARGETS				
		2010/11	2011/12	2012/13	2013/14	2014/15
Accelerated delivery of housing opportunities	No. of serviced sites provided p.a.	18 000	26 000	30 000	30 000	31 000
	Percentage reduction of title deeds backlog	0	15%	25%	30%	30%
Optimal use of resources	Mean gross density of new human settlement developments in land-scarce municipalities	35 u/ha	40 u/ha	45 u/ha	50 u/ha	50 u/ha
	% of new projects that meet the integration and sustainability criteria	40%	50%	70%	80%	90%
	Percentage of units built using energy efficient method/ materials	10 %	15 %	25 %	30 %	40%
Inculcating a sense of ownership	Provincial government rental collection rate	15 %	17 %	25 %	40 %	45%
	Proportion of houses built under self-help People's Housing Process programme	25 %	35 %	40 %	45 %	50%
Fair allocation of housing opportunities	No. of municipalities with an accurate, up-to-date housing demand database that is synchronised with central Housing Subsidy System	0	5	15	20	25
	No. of municipalities which comply with standardised selection criteria and process	0	5	15	20	25
Coordinated approach to human settlement development	No. of municipalities with credible human settlement plans	9	12	15	20	25
	No. of municipalities with level 1 accreditation	1	0	3	0	2
	No. of municipalities with level 2 accreditation	1	0	1	0	2
	No. of municipalities with level 3 accreditation	0	0	1	0	1

Table 2.2.6.3 Housing targets (PGWC, 2011)

7. Mainstream sustainability and optimise resource-use efficiency

The provincial government aims to ensure that sustainability and resource-use efficiencies are ensured through all its activities and those activities of the various departments. In this regard the following is focused on:

- Climate change mitigation;
- Water management;
- Pollution and waste management;
- Biodiversity management;
- Land use management and agriculture; and,
- Built environment.

Climate change mitigation	<ul style="list-style-type: none"> • Energy efficiency: <ul style="list-style-type: none"> ✓ Reduce the current gross provincial product (GPP) to carbon emission ration by 10% by 2014. ✓ Achieve a 5–10% electricity reduction in selected provincial buildings, including schools and hospitals. • Renewable energy production: <ul style="list-style-type: none"> ✓ Promote 15% of the electricity used in the province to be generated from renewable energy sources by 2014. • Transport: <ul style="list-style-type: none"> ✓ Achieve a 13% modal shift (based on the modal split inbound to the City of Cape Town CBD) from private to public transport by 2014. ✓ Increase tonnage freight transported by rail, rather than road, by 10% by 2014. ✓ Retrofit 10% of existing public buildings with respect to energy and water consumption by 2014.
Water management	<ul style="list-style-type: none"> • Water efficiency: <ul style="list-style-type: none"> ✓ Develop and implement a provincial integrated water resource management plan to improve agricultural, industrial, commercial and household water use efficiency by 5–10% by 2014. ✓ Achieve a 5–10% water use reduction in selected provincial government buildings, including schools and hospitals.
Pollution and waste	<ul style="list-style-type: none"> • Increase the percentage of waste diversion from landfill from the current 13% to 15% by 2014 (Metropolitan Municipality – City of Cape Town).
Biodiversity management	<ul style="list-style-type: none"> • Increase the conservation status of biodiversity in the province by: <ul style="list-style-type: none"> ✓ Increasing the maintenance of the current 50 (64%) conservation stewardship sites to 78 (100%) stewardship sites by 2012 ✓ Rehabilitating land infested with alien vegetation through initial clearing of 40 000 ha per annum and follow-up clearing of 98 000 ha per annum
Land use management and agriculture	<ul style="list-style-type: none"> • Ensure a 5% improvement in conservation farming practices by 2014.

Table 2.2.6.4 Sustainability and resource-use efficiency targets (PGWC, 2011)

8. Increase social cohesion

Social cohesion is strived for in the Western Cape. Social cohesion is present when people live relatively peaceful and harmonious with their basic needs being met. In this regard the following is focussed on:

- Creating an environment to build social cohesion (take responsibility for undertaking core functions, create opportunities and providing required services);
- Address the causes and effects of social disintegration; and,
- Build social capital.

9. Reduce poverty

The Western Cape Government attributes poverty to “capability deprivation”. Thus, people are poor because they don’t have the power, opportunity or means to help themselves. In this regard the provincial government will focus on addressing:

- Unemployment and job creation;
- Food security;
- The living environments for poor communities; and,
- Good governance.

Income	<ul style="list-style-type: none"> • Lower the percentage of the total households in the Western Cape with a household income of less than R1 500 per month in a given year from 26.2% to 25%. • Decrease the number of households with a total expenditure of less than R800 per month in a given year from the current 15.5%. • Ensure that every person in need receives a social grant.
Food security	<ul style="list-style-type: none"> • Lower the percentage of underweight children under five years from the current 10.9% to under 10%. • Decrease the percentage of children under nine years whose intake of food is below the minimum level of dietary consumption. • Increase share of household expenses that is spent on food in a given month. • Boost the number of people with proper access to food.
Health	<ul style="list-style-type: none"> • Increase the average number of visits per person at primary health care facilities in a given year from 2.96 to 3.84 visits. • Reduce the number of people infected with TB. • Lower the number of people infected with HIV. • Decrease the percentage of children younger than five who are dying from 38.8% to 30% per 1000 for children under five.
Education	<ul style="list-style-type: none"> • Increase the percentage of children who are in primary education from 80.9% to 95%. • Boost access to no fee schools. • Ensure that every child who starts Grade 1 reaches Grade 5. • Increase the percentage of Grade 12 pupils who pass matric with exemption. • Increase the percentage of Grade 12 pupils who pass matric with exemption who have mathematics or science as matriculation subjects. • Boost the literacy rate among 15–24 year olds.
Improved living environment	<ul style="list-style-type: none"> • Standardise the indigent register. • Reduce the percentage of households living in informal settlements from 17.1% to below 15%. • Increase access to free basic water. • Decrease the percentage of households with no access to a flush toilet. • Increase access to free electricity and lower the percentage of households in the province that are in backyards to lower than 8%.

Table 2.2.6.5 Poverty reduction targets (PGWC, 2011)

10. Integrate service delivery for maximum impact

Co-ordinate the social and economic investments done by all three spheres of government (national, provincial and local) to ensure the maximum benefits. The provincial government aims to achieve this through:

- Integrated planning and budgeting;
- Coordinated support to municipalities;
- Integrated service delivery; and,
- Co-ordinated intergovernmental reporting and engagement.

11. Create opportunities for growth and development in rural areas

Promote export growth and jobs across the agricultural sector and related industries. The provincial government will focus on creating (in rural areas):

- Promoting infrastructure development and service delivery;
- Promoting the scientific, technical and sanitary environment;
- Promoting the regulatory environment;
- Promoting the physical environment;
- Accelerated enterprise development by focusing on both the commercial and emerging sectors and a comprehensive rural development programme;
- Skills development; and,
- Institutional issues.

12. Build the best-run regional government in the world

The Western Cape government wants to become the best-run regional government in the world by focussing on their vision, mission, values, brand, strategy, structure, systems and people.

2.2.7 Rural Land Use Planning and Management Guidelines, May 2009

The guidelines have been prepared with the purpose of complementing the Guidelines for Rural Resorts, Golf Estates, Polo Fields and Polo Estates (DEADP, 2009).

The objectives of the guidelines are:

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

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

The Rural Settlement patterns in the Western Cape include:

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

2.2.7.1 Guidelines on Managing Rural Land Use Change

- Decisions in terms of Rural Land Use applications are to be based on the following sustainable land use principles: social inclusion; effective protection and enhancement of the environment; prudent use of natural resources; the maintenance of high and stable levels of economic growth;
- Good quality and carefully sited development should be encouraged in existing settlements;

- Accessibility should be a key consideration in development decisions;
- New development in the countryside should be strictly controlled in terms of scale, height, colour, roof profile etc.;
- Prioritise the re-use of previously developed sites in preference to Greenfield sites;
- All development should be well developed and inclusive, in keeping and in scale with its surroundings, sensitive to the character of the landscape.

2.2.7.2 Rural Land Use Management Guidelines: Holiday Accommodation

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

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

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

2.2.7.4 Rural Land Use Management Guidelines: Tourist and Recreational Facilities

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

Implications for the Bitou SDF

- Prepare policies to manage appropriate rural land use change in terms of holiday accommodation, on-farm settlements and tourist and recreational facilities, where needed.

2.2.8 Settlement Restructuring: An Explanatory Manual (March, 2009)

The Settlement Restructuring Manual was approved as a Structure Plan in terms of Section 4(6) of the Land Use Planning Ordinance (Ordinance 15 of 1985) on the 24th of June 2009.

The purpose of this document is to guide government, labour, business and civil society order to create human settlements that are dignified and sustainable.

The document consists of the following:

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

2.2.8.1 Vacant and underutilised land audit

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

2.2.8.2 Densification Strategy

- The purpose of the densification strategy is contain urban sprawl and fragmentation in order to achieve efficient, integrated and sustainable human settlements;
- Densification should be encouraged in the following manner:
 - within areas with a high economic potential (provincial, district and local scale);
 - along mobility routes in order to support public transport routes;
 - along the periphery of open spaces in order to increase its surveillance;

- within areas that have been identified as public-sector investment areas;
- in selected areas of high private sector investment;
- The following should be mapped per settlement for which an urban edge is to be demarcated:
 - agricultural land and agricultural processing around urban areas;
 - smallholdings, rural land and small farms;
 - urban and regional open spaces and natural areas;
 - rivers and floodplains;
 - coastal zones (i.e. sea level rise);
 - landscapes that are considered to be high in value.

2.2.8.3 Strategies for Urban Integration

- Integration is the mix of various land uses and/or income groups in specific areas which contributes to creating a whole functioning urban area;
- Physical integration includes well designed dense development which are linked to pedestrian friendly streets and a horizontal and vertical mix of uses (which includes residential, non-polluting industrial services, commercial and institutional uses);
- Integration is encouraged in:
 - 1) spaces where social integration can occur;
 - 2) along public transport routes in order to improve access to opportunities, services and facilities; and,
 - 3) where concentrations of major urban functions occur.
- Bitou's urban settlements should be:
 - analysed to see whether they are performing satisfactorily in terms of efficiency, equity and quality of place;
 - the relevant guidelines from these reports should be applied depending on the results of this analysis.
- Challenges are likely to include:
 - spatial integration.

Implications for the Bitou SDF

- Ensure that proposals are prepared in accordance with the guidelines and support aims of the restructuring guideline.
- Establish appropriate densification targets and broadly identify areas suitable for densification.
- Prepare proposals for strategically located suitable land.
- Utilize land and its development to help achieve national policy directives, e.g. integration and restructuring.

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

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

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

The PLTF goals and objectives are:

1. An efficient, accessible and integrated multi-modal public transport system managed by capacitated and equipped municipal authorities
 - A 13% modal shift from private to public transport into Cape Town's CBD by 2014.
 - Increase the number of commuter rail train sets in operation from 81 train sets to 117 by 2016.
 - Develop a framework for the development of safe and accessible IPTNs in district by 2014
 - Establish land-use incentives and NMT improvements around 10 underdeveloped public transport nodes of provincial significance by 2014 (Provincial Key Projects).
 - Fully implement a universally accessible and multimodal IRT Phase 1a by 2014.

- Increase user satisfaction of public transport facilities by 25% by 2014.
 - Organise courses and seminars dealing with infrastructure management, transport planning and land-use planning for district municipalities by 2014.
 - Bring commuter rail network from D+ to a C maintenance level on A corridors by 2016.
 - Bring minibus taxi recapitalization rate on national level by 2016.
 - Influencing parties in order to achieve a shift in contestable freight haulage from road to rail freight by 10% by 2014.
2. NMT as a pivotal part of all forms of transport planning in urban and rural areas
 - Organise courses and seminars dealing with infrastructure management, transport planning and land-use planning for district municipalities by 2014
 - Dedicated NMT Expanded Public Works Program projects by 2014.
 - Every provincial road project in the province must include a NMT component.
 - NMT Plans must be developed and implemented for each municipality Province, as a part of the mobility strategy and IPTN roll-out by 2014.
 - Dedicated cycle lanes in the Western Cape must be doubled by 2014.
 3. A well maintained and preserved transport system
 - Reduce the road transport infrastructure backlog by 16% by 2014.
 - Bring commuter rail network from D+ to a C maintenance level on A corridors by 2016
 - Introduce economic decisions support tools to facilitate decision making with regard to road investment by 2014
 4. A sustainable transport system
 - A 13% modal shift from private to public transport into Cape Town's CBD by 2014.
 - Shift in contestable freight haulage from road to rail by 10% by 2014.

5. A safe transport system
 - Reduction of the number of fatalities on the Western Cape roads by 50% by 2014.
 - The provincial and the Cape metro incident management plan will be expanded to include lower roads by 2014.
 - Implementation of an integrated transport safety management system by 2014.
6. A transport system that supports the province as a leading tourist destination
 - Introduce economic decision support tools to facilitate decision making with regard to road investment by 2014.

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

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

Bitou is located on the Cape Town to Mossel Bay N2 Regional Corridors. The PLTF notes that the ideal future scenario for the province is to permit strategic densification along the key transport corridors to pursue efficient, integrated public transport services. This will require investing in high growth and need settlements.

Implications for Bitou Municipality

- The N2 traverses the Municipality – access to the urban settlements is from this route.
- Reducing the haulage from road to rail could improve (reduce) the through traffic flows, but may have a negative impact on the economy of the town.

2.3 DISTRICT POLICY

2.3.1 Eden District Spatial Development Framework, 2009

The Eden District Municipality Spatial Development Framework was completed in 2009. The document proposed policies and strategies for the growth of the Eden District and its settlements.

The SDF defined the settlement development framework for the long term spatial vision for the District in terms of:

- Natural resources (elements that underline sustainable resource utilization and conservation):
 - interconnected green spaces;
- Settlements and Citizens (focuses on settlements, infrastructure, social and community services and the space economy):
 - network of cities and towns;
 - network of settlements.

The report has proposed the following policies and strategies that are to support the Natural Resource Base Framework:

- 1) the protection of agricultural resources by preventing development on valuable resources, preventing urban sprawl and supporting land reform projects;
- 2) avoiding rural development in high risk areas, which include flood prone areas, fire risk areas and coast inundation;
- 3) only land uses that are linked to rural areas should be permitted there;
- 4) proposed housing for rural areas are to be located in close proximity to various social services;
- 5) local authorities to consider rates rebates when biodiversity is conserved and alien vegetation is removed;
- 6) locating small scale farming opportunities within short walking distances of settlements, where the soil is suitable and there is access to water as well as its availability;

- 7) quarries and borrow pits may not be permitted within areas rich in biodiversity, along scenic routes and below the 1:100 year flood line;
- 8) generally, development is to not be permitted below the 1:100 year flood line (along river corridors);
- 9) no development should be permitted on the seaward side of coastal setback line;
- 10) settlement urban footprints are to be limited;
- 11) golf courses and residential lifestyle estates may only be permitted within the urban edge.

The report has proposed the following policies and strategies that are to support the Settlement and Citizens Framework:

- 1) focus population growth in locations that are able to meet social and economic needs – this enables people centered development;
- 2) increase the investment in public transport infrastructure and create an efficient, reliable and safe system;
- 3) increase the densification of development and promote infill development;
- 4) encourage population growth in the high order settlements which have been identified as Oudtshoorn, Mossel Bay, George, Knysna and Riversdale. This proposal is also in line with the principles described in the NSDP. Furthermore, subsidized housing development, commercial and industrial development should be encouraged in regional/district and major urban centres;
- 5) Karatara, Rheenendal, Friemersheim and Dysveldorp has been identified as having the potential to attract residential, manufacturing and economic development due to its proximity to the regional and major towns within the district;
- 6) All proposed development (urban and economic) is to compliment and strengthen the character of existing settlements;

- 7) Proposed housing for rural areas is to be considered in locations that meet the bulk infrastructure requirements, have access to employment opportunities, is close to reliable public transport routes and social services and facilities;
- 8) The settlements within the Eden district municipality are to be managed by means of a Heritage Management Policy;
- 9) Secondary road networks are to be upgraded and development. These include the upgrading and development of the east-west route parallel to the N2 and the repair and upgrade of the R339 (between Uniondale and Knysna/Plettenberg Bay);
- 10) The proposed George Public Transport System is to be implemented to settlements within the district by developing a cycle route on the R407 (portion between Oudtshoorn and the Cango Caves), commence a pavement plan for Uniondale and Haarlem, repair the railway line between Knysna and Mossel Bay and provide cycle routes between George and Wilderness and Plettenberg Bay and Knysna;
- 11) Public and community services are to be provided in a clustered manner to enable the various facilities in the form of halls, libraries and sports facilities to be shared;
- 12) All retail development is to be encouraged within the existing CBD's of settlements;
- 13) Sustainable buildings policy is to be encouraged and enforced by the various local authorities.

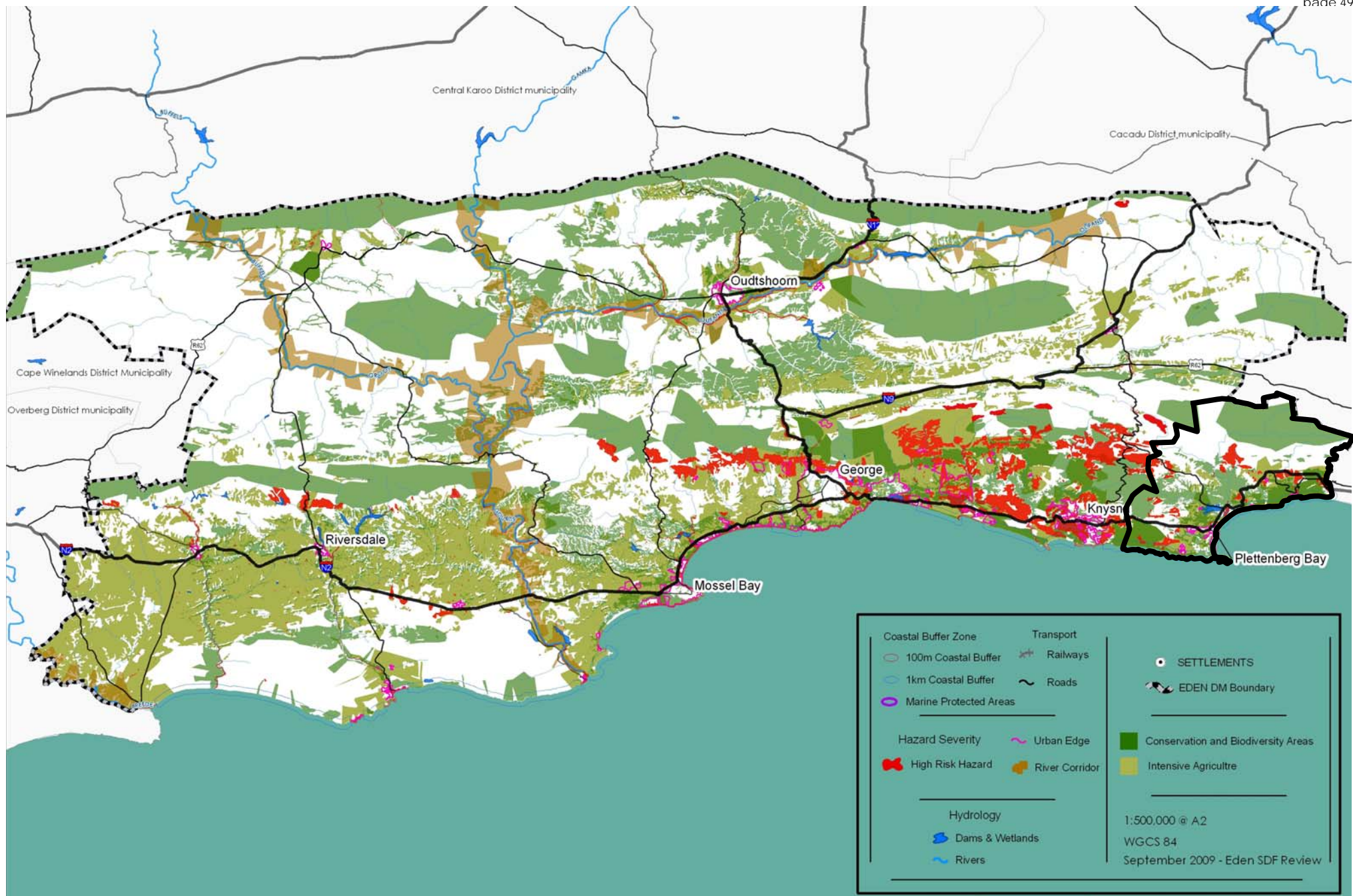


Figure 2.3.1 Natural Resources Framework, Eden District (source: Eden District SDF, September 2009)

Implications for Bitou Municipality

- Plettenberg Bay has been identified as a Specialised Centre (exclusive holiday resort focusing on tourism and recreation) and the location of housing development should be limited.
- Kurland, Wittedrift, Kranshoek and Harkerville have been identified as neighbourhoods/villages and development in these settlements is not encouraged.
- The Plettenberg Bay harbour is an identified Specialised Harbour facilitating recreational access to the sea and as launching point for the NSRI.
- The Plettenberg Bay airport is an identified Specialised Airport and a recommendation is made that the airport should focus on providing upmarket services to elite clientele. The use of larger planes and more air traffic is unlikely due to the close proximity to existing urban areas.
- Establish a regional network to protect natural resources. In this regard connective green corridors are proposed linking seawards to the higher lying inland areas in the vicinity of Nature's Valley.
- The Keurbooms River has been identified as a linear waterway. The Keurbooms River should thus:
 - Control flooding and sea surge (disaster mitigation);
 - Purify water; and
 - Provide biodiversity corridors.

2.3.2 Eden District Coastal Management Programme (DRAFT), May 2012

At present Eden District Municipality is in the process of preparing a Municipal Coastal Management programme (CMP) in terms of ICM. The intention of the CMP is to become a policy directive for the management of the coastal protection zone within the Eden District Municipality.

The CMP intends to address the following management objectives for the coastal protection zone:

- Tourism;
- Infrastructure, spatial planning and development;
- Biodiversity conservation / protection;
- Water quality;
- Institutional arrangements;
- Compliance / enforcement;
- Education and awareness;
- Disaster management;
- Cultural heritage and resources; and,
- Sustainable livelihoods.

The first draft of this document was made available for public comment. As per this document the draft Eden CMP Vision is:

"The coastal zone is Eden's most significant asset and must be nurtured through innovative and integrated cooperative management interventions that will ensure both the environmentally sustainable functioning and enhancement of the natural systems, while optimising economic and social benefits, protecting the diverse cultural heritage, maintaining its unique sense-of-place, increasing awareness through education and ensuring the spiritual well-being of all its users."

A number of Coastal Management Objectives (CMO's) were identified:

- CMO1: Public access
- CMO2: Infrastructure, spatial planning and development
- CMO3: Biodiversity protection, conservation and enhancement
- CMO4: Heritage resources
- CMO5: Disaster management
- CMO6: Water quality and quantity

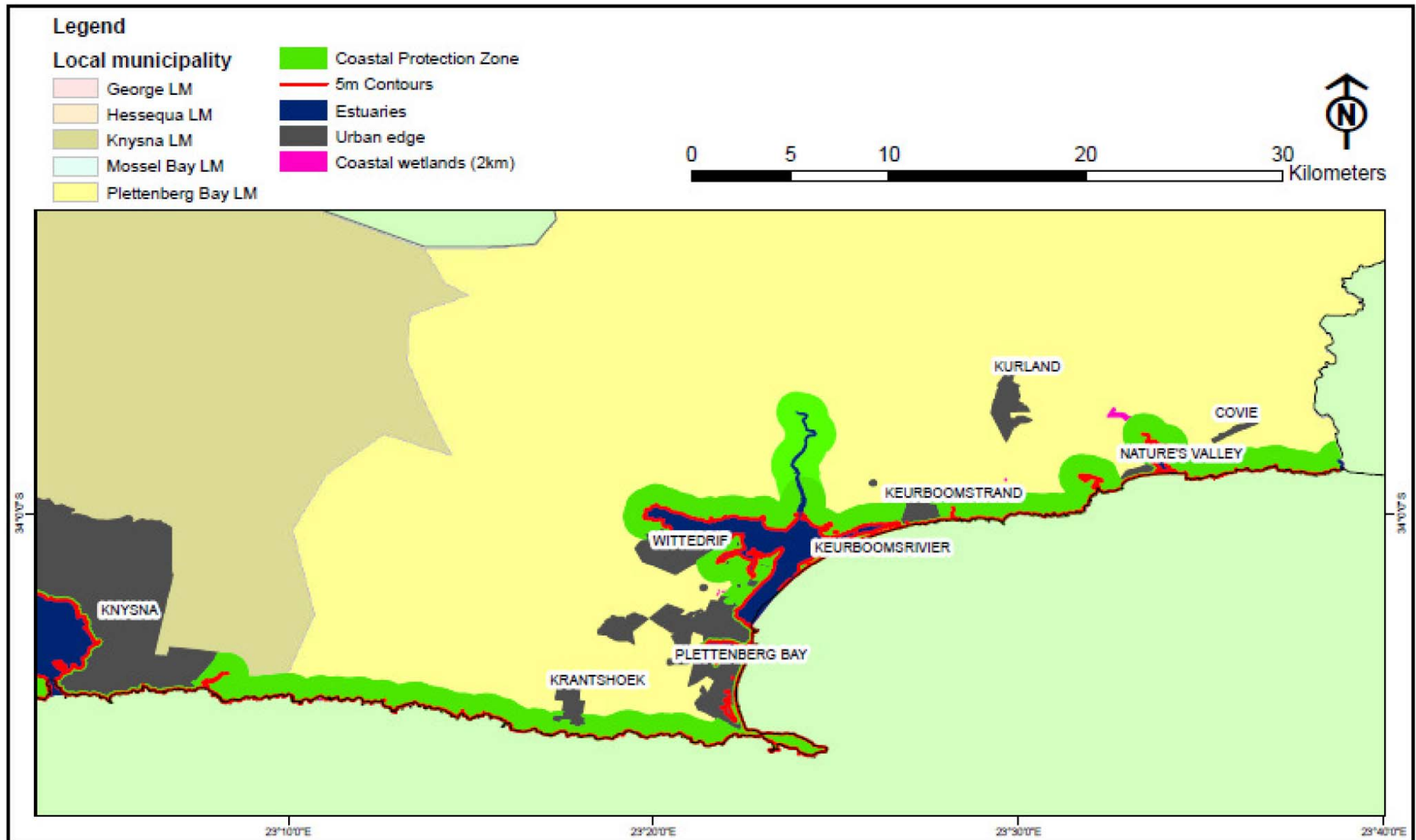


Figure 2.3.2 Proposed Coastal Protection Zone, Bitou (Source: EDCMP, May 2012)

CMO7: Institutional arrangements
 CMO8: Compliance and enforcement
 CMO9: Education and awareness
 CMO10: Economic development (job creation)
 CMO11: Tourism and recreation
 CMO12: Sustainable livelihoods
 CMO13: Research

Figure 2.3.2.1 indicates the location of the proposed Coastal Protection Zone as it applies to Bitou.

Implications for the Municipality

- In terms of the EDCMP the following are important for the municipality:
 - Reasonable and equitable access to the coastal public property for all must be achieved without negatively impacting on the environment.
 - Existing infrastructure and development in the coastal zone (coastal public property, coastal protection zone, coastal access land, coastal protected areas, seashore, coastal waters and exclusive economic zone) must be maintained or upgraded and existing spatial planning strategies should be enforced.
 - Future infrastructure and development should be restricted to land already zoned accordingly and no new zonings should be considered in the Coastal Protection Zone (CPZ).
 - New spatial planning strategies must regard the CPZ as a “no-go” area for infrastructure and development.
 - Innovative spatial planning strategies are required to protect and conserve biodiversity.
 - Heritage resources should be recognized, protected and shared with all.
 - Water resources are to be managed to ensure a clean and healthy environment.
 - Implementation of the CMP should be a priority and funds should be made available.
 - Education and awareness programmes related to the environment and coastline should be implemented.
 - Create an enabling environment that will encourage economic development, tourism and recreation whilst preserving the integrity of the environment.
 - Utilise resources sustainable and in compliance with applicable legislation.

2.4 MUNICIPAL POLICY

2.4.1 Final GAP Analysis Report (BESP Round 2 Phase 1), December 2010

CNdV africa was appointed by the Departments of Human Settlement and Environmental Affairs and Development Planning as part of Round 2 of the Built Environment Support Programme to prepare a Critical Assessment Report, a GAP Analysis report and Project Plan to address the gaps described in the GAP Analysis Report.

This report was prepared for six municipalities. The sections relevant to the Bitou Municipality will be presented here. The report identified GAPs in the three main documents namely the IDP, SDF and HSP.

In terms of the previously prepared Spatial Development Framework (2005) the following GAPs were identified which the current review would have to address:

GAP	Description
<p>Conceptual diagrams showing “golden thread” between overseeing policy and principles through to a conceptual framework through to the SDF and projects are required.</p> <p>Scope and quality of diagrams and maps out of sync with depth of analysis and proposals in report.</p> <p>Report structure also requires improvement so that it does not have to be open simultaneously at 3 or 4 places in order to track the logic of proposals.</p>	<ul style="list-style-type: none"> • The document is out of date and takes no account of major policy developments in recent years. • The theories for urban development drawn on are not adequately translated spatially. • The document is difficult to read and there are no diagrams within the main body of text which makes cross referencing tedious. • The SDF makes contradictory statements (i.e. designating the N2 as both a mobility and activity spine). • Available land and supply of land was not considered when new expansion areas were identified. • The urban edges identified are seen as too wide and in excess of what may be required.

The SDF should be completely revised with some of its useful precedent summaries and analyses of standard and densities contributing towards new proposals. The copy of the current SDF perused by the consultants is devoid of graphics except for 4 difficult to interpret maps and there should be considerable emphasis on the graphics, particularly as the SDF is a spatial document.

- Further information and inputs required on the environmental aspects in the municipality, especially inputs from the Plett environmental forum.
- More information is required on rural development. No mention is made of the Comprehensive Rural Development Programme (CRDP) or Regional Industrial Development Strategy (RIDS).

Table 2.4.1.1 BESP Round 2 Phase 1: GAP Analysis for Bitou Spatial Development Framework, 2005 (CNdV africa, 2010)

2.4.2 IDP 2011 -2012

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

“To be the best together”.

This vision is supported by the following mission:

- “Effecting participative and effective governance;
- Fostering effective intergovernmental relations;
- Facilitating people-centred development;
- Pro actively identifying and securing suitable land for settlements;
- Facilitating housing delivery and land development;
- Providing basic services in a suitable manner;
- Facilitating local economic development by implementing pro-poor strategies and programmes;
- Fostering social integration; and,
- Adhering to the Batho Pele principles.”

The IDP has the following objectives and planning strategies:

• Basic Services and Infrastructure Development

- o Ensure efficient and affordable basic services to all residents of Bitou by 2014:
 - All households to have access to at least clean piped water 200m from household;
 - All households to have access to at least a waterborne toilet in the yard;
 - All households to be connected to the grid;
 - All households to have access to at least once week waste removal services;
 - All existing informal settlements to be formalized with land-use plans for economic and social facilities and provision of permanent basic services.

• Local Economic Development

- o To strengthen and improve the economy of Bitou for sustainable growth and job creation.
 - Grow the economy by 6% in 2014;
 - Half poverty by 2014;
 - Reduce unemployment by 50% by 2014.

• Institutional Development

- o Create an institution that can align planning with implementation for effective and efficient service delivery.
 - Effectively use and deploy the available skills in critical and crucial positions by 2014.

• Financial Viability

- o To be a financially viable institution geared to provide affordable and sustainable services to the clientele of Bitou Municipality by 2014.
 - Strive to annually receive unqualified audit report;
 - Improve the cash-flow of the Municipality.

• Good Governance and Transformation

- o To develop a municipal governance system that enhances and embraces the system of participatory governance by 2014.
 - Encourage and create conditions for participation in the preparation, development and Implementation of IDP and Budget.

The location and size of IDP projects are depicted on Figure 2.4.1.1.

No	Infrastructure	Objective	Location	Budget
1	Electricity	Provision of electrical supply to households	Kurland	R 2,000,000
2	Electricity	Installation of energy efficient street-lights	Municipal	R 4,000,000
3	Electricity	Increase supply in Bitou electricity supply area	Municipal	R 1,000,000
4	Electricity	Replacing kiosks for safety	New Horizons	R 160,000
5	Waste Management	Establish waste transfer station	Ward 6	R 8,000,000
6	Waste Management	Construction of drop-off facilities rubble	Municipal	R 500,000
7	Housing	Reduce housing backlog	Municipal	R 2,000,000
8	Roads	Eliminate dusty streets and potholes	Municipal	R 1,500,000
9	Roads	Landscaping and pedestrian/NMT routes	Ward 3	R 14,000,000
Total				R 33,160,000

Table 2.4.2.1 IDP Budget 2011-2012 (Source: IDP 2011/2012)

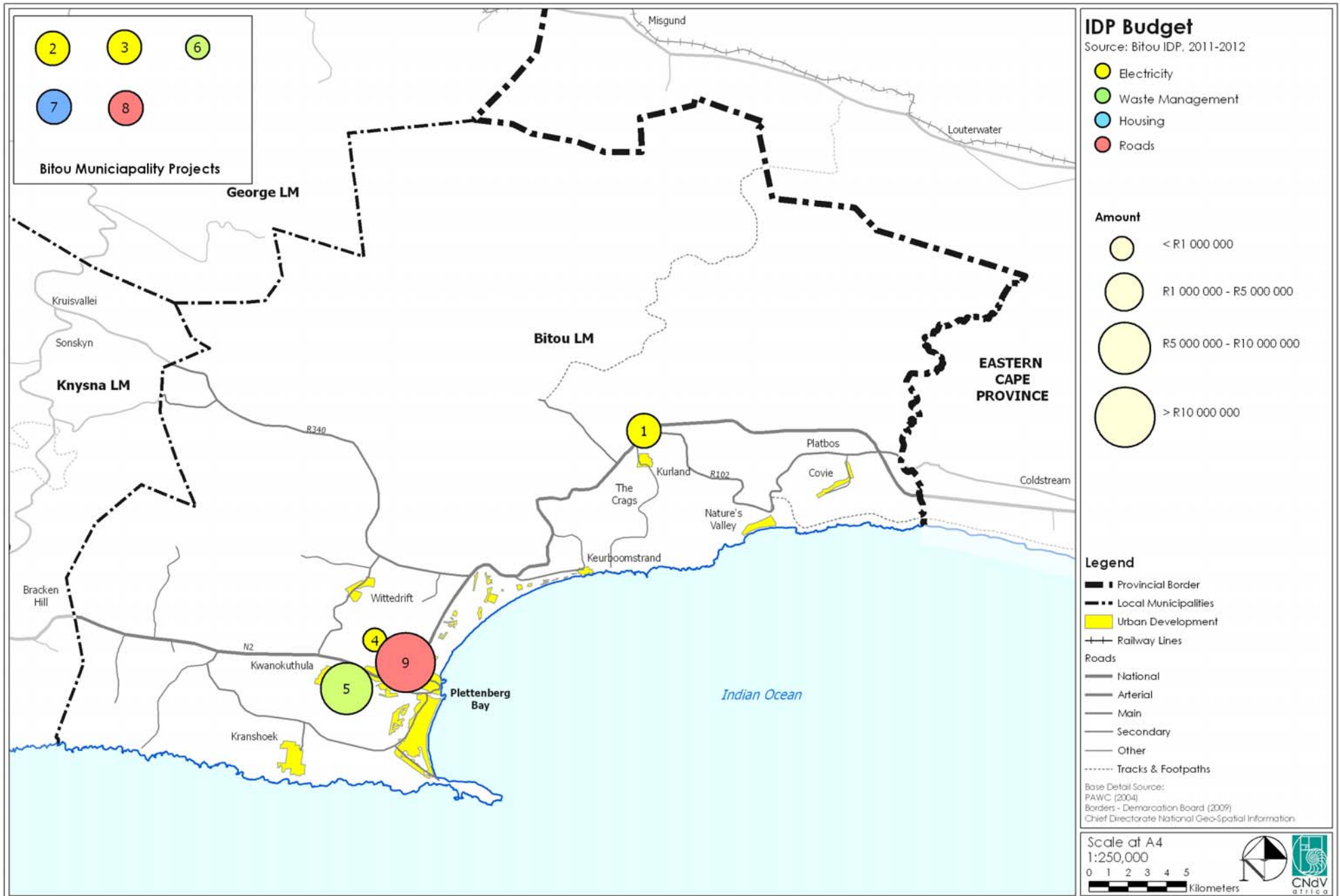


Figure 2.4.2.1 IDP Budget

2.4.3 Current Local Municipal SDF, 2005

The current Bitou SDF was prepared in 2005, see Figure 2.4.3.1.

The proposals of the SDF were divided into two sets (although this has not been clearly stated). One set dealt with the rural areas, i.e. Bioregional Framework, while the other set dealt with the urban areas.

The Spatial Planning Categories as per the Western Cape Bioregional Planning Framework (2002) were applied in order to allow the Municipality to draft a Bioregional Framework.

The SDF proposed the following land use management guidelines for the Bioregional Framework:

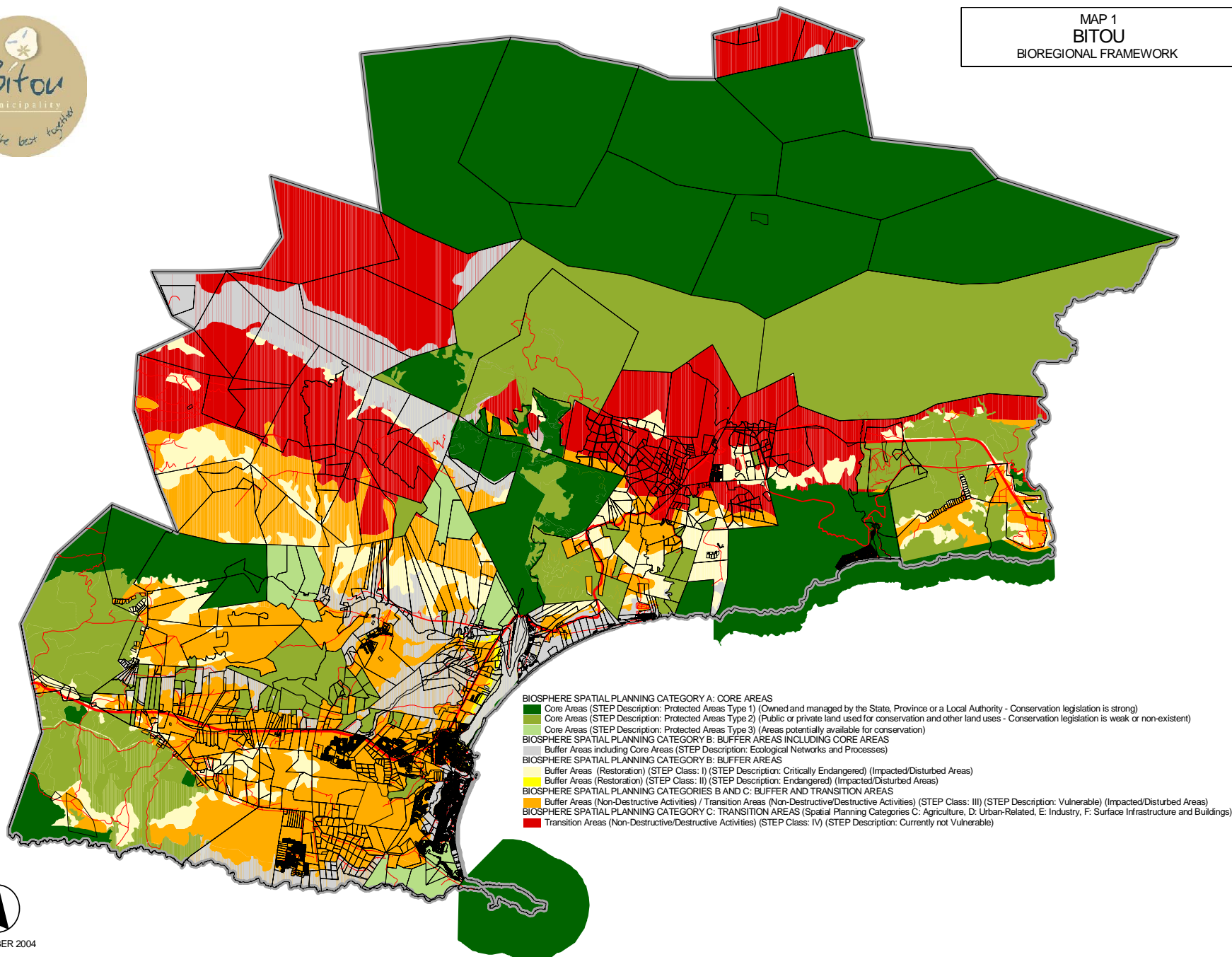
- Development is proposed to take place on land which is already disturbed or has undergone disturbance;
- The Local Authority should seek the advice of the respective conservation authority when activities will create a large scale disturbance;
- If the intended development will have severe impacts, the Municipality should recommend that portions of land that will not be developed remain that way and ensure that it is managed or proclaimed as a nature reserve area;
- The further loss of natural areas should not be allowed.

With respect to the Bioregional Framework the SDF noted that the Ecological Networks and Corridors are to be used as the basis for the establishment of an Open Space system within the urban areas. The Core and Coastal Areas in the Bioregional Framework should be linked via the Ecological Networks and Corridors to form a Municipal wide Open Space System.

The SDF made the following proposals for the urban areas:

- The establishment of a Development Corridor on the N2 from Keurbooms River on the eastern side to the Wittedrift Road on the Western side of the Kwanokuthula. The Development Corridor is to include all the land on either side of the N2;
- Construction of a mobility spine that can serve the same function as the N2 (east of Old Nick and rejoining the N2 between new Horizons and Kwanokuthula);

- Main street should be developed as an Activity Street between Dolphin Circle and where Main Road links to the N2;
- Marine Way should be developed as an Activity Street from where it links to the N2;
- The CBD is to be re-vitalised as the existing Major Activity Node in Bitou;
- The establishment of Local Activity Nodes in the main streets entering Kwanokuthula, new Horizons, Kranshoek, Kurland and Wittedrift;
- Density outside the Urban Edge to be below 1du/ha, except in Rural Development areas;
- Densities within Urban Edges should be increased along the Activity Spine to between 25 – 100 du/ha; and,
- The introduction of high density residential land uses to the CBD by means of infill and subdivision.



DECEMBER 2004

Figure 2.4.3.1 Previous Bitou Local Municipal SDF, 2004 (source: Bitou Municipality, 2004)

2.4.4 A Rapid Conservation Assessment and Framework for a Conservation Plan for the Plettenberg Bay Municipality

The Rapid Conservation Assessment and Framework for a Conservation Plan for the Plettenberg Bay Municipality (i.e. Bitou Municipality) was prepared in support of the Spatial Development Framework prepared for the municipality in 2004, see section 2.4.2.

The goals of the report are to:

- “Provide relevant biodiversity information on the Plettenberg Bay Municipality for incorporation in it’s Spatial Development Framework;
- Illustrate the distribution and conservation status of natural vegetation remnants in the Plettenberg Bay Municipality at an appropriate scale;
- Identify potential corridors for the expansion of the Plettenberg Bay Protected Area System;
- Illustrate the potential types of products that a comprehensive fine-scale conservation plan for the Plettenberg Bay Municipality would generate; and,
- Serve as an interim conservation assessment and plan until the completion of a comprehensive fine-scale plan for the municipality.

A total of three (3) biomes are present within the study area, namely fynbos, subtropical thicket, and forest. These biomes were sub-classified into finer-scale biodiversity surrogates, i.e. vegetation types.

The vegetation types were assessed in terms of the extent to which they are currently irreversibly developed, and their current remaining (extant) distribution.

The explicit conservation targets for the biodiversity features of the municipality, were then used to determine the extent to which the remaining biodiversity features must be conserved in order to support the long-term ecological functioning and persistence, and to ensure adequate representation, of these biodiversity features.

Table 2.4.4.1 indicates the conservation status of the vegetation types located within the municipality. The conservation classification is graphically presented in Figure 2.4.4.1.

Vegetation Type	Conservation Status
Keurbooms grassy fynbos	Vulnerable
Langkloof fynbos/rhenosterveld mosaic	Currently not Vulnerable
Tsitsikamma plateau fynbos	Vulnerable
Tsitsikamma mountain fynbos	Currently not Vulnerable
Gouritz dune thicket	Endangered
Robberg dune thicket	Endangered
Knysna afromontane forest	Critically Endangered
Estuary	Critically Endangered

Table 2.4.4.1 Conservation status of vegetation types (Source: Wildlife and Environment Society of South Africa, January 2004)

The report furthermore provided land use opportunities and recommendations and guidelines for wise land use decisions. These are contained in the table below.

CONSERVATION CATEGORY ¹	BRIEF DESCRIPTION	LAND USE OPPORTUNITIES	RECOMMENDATIONS FOR LAND USE	GUIDELINES FOR WISE LAND USE DECISIONS
DEVELOPED (NON-RESTORABLE) AREAS	Natural areas destroyed or disturbed by human activities, including agriculture, urbanization and rural settlements, mines and quarries, high density alien invasive plants, forestry plantations and severe overgrazing.	Opportunities for job creation related to restoration and alien clearance.	Dependent on original biodiversity conservation category and intensity of impacts by urbanization, crop-farming, alien clearance, restoration etc. See relevant Guidelines in this Table.	On-site investigation ² to verify original biodiversity conservation category and to evaluate impacts ³ . Subsequent guidelines are dependent on biodiversity conservation category of original ecosystem, and evaluation of impacts ³ .
IV CURRENTLY NOT VULNERABLE ECOSYSTEMS	Ecosystems which cover extensive areas which are still intact, healthy and are fully functional.	Activities such as housing, industry, crop-farming etc., preferably located on impacted or degraded areas.	Areas recommended for urbanisation, crop-farming etc.	1. On-site investigation ² to verify conservation category IV and to evaluate condition of ecosystem (relative to impacts) ³ . 2. If on-site investigations indicate conservation category III, II or I, then refer to relevant Recommendations and Guidelines in this Table. 3. Usual requirements for EIA ⁴ apply for listed activities and for presence of listed Red Data Book plants and animals.

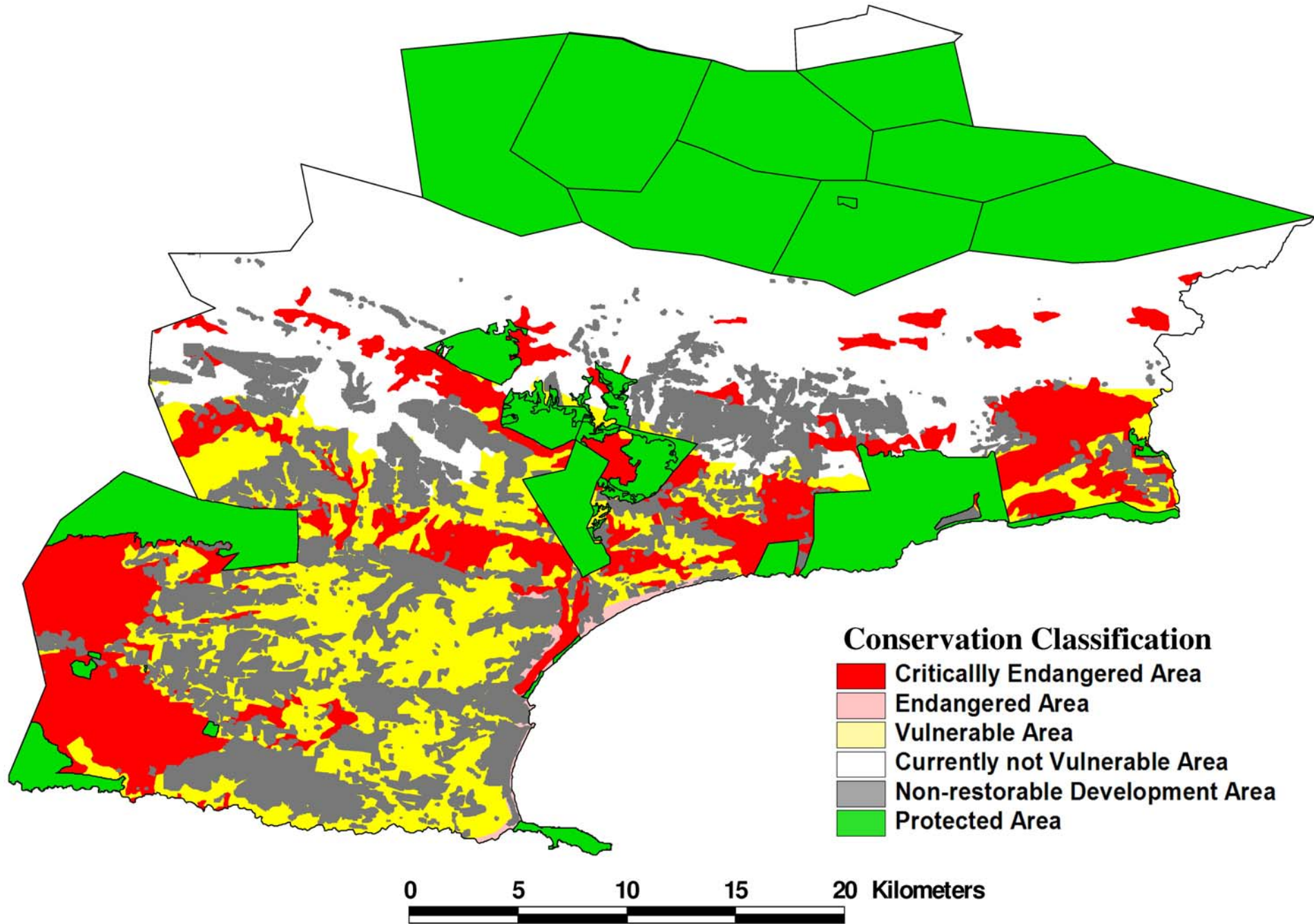


Figure 2.4.4.1 Conservation classification (Wildlife and Environment Society of South Africa, January 2004)

	III VULNERABLE ECOSYSTEMS	Ecosystems which cover moderate-sized areas that are still, healthy and are fully functional.	Activities with limited impacts such as sustainable stock-farming	Areas preferred for urbanisation, crop-farming etc. over areas categorised as II and I, but not preferred over areas categorised as IV.	<p>1. On-site investigation² to verify conservation category III and to evaluate condition of ecosystem (relative to impacts)³.</p> <p>2. If on-site investigations indicate conservation category II, I, or IV, then refer to relevant Recommendations and Guidelines in this Table.</p> <p>3. Usual requirements for EIA⁴ apply for listed activities and presence of listed Red Data Book plants and animals.</p>
	II ENDANGERED ECOSYSTEMS	Ecosystems whose original extent has been severely reduced, and whose proper functioning is threatened and likely to become dysfunctional.	Eco-friendly, nature-based activities, such as game-based farming, responsible ecotourism, sustainable harvesting of natural products (hunting, reeds, honey production etc).	<p>No further loss of natural ecosystem should be allowed unless there are net gains for conservation.</p> <p>Minimal activity to be allowed with compulsory net gains for conservation through mitigation (softening future impacts) and restoration of natural ecosystem.</p>	<p>1. On-site investigation² to verify conservation category II and to evaluate condition of ecosystem (relative to impacts)³.</p> <p>2. If on-site investigations indicate conservation category I, III or IV, then refer to relevant Recommendations and Guidelines in this Table.</p> <p>3. Verification of conservation category II, and evaluation of habitat condition (relative to impacts) requires the minimum of a plan of Study for Scoping, clearly indicating alternative sites for activities, and including consideration of net gains for conservation through mitigation (softening future impacts) and restoration.</p> <p>4. Net gains for conservation include restoration of impacted areas and establishment of private nature reserve on remainder of property.</p> <p>5. Usual requirements for EIA⁴ apply for listed activities and presence of listed Red Data Book plants and animals.</p>
	PROTECTED AREAS	Statutory nature reserves e.g. National parks, Provincial or local authority nature reserves	Conservation, ecotourism, cultural and environmental awareness, jobs related to eco-tourism	Strong conservation legislation	Area currently protected

	I CRITICALLY ENDANGERED ECOSYSTEMS	<p>Ecosystems whose original extent has been reduced to an unacceptable level.</p> <p>This category also includes special ecosystems of limited extent, such as wetlands and natural forests.</p> <p>These areas are a conservation priority for sustainable development.</p>	Eco-friendly, nature-based activities with minimal impacts, such as responsible ecotourism with walking trails.	No further loss of natural ecosystem and no impacts should be allowed unless there are major gains for conservation.	<p>1. On-site investigation² to verify conservation category I and to evaluate condition of ecosystem (relative to impacts)³.</p> <p>2. If findings of on-site investigations indicate conservation category II, III or IV, then refer to relevant Recommendations and Guidelines in this Table.</p> <p>3. Verification of conservation category I, and evaluation of habitat condition (relative to impacts) should lead to the strictest EIA⁴ procedure, clearly indicating the need for alternative siting of activities, and including consideration of major gains for conservation through mitigation (softening future impacts) and restoration.</p> <p>4. Net gains for conservation include restoration of impacted areas and establishment of private nature reserve on remainder of property.</p> <p>5. Usual requirements for EIA⁴ apply for listed activities and presence of listed Red Data Book plants and animals.</p>

¹Information on categories, networks etc are explained in the STEP Handbook and the STEP Reports.

²On-site investigation by specialist consultant (biodiversity expert) is essential to ensure that the conservation categories presented on this map can be confirmed on the ground. This must involve the assessment and classification of the site's vegetation type/s, their conservation category, and the condition of the ecosystem/s. Conservation categories (I, II, III, IV) may be determined from the relevant tables in the STEP Technical Report Handbook (Descriptions of vegetation types, as well as their biodiversity conservation categories, are given in the STEP Technical Report).

³Evaluation of impacts should consider kind of impact (urbanisation, crop-farming, alien plant invasions), extent of impact (proportion of land impacted) and the intensity of impact (entirely impacted, in patches only etc). Taking into consideration of the original biodiversity conservation category, impact evaluation should lead to appropriate recommendation as follows: no or minimal impacts – follow Recommendations in Table; moderate impacts – restore wetlands or natural plants, or remove alien invasive plants; severe impacts e.g. extensive crop-farming – consider restoration, or allow high impact activities such as continued crop-farming, housing etc.

⁴EIA - Environmental Impact Assessment. Strictest EIA means that conservation of biodiversity is a primary development goal e.g. nature-based activities such as a responsible eco-tourism, game farming etc..

⁵Critical Ecological Process Areas were determined by computer analysis and expert input which identified and linked areas in the most efficient way, connecting protected areas (nature reserves) and including critical conservation areas, corridors and ecological processes, while avoiding areas of high agricultural productivity and areas highly impacted by urbanisation, overgrazing and alien plant invasions. The networks provide essential

Table 2.4.4.2 Land Use Opportunities and Constraints (Source: Wildlife and Environment Society of South Africa, January 2004)

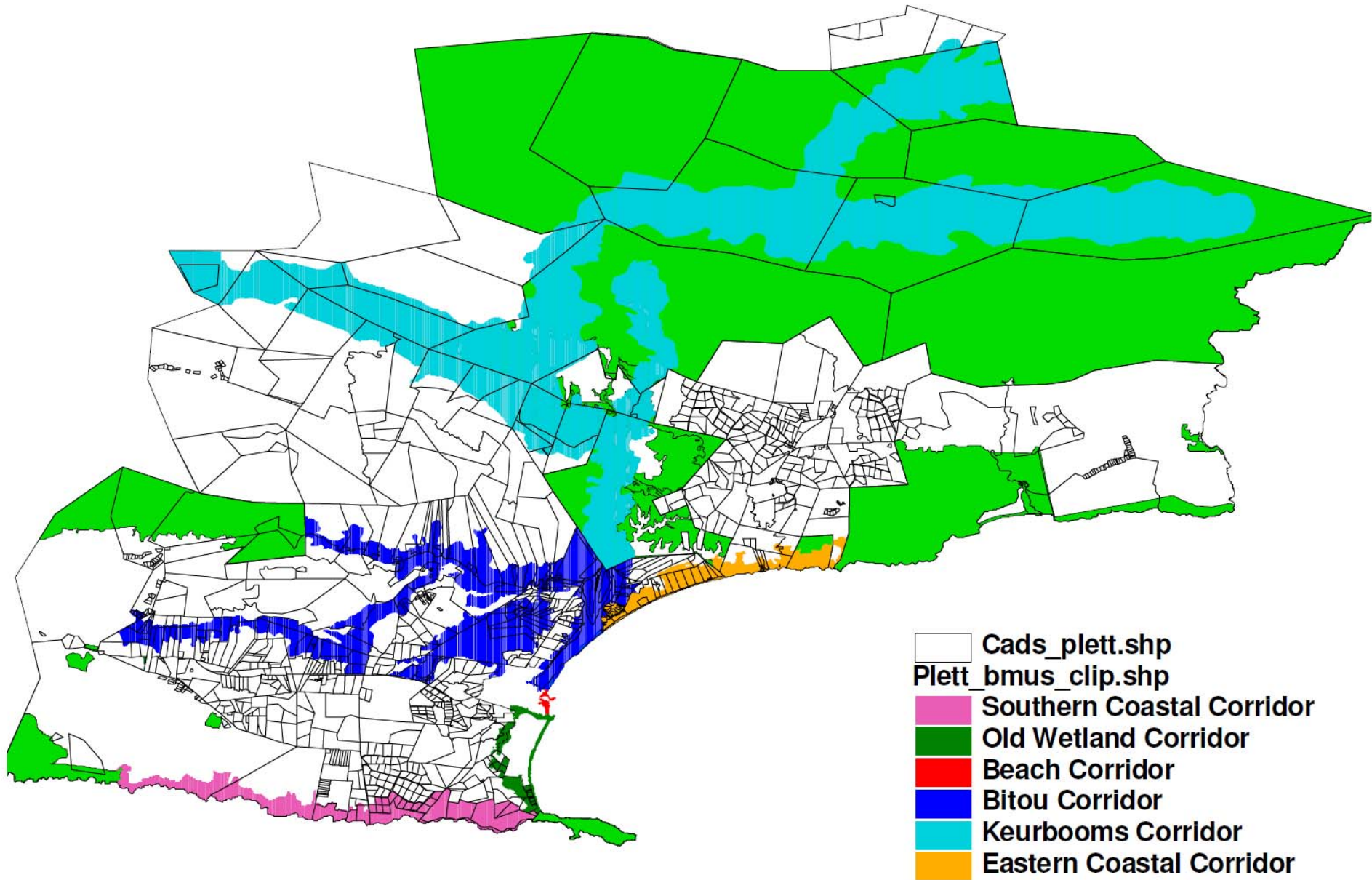


Figure 2.4.4.2 The proposed conservation corridors in the Plettenberg Bay Municipality to link existing statutory protected areas and to support the long-term functioning of ecological processes (Wildlife and Environment Society of South Africa, January 2004)

A number of potential corridors for the expansion of the existing protected area system within the Plettenberg Bay Municipality were identified, refer to Figure 2.4.4.2. Further fine scale planning should be conducted to delineate these corridors more accurately.

Implications for Bitou Municipality

- Prepare a comprehensive fine-scale conservation plan for the municipality.
- Biodiversity and land-use information is required at a fine-scale (1:10 000).
- Refinement of the proposed corridors should be undertaken as part of the fine-scale conservation planning.

2.4.5 Coming Together Initiative: Bitou (Urban Integration Initiative)

The Coming Together Initiative is supported by the Presidency and aims to integrate segregated urban areas, associated with economic disparities, as a result of apartheid planning, within Plettenberg Bay. The study area is indicated on Figure 2.4.5.1 and encompasses Kwanokuthula, New Horizons, Bossiesgif and Qolweni. Ladywood is also envisaged as new and very large privately driven housing development area.

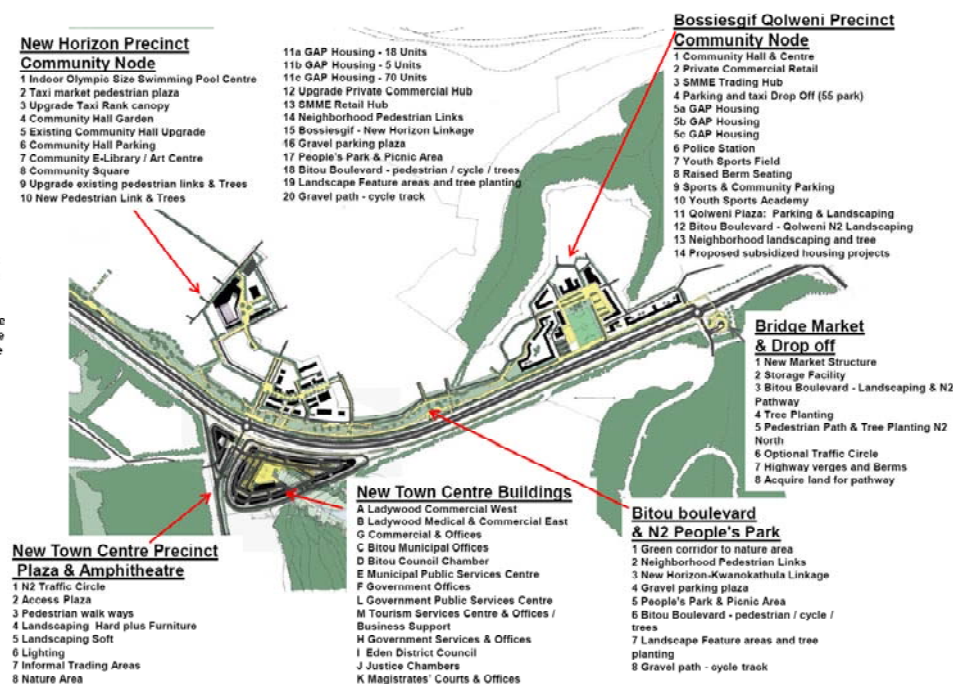
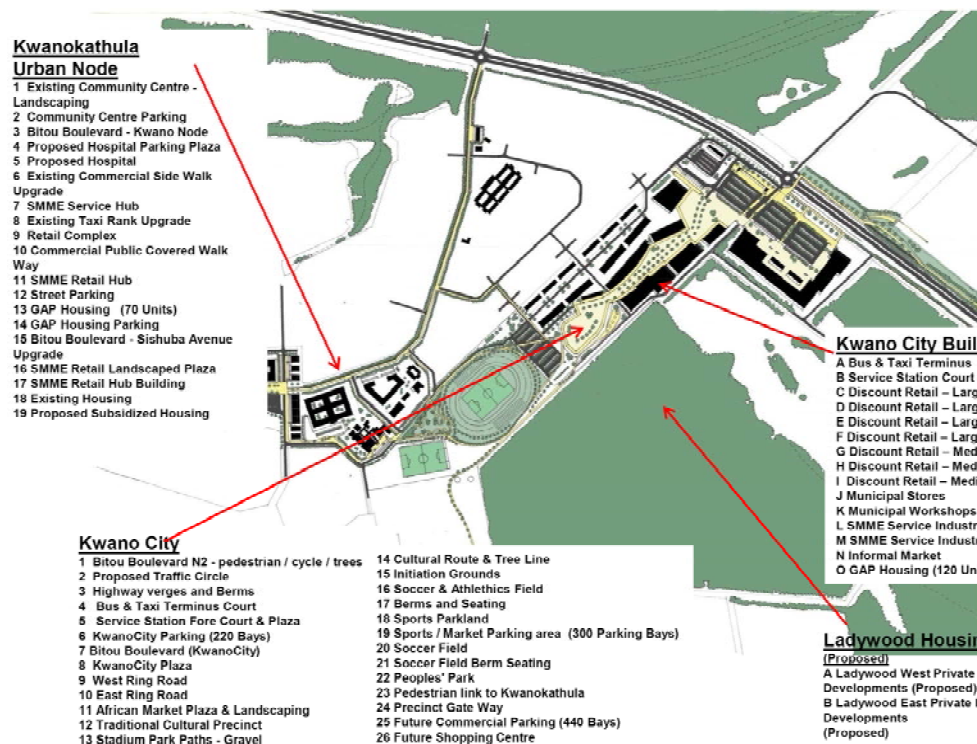
The key objective of the project is to bring economic development, government services and social services and facilities closer to the majority of the region's people. The initiative aims to shift the centre of economic investment, job creation and development in the coming decades towards the townships. Municipal and governmental services will be relocated closer to where the majority of the people are.

The main proposals of this initiative are shown on Figure 2.4.5.2:

- A new Bitou Boulevard along the N2 national road;
- Establishment of three project clusters (nodes) along the Bitou Boulevard at Kwanokuthula, New Horizons and Bossiesgif/Qolweni;
- Locating key municipal- and governmental buildings, sporting facilities, SMME retail and service hubs, informal trading areas and discount retail developments along the boulevard and at the nodal areas; and,
- Creating recreational areas and parks along the route.

Implications for Bitou Municipality

- Ensure a positive commitment to this initiative by ensuring public investment leads the way to attract private investors.



2.4.6 Nature's Valley Spatial Development Framework DRAFT, May 2009

The Nature's Valley Spatial Development Framework aims to develop principles and urban design guidelines to inform development in and around Nature's Valley to ensure:

- Integrated and sustainable development;
- Protection of the unique character of Nature's Valley;
- Protection of land values;
- Protection of the environment;
- Promotion of a pedestrian friendly environment;
- Safety and security;
- Retention of the single residential status of the township; and
- Promotion of improved service delivery.

Based on a status quo analysis of Nature's Valley which included an analysis of the needs of the community the following strategies were developed:

- Intensify environment awareness campaigns to encourage residents to protect indigenous fauna and flora.
- Develop and implement an efficient movement system for vehicles, cyclists and pedestrians.
- Develop appropriate land use and urban design guidelines.
- Improve infrastructure and services provision.
- Promote communication, co-ordination and engagement with all interested and affected parties.

Detailed proposals are contained in Figure 2.4.6.1.

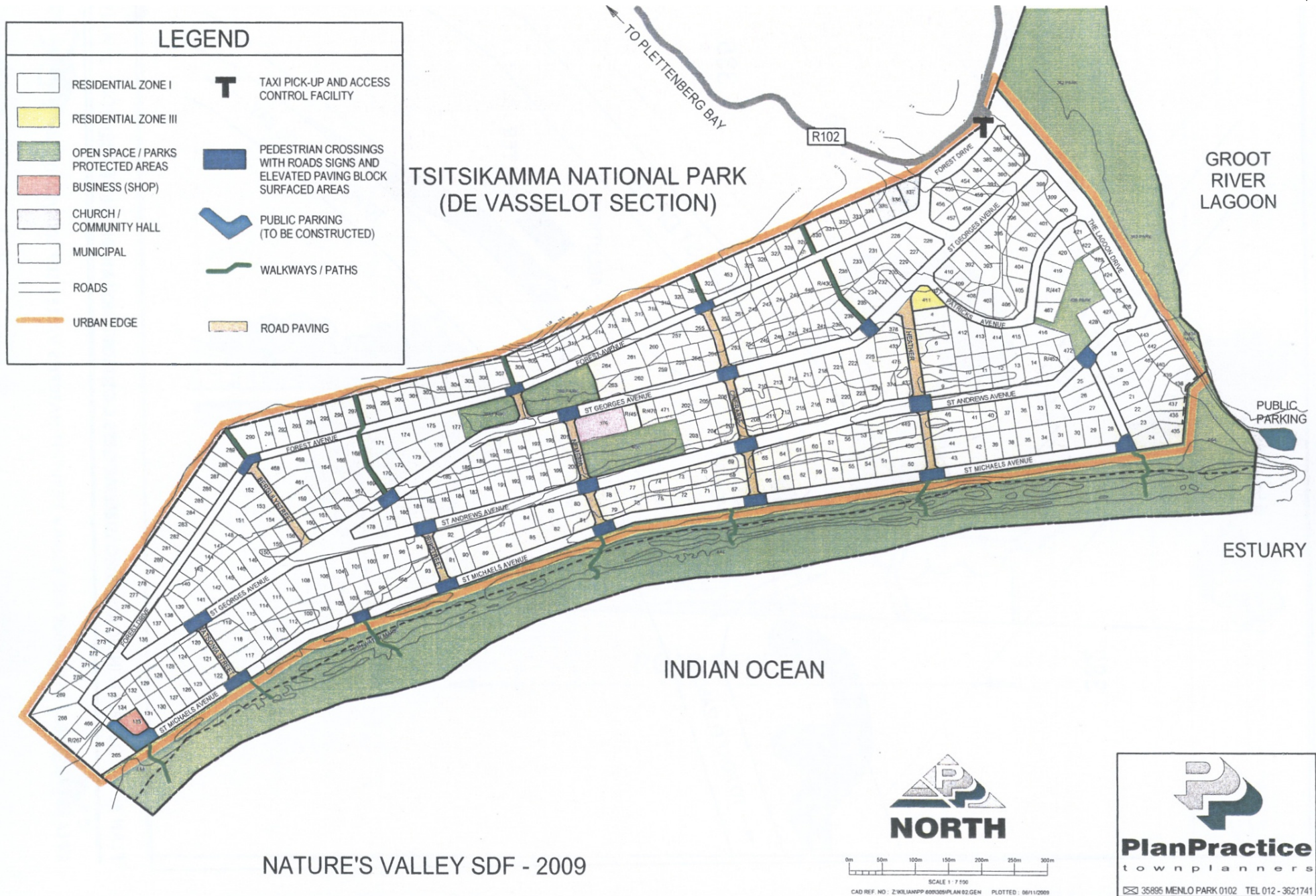


Figure 2.4.6.1 Nature's Valley Spatial Development Framework (source: PlanPractice, 2009)

2.4.7 Lower Bitou/Keurbooms Catchment and Floodplain Preliminary Environmental Management Framework, 2009

The aim of the EMF prepared for the study area indicated in Figure 2.4.7.1 is to raise awareness of the critical and sensitive environmental which occur within the study area.

The study area includes the lower catchments of the Bitou and Keurbooms River and the estuary.

The study was undertaken due to the following:

- Bitou Keurbooms estuary is a highly sensitive environment and its ecological health is essential to the economy of this mainly tourist town as a recreational resource and for its natural beauty;
- There is pressure for development which needs to be appropriate;
- The Keurbooms/Bitou estuary is ranked as the 18th most important system in South Africa in terms of its conservation importance (out of 256 functional estuaries).

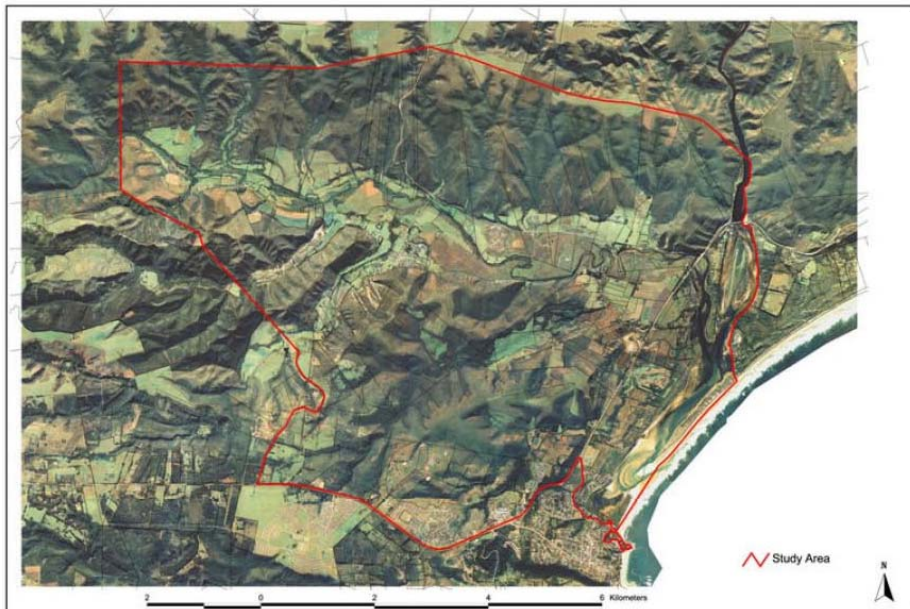


Figure 2.4.7.1 Lower Bitou/Keurbooms Catchment and Floodplain Study Area (source: Grant Johnston Associated, 2009)

The study identified three main conservation corridors which fall within the study area:

- **Bitou Eastern Coastal Corridor** which includes the coastal dunes between the Duivenhoks River in the west and the Kei River in the east also identified as the Dune Megaconservancy network (MCN). The study notes that the Rapid Conservation Assessment and Framework for a Conservation Plan identified the need for a corridor to link Keurbooms/Bitou estuary to the Tsitsikamma National Park through the Arch Rock private nature reserve: the Bitou Eastern Coastal Corridor.
- **North-south Keurbooms River and East-west Bitou River Corridors:** The Bitou River forms a vital link between a Garden Route Initiative (GRI) protected area in the west and the Cape Nature Keurbooms River Reserve to the east. There are tributary valleys that extend the corridors to the north and south. The GRI identified these two corridors as a Critical Biodiversity Area – the highest conservation status outside the protected areas outside of national parks and provincial reserves. Its desired management objective is to “maintain natural land and rehabilitate degraded to natural and manage for no further degradation.”

Implications for Bitou Municipality

- The study notes that there is no non-sensitive land within this study area.
- The floodplain and catchment of the Bitou / Keurbooms catchment and floodplain is essential for continued water abstraction to supply the Bitou Municipal area.

2.4.8 Keurbooms/Bitou Estuary Management Plan (2nd Draft)

The Keurbooms/Bitou Estuary Management Plan was prepared by Enviro-Fish Africa in February 2011.

It proposes the following vision that was developed during the stakeholder workshop undertaken in May 2010 for the Keurbooms and Bitou Estuaries:

“From catchment to coast, the Keurbooms and Bitou systems will be harmoniously managed through active participation to maintain their biodiversity in order to attract visitors, promote education, create awareness, and preserve the cultural, natural and recreational heritage for (the benefit of) all (South Africans).”

The vision is supported by the following strategic objectives:

- **Water Quality and Quantity**
Resource Quality Objectives and the Ecological Reserve requirements must be implemented to ensure that all ecological processes and livelihoods are sustained by maintaining a Category A/B classification.
- **Living Resources and Conservation**
Ensure a sustainable balance between the conservation, protection and utilization of living and heritage resources.
- **Land Use and Infrastructure**
Development and associated activities within the designated management area are controlled via legislation in such a way as to sustain existing livelihoods and ensure the maintenance of ecosystem functioning and services.
- **Institutional and Management Arrangements**
The Keurbooms and Bitou management area is managed cooperatively and effectively by spheres of government and civil society.
- **Sustainable Livelihoods**
Manage existing activities and promote additional opportunities in a way that ensures compliance with legislation and the maintenance of ecosystem functioning and services.

- **Tourism and Recreational Use**

The tourism and recreational potential of the management area must be utilized in a responsible manner so as to benefit all users while ensuring the maintenance of ecosystem functioning and services.

- **Education and Awareness**

To create an awareness, through research and education, of the value of estuaries, a sense of ownership and the need for integrated, informed and cooperative management that will ensure the maintenance of ecosystem functioning and services.

The Keurbooms/Bitou Estuary Zonation Plan and Management Zones are indicated on Figures 2.4.8.1 and 2.4.8.2 respectively.

The following management zones are proposed permitting the following activities:

Wake free zones include:

- from the N2 Bridge on the Keurbooms to a point 500 m upstream
- entire Bitou Estuary;
- Keurbooms Lagoon; and
- the following areas on the Keurbooms Estuary:
 - from the confluence to the N2 Bridge;
 - from the first Cape Nature picnic site to the head of the estuary (beyond Whiskey Creek); and
 - within the designated skiing area outside of the skiing times (10h00 to 16h00).

Additional recommendations, to be included in the revised Public Amenities By-laws include:

- The 10km/h and 5 km/h speed limit indicated on the wake-free zone marker buoys should be changed to read “wake-free”;
- No vessels may operate above a wake-free speed within 10 m of a slipway, jetty, other vessel (includes non-powered vessels such as canoes, but does not apply within the designated skiing area) or swimmer;
- No vessel may operate above a wake-free speed between sunset and sunrise; and,

- Vessels gaining access to the sea or returning from the sea may operate above a wake-free speed in the immediate vicinity (100 m) of the mouth.

Skiing area

The existing skiing area is located from the N2 Bridge to the first Cape Nature picnic site on the Keurbooms Estuary. The study recommended to move the start of the area to 500m above the N2 Bridge to accommodate the proposed wake-free zone. Skiing times are to remain between 10h00 and 16h00.

No-skiing and no-swimming zones

- No swimming in the designated skiing area within the designated skiing times (10h00 to 16h00);
- No swimming within 10 m of any jetty or slipway;
- No swimming from a point 300 m south of the Keurbooms Lagoon Caravan Park to the mouth in its current location at Lookout Rocks. This is for safety reasons due to tidal currents and boats entering and exiting the mouth. A no-swimming safety zone of 300m in the vicinity of the mouth is proposed when the position of the mouth changes; and,
- No skiing in any of the wake-free zones or within the designated skiing area outside of the stipulated times (10h00 to 16h00).

Jet-skis

No jet-skis are currently allowed to operate on the system. The EMP proposes that this be reflected in the by-laws. If this activity is to be permitted in the estuary, it is proposed that these craft may not operate above a wake free speed unless in the immediate vicinity (100m) of the mouth.

Motorized vessel areas

No motorized vessels may operate on the Keurbooms Estuary above the markers located approximately 250 m upstream of Whiskey Creek.

Implications for Bitou Municipality

- The study notes that no Protected Areas are proposed within the water body of either estuary (up to the spring HWM), as the sensitive submerged aquatic vegetation habitats, and their associated fauna, will be protected by virtue of the wake-free and no-go boat areas.
- The two existing terrestrial reserves, namely the Keurbooms Nature Reserve (KNR) and the Keurbooms River Seagull Breeding Colony (KRSBC) are to be retained, with access and activities controlled by the management authority (Cape Nature).

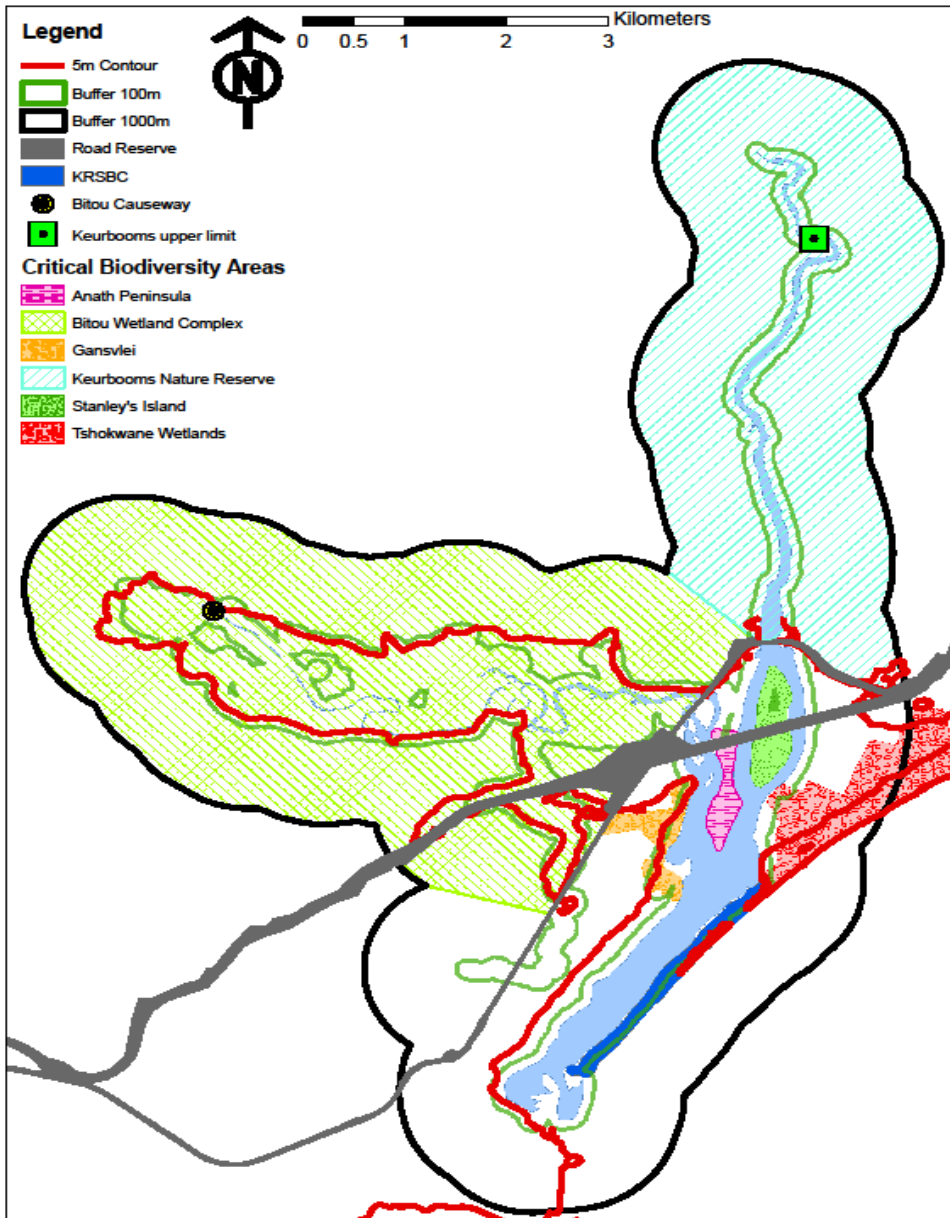


Figure 2.4.8.1 Proposed Keurbooms/Bitou Estuary Zonation Plan (Source: Enviro-Fish Africa, February 2011)

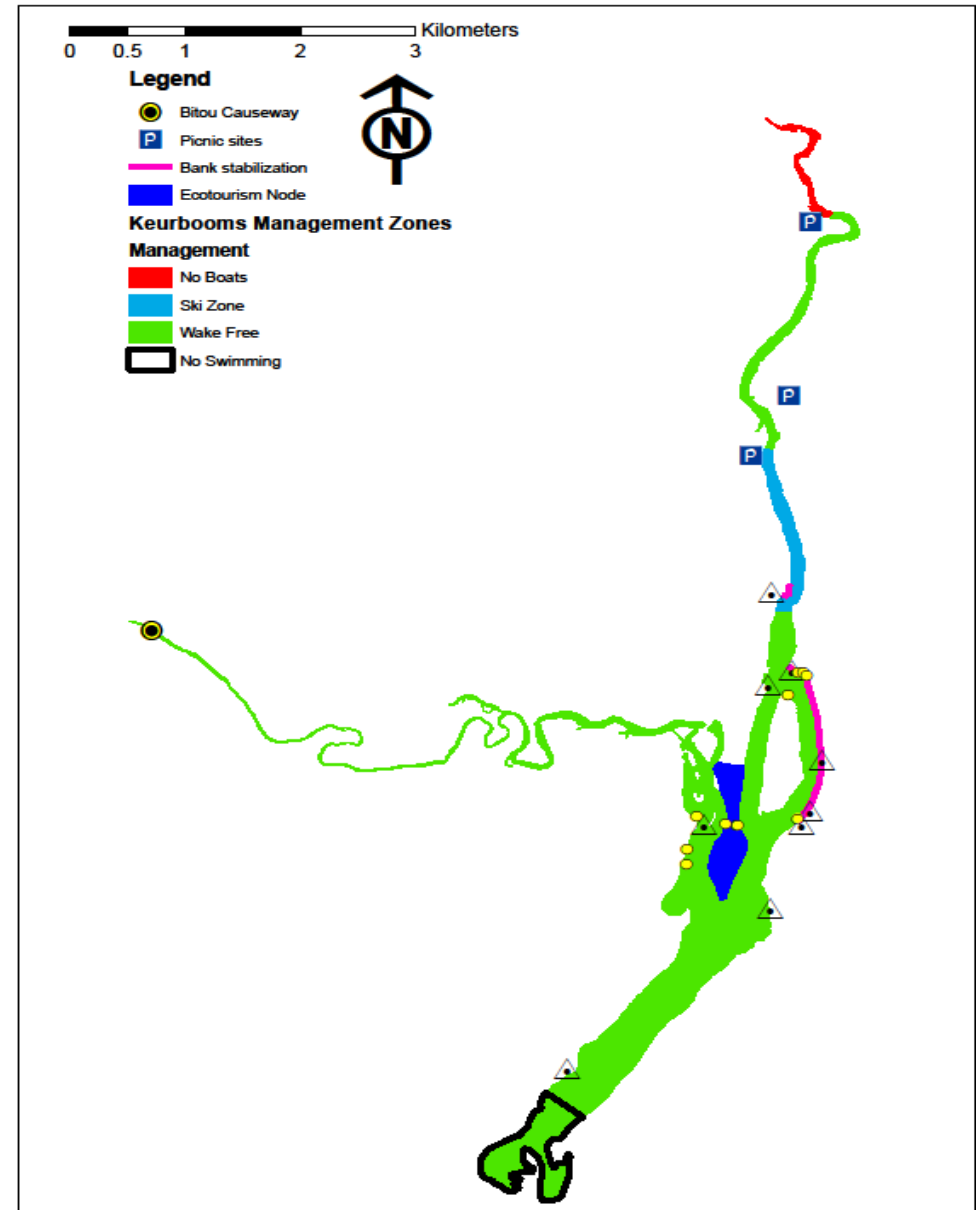


Figure 2.4.8.2 Proposed Keurbooms/Bitou Management Zones (Source: Enviro-Fish Africa, February 2011)

2.4.9 Keurbooms River and Environs LASP, 1st Draft Proposals Report, December 2012

The Keurbooms River Local Area Spatial Plan (LASP) was prepared in December 2012 by Tv3 Architects and Town Planners. The LASP notes that it is intended to assist the Bitou Municipality in ensuring that the area is protected / conserved and managed / developed in a coherent and sustainable manner. The Keurbooms LASP is shown in Figure 2.4.9.1.

The following proposed are made:

A. GENERAL PLANNING PROPOSALS

- Mixed Use development nodes**
 A low key node around the farm stall is proposed where the Keurbooms River access road intersects with the N2.
- Coastal access and associated public parking**
 The existing identified accesses are sufficient to provide adequate access to the beachfront.
- Access management and traffic calming along Main Road 394**
 A number of consolidated proposed access points are identified as indicated on the proposals plan - ensure that any access to the opposite side of M394 is duly aligned.
- Pedestrian / Cycle Routes**
 The pedestrian / cycle route being developed along main Road M394 be extended along Divisional Road 1888 (the Old N2) and back along Minor Road 7218 through the rural hinterland. In this manner a circular pedestrian / cycle route can be established.
- Scenic Route identification**
 The Divisional Road 1888, Main Road M394 and Minor Road 7218 are declared as scenic routes views and scenic quality is protected from inappropriate development.
- Realignment of Main Road 394 and proposed intersection closure**
 The Main Road 394 be realigned and extended along the existing SANRAL reserve to intersect with Minor Road 7216, the intersection

of Main Road 394 with the N2 be closed, and that the existing access off Minor Road 7216 with the N2 route be utilised instead. In doing so, the number of accesses in this vicinity of the N2, spaced within relative short distance of one another, can be reduced.

B. PROPOSED DEVELOPMENT NODES AND DENSITIES

The Rural Hinterland development nodes and development potential are indicated in Table 2.4.9.1.

RURAL HINTERLAND NODES WHICH CAN POTENTIALLY BE DEVELOPED AT A DENSITY OF 1 UNIT / 3HA OF THE TOTAL EXTENT OF THE PROPERTY.			
PROPERTY DESCRIPTION	NODE NO.	PROPERTY EXTENT	NO OF UNITS
RE/541	1	9.7ha	3
4/294	2	31.1ha	9
77/293	3	39.1ha	12
10/294	4	24.6ha	7
6/294	5	37.5ha	11
RE/3/522	6	131.7ha	40
544	7	28.8ha	9
545	8	121.3ha	36
787	9	8.9ha	3
5/295	10	8.6ha	3
563	11	79.4ha	24
1/296	12	7.4ha	2
2/296	13	7.6ha	2
3/296	14	9.2ha	3
RE/17/304	15	16.5ha	5
RE/2/304	16	28.7ha	9
TOTAL			197

Table 2.4.9.1 Rural Hinterland Nodal Development Potential (Source: TV3 architects and town planners, December 2012)

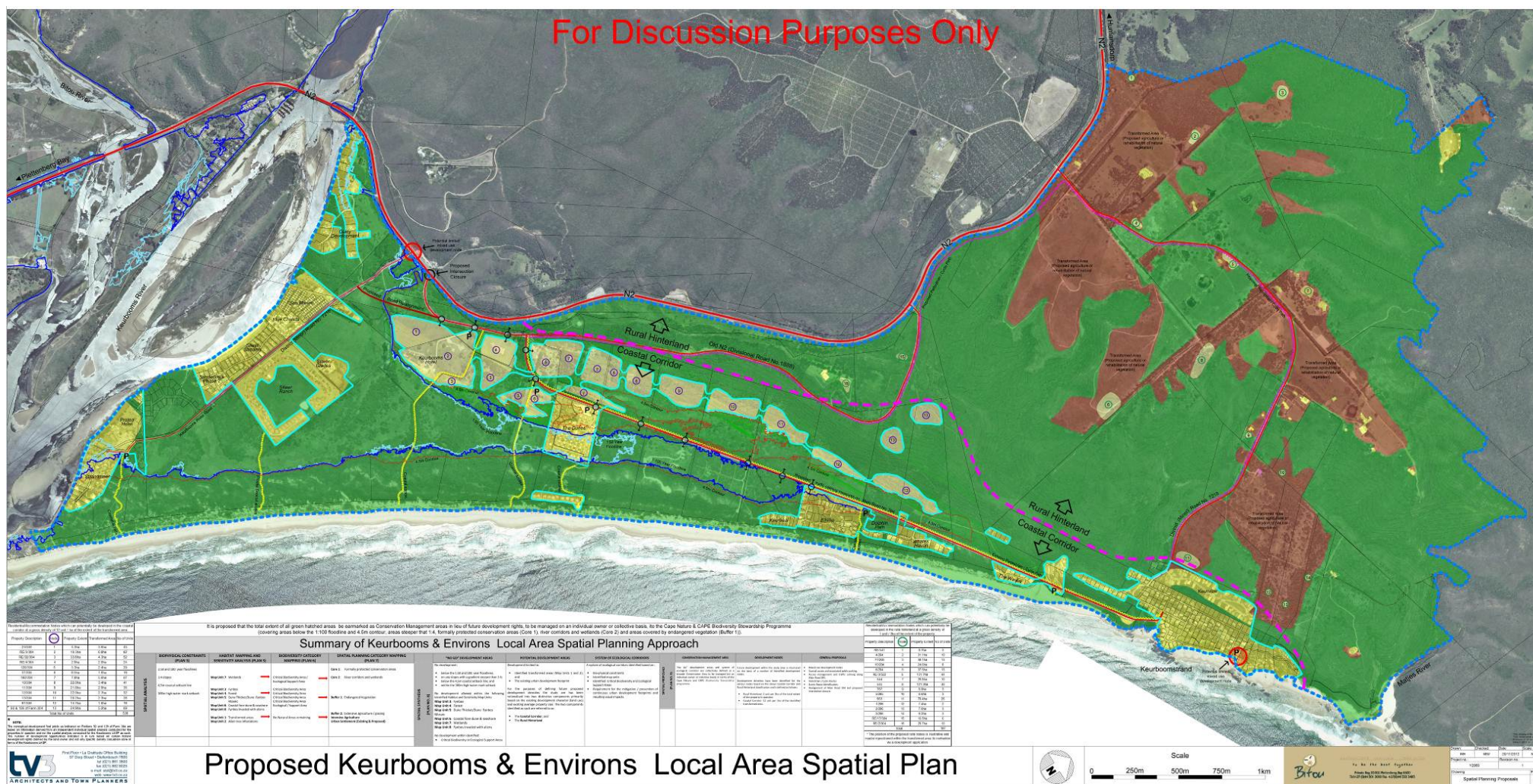


Figure 2.4.9.1 Keurbooms and Environs Local Area Spatial Plan (source: TV3 architects and town planners, 2012)

The proposed Coastal Corridor Development Nodes and development potential are indicated in Table 2.4.9.2.

COASTAL CORRIDOR NODES WHICH CAN POTENTIALLY BE DEVELOPED AT A GROSS DENSITY OF 12 UNITS / HA FOR THE EXTENT OF THE IDENTIFIED TRANSFORMED FOOTPRINT AREA				
PROPERTY DESCRIPTION	NODE NO.	PROPERTY EXTENT	TRANSFORMED AREA	NO OF UNITS
24/304	1	4.3ha	3.6ha	43
RE/3/304	2	10.3ha	6.8ha	82
RE/32/304	3	33.6ha	4.3ha	52
RE/4/304	4	2.9ha	2.0ha	24
126/304	5	3.3ha	2.4ha	29
31/304	6	9.5ha	1.6ha	19
192/304	7	7.8ha	5.6ha	67
10/304	8	22.0ha	3.4ha	41
11/304	9	21.8ha	2.9ha	35
12/304	10	22.0ha	2.7ha	32
13/304	11	20.2ha	2.3ha	28
91/304	12	14.7ha	1.6ha	19
16,92 & 126 of Farm 304	13	35.8ha	6.2ha	69
TOTAL				539

Table 2.4.9.2 Coastal Corridor Nodal Development Potential (Source: TV3 architects and town planners, December 2012)

C. CONSERVATION MANAGEMENT AREA

It is proposed that the “No Go” development areas including the system of ecological corridors be collectively defined as a broader Conservation Area to be managed (on an individual owner or collective basis) in terms of the Cape Nature and CAPE Biodiversity Stewardship programme.

Implications for Bitou Municipality

- The SDF proposal for the Keurbooms River is to be aligned with the Keurbooms Local Area Spatial Plan when it is approved.

2.4.10 The Garden Route Biodiversity Sector Plan 2010

The Garden Route Biodiversity Sector Plan was prepared in 2010 and covers the George, Knysna and Bitou Municipalities.

The reports states that its purpose is to provide a synthesis of prioritised information to planners and land-use managers in order to enable the integration of biodiversity into land-use planning and decision-making. The Biodiversity Sector Plan further identifies areas that are critical for conserving biodiversity and in this way, facilitates the integration of biodiversity into decision-making (i.e. mainstreaming biodiversity).

Figure 2.4.10.1 indicates the Garden Route Critical Biodiversity Areas Map. The CBA Map divides the landscape into five categories: Protected Areas, Critical Biodiversity Areas, Ecological Support Areas,

Other Natural Areas and No Natural Areas Remaining. The first three mentioned categories represent the biodiversity priority areas which should be maintained in a natural to near natural state. The last two mentioned categories are not considered biodiversity priority areas, and can be targeted for sustainable development.

- Protected Areas: terrestrial, aquatic (water) and/or marine areas that are formally protected in terms of the National Environment Management: Protected Areas Act (57 of 2003) and/or Marine Living Resources Act (107 of 1998).
- Critical Biodiversity Areas: incorporate: (i) areas that need to be safeguarded in order to meet national biodiversity thresholds; (ii) areas required to ensure the continued existence and functioning of species and ecosystems, including the delivery of ecosystem services and/or (iii) important locations for biodiversity features or rare species.
- Ecological Support Areas: Supporting zones required to prevent the degradation of Critical Biodiversity Areas and Protected Areas. An ESA may be an ecological process area that connects and therefore sustains Critical Biodiversity Areas or a terrestrial feature.
- Other Natural Areas: areas that are not currently required to meet biodiversity thresholds or support important ecological processes.



Figure 2.4.10.1 Garden Route Critical Biodiversity Areas Map (Source: Cape Nature, 2010)

- No Natural Areas Remaining: areas that have been irreversibly transformed through development (e.g. urban development, plantation, agriculture), contain no natural areas and are not required as Ecological Support Areas.

The criteria that define the CBA categories are shown in Figure 2.4.10.2.

CBA MAP CATEGORY	CRITERIA DEFINING THE CATEGORY
Protected Areas	Formal Protected Areas a) Terrestrial <ul style="list-style-type: none"> • Nature Reserves and National Parks (protected by the National Environment Management: Protected Areas Act 57 of 2003). • Forest Nature Reserves (declared in terms of the National Forest Act 84 of 1998). • Ramsar Sites (protected by the Ramsar Convention). • Mountain Catchment Areas (declared in terms of the Mountain Catchment Area Act 63 of 1970). • World Heritage Sites (declared in terms of the World Heritage Convention Act 49 of 1999). b) Marine <ul style="list-style-type: none"> • Marine Protected Areas (protected by the National Environment Management: Protected Areas Act (57 of 2003) or Marine Living Resources Act (107 of 1998).
	Any terrestrial, freshwater aquatic or marine area required to meet biodiversity pattern and/or process thresholds a) Any area that is required for meeting biodiversity pattern thresholds, namely: <ul style="list-style-type: none"> • Remaining areas of Critically Endangered habitat types. • Special habitats (areas required to protect special species and habitats). • Listed Threatened Ecosystems in terms of the National Biodiversity Act (10 of 2004). • Remaining areas protected by the National Forest Act (84 of 1998). b) Any area that is required for meeting ecological process thresholds including: <ul style="list-style-type: none"> • Ecological or landscape corridors (comprising upland-lowland, river, coastal and sand-movement corridors) c) Hydrological process areas (estuaries, wetlands, important catchment areas).
Critical Biodiversity Areas	d) All 'best design' sites (largest, most intact, least disturbed, connected and/or adjacent) in terms of meeting pattern and process thresholds. 'Best design' refers to an identified network of natural sites that meet pattern and process thresholds in all vegetation types in a spatially efficient and ecologically robust way, and aim to avoid conflict with other activities (e.g. economic activity) where it is possible to achieve biodiversity thresholds elsewhere.
Ecological Support Areas	Supporting zone required to prevent degradation of Critical Biodiversity Areas and Protected Areas. a) Areas required to prevent degradation of Critical Biodiversity Areas and formal Protected Areas. b) Remaining catchment and other process areas (river, fire, etc) that are required to prevent degradation of Critical Biodiversity Areas and formal Protected Areas. c) Areas that are already transformed or degraded ^a , but which are currently or potentially still important for supporting ecological processes e.g. transformed or alien plant infested areas that have transformed or degraded the natural buffer area of a wetland or river. These areas are a focus for rehabilitation, and the intensification of land-use should be avoided.
Other Natural Areas	Natural areas not included in the above categories.
No Natural Areas Remaining	These areas include cultivated areas (intensive agriculture), afforested areas (plantation forestry), farmland (areas that have been farmed in the past), mined areas (currently or in the past), urban areas, infrastructure, dams and areas under coastal development.

Figure 2.4.10.2 Criteria defining CBA categories (Source: Cape Nature, 2010)

The quantitative values (hectares and percentage) of Critical Biodiversity Areas and Ecological Support Areas are represented in Figure 2.4.10.3 below. These values represent the amount of land in existing Protected Areas as well as those areas, namely CBA and ESA, which should be protected through appropriate mechanisms.

The table indicates that approximately 49000ha (50%) of land in the municipality are Protected Areas.

MUNICIPALITY → CATEGORY ON THE CBA MAP ↓	GEORGE		KNYSNA		BITOU	
	ha	%	ha	%	ha	%
Protected Areas	24318.8	22.8	31271.4	29.5	49570.6	50.0
Critical Biodiversity Areas	15383.2	14.4	22701.8	21.4	18876.2	19.1
Ecological Support Areas	23074.9	21.6	11962.8	11.3	11575.6	11.7
Other Natural Areas	311.6	0.29	727.8	0.69	209.1	0.21
No Natural Areas Remaining	43784.8	41.0	39220.6	37.0	18844.1	19.0
TOTAL AREA	106 873.3	100	105 931.7	100	99 104.2	100

Figure 2.4.10.3 Summary of quantitative values for each mapped category (Source: Cape Nature, 2010)

The Desired Management Objective for each mapped category is indicated in Figure 2.4.10.4. Desired Management Objectives includes both the biodiversity pattern and the ecological processes.

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

Figure 2.4.10.4 Desired Management Objective per category (Source: Cape Nature, 2010)

The report states that only land use activities that are compatible with maintaining the Desired Management Objectives are to be encouraged. Figure 2.4.10.5 provides the recommended biodiversity compatible land use guidelines.

The purpose of the guidelines is to encourage development which avoids or has minimal biodiversity impacts, especially in Critical Biodiversity Areas and Ecological Support Areas.

In general, land-uses that result in irreversible loss of natural habitat (such as cultivation, afforestation, urban development and mining) have the highest impact on biodiversity; and are considered biodiversity-incompatible land-use activities.

Land-uses that allow for natural habitat to remain intact (such as appropriately managed grazing by either livestock or game or sustainable harvesting of natural products from the wild), have the lowest impact on biodiversity; and are therefore considered biodiversity-compatible land-use activities.

Implications for Bitou Municipality

- Large areas of the northern, eastern and western areas of the municipality are earmarked as protected areas. This area is also kept within formal conservation areas as it fall within the Garden Route National park, see Figure 3.2.6.1a.

KEY: Biodiversity sector land-use recommendations

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

CBA MAP CATEGORY →	Refer to Table 4.3 (pg 36) for the land-use activity descriptions as per pre-defined Town and Regional planning terms	Formal Protected Areas	Critical Biodiversity Areas	Ecological Support Areas	Other Natural Areas	No Natural Areas Remaining
DESIRED MANAGEMENT OBJECTIVE →		Maintain natural land. Rehabilitate degraded to natural or near natural and manage for no further degradation.	Maintain natural land. Rehabilitate degraded to natural or near natural and manage for no further degradation.	Maintain ecological processes	Sustainable Management within general rural land-use principles	Sustainable Management within general rural land-use principles Favoured areas for development.
PSDF SPATIAL PLANNING CATEGORY →						
LAND-USE ACTIVITY ↓						
		Core 1	Core 1	Core 2	Buffer 1 or 2 at the discretion of Town and Regional Planners	Intensive Agriculture and Settlement
1) CONSERVATION	LAND-USE GOVERNED BY THE NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT (NEMPAA) AND A PROTECTED AREA MANAGEMENT PLAN	Yes	Yes		REFER TO THE PROVINCIAL RURAL LAND-USE PLANNING AND MANAGEMENT GUIDELINES* FOR GUIDANCE IN IDENTIFYING APPROPRIATE LAND-USE ACTIVITIES ALWAYS MANAGE FOR SUSTAINABLE DEVELOPMENT WHEN CONSIDERING LAND and WATER RESOURCE USE APPLICATIONS IN NATURAL AREAS	
2a) AGRICULTURE -HIGH IMPACT: Intensive Agriculture (includes forestry plantation and space extensive agricultural enterprises)		No	No			
2b) AGRICULTURE - LOW IMPACT: Extensive Agriculture		Restricted	Yes			
3) HOLIDAY ACCOMMODATION		Restricted	Restricted			
4a) RURAL HOUSING: Low Density Rural Housing (Consolidation of rural erven for conservation)		Restricted	Restricted			
4b) RURAL HOUSING: On-Farm Workers Settlement		No	Restricted			
5a) TOURIST and RECREATIONAL FACILITIES - LOW IMPACT: Lecture rooms, restrooms, restaurants, gift shops and outdoor recreation		Restricted	Restricted			
5b) TOURIST and RECREATIONAL FACILITIES - HIGH IMPACT: Golf , polo, and housing eco-estates		No	No			
6a) RURAL BUSINESS: Place Bound		Restricted	Restricted			
6b) RURAL BUSINESS: Non Place Bound		No	No			
7) RURAL INDUSTRY		No	No			
8) SMALL HOLDINGS		No	No			
9) COMMUNITY FACILITIES and INSTITUTIONS		No	No			
10) INFRASTRUCTURE INSTALLATIONS		Restricted	Restricted			
11a) SETTLEMENT: Existing Settlements (Urban Expansion)		No	No			
11b) SETTLEMENT: New Settlements		No	No			

IMPORTANT NOTE: These land-use guidelines serve as the primary biodiversity informant to land-use planning and decision-making, and cannot grant or take away existing land-use rights.

Figure 2.4.10.5 Biodiversity compatible land use guidelines matrix (Source: Cape Nature, 2010)

2.4.11 Plettenberg Bay Management Proposal: Plettenberg Bay Vision Document and Operational Plan for the Bay

The Plettenberg Bay Vision Document and Operational Plan for the Bay was prepared in 2009. The study notes its aim is to facilitate and document a common vision and operational plan for the Bay.

The study area is indicated in Figure 2.4.11.1 and extends from the Tsitsikamma Marine Protected Area (MPA) to the Robberg MPA and all the wet marine area from the Mean High Water Mark (MHW) seaward.

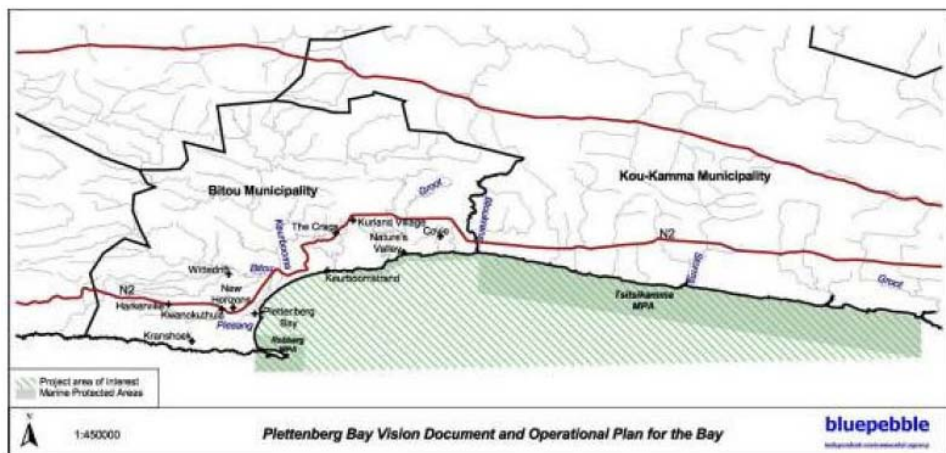


Figure 2.4.11.1 Plettenberg Bay Management Proposal Study Area (Source: Bluepebble Independent Environmental Agency, 2009)

The vision for the Bay is as follows:

"To develop and manage the Bay as the most outstanding eco-tourism destination in Africa with international recognition as a working example of a self-sustaining, multiple use marine and cultural resource management area."

The following key issues are noted (these are as a direct outcome of the public participation processes undertaken):

Conservation issues:

- A lack of broad scientific information, access to information about recreational fishing and bail collections regulations and general awareness of the state of the Bay;
- The geographical area between the two existing MPAs is not managed or monitored efficiently and/or effectively;
- Large scale commercial fishing in the Bay is undesirable as these operations “plunder” the resources and provide little in terms of local benefits;
- The incensed whale watching operations transgress their permitted conditions and approach closer than 50m to whales. There are commercial whale watching operators operating without permits in the Bay;
- There is a low level of compliance with the recreational fishing regulations;
- The state and management of beaches needs to be addressed including the effect of land-based pollution on the Blue Flag Status of the beaches and issues related to sea-level rise;
- The seal population on Robberg is large and consumes a considerable amount of fish;
- Jet-skis are mentioned many times to be undesirable as they negatively affect marine life.

Socio-economic issues:

- Plettenberg Bay runs the risk of losing the very asset upon which it depends, that being the Bay. The Bay is depleted and management needs to be improved as a matter of urgency;
- Economically poorer people struggle to get access to private land into the coast, also finding access into Robberg Private Nature Reserve and recreational fishing permits expensive. Access points are poorly demarcated;
- Economically poorer people are forced (to some degree) towards criminal activities in urban areas because of a lack of access to the coast and opportunity to make a living from the Bay;
- Large scale commercial fishing proves no local benefits;
- A strong desire for and lack of community participation in decision making exists;

- The small boat harbour is disputed as a good or bad idea – it needs to have local benefits and requires careful consideration in terms of an EIA;
- There is already an informal local multi-use zoning system in place in the Bay, yet conflict amongst user's results in a lack of effective co-operation and self-regulation.

The report proposed three possible management scenarios for the Bay:

Scenario 1: Conservation-friendly regime ('high road'):

This scenario proposed the increase of conservation measure and restrictions on the use of the Bay's marine resources. Further restrictions could be implemented in the Robberg MPA and/or the extension of current "no take" or "partial take" areas. This scenario increases the current conservation framework.

Scenario 2: Sustainable Use Regime ('middle road'):

The current Tsitsikamma MPA will retain its size and status as a 'no take' area. The current Robberg MPA will retain its size and status as a 'partial take' area. The currently unmanaged area of the Bay in between these two MPAs will be established as 'sustainable use' transitional areas with specific exclusion of large-scaled commercial fishing. Recreational fishing, whale watching, recreational boating, jet-skiing, diving, swimming etc, will be allowed in this area provided they are conducted in a sustainable manner.

Scenario 3: Fisher-friendly regime ('low road'):

This scenario proposes the decrease of conservation measures and restrictions in the use of the Bay's marine resources. This could include the relaxation of restrictions in the Robberg and Tsitsikamma MPAs. This scenario decreases the conservation effort.

The report recommended the "middle of the road" management model, Scenario 2 be implemented and that the existing management within the Robberg and Tsitsikamma MPAs be retained.

The report further proposed that application be made to declare the Bay and the adjacent area a World Heritage Site in terms of the World heritage Convention Act (Act No. 49 and 1999).

Implications for Bitou Municipality

- The proposal to retain the existing management within the Robberg and Tsitsikamma MPAs will ensure that the ongoing surveillance and monitoring of the marine resources in the area.
- If the Bay were to be declared a World Heritage Site it will have the highest possible status (in terms of recognition) locally, nationally and internationally.

2.4.12 Sea Level Rise and Flood Risk Assessment for a Selected Disaster Prone Area Along the Western Cape Coast, May 2010

Umvoto Africa (Pty) Ltd was appointed by the Western Cape Department of Environmental Affairs and Development Planning (DEADP) to prepare and undertake an assessment on the sea level rise and flood risks for a selected disaster prone area along the Western Cape coastline.

The assessment was completed in three phases: Phase 1: Inception and data acquisition, Phase 2 GIS Model Development and Phase 3: Risk Assessment.

The study area for the assessment stretches from the Breede River mouth at Witsand to Nature's Valley east of Plettenberg Bay. The municipalities covered are: Hessequa, Mossel Bay, George, Knysna and Bitou.

Below is a brief summary of each phase of this assessment.

Phase 1: Data Acquisition

This phase entailed the collection of base data (GIS, literature, national, provincial and local coastal legislation). This chapter provides a brief overview of the global issue of climate change and sea level rise and its local relevance.

Phase 2: GIS model development

This phase entails the development of a sea level rise and flood inundation model based on specific sea level rise scenarios based on available literature.

The criteria used for the City of Cape Town sea level rise model (Brundrit 2008 and Fairhurst, 2008) were used in modelling for the study area along the Western Cape coastline. The criteria used is as follows:

- 2.5 meters above mean sea level (mamsl) swash contour line for sheltered or rocky coastlines;
- 4.5 mamsl swash contour line for exposed or sandy coastlines; and
- 6.5 mamsl swash contour line for headland and pocket bay beaches and sandy inlets.

The modelling undertaken was done for a 2m rise predicted for the year 2100. The modelling results affecting the Bitou Municipality are as follows:

Areas most vulnerable to coastal, estuarine and fluvial erosion and inundation

Area	Coastline, Estuarine and Fluvial Erosion and Inundation
Plettenberg Bay	Despite a 6.5 mamsl swash run-up being likely due to the Robberg Peninsula focusing wave energy, Plettenberg Bay southwards of Beacon Island remains unaffected due to the current protection offered by a thin portion of undeveloped foredune (~ 10-20 m high, ~ 40-60 m wide). In contrast, the beach area between Beacon Island and Lookout rocks will be highly eroded during a large storm event, with coastal developments also being vulnerable to damage due to development on and the removal of the foredune. The Piesang River estuary and floodplain are vulnerable to flooding and inundation, especially the caravan park, adjacent farmlands and part of the golf course along the river.
Keurbooms-Bitou Estuary	The Tides, Gansevelei, Bitou, Keurbooms and Diep River floodplains, suburbs of Anath and Matjiesfontein, and Stanley Island are all vulnerable to flooding and inundation below 2.5 mamsl (which has been breached in the past). Large swells and an associated 4.5-6.5 mamsl swash run-up may erode the entire estuary mouth bar and Lookout Beach, which has occurred in the past. A relatively undeveloped 10-20 m high foredune northeastwards of the estuary is present, although coastal development at Keurboomsstrand has resulted in some areas being vulnerable to large swash run-ups and dune erosion and undercutting.
Keurboomsstrand to Nature's Valley	A 2.5 mamsl swash run-up is expected, due to the shoreline being dominated by steep rocky outcrops. Estuary mouth sand bar erosion may occur at the Matjies and Sout Estuaries due to pocket beach related higher swash run-ups.
Nature's Valley	The coastal development front of Nature's Valley is currently protected by a thin portion of undeveloped foredune (~ 5-10 m high and ~ 70 m wide), although a ~ 150 m wide section of the town adjacent to the Groot Estuary is vulnerable to inundation from estuary flooding. A higher pocket beach enhanced swash run-up of 6.5 mamsl will erode the estuary mouth sand bars and beaches in the area.

Table 2.4.12.1 Areas in the Bitou Municipality vulnerable to coastal, estuarine and fluvial erosion and inundation (Umvoto Africa, 2010)



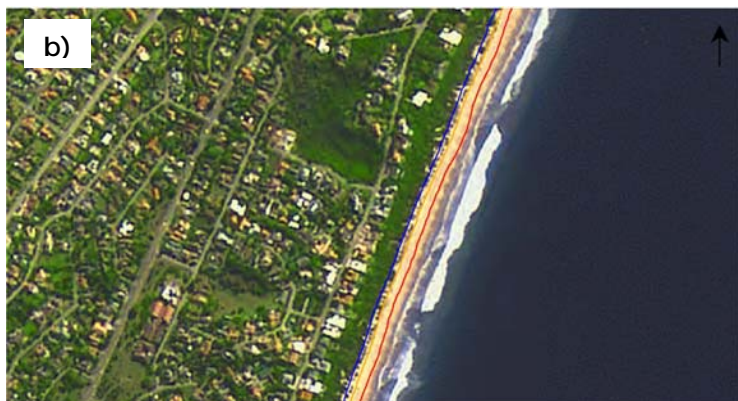


Figure 2.4.12.1 2.5 maml (red), 4.5 maml (orange) and 6.5 maml (blue) swash and flood contour lines for Piesang and Keurbooms-Bitou Estuaries (from SW to NE in a)). b) shows the current protective effect of undeveloped portions of the vegetated foredune at Plettenberg Bay. (Umvoto Africa, 2010)

Plettenberg Bay, Beacon Island, Lookout Rocks, Keurbooms and Bloubankies	Landward migration of the shoreline by ~ 5-20 m is possible, dependant on the dune gradient. This may affect coastal developments where the foredune has already been removed or degraded e.g. between Beacon Island and Lookout Rocks.
Nature's Valley	Landward migration of the shoreline by ~ 20-30 m likely, causing dune migration and the possible movement of dunes into the first line of coastal developments at Nature's Valley.

Table 2.4.12.2 Shoreline evolution along sandy coastlines within the Eden DM for a 2 m rise by 2100 (Umvoto Africa, 2010)



Figure 2.4.12.2 Shoreline and tidal reach evolution modelling for Nature's Valley. 2008 shoreline and estuary/river banks represented by red and green lines respectively. 2100 shoreline and estuary/river banks represented by blue and red squares respectively. (Umvoto Africa, 2010)

Piesang and Keurbooms-Bitou	Lateral tidal reach at the Piesang Estuary may increase by ~ 50 m in 2100, affecting the caravan park and golf course. Future lateral tidal reach at the Keurbooms-Bitou Estuary varies between ~ 30-100 m, with similar areas identified by the swash run-up modelling being affected.
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Table 2.4.12.3 Tidal reach evolution for estuaries within the Eden DM based for a 2 m rise by 2100 (Umvoto Africa, 2010)

Phase 3: Risk Assessment

The purpose of this phase is to undertake a coastal hazard risk assessment. To undertake the assessment the Eden District coastline was subdivided into 36 Coastal Zone Management Units (CZMU's). The CZMU's were assessed in terms of the following three coastal hazard types:

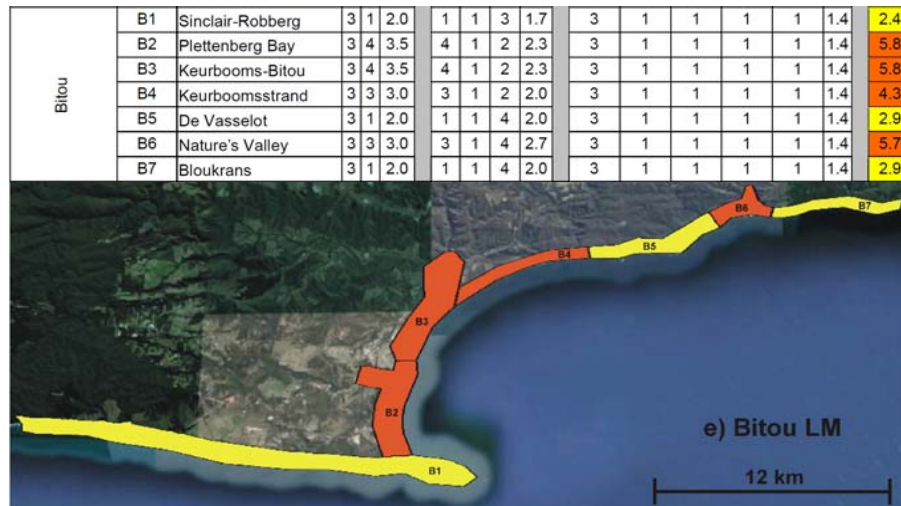
1. Sea level rise coastal erosion and inundation;
2. Groundwater contamination from saltwater intrusion (caused by sea level rise); and
3. Extreme coastal events (storm surges, estuarine flooding and tsunamis).

Bitou Municipality	
CZMU No.	Name
B1	Sinclair-Robberg
B2	Plettenberg Bay
B3	Keurbooms-Bitou
B4	Keurboomsstrand
B5	De Vasselot
B6	Nature's Valley
B7	Bloukrans

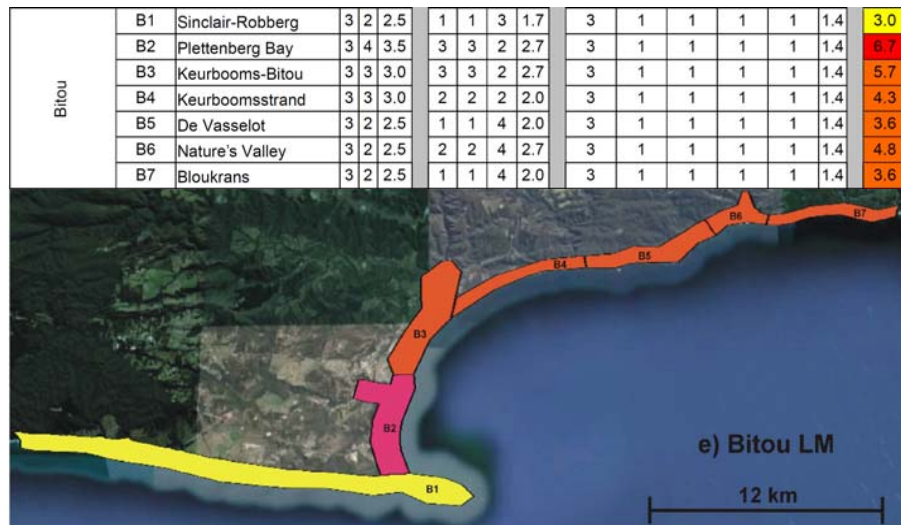
Table 2.4.12.4 Coastal Zone Management Units within the Bitou Municipality (Umvoto Africa, 2010)

The assessment delivered the following results for the Bitou Municipal Area and the associated CZMU's.

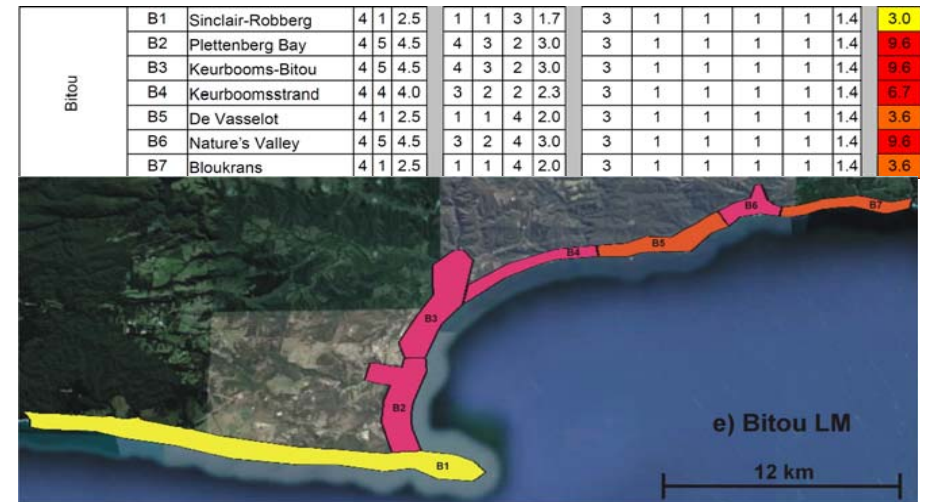
- Risk assessment for sea level rise induced coastal erosion and inundation



- Risk assessment for groundwater contamination



- Risk assessment with respect to extreme events



Implications for Bitou Municipality

- Each local municipality and Eden District Municipality should develop a coastal zone management strategy.
- District and local SDF's and IDP's should include the requirements of the Integrated Coastal Management Act (ICM).
- District and local municipalities should develop coastal edge development policies and delineate coastal setback lines.
- More local detailed studies should be funded with regards to potential coastal hazards.
- Conduct updates to the modelling as per this report every 5 years as new information and studies become available.
- The updated modelling should focus on the vulnerable areas identified. Ideally each sandy coastline and estuary should have its own future coastal evolution model developed.
- Develop an onshore and offshore Digital Elevation Model (DEM) for the Eden District coastline.
- Conduct beach profiling and detailed geophysical offshore bathymetry surveys at selected beaches.

Implications for Bitou Municipality

- Available photographic and remote sensing imagery should be centrally stored for simple access for future coastal modelling.
- Prevent any development within 100m of the high water mark and enforce the coastal buffer zone as defined in the National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008).
- Monitor and possibly prevent development below the 6.5 mamsl swash contour and 4.5m estuary/river flood contour. Undeveloped portions of foredune backed by development should similarly be protected from development.
- Cognisance should be taken of future landward dune migration and a further dune migration buffer zone should be put in place behind the coastal buffer zone.
- Implement a coastal education drive to educate coastal residents.
- A "no-regrets approach" to the risks involved in sea-level rise should be employed
- Develop a Coastal Management Strategy (CZMS) for the Bitou Municipality.
- Develop a sustainable coastal management plan (SCMP) for each CZMU which includes adaptation studies.
- Research and develop alternative housing technologies as was done in Germany, the Netherlands and America in a response to the risks of rising sea levels.

2.5 ABUTTING SPATIAL DEVELOPMENT FRAMEWORKS

2.5.1 Knysna SDF, 2006

The Knysna Municipality Spatial Development Framework was completed in 2006, see Figure 2.5.1.1 (Knysna). The document made strategic recommendations on the growth of Knysna and its hinterland. Knysna town and Sedgefield are of central importance in terms of planning and urban management since they are the main growth centres of the town.

The Knysna Municipality Open Space System (KMOSS) integrated Knysna's natural systems, these includes the mountain, rivers, forests (indigenous), fynbos and coastal dunes. The role of the KMOSS is to:

- 1) protect and manage the existing natural assets,
- 2) enhance its ecological functioning,
- 3) enhance its economic and recreational potential; and
- 4) reflect an connected web of green spaces.

Bitou Municipality is bordered by Knysna Municipality to the west. The SDF has proposed the eastern portion of the SDF be designated as either Core Conservation or Secondary Conservation, see Figure 2.5.1.2.

The Core Conservation area consists of categories. The first is Existing nature reserves and national parks that have their own set of management guidelines in place. The second category consists of proposed nature reserves which include nature reserves proposed by the municipality, indigenous forests and areas vegetated by fynbos.

The SDF proposed that no development (urban or agricultural) should be permitted within the Core Conservation area. Only activities that are non-consumptive may be permitted.

Secondary Conservation Areas are to act as buffers for conservation areas, in order to enhance their ecological functioning and also maintain their environmental integrity. The SDF proposed that Secondary Conservation Areas also include existing protected areas, proposed protected areas, i.e. sensitive areas.

The SDF noted the following Land-Use Management Guidelines for Secondary Conservation Areas:

- 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.
- land use is restricted to low visual and environmental impact dwelling house (and normally associated outbuildings), 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 in environmentally sensitive areas.
- Size, finishes and colours of the structures must blend in with the surroundings.

Knysna Basin Spatial Development Framework

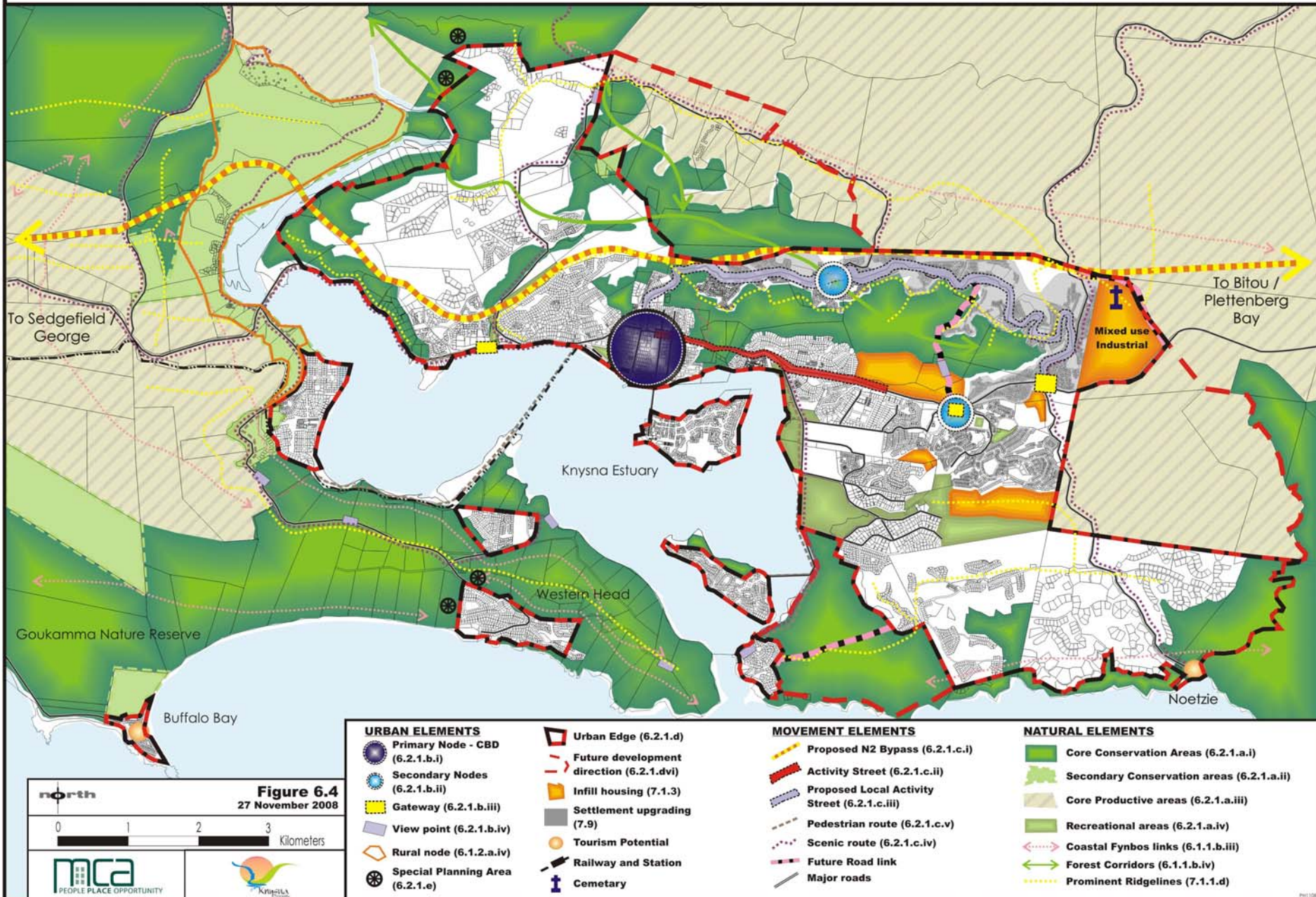


Figure 2.5.1.1 Knysna Basin SDF (source: MCA, 2008)

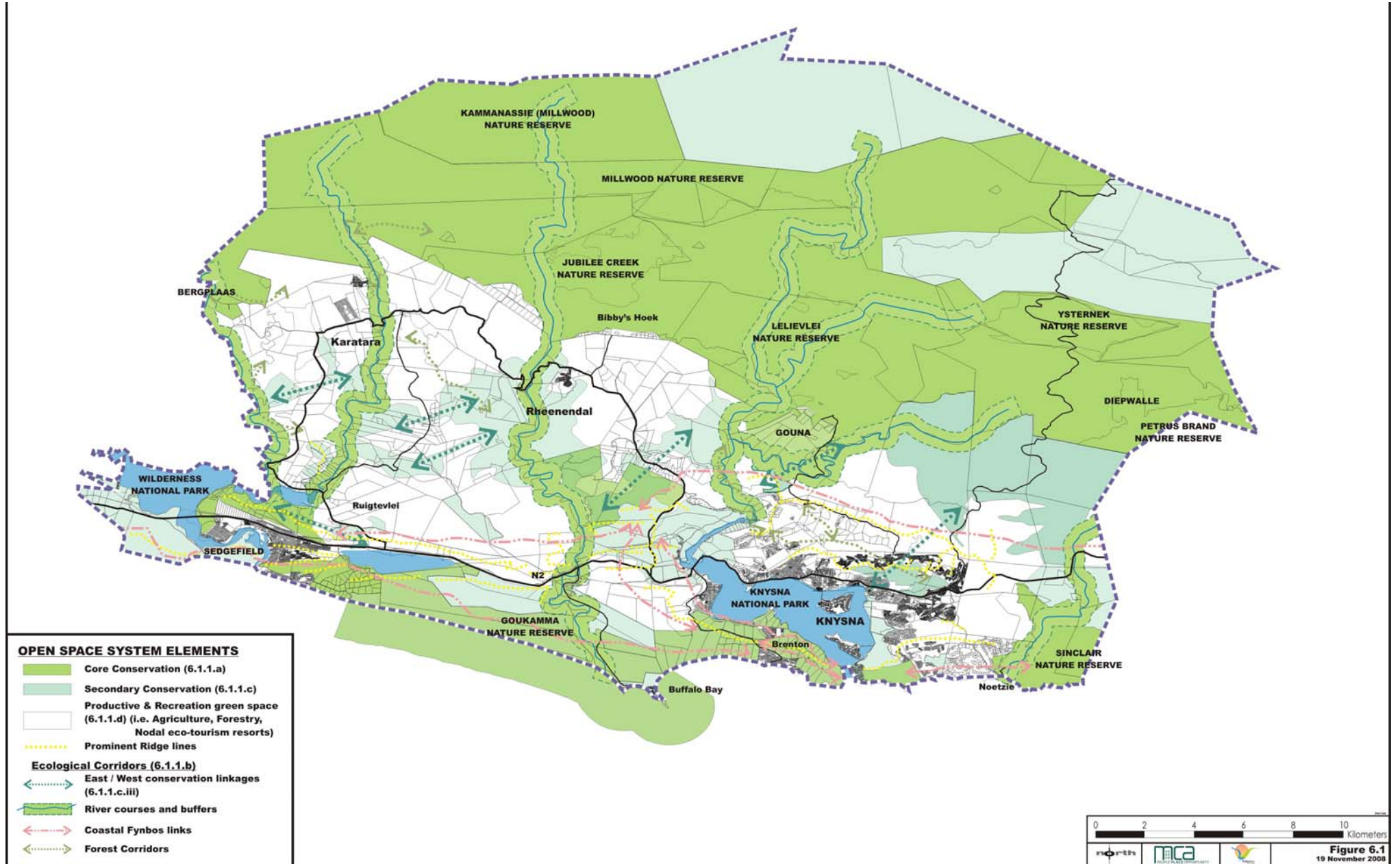


Figure 2.5.1.2 Knysna SDF Open Space System (source: MCA, 2008)

2.5.2 Cacadu District Spatial Development Framework, Eastern Cape

The Cacadu District, Eastern Cape, shares the northern and eastern border with Bitou. The Cacadu District SDF was prepared in 2009.

Kou-Kamma Local Municipality is located along the south western region of the District that borders Bitou.

The District SDF proposals are shown on Figure 2.5.2.1.

The SDF proposals indicate that the land bordering Bitou are earmarked as Critical Biodiversity Protected Areas (CBAs) and Current and Future Development Area, i.e. the Kou-Gamma Explicit Cumulative and Tourism Potential.

Critical biodiversity areas (CBAs), are terrestrial and aquatic features that are critical for conserving biodiversity and maintaining ecosystem functions. They are used to guide protected area selection and should remain in their natural state as far as possible.

Current and Future Development Areas (CFDAs) are identified based on:

- The competitive advantage of an area in terms of agriculture and tourism - agriculture and tourism are the primary economic drivers of the District.
- The accumulative need of infrastructural development to harness the development potential.
- Projected population growth rates.
- Infrastructural needs.
- Building the economy and alleviating poverty through :
 - The development and maintenance of infrastructure.
 - Strengthening community structures.
 - Co-ordinating multi-sectoral activities.

Kou-Kamma has been identified as a CFDA because of its cumulative tourism and agricultural potential in addition to catering for developmental / population growth.

2.6 ALIGNMENTS

2.6.1 Vertical Alignment

The vertical alignments show the relationship and alignment between the proposals and policies of the Bitou SDF; the NSDP; WCPSDF and PGDS; and the Eden District SDF.

2.6.2 Horizontal Alignment

The horizontal alignment shows graphically, on Figure 2.6.1.1, the relationship between the Bitou SDF and the abutting municipal SDF's.

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

- all urban settlements should be restructured according to the principles of walking distance;
- protect existing intensive agriculture from demands to convert it to urban development, and biodiversity conservation including ecological river corridors beyond that proposed in this SDF.

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

Implications for Bitou Municipality

- The vertical and horizontal alignment between the Bitou SDF and other planning policies that affect and are affected by the SDF is illustrated on the previous page and Figure 2.6.1.
- Conservation areas in the Bitou Municipality need to be aligned with those areas in the surrounding municipal areas to ensure continuation of conservation across municipal boundaries and to ensure their optimal functionality. The co-ordination of proper management guidelines need to be a priority amongst neighbouring municipalities in terms of conservation areas. Linking with the Petrus Brana Nature Reserve and Sinclair Nature Reserve in Knysna and the Critical Biodiversity Protected Areas in Kou-Kamma Municipality will be important.
- The enhancement of tourism and agricultural resources across municipal boundaries should be properly managed. Specific attention is required in linking the Bitou Municipality with Kou-Kamma Local Municipality along the R62 towards Joubertina and south of the N2 along the coast in this regard.

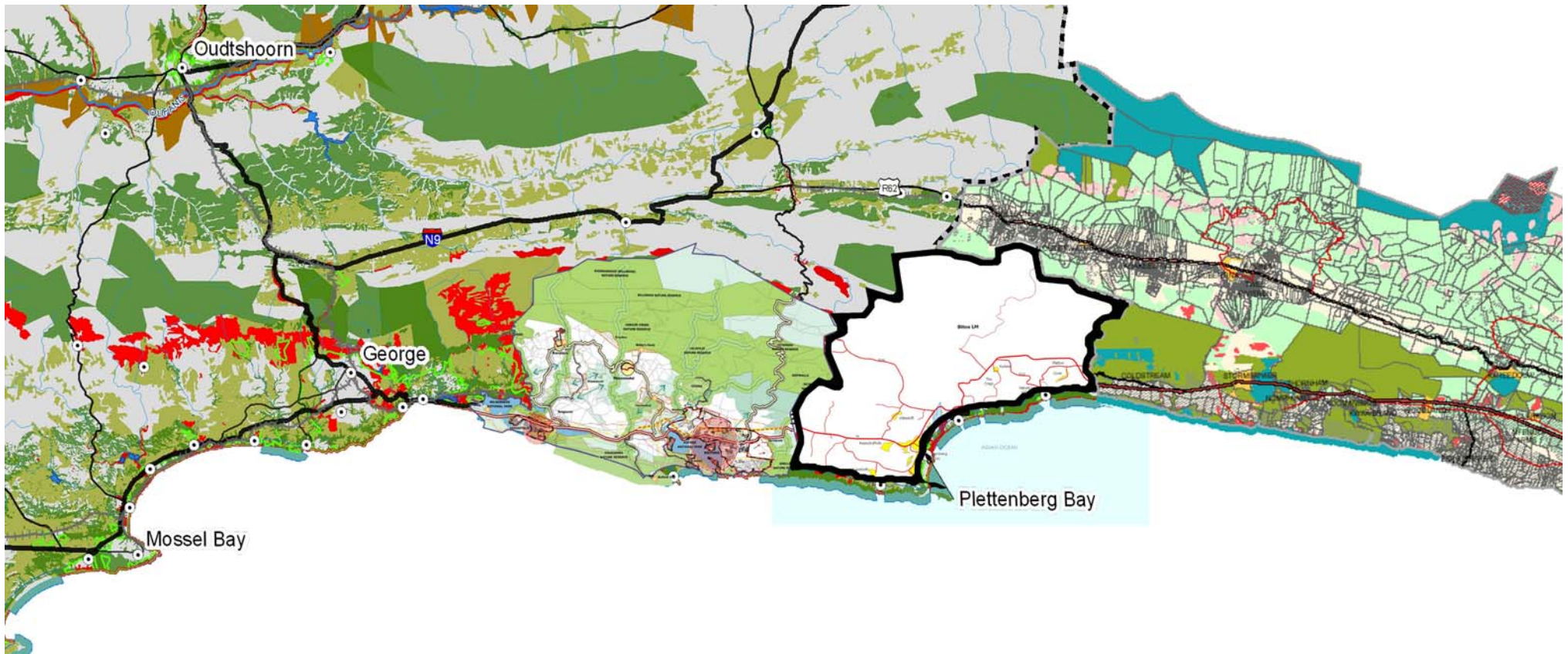


Figure 2.6.1.1 Alignment of Bitou Conceptual SDF with its surrounding Municipal SDFs

3. THE CURRENT STATE OF THE MUNICIPALITY

Section 3 is set out according to the principles of a Strategic Environmental Assessment (SEA) as set out in the National Environmental Management Act, 1998 (Act 107 of 1998) and the Municipal Planning and Performance Management Regulations of 2001 promulgated in terms of the Municipal Systems Act 2000 (Act 32 of 2000).

3.1 A FRAMEWORK OF INTERRELATED SYSTEMS

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

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

Figure 3.1.1 illustrates this relationship by showing how the 26 layers of the matrix of the Municipality's analysis are all interrelated within the spatial extent of the Municipality, even though they may be separated for the purposes of research, implementation and management. At the macro level the layers can be grouped into three categories.

Bio-physical

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

Socio-economic

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

Built

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

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

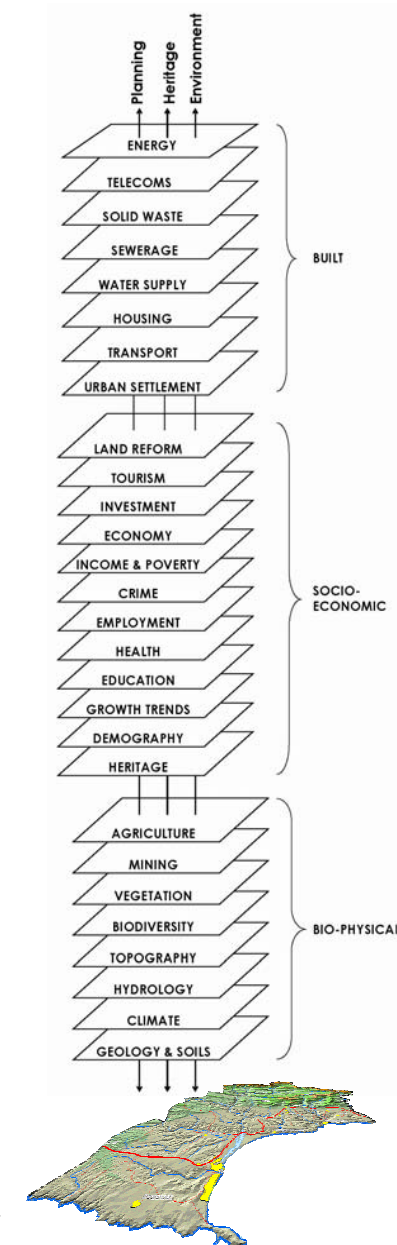


Figure 3.1.1 A Framework of Interrelated Systems

3.2 LAND

3.2.1 Geology

Figure 3.2.1 shows the geological composition of the municipality.

The majority of the municipal area consists of Arenite, a sedimentary rock with sand grains of a medium nature. It is usually formed by erosion of other rocks or by sand deposits. In Bitou these formations represent the shallowest soil. The majority of Arenite is mountainous and steep sloping, with slopes of more than 1:4, especially in the north of Bitou.

Sedimentary deposits and rock types are located north of Plettenberg Bay surrounding the Keurbooms River mouth and in the south western most parts of the municipal area east of Kranshoek. Sediment consists of deposits of minerals and organic materials which are transported through wind, water mass movement or glaciers. These soil types are well suited for arable agriculture and are very deep, greater than 750mm.

Conglomerate rock can be found in the vicinity of Wittedrift, north of Plettenberg Bay and near Kranshoek. Conglomerate is a type of sedimentary rock but consists of round fragments (larger than sand) which are cemented together. Conglomerate rock has very little use commercially. It is commonly known as “river rocks” or pebbles.

A long section of shale runs in an east west direction through the central parts of the municipality. A few smaller sections are also located in the north west, the east (near Covie) and in the west. Shale is formed through the composition of clay minerals and quartz grains and usually has a typically grey colour. Shale usually forms in very slow moving waters and are most commonly found in lakes, lagoons, river deltas and floodplains. Forests have developed in the sections of shale formations.

3.2.2 Soils

Figure 3.2.2a indicates the percentage of clay found throughout the various soil types. A higher concentration of clay (15% - 35%) can be found around Kranshoek with the remainder of the municipality containing less than 15% clay.

Figure 3.2.2b shows the variation in soil depths. The northern parts of the municipality have the least depth (less than 450mm). A section of medium depth soil (450mm to 750mm) runs along the central parts in an east west direction in the vicinity of the Keurbooms River. The deepest soil can be found west of Kranshoek, around Wittedrift and along the coast between Plettenberg Bay and Keurboomstrand.

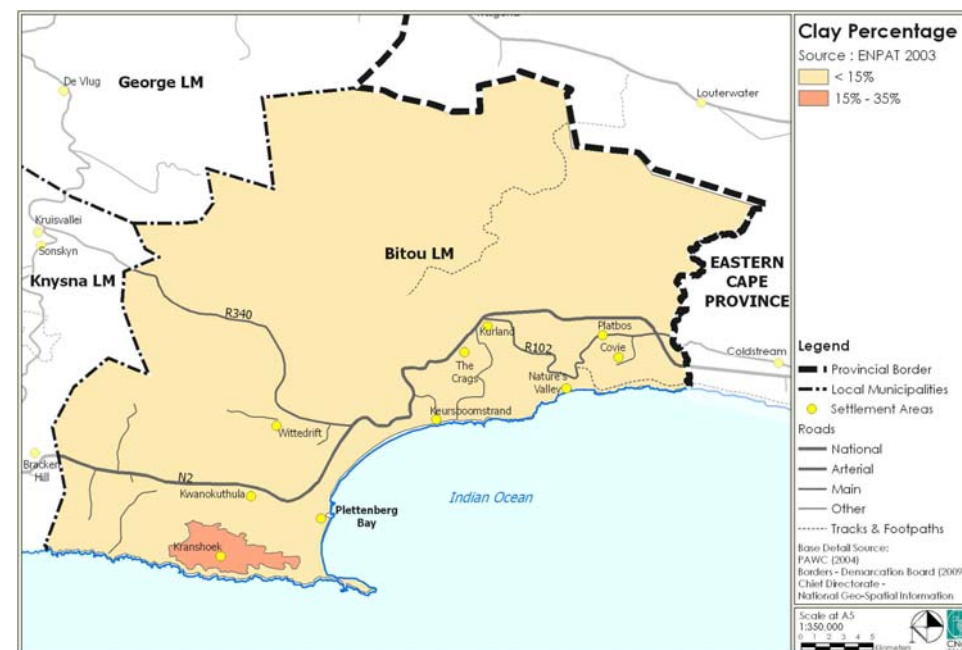
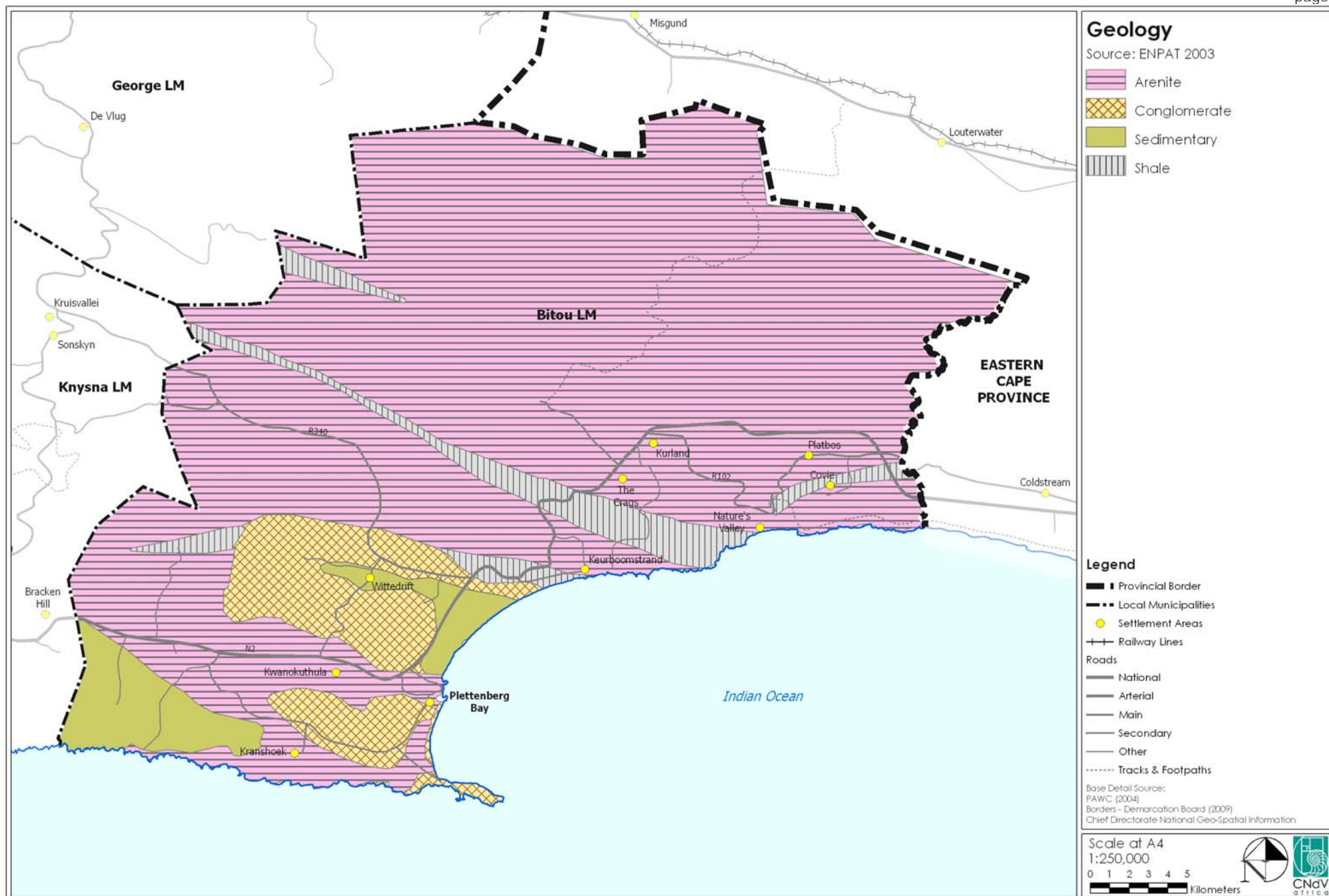


Figure 3.2.2a Clay depths

Implications for Bitou Municipality

- Areas containing sedimentary rock and deep soils are suitable locations for arable agriculture. Areas around Wittedrift and west of Kranshoek are important in this regard.
- The high clay content in the soils around Kranshoek could be problematic for establishing urban development.



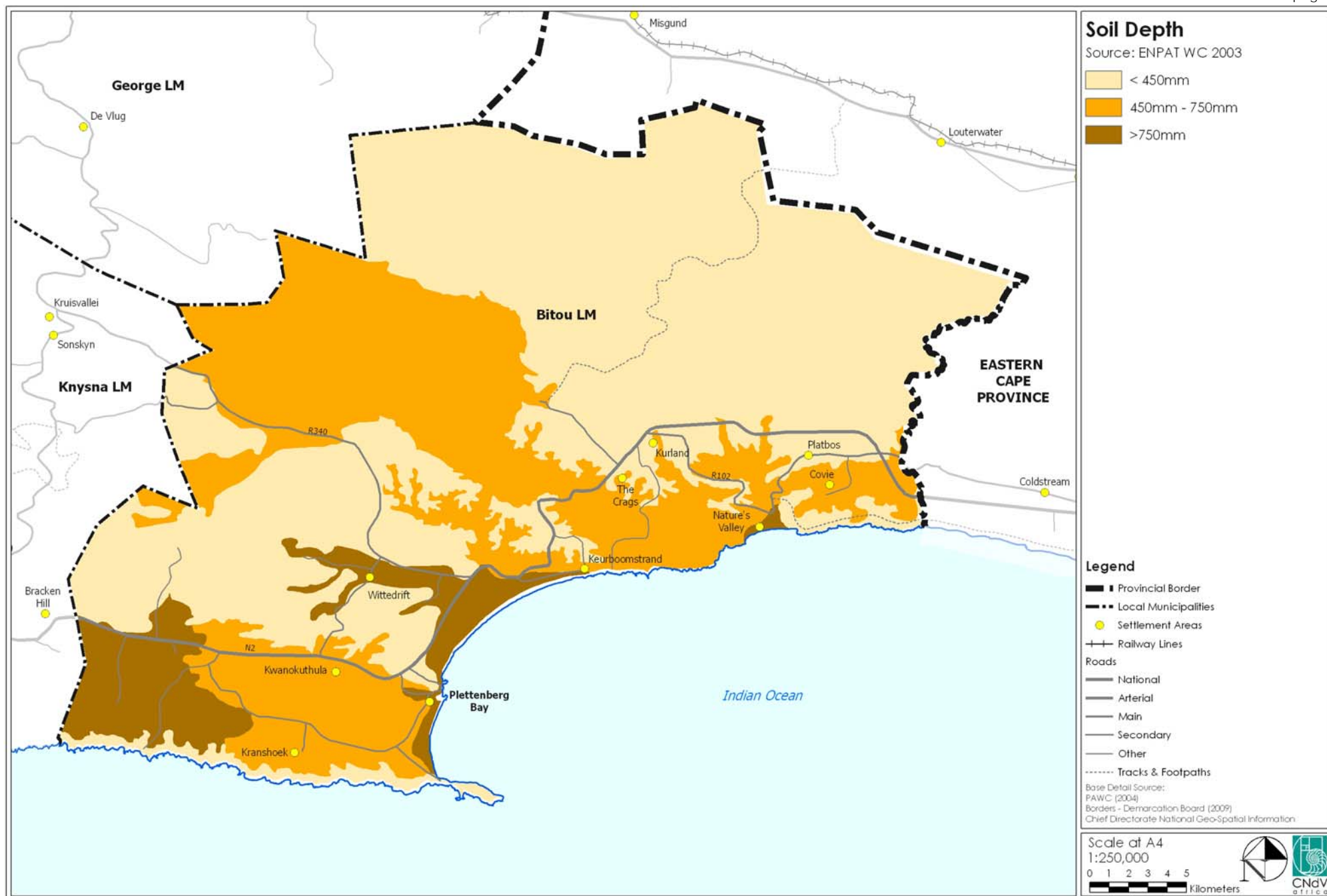


Figure 3.2.2b Soil Depth

3.2.3 Climate

Weather data is currently collected from one weather station in the Bitou Municipality which is located in Plettenberg Bay.

3.2.3.1 Temperature

The average monthly temperatures for Plettenberg Bay are indicated on Figure 3.2.3.1a. This graph indicates that Plettenberg Bay experiences its highest temperatures during the months of December to March ($\pm 22^{\circ}\text{C}$ to $\pm 24^{\circ}\text{C}$) and its lowest temperatures from June to August ($\pm 10^{\circ}\text{C}$ to $\pm 11^{\circ}\text{C}$).

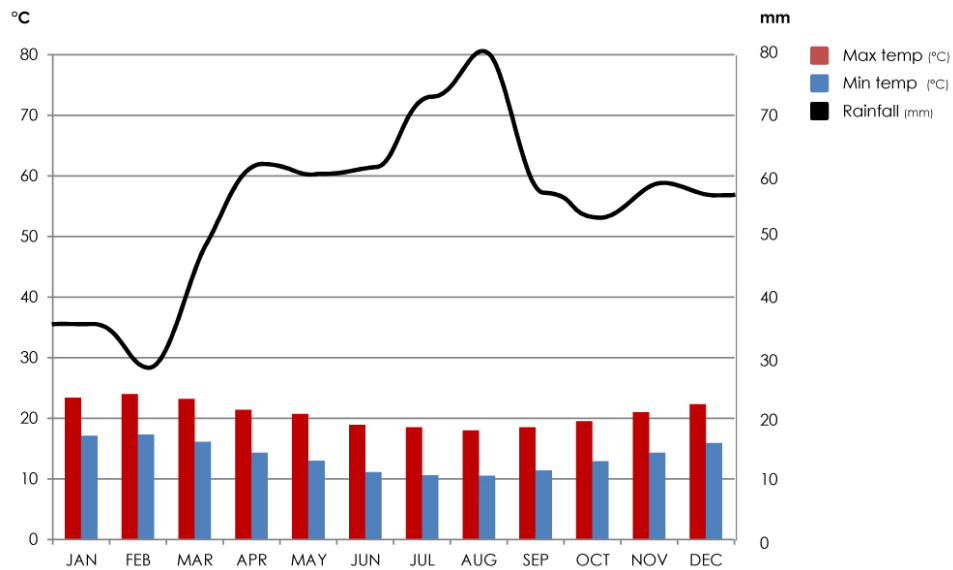


Figure 3.2.3.1a Average Annual Temperature and Precipitation: Plettenberg Bay 2001-2010
(source: Weather SA, 2011)

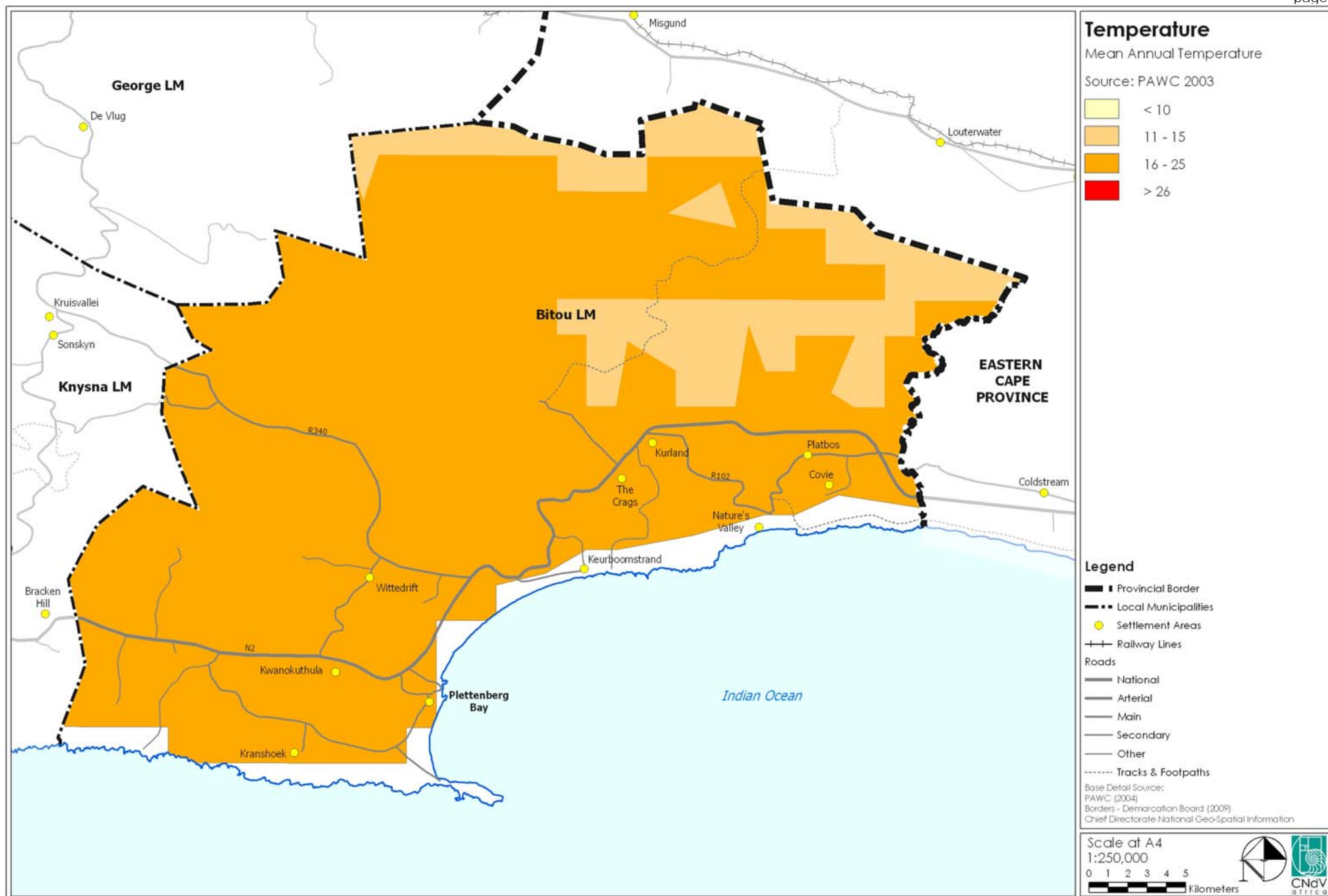


Figure 3.2.3.1b Climate: Temperature

3.2.3.2 Rainfall

The highest rainfall month in Plettenberg Bay is August with an average rainfall for this month of 80mm being recorded, refer to Figure 3.2.3.1a. The lowest rainfall month is February with an average rainfall of 28mm.

From 2001 until 2010 the mean annual rainfall for Plettenberg Bay was recorded at 674mm per year.

Figure 3.2.3.2 maps the mean annual rainfall. The higher rainfall areas receive about 1000mm – 2000mm annually and are located in the northern, coastal and southern regions of the municipal area. The central parts receive slightly less rainfall, 500mm – 1000mm. The higher rainfall areas generally coincide with the higher lying areas in the north.

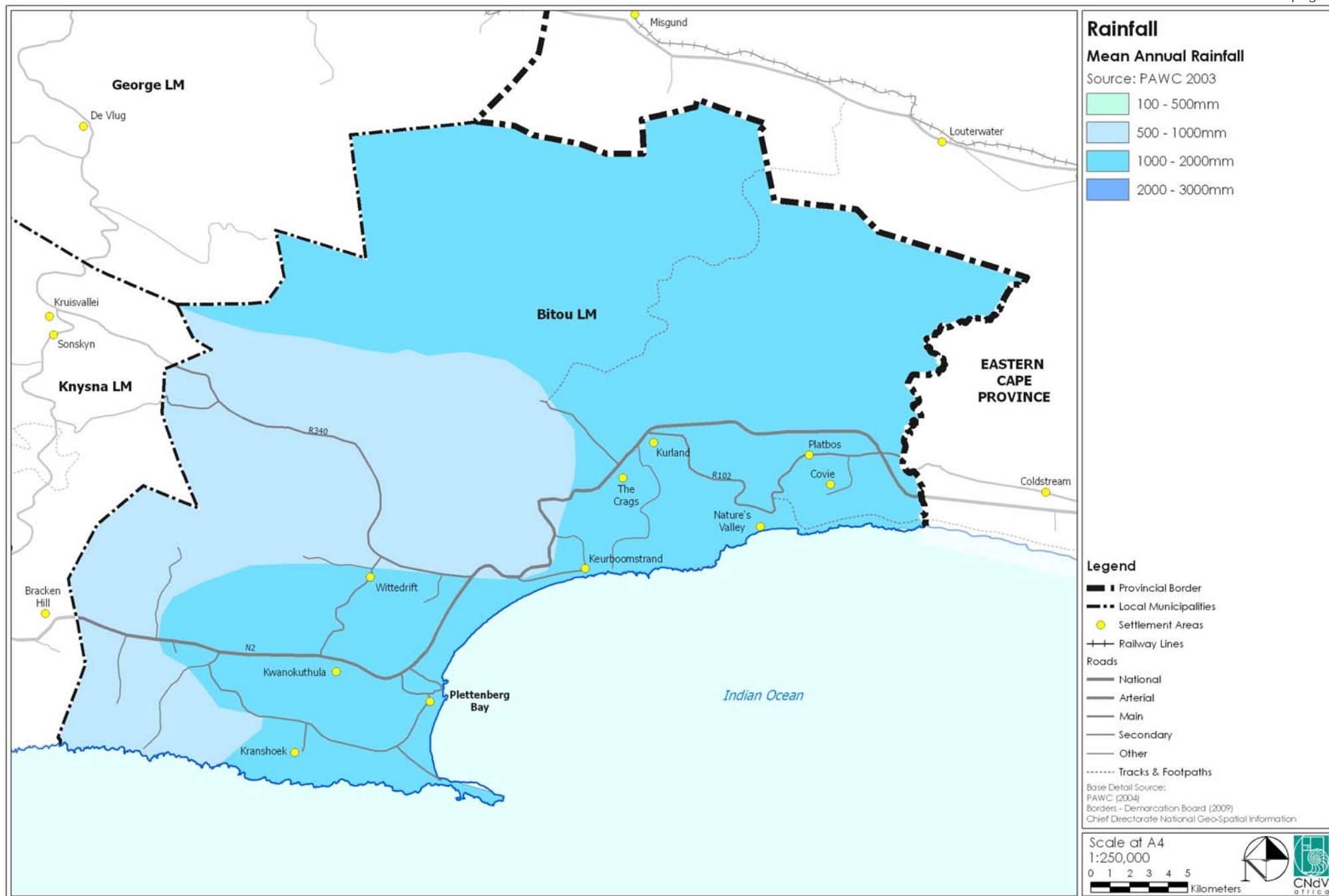


Figure 3.2.3.2 Climate: Rainfall

3.2.3.3 Wind

Wind speeds and directions are available for the George and Plettenberg Bay weather stations. Figure 3.2.3.3a shows that the predominant wind direction in Plettenberg Bay is westerly. This is followed by west-south-westerly, west-north-westerly and easterly directions.

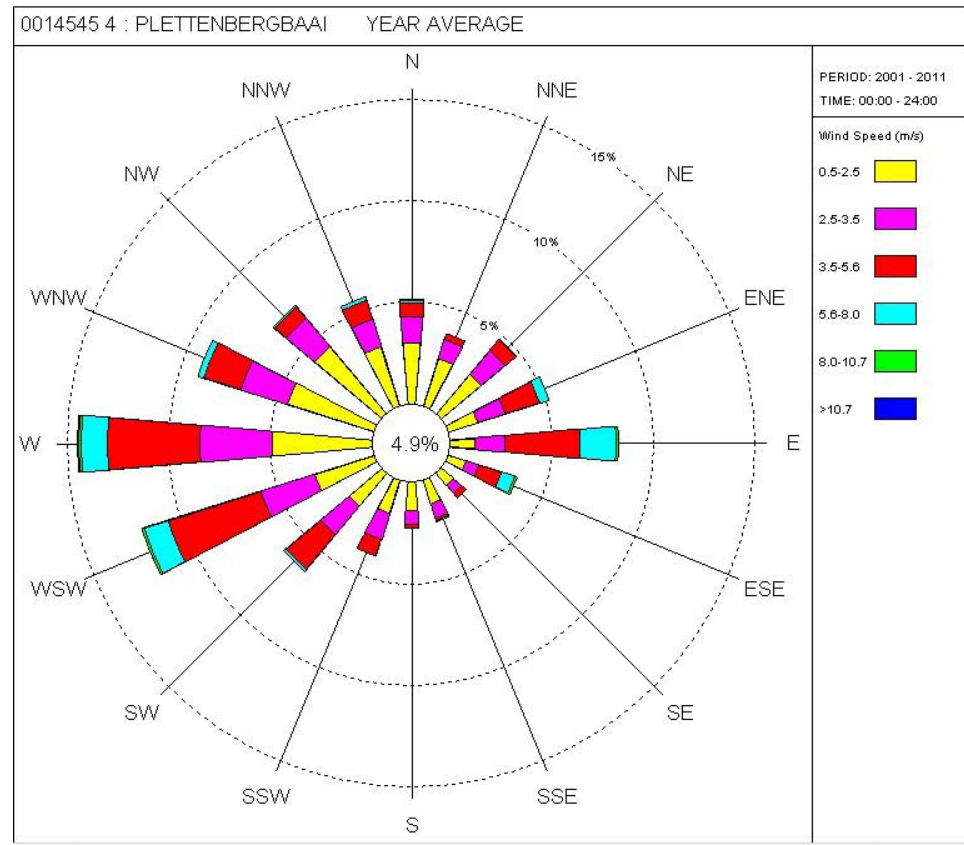


Figure 3.2.3.3a Average Annual Wind Speed and Direction: Plettenberg Bay 2010
(source: SA Weather Services)

During summer (January) the predominant wind speed in Plettenberg Bay is in an easterly direction and during winter (July) in a westerly direction.

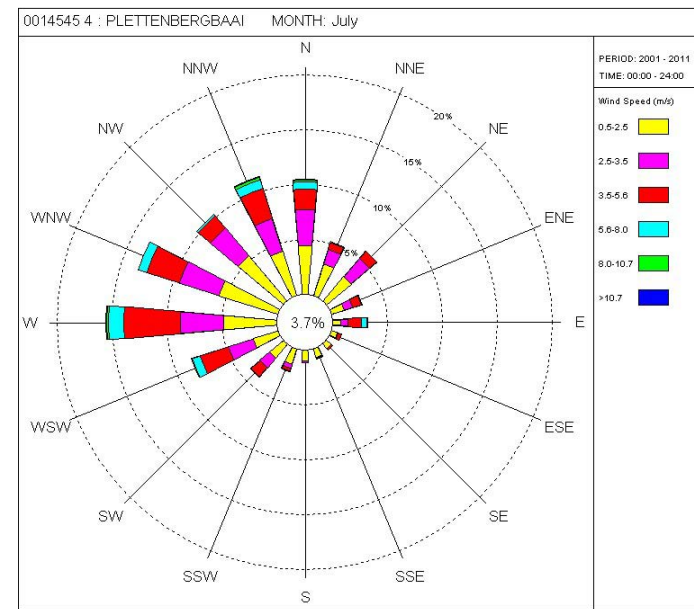
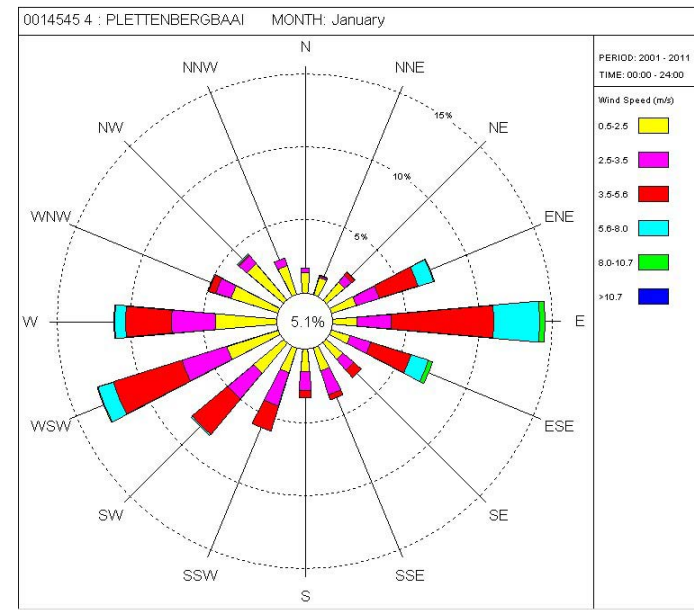


Figure 3.2.3.3b Average Summer and Winter Wind Speed and Direction: Plettenberg Bay 2010
(source: SA Weather Services)

3.2.3.4 Climate change

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

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

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

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

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

The goals and objectives of this strategy, with specific reference to energy is to reduce the Provincial carbon footprint by means of air quality management; household fuel replacement; cleaner fuels for transport;

energy efficiency and renewable energy – maximizing benefits through stimulating and subsidizing innovation in clean and renewable technologies.

Four vulnerable systems were identified:

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

3.2.3.4.1 Solar Radiation Map and Wind Atlas

Figure 3.2.3.4a below indicates the Annual Solar Radiation for South Africa. The Bitou Municipality falls in an area with relatively low radiation levels, estimated at between 1600 – 1700kWh/m² (Eskom, 2012).

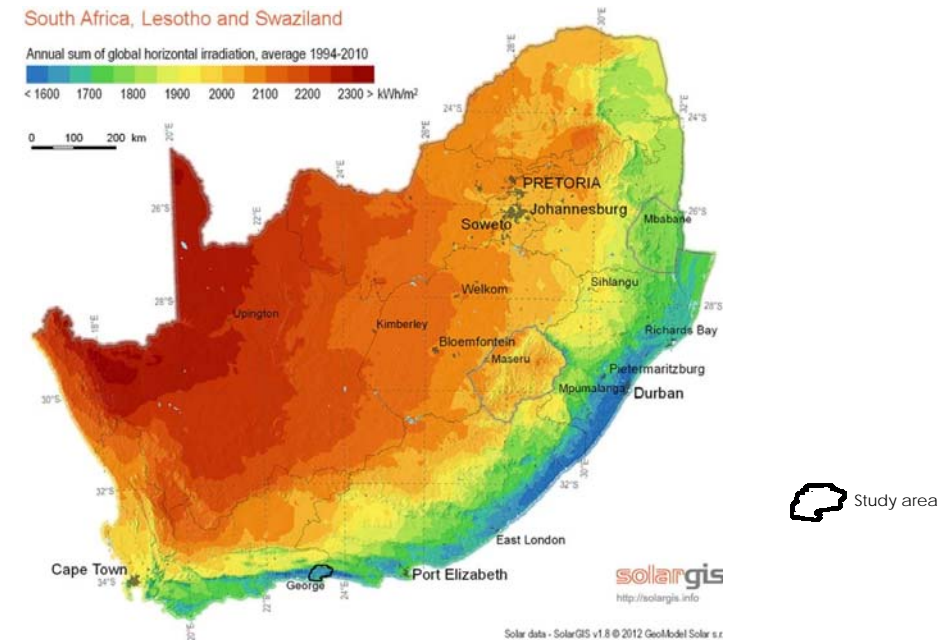


Figure 3.2.3.4a Solar Radiation Map for South Africa (Solargis, 2012)

Figure 3.2.3.4b indicates the estimated annual wind speeds for the South Africa. Bitou Municipality is estimated to have a mean annual wind speed of 4 – 5m/s.

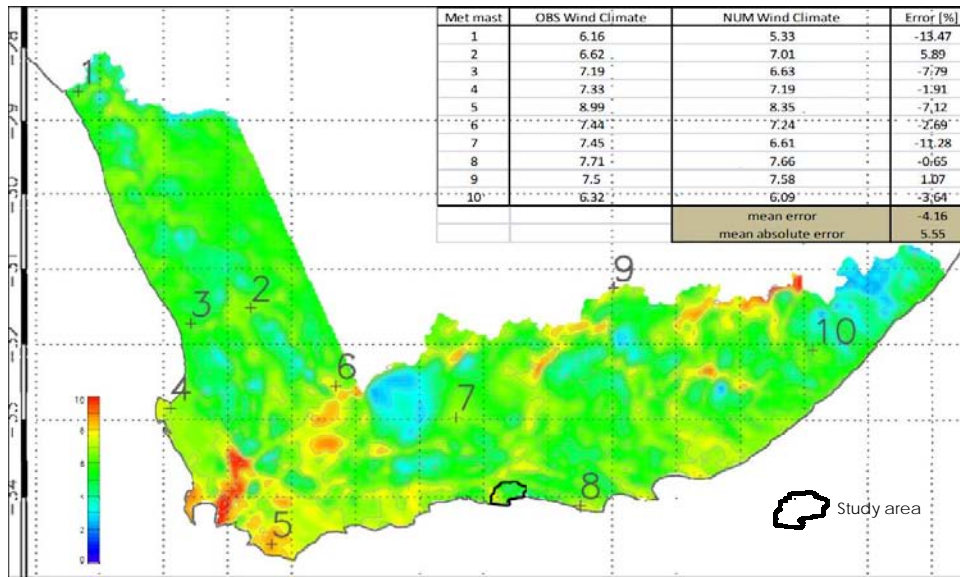


Figure 3.2.3.4b Wind Atlas for South Africa (source Wind Atlas for South Africa, 2012)

3.2.3.4.2 Wind and Solar Farm Siting Principles

CNdV africa prepared a Strategic Initiative to introduce Commercial Land based Wind Energy Development to the Western Cape in May 2006. The purpose of this study was to develop a regional methodology for wind energy site selection. The study provided a number of site factors for locating wind energy projects. Even though no specific reference was made to solar farm siting some of the factors could be applied to solar farms.

The report highlighted the following site factors as being important:

- **Slope**

Slope is a critical factor that influences numerous aspects of the design of wind farms. These include:

- Wind Potential – slopes up to a certain gradient that are orientated towards prevailing wind directions tend to augment average wind speeds
- Visibility – wind farms on slopes will have increased visibility
- Road layout and design – slopes need to be considered in road layout to reduce the erosion potential of road run-off and rockfall and landslide potential
- Tower foundation design – this needs to consider falls across the tower platform
- Revegetation – steep road verges and cuts will require revegetation to reduce sedimentation from run-off

- **Geology**

Wind turbines impose large loads on tower foundations and hence highly stable underlying geology is essential. The existence of bedrock, subterranean voids and possible seismic activity needs to be investigated.

- **Soils**

The erosion potential of wind farms sites is determined by the combination of soils and climatic factors. Soil types need to be considered as these influence road construction and re-vegetation.

- **Rainfall**

Rainfall is a further factor that influences erosion and sedimentation that result in possible habitat and vegetation degradation. The rainfall of a specific site has a direct bearing on the road runoff, and runoff from steep slopes.

- **Surface Hydrology and Groundwater**

The hydrology of specific sites is influenced by all the factors set out above. Hydrology must be dealt with in detail as it is a critical determinant of ecosystem health. The design of roads and the treatment of runoff from roads and disturbed surfaces must consider the reduction of sedimentation and elimination of erosion potential into any river, stream or wetland systems on the project site. Geohydrology (groundwater) is an aspect of the hydrology of a site. It influences foundation design and the retention of wetland integrity if any are associated with the site.

• Vegetation

At the Regional Wind Plan level, sensitive vegetation types linked to valuable landscape types should ideally have been eliminated. However, at the site level, a detailed vegetation assessment should be carried out if the proposal is not in an agriculturally disturbed area (either crops or pasture land) to ensure that no rare species exist on the project site.

The vegetation assessment should include location and condition of:

- Extent of disturbed or alien vegetation
- Extent of any natural vegetation
- Indigenous and endemic species
- Rare and threatened species

• Terrain Stability

Terrain stability is an important design determinant that is a function of slope, underlying geology, soil type and rainfall and usually requires specialist inputs. The design process typically has the following stages:

- i. Determination of rainfall data for the site (including extreme weather conditions)
- ii. Determination of slopes by gradient classes
- iii. Determination of natural watercourses
- iv. Determination of rocky areas
- v. Determination of soil type and permeability
- vi. Determination of areas of potential erosion
- vii. Determination of areas with high water table
- viii. Terrain stability directly influences the design of tower and transmission pylon foundations and the design of service roads. (see Figure 3.2.3.4c)

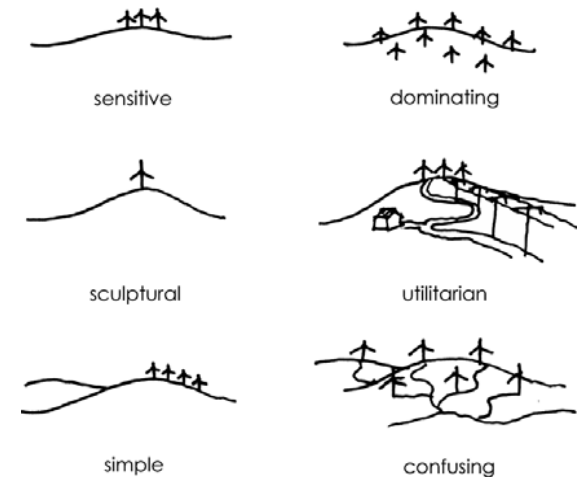


Figure 3.2.3.4c Wind and Solar Farm Siting Principles (source: Strategic Initiative to Introduce Commercial Land based Wind Energy Development to the Western Cape, May 2006)

Implications for Bitou Municipality

- Bitou Municipality receives good rainfall during the year and have mild temperatures which create a highly suitable area for urban development. For this reason arable land, which is already limited (mainly due to topography), should be protected from future urban growth.
- Conditions which could accelerate climate change need to be identified as a matter of urgency to curb the long term effects of climate change..
- Opportunities for developing renewable energy projects for the generation of electricity should be promoted in a sustainable manner. The municipality has some potential as a location for wind energy projects.

3.2.4 Topography and Slopes

Figure 3.2.4.1 shows the topography of the study area.

The topography of the municipal area is generally 0 – 250m along the coast and gradually rises towards the north up to heights of 750m. Some peaks in this northern area also reach heights of 1500m above sea level.

Slopes remain flat along the coastal regions and become more undulating in the north where slopes of greater than 1:4 are prevalent.

Settlements in the municipal area are mostly located in the lower lying flatter areas along the coast. Grazing and arable land can be found in less undulating areas of the municipal region in the west, east and south.

Implications for Bitou Municipality

- Arable and grazing land is an extremely scarce resource due to the steep less favourable land covering the majority of the municipal area.

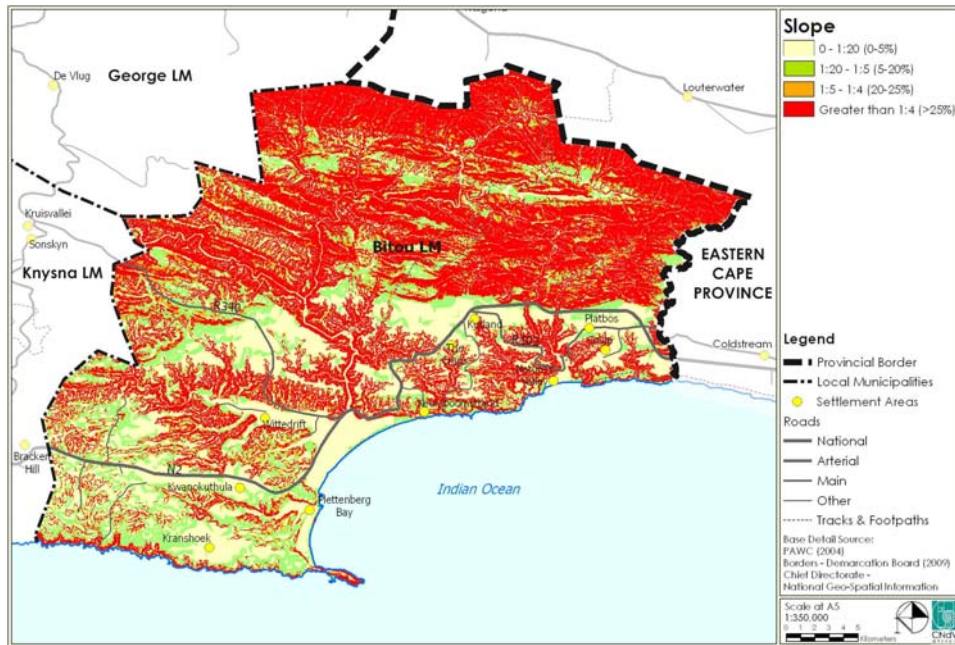
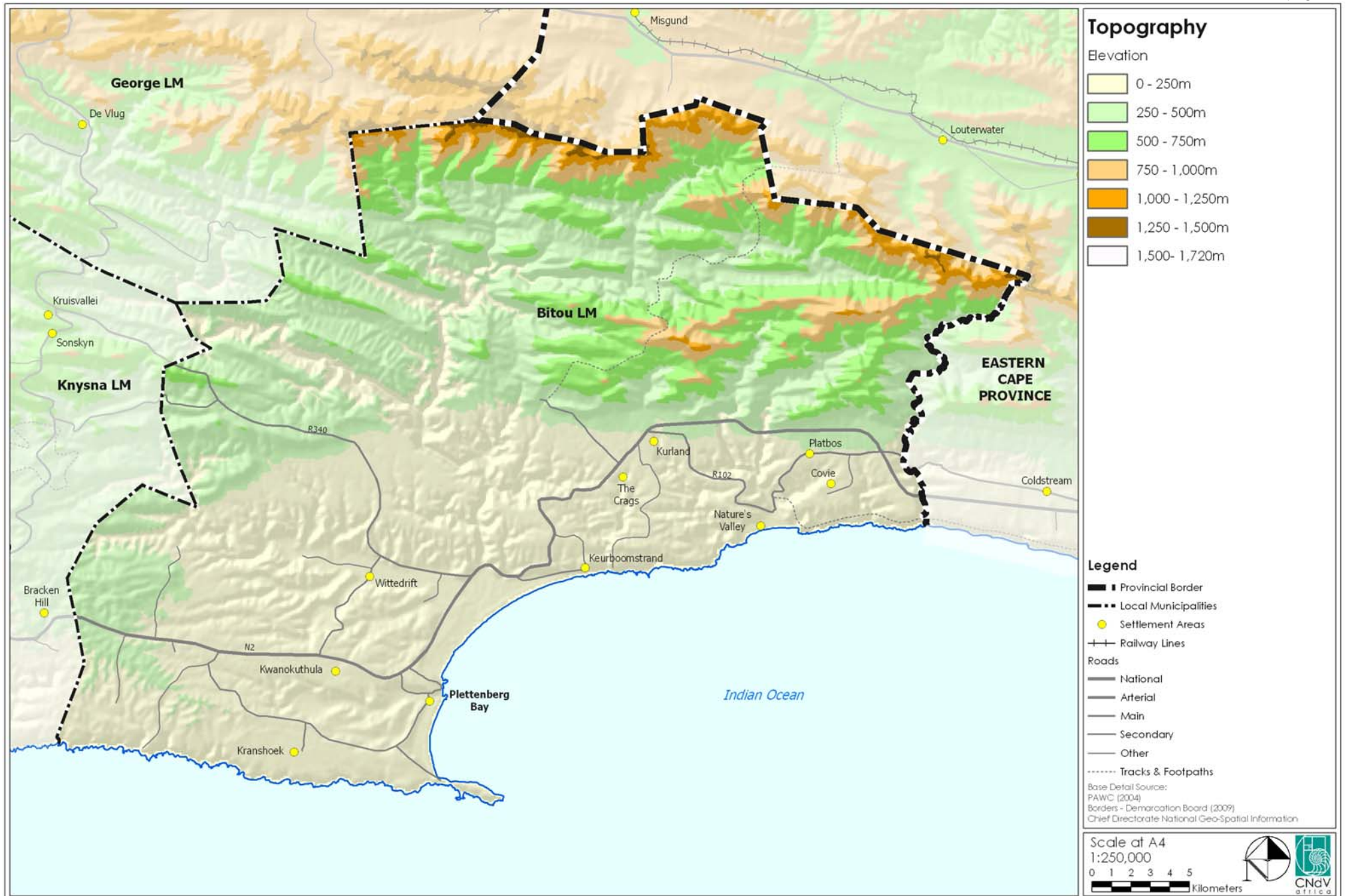


Figure 3.2.4.2 Slope



3.2.5 Water Resources (Hydrology)

Figure 3.2.5.1 shows the distribution of the rivers and tributaries through the study area. The major river through the area is the Keurbooms River which flows into the Indian Ocean at Plettenberg Bay. Other rivers in the municipality are:

- Palmiet River;
- Bobbejaans River;
- Groot River; and,
- Bloukrans River

3.2.5.1 Water Conservation

Figure 3.2.4.2 shows the SANBI river conservation status which indicates that almost all the rivers in the municipality are Vulnerable with only a section of the Keurbooms River being Endangered (possibly as a result of agricultural practices in this area).

3.2.5.2 Sustainable Utilisation Plans (SUPs)

Department of Water Affairs (DWA) recognises that new dams have a social and economic role arising from the opportunities they offer in addition to their water supply function.

New dams now require that Sustainable Utilisation Plans be compiled to explore the social and economic potential of the waterbody and its surrounding land holdings. This potential can range from recreation and tourism to agri- and aqua culture providing that the dam's primary function of water supply is not compromised.

Implications for Bitou Municipality

- The SDF should assist with the protection of the river systems and its immediately surrounding environment. The aim of this policy should assist with improving the status of the municipality's rivers, especially the section of the Keurbooms River which is currently Endangered.
- Proper management is required of the catchments and particular stream bank activities throughout the municipality.

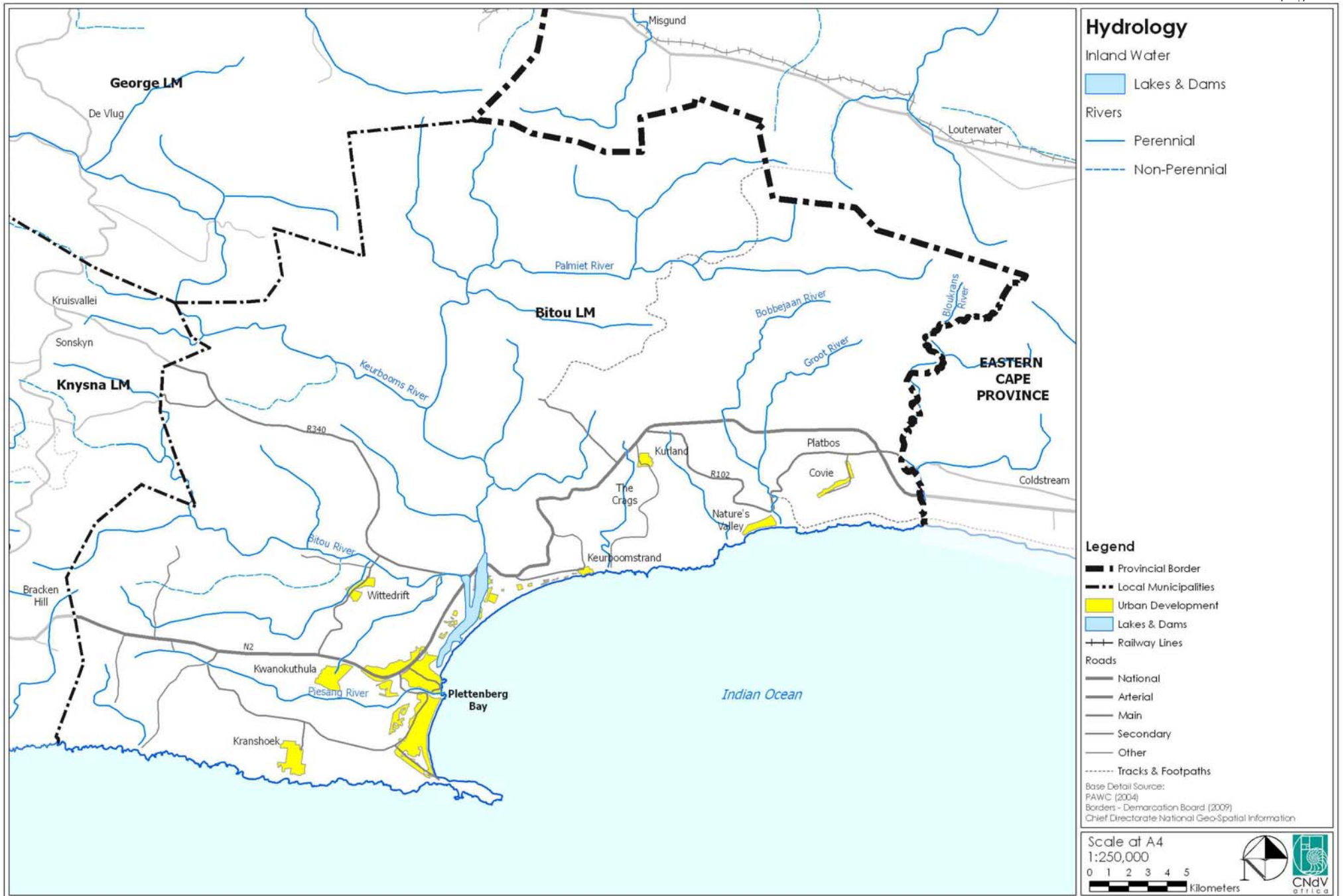
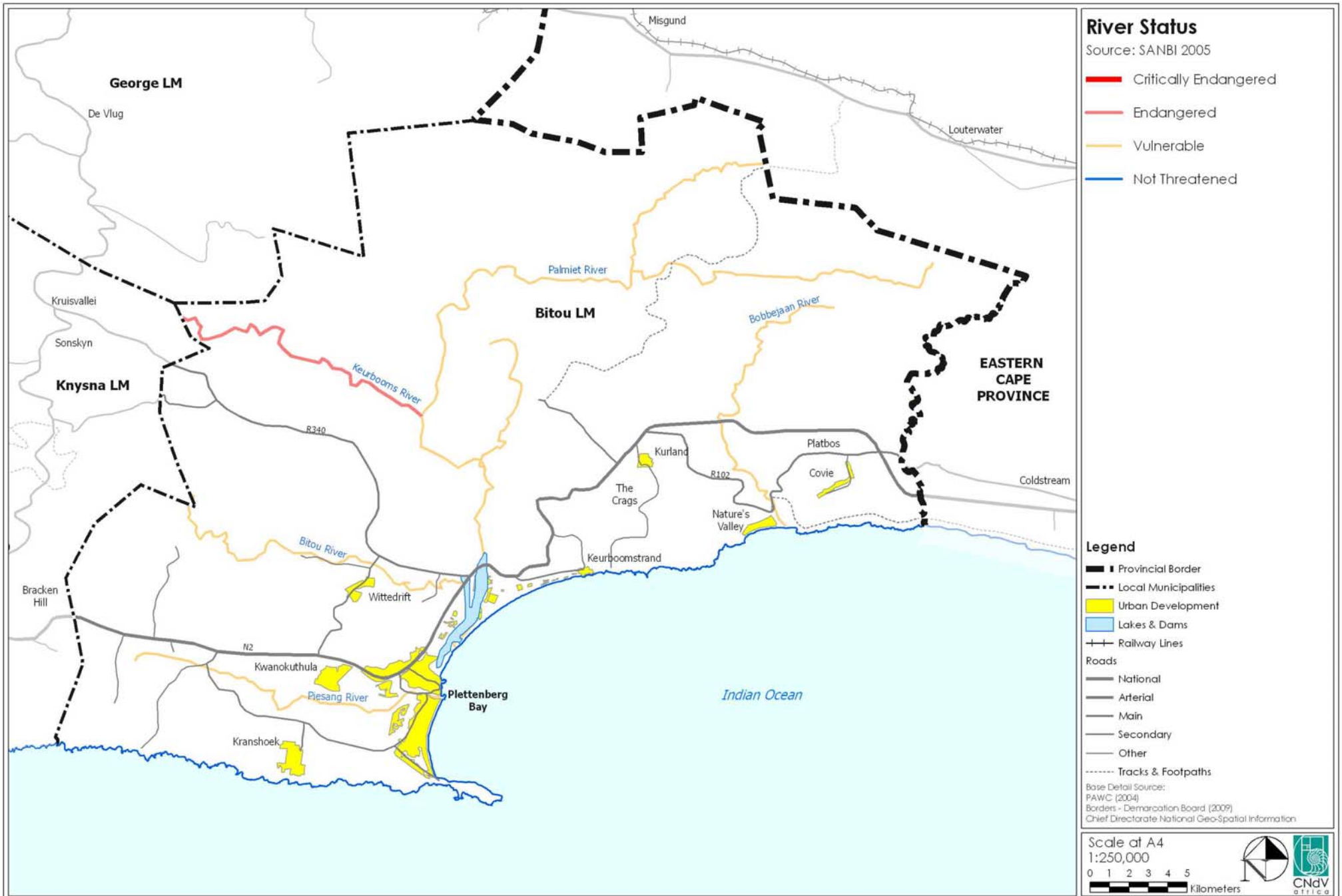


Figure 3.2.5.1 Hydrology: River Systems and Major Dams



3.2.6 Biodiversity

3.2.6.1 Biomes and Vegetation Types

Figure 3.2.6.1 shows the different biomes that are present in the Municipal area. These biomes are in order of magnitude of land cover:

- Fynbos (66%)
- Forest (33%)
- Thicket (2%)

Figure 3.2.6.2 shows the dominant vegetation types in the municipality, namely:

- Alluvial Vegetation
- Estuarine Vegetation
- Sand Fynbos
- Sandstone Fynbos
- Shale Fynbos
- Shale Renosterveld
- Shale Band Vegetation
- Zonal and Intrazonal Forests

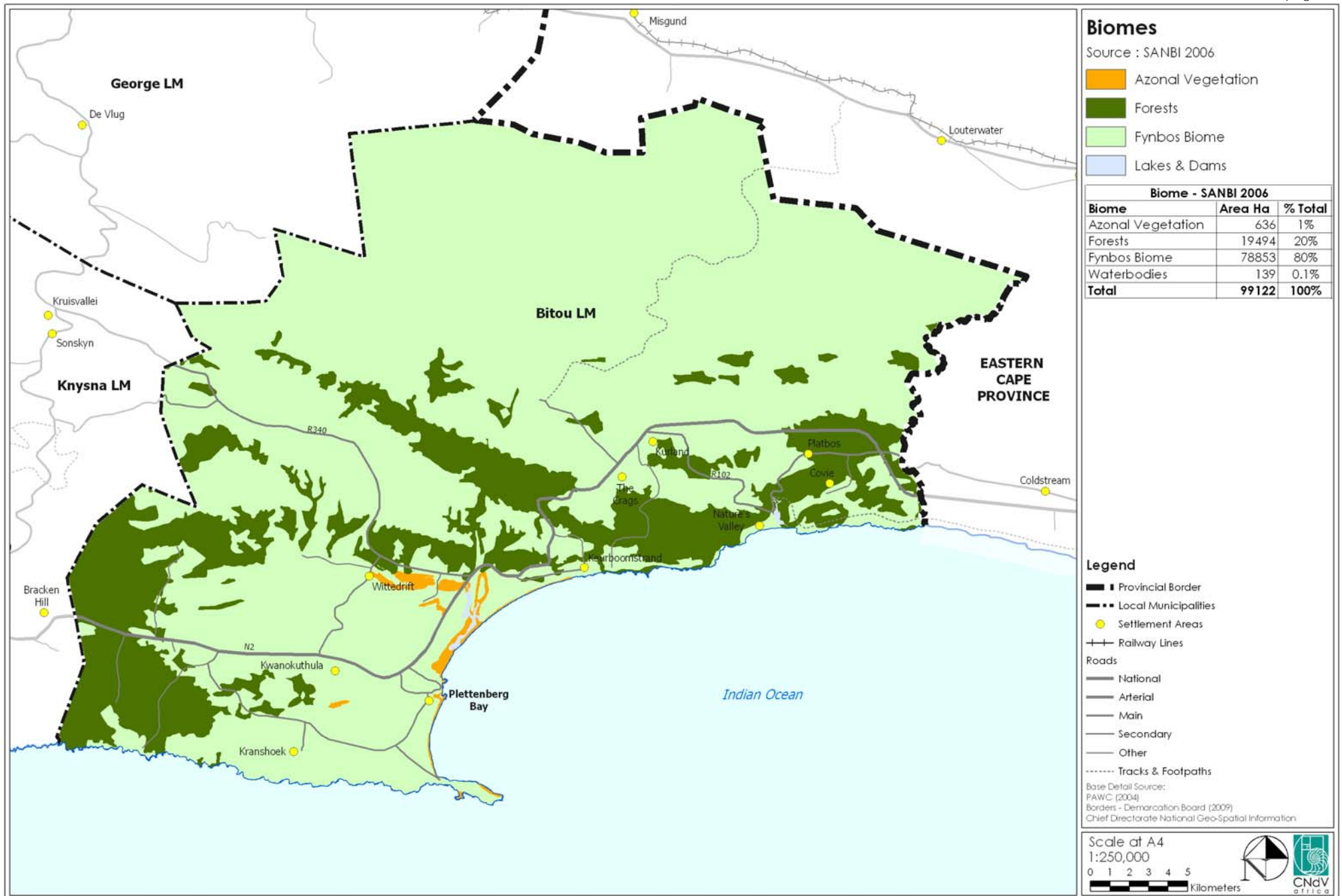


Figure 3.2.6.1 Vegetation: Biomes

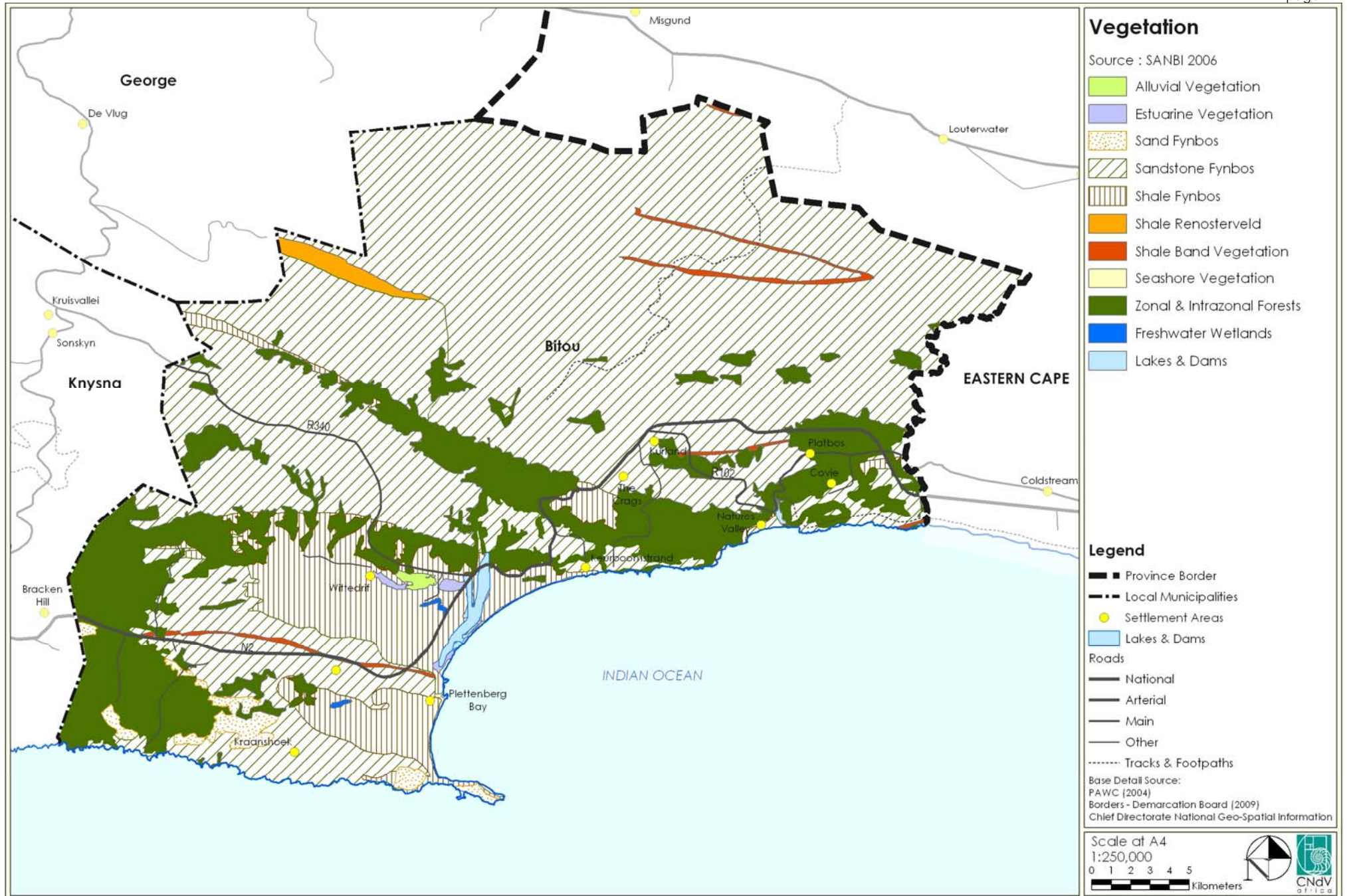


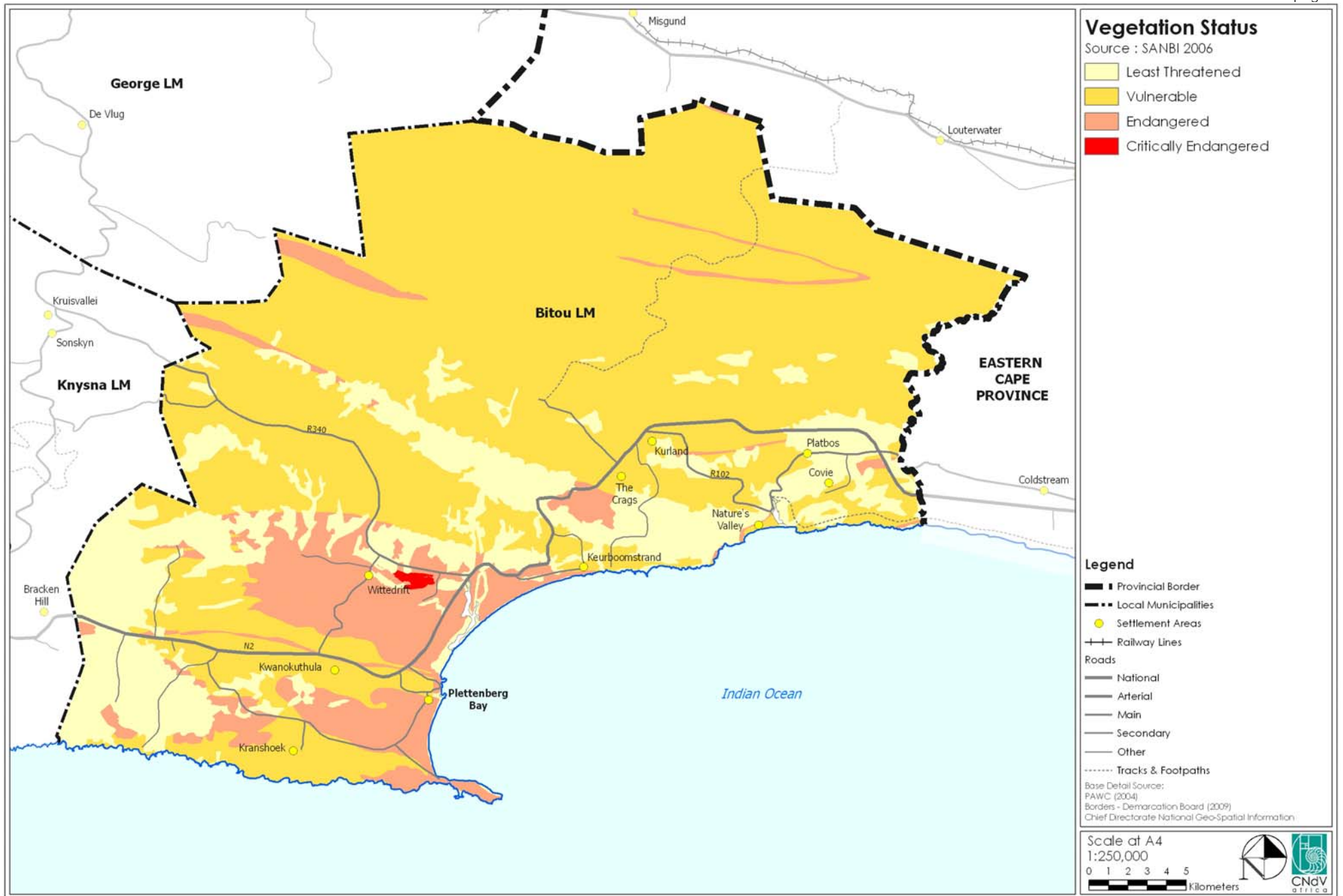
Figure 3.2.6.2 Vegetation Types

3.2.6.2 Vegetation Status

Figure 3.2.6.3 presents the broad classification and status of vegetation in the municipality. The majority of the municipal area has been indicated as Vulnerable with areas north of Kranshoek and Plettenberg Bay being indicated as Endangered. Least Threatened areas are found in the vicinity of the zonal and interzonal forests (Figure 3.2.6.2). A small pocket of Alluvial Vegetation east of Wittedrift has been indicated as Critically Endangered.

Implications for Bitou Municipality

- The vegetation status of Critically Endangered and Endangered vegetation types are to receive priority. These areas should be properly managed to improve their status. Specific attention needs to be given to:
 - The Endangered areas north of Kranshoek and Plettenberg Bay; and,
 - The Critically Endangered alluvial vegetation east of Wittedrift
- Proper management of all natural vegetation should be a priority to prevent any degradation in the future.



3.2.7 Conservation and Heritage

3.2.7.1 Biodiversity Conservation

Figure 3.2.7.1b shows that large parts of the Municipality (50666ha) are formerly conserved (SANBI 2011). These areas consist of National Parks (45%), Provincial Nature Reserves (5%), Private Nature Reserves (1%) and Marine Protected Areas (0.05%).

The Garden Route National Park, located in the north and south east of the municipal area, covers large parts of the municipal area. The park encompasses four sections, the Wilderness Section, Knysna Lakes Section, Tsitsikamma Section and Nature's Valley Section. The park falls within the cape Floristic Region (CFR) and is a biodiversity hotspot due to its high species diversity. The park protects large Southern Cape indigenous forests (of national importance), fynbos areas, mountain catchments, rivers and lakes and is regarded as one of the most pristine national parks in South Africa.

The park also offers a large variety of accommodation types for visitors and is home to a unique variety of wildlife species, such as the African Black Oystercatcher and the African Elephant.



Figure 3.2.7.1a The Keurbooms River estuary near Keurboomstrand, viewed from the N2 National Road

The Keurbooms River Estuary, east of Plettenberg Bay, is ranked 16 in terms of conservation importance in South Africa, and is an important nursery area for fish (Garden Route Biodiversity Sector Plan, 2010).

The Bitou Municipality is also home to the following parks and protected areas:

National:

- Keurbooms River Nature Reserve

Provincial:

- EC Soetkraal Nature Reserve
- Robberg Nature Reserve

Private:

- Plettenberg Bay Country Club
- Wadrif Nature Reserve
- Kiaruna Nature Reserve
- Backenburn Nature Reserve
- Annex Arch Rock Nature Reserve

Marine Protected Areas:

- Tsitsikamma National Park
- Robberg Nature Reserve

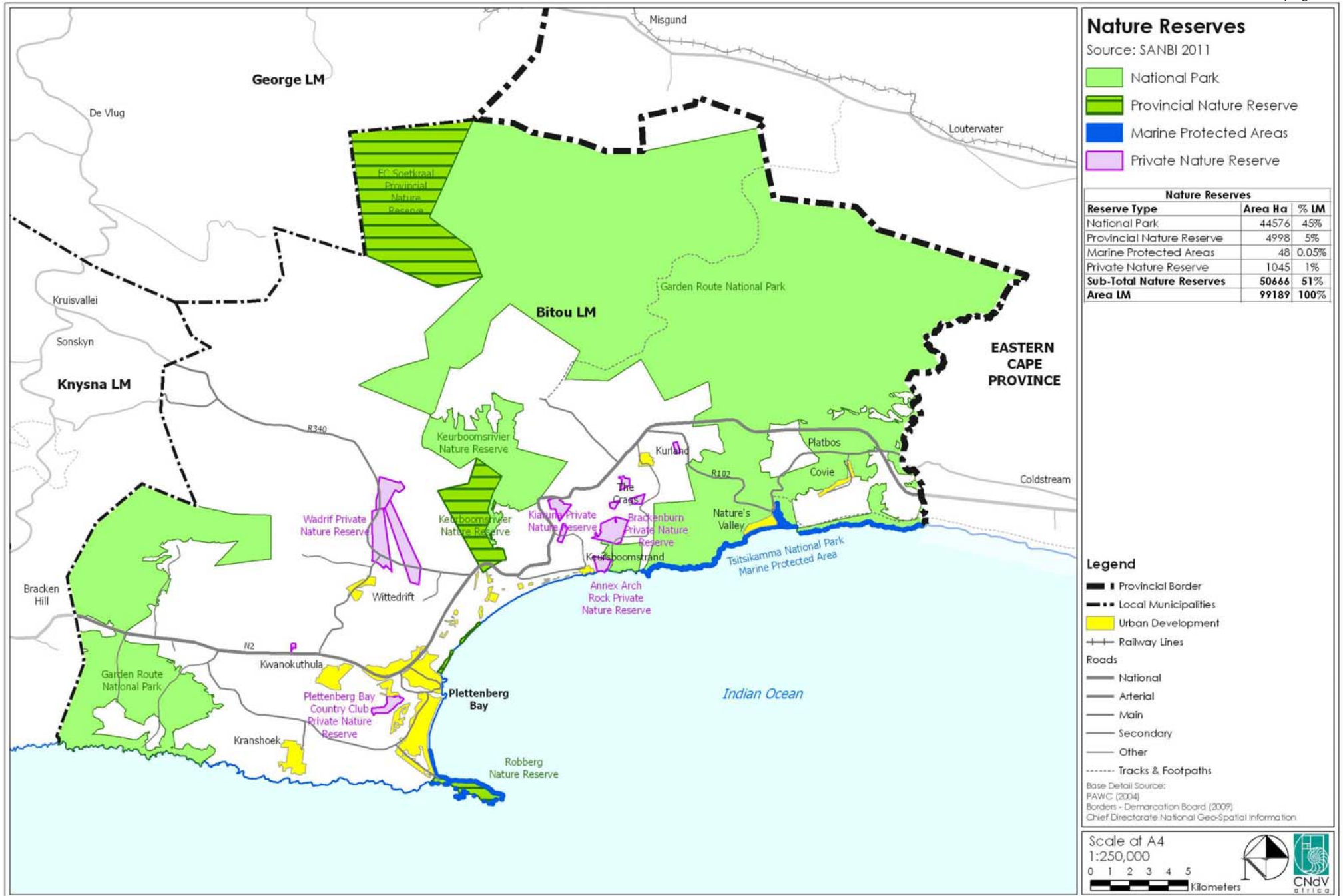


Figure 3.2.7.1b Conservation Areas

3.2.7.2 Heritage

The South African Heritage Resources Agency (SAHRA) has declared four sites in the municipality as Provincial Heritage Sites (previously National Monuments). The four sites are:

- The Old Timber Store, Timber House Lot, Plettenberg Bay;
- The Van Plettenberg Beacon Replica, Timber House Lot, Plettenberg Bay;
- The St. Andrews church, Redbourne, Plettenberg Bay; and
- The Robberg Nature Reserve, Plettenberg Bay.

Figure 3.2.7.2a identifies the cultural and tourism sites in and around Plettenberg Bay.

The Old Timber Store was built in 1787 and has been disused since 1817 when the timber trade relocated to Knysna. The building was beautifully restored in 1893 and still remains today.

Governor Joachim Baron van Plettenberg, from the Dutch East India Company erected the Van Plettenberg Bay Beacon to indicate that Plettenberg Bay (then called Bahia Formosa) would belong to the Company. This occurred in 1778 and from that day the town was named after the governor as Plettenberg Bay.

The Beacon Isle navigational beacon was erected in 1772 and today a beacon of stone still exists in roughly the same location as the original wooden structure.

The St Andrews Anglican church in the Piesang Valley, built by William Henry Newdigate in the mid 1800's is another historical monument and the oldest ecclesiastical building in the district.

The Robberg Nature Reserve lies about 8km south of Plettenberg Bay and is situated in an area of overlapping winter and summer rainfall. The reserve is a pristine example of animal and plant life existing in a unique coastal environment.



Figure 3.2.7.2 The St Andrews Anglican Church viewed from Church Street, Plettenberg Bay

Implications for Bitou Municipality

- Large parts of the Bitou Municipality are currently under conservation.
- The municipality is home to some of the most pristine parks in South Africa and areas with very high conservation status. The SDF will need to include specific guidance on the management of these resources to ensure their longevity.
- No register of historical sites exist in the municipality and the SDF needs to address the undertaking of such a study. Specific protection needs to be given to those sites which have historical significance.

3.2.8 Agriculture

Optimal Agricultural Business Systems (OABS) were appointed to prepare an overview of the agricultural sector of Bitou.

OABS attempted to make its own estimate of land use in the area by using Google Earth technology. The estimate is as follows:

- Natural reserves 36 000 ha;
- Mountain areas with low potential for utilisation 23 000 ha;
- Populated areas 2 200 ha;
- Farm cultivated or old cultivated fields of about 5 000 ha of which only about 10% is irrigated (500 ha). Of the 5000 ha only about 50% is currently utilised (about 2500 ha);
- Remaining balance is bush and veldt of about 33 000 ha; and,
- Total are about 99200 ha

It can be concluded from the estimates that the cultivation of land for agricultural purposes is probably in the order of 2500 ha which is relatively insignificant.

3.2.8.1 Contributions to GVA

Commercial agriculture does not make a significant contribution in the Bitou Municipal area since only a relatively small area can be cultivated. The Wittedrift Valley is the only area where there are really commercial agricultural activities. The area consists of about 19 386 ha of which only 10% (about 2000 ha) can be cultivated (Southern Cape Regional Information Document, 2002). The major agricultural activity in the region is dairy farming.

The estimated Gross Farm Income per LSU for dairy is about R21 000 per annum for dairy (average 18 liters per day at R3.20 per liter). It is therefore estimated that the total Gross Farm Income for the region is about R42 000 000.

3.2.8.2 *Land capability*

Figure 3.2.8.2 shows the land capability based on the soil classification. The majority of the land is classified as Group B with classifications of 5, 6 and 9 which are suitable for grazing.

Pockets of arable land are located:

- East of Covie and Platbos;
- North west of Kranshoek, south of the N2 highway; and
- In the central western parts of Bitou.

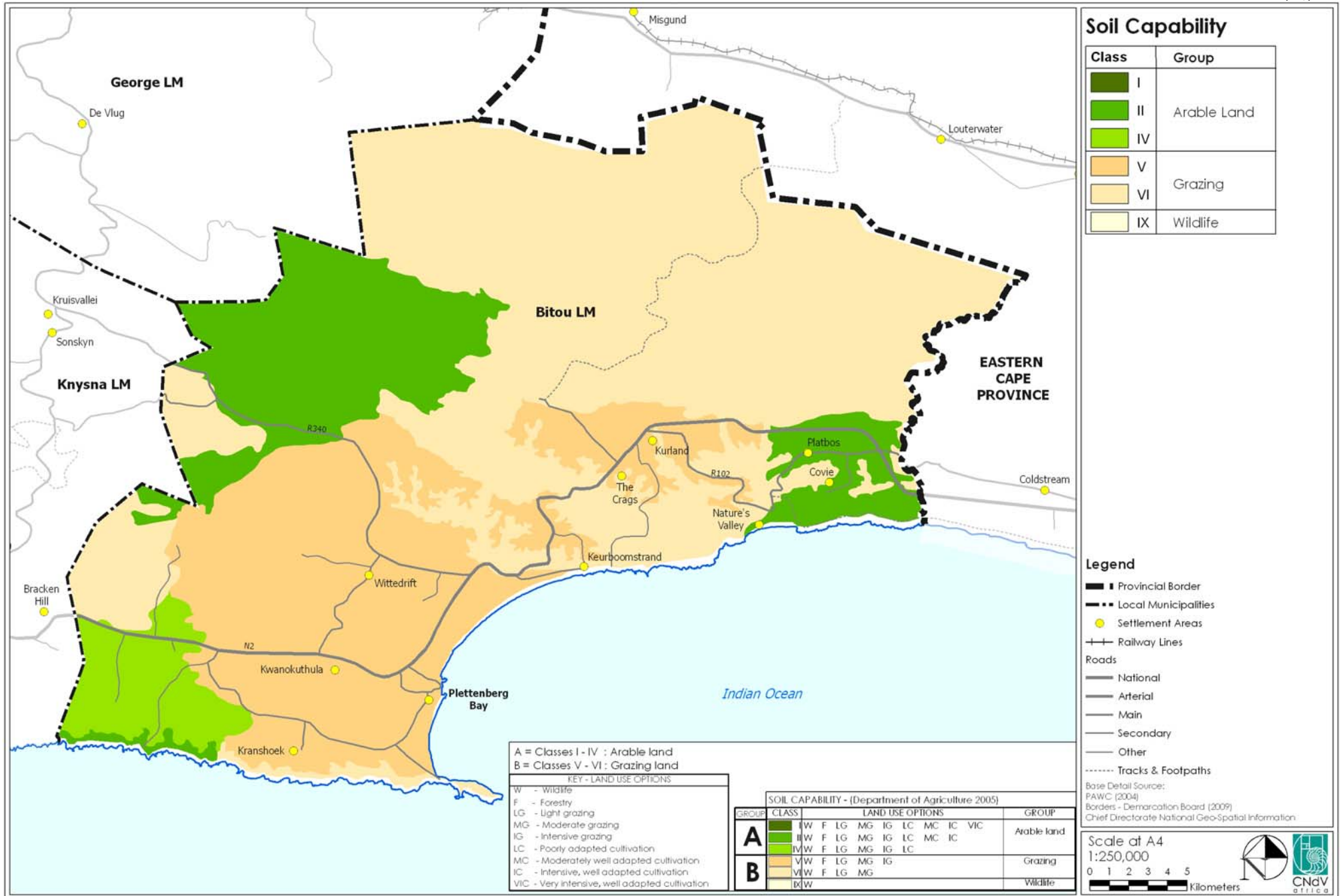


Figure 3.2.8.2 Soil Capability

3.2.8.3 Enterprise contribution to agricultural production

The following crop enterprises are the main contributors to agricultural production:

- Dairy

Annual milk productions show a steady linear upward trend over time. It is noteworthy that despite the increase in production the number of milk producers has decreased from 3 899 in January 2007 to 2 627 in June 2011. Since 1997, the number of producers has decreased by 63%. The biggest decrease occurred in Kwa-Zulu Natal (57%) and the Free State decreased by 47%. The South African dairy market is divided into 60% liquid and 40% concentrated products. Pasteurised liquid milk and UHT milk are the major liquid products, while hard cheese is the major concentrated product. On a milk equivalent basis, South Africa was a net importer of dairy products from 2005 to 2007. A positive growth in exports since 2008 resulted in a decrease in net imports

- Beef

The South African consumer market has in recent years adjusted considerably in response increasing disposable incomes, with demand moving towards protein rich food as compared to the previously starch based dietary patterns. This is mainly due to the growing middle class in South Africa especially the number of blacks entering this income level, also referred to as the "black diamonds". According to analysis (based on the Agricultural Abstract 2008, DoA) among the different meat categories beef, mutton and pork demand has increased 53%, 6% and 65% respectively during 2008. This significant increase in the demand of meat clearly illustrate this shift in consumer demand for more protein rich food.

- Honey bush

Although the increased international demand for quality honeybush is a positive sign of the indigenous tea industry's future prospects, it should be noted that more than 90% of honeybush tea, which is traded internationally, is sold in bulk as opposed to retail packaging. International buyers pack the tea themselves, develop their own brand names and trademarks, and then make more money from a unique South African product than the country itself. Exporters cannot simply stop selling bulk honeybush, but they could add more value by developing a variety of

products that will meet the demands and preference of both buyers and their consumers.

- "Fynbos"

The future growth of the Fynbos industry is expected to be fuelled by a growing export market, which currently earns the country in excess of R100 million per year, 90% of which comes from European markets. Expectations by key industry stakeholders are that Fynbos exports could grow to R1.63 billion within the next 10 years.

The Western Cape's natural products are mainly exported to Europe. Some of the specific industry strengths that have allowed the Western Cape to blossom in to the natural products' market space included:

- Species rich Fynbos (8 600 species) of which 68% occurs nowhere else in the world
- Good climatic conditions
- Proven health benefits of natural products as supported by anecdotal evidence

The world is geared towards environmentally friendly, organic products, and the Western Cape's natural products should take advantage of this trend. With the variety of natural products available and new products being discovered and cultivated continuously, the potential for creating sustainable business is end-less.

3.2.8.4 Agricultural Land Composition

The Wittedrift valley is the only area where there are really commercial agricultural activities. The area consists of about 19386ha of which only 10% (about 2000ha) can be cultivated.

Agricultural land in Bitou comprise of cultivated farms or old cultivated fields of about 5000ha (10% or 500ha irrigated). Only 50% of the 5000ha is currently utilised.

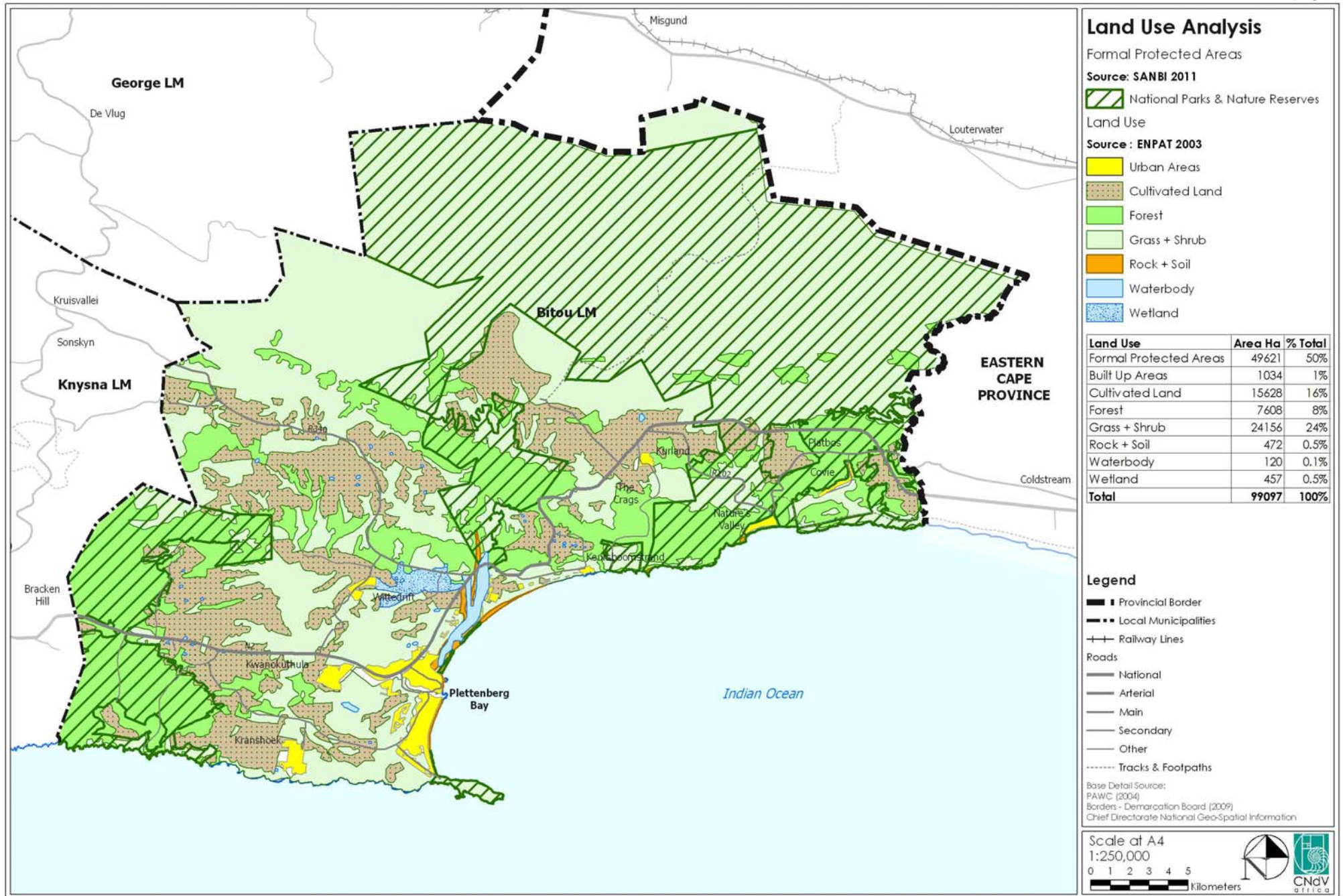


Figure 3.2.8.3 Agriculture in the Municipality

3.2.8.5 Agricultural Values

The agricultural values in Bitou Municipality per hectare is:

Irrigated land:	R80 000 to R100 000
Dryland:	R15 000 tot R25 000
Cultivated Dryland, permanent:	R15 000 tot R30 000
Natural veld:	R16 000 tot R20 000

3.2.8.6 Farmworkers

It is estimated that (based on the assumption that the main industry is diary) employment in the livestock industry is about 200 permanent labourers. Since there are also other agricultural activities in the region it can be estimated that there are about 250 permanent job opportunities in agriculture.

Based on the previous assumptions and an average wage (based on diary study group information) of R2500 per month per labourer, it is estimated that farm labour remuneration is in the order of R7 500 000 per annum. Most of this money is probably spend within the boundaries of the Bitou Municipality.

3.2.8.7 Types of agricultural businesses

The following agribusinesses operate in the region:

- Len Hobson Agribusiness and Macadamia Consultant
- Agricultural Services – Kleinberg Estates
- Organic Solutions – The Craggs
- Tuinroete Agri – Piesang Valley

Implications for Bitou Municipality

- The small contribution which agriculture is making to the Bitou economy should be expanded. Only 50% of the available land is currently being utilised and ways of increasing agricultural production should be explored.
- Expansion of the following agricultural activities are to be addressed:
 - Dairy production which has experienced positive growth since 2008.
 - Beef production given the significant increases in demand.
 - Honeybush farming should be expanded to also add value and develop a variety of products to meet the demands/preferences of consumers.
 - Fynbos production to be increased to respond to the growing export market and the growing trend towards environmentally friendly and organic products.
- Agriculture can potentially make a significant contribution in alleviating unemployment and creating wealth in the municipality and should be properly managed and developed to ensure maximum benefits for all Bitou's inhabitants.

3.2.8.8 Food Security

• Food and fibre sources – farm gate to shop

- The United Nations Food and Agriculture Organisation (FAO) have determined daily dietary requirements of approximately 2000 plant calories and 500 animal calories per day;
- Upper income diets can increase this intake to 7 500 to 8000 plant and 2 500 animal calories per day;
- 2 500 calories per day is adequate for a vegetarian diet.
- Land requirements for plant and animal calories are 2000 calories per m² per annum for plant foods and only 200 calories per m² per annum for animal foods, i.e. producing animal protein requirements (10 times as much land as plant protein);
- A community of 64301 requires the following land for its food and fibre needs depending on its diet and income status, see Table 3.2.8.8:

Land required for food security					
	Diet	C/day	People	C/m ² /year	Total Ha
Upper Income	Plant	8000	6430	2000	939
	Animal	2500	6430	200	2934
	Number of People		6430	Sub-total	3873
Lower Income	Plant	2000	57871	2000	2112
	Animal	1000	57871	200	10561
	Number of People		57871	Sub-total	12673
Total Number of People			64301	Total	16546
All Vegetarian		2500	64301	2000	2934

Table 3.2.8.8 Land required for food security: Bitou Municipality (source: Kilimakore Synergetics. A Study on the Revitalisation of Rural Towns in South Africa, May 2010)

Note: the impact of high income diets and animal food consumption can be seen on the demand for agricultural land.

- There is little food production on the agricultural land in the municipality, this being mainly used for grazing and conservation (mountain) areas.
- This implies that the vast majority of the municipality's food requirements are being imported from outside of the Municipality and distributed through the major food and grocery retailers as well as

some corner shops and farm shops. This has implications for dietary composition, transport costs and energy consumption and inflationary pressures on food.

- There may be some informal production of fruit, vegetables and dairy that is consumed by staff but in the main food requirements are sourced through the retail industry at a hierarchy of outlets including:
 - wholesale supplies from agricultural coops
 - farm shops and corner shops
 - supermarkets and shopping centres of various sizes
- There are indications that the current formal food and grocery distribution network, mainly in the form of corner shops, supermarkets and shopping centres, will come under increasing pressure as a result of food inflation, decreasing purchasing power among most income groups but particularly the poor.
-

A separate informal marketing channel should be developed in the form of a network farmers' markets which could allow prices at the farm gate to increase but retail prices to drop by circumventing the agents and middlemen and formal retailers in the distribution channels, see box indicating distribution chain issues for small growers, see box below.

CASE STUDY: Lettuce Value Chain : Stellenbosch

Organic lettuce grown on Stellenbosch commonage:

Sold to packer at R7.15/kg

Packer sells lettuce to retailers

28/3/2008 prices

Retailers sell lettuce at R68/kg

Grower now sells direct at Stellenbosch market at R40/kg

Kelly C, 2008. Value Chain in Agriculture Service Industry

3.2.8.9 Impact of Climate Change

The main expected features of climate change is the long term rise in temperature, variability in precipitation, changes in precipitation patterns, changes in the growing season etc. Therefore, the aforementioned variables will definitely impact on the availability of water, for both rain-fed and irrigated agricultural production. Water availability is the most important limiting factor for crop production in the Bitou area. Furthermore, animal production will also be adversely affected in the light of dryer periods throughout the year. Given the extent of production in this area it could have implications in terms of food security.

Implications for Bitou Municipality

- Regulate water demand for agricultural purposes.
- Protect ecological water reserves.
- Monitor biodiversity closely and eradicate alien vegetation.
- Evaluate livelihoods based on threatened resources.
- All land capable of crop farming, i.e. has sufficient water and arable land is protected from other uses.
- Good veld management practises need to be promoted to improve biodiversity and increase stock carrying capacity.
- Ecological corridors where grazing, crop farming and buildings are prohibited, should be declared along river banks. Their boundary should be a minimum of 30m from the bank or according to a setback line determined by a fresh water ecologist.

3.2.9 Building Materials and Mining

Denron and Robberg Quarries are the two leading companies in the region actively mining quarries as the main suppliers of quarry aggregates; sand, stone and all other related road building materials. The municipality notes that together these two companies actively mine at least 7 quarries in the municipality.

Within the Bitou Municipality the following mineral deposits are found:

- **Barytes**
Baryte is a mineral which consists of barium sulfate. Baryte is mainly used as a weighting agent in drilling fluids for oil and gas exploration in order to prevent blow outs. It is also known as filler in paint and plastics, automobile coatings to prevent corrosion and glass ceramics.
- **Bentonite**
This mineral was formed originally by volcanic ash deposits and occurs in large clay deposits. Bentonite is essentially impure clay. It is commonly used in cement, adhesives, ceramics and cat litter.
- **Lignite**
Lignite is often referred to as brown coal or Rosebud coal and is similar to coal and peat. It is considered a very low ranked coal due to its low energy density and high moisture content. It is mainly used for steam-electric power generation.

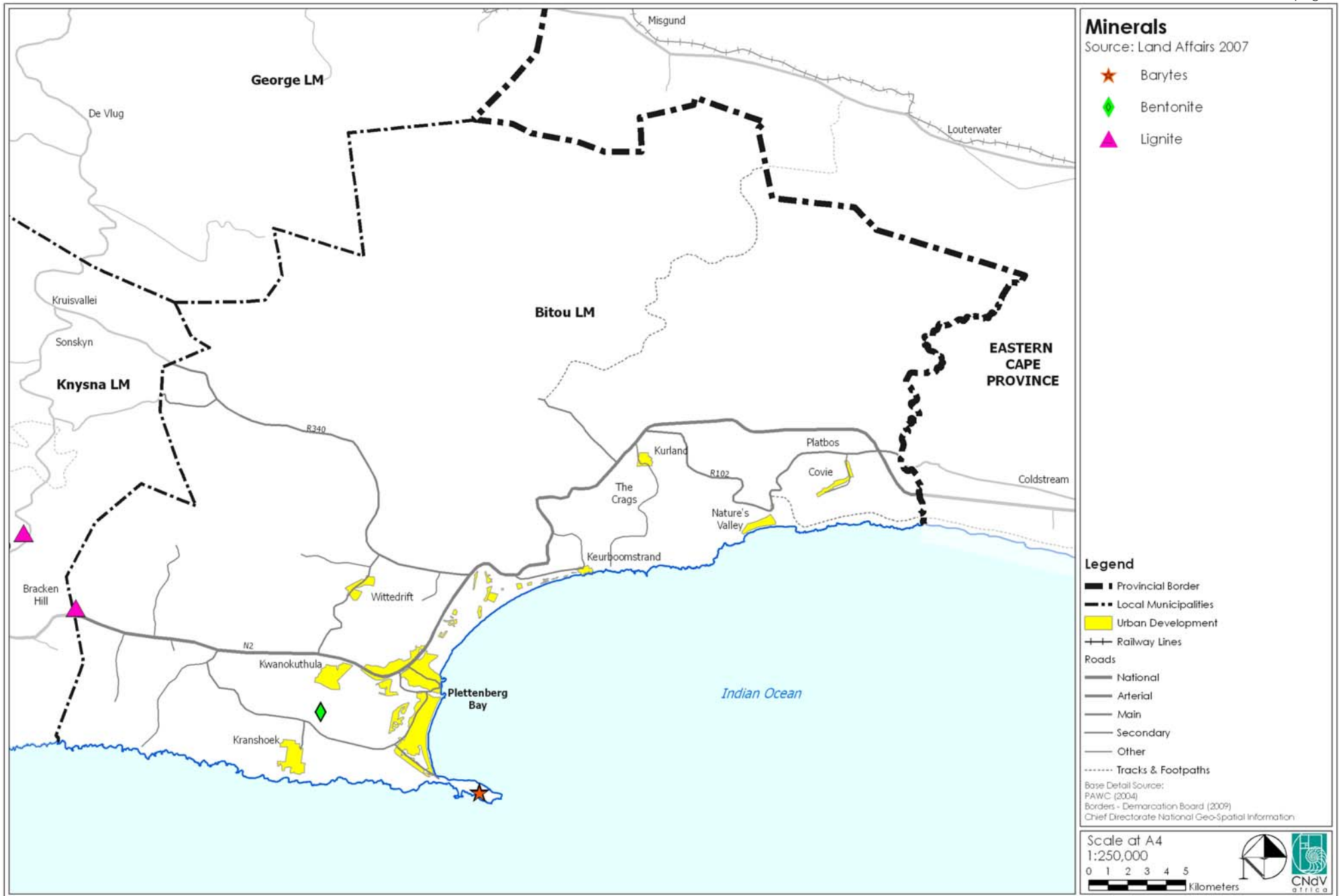


Figure 3.2.9.1 Mining

3.3 SOCIO-ECONOMIC CONDITIONS

3.3.1 DEMOGRAPHIC PROFILE

In order to compile a proper understanding of the socio-economic conditions of the Bitou Local Municipality the following sources of data were used:

- Census (1996 and 2001)
- The Socio Economic Profile: Eden District (Provincial Treasury Western Cape, 2006)
- The Community Survey (Statistics South Africa, 2007)
- LED Strategy (Bitou Municipality – 2011/12)

The Community Survey (2007) provides a cautionary note to users of the survey. The estimated population is merely and approximation to the 2001 Census data and should not be regarded as new data. Systemic errors were observed in the population data, which include:

- An imbalance in the estimate of men relative to women;
- An underestimate of children younger than 10 years;
- An excess of those aged 85+, in particular among men;
- An undercount or error in women aged 20-34 from the Coloured population;
- Misdistribution of the population by province; and
- An excess of people aged 10-24 in the Western Cape

3.3.1.1 Overall Population

In the 1996 Census the population for Bitou was 18434 and in 2001 the population was 29182.

The socio-economic survey shows a population of 36503 in 2006, the Community Survey of 2007 a population of 39002 and the Bitou Annual report a population of 64301 in 2009. The LED strategy indicated a drop in the population from between 2007 and 2010. The strategy then predicts an increase to 40738 in 2012.

	Census 1996	Census 2001	Socio-economic 2006	Community Survey 2007	LED Strategy (2011/12)
1996	18434				
2001		29182	30057		
2006			36503		
2007				39002	
2009					
2010					37847
2011 (Est)					39266
2012 (Est)					40738

Table 3.3.1.1 Bitou population figures since 1996 (source: Census 1996, 2001; Socio-economic Profile 2006; Community Survey 2007, Bitou Annual Report 2008/2009)

Figure 3.3.1.1 indicates the distribution of population throughout the Bitou Municipality. It is clear that the majority of the Bitou population resides in Plettenberg Bay which is the main town. The remaining population is located in Kranshoek, Wittedrift and Kurland and surrounding rural areas.

3.3.1.2 Growth Rate

Population growth rates	
Period	Average Annual Growth
1996 – 2001	2.0%
2001 – 2006	4.0%
2006 – 2010 (estimated)	3.6%
2010 – 2012 (estimated)	3.75%

Table 3.3.1.2 Population Growth Rate (Source: Socio Economic Profile, 2006, LED Strategy, 2011/12)

According to the Socio Economic Profile (2006) of the Eden District as indicated in Table 3.3.1.2 the population growth rate for the Bitou Municipality increased on average annually by 2% from 1996 to 2001, on average annually by 4% between 2001 and 2006 and an estimated growth rate of 3.6% on average annually is forecasted between 2006 and 2010.

The population figures estimated for the municipality indicates that the total population of the Bitou Municipality is indeed on the rise and that additional services and infrastructure would be needed to accommodate this growth.

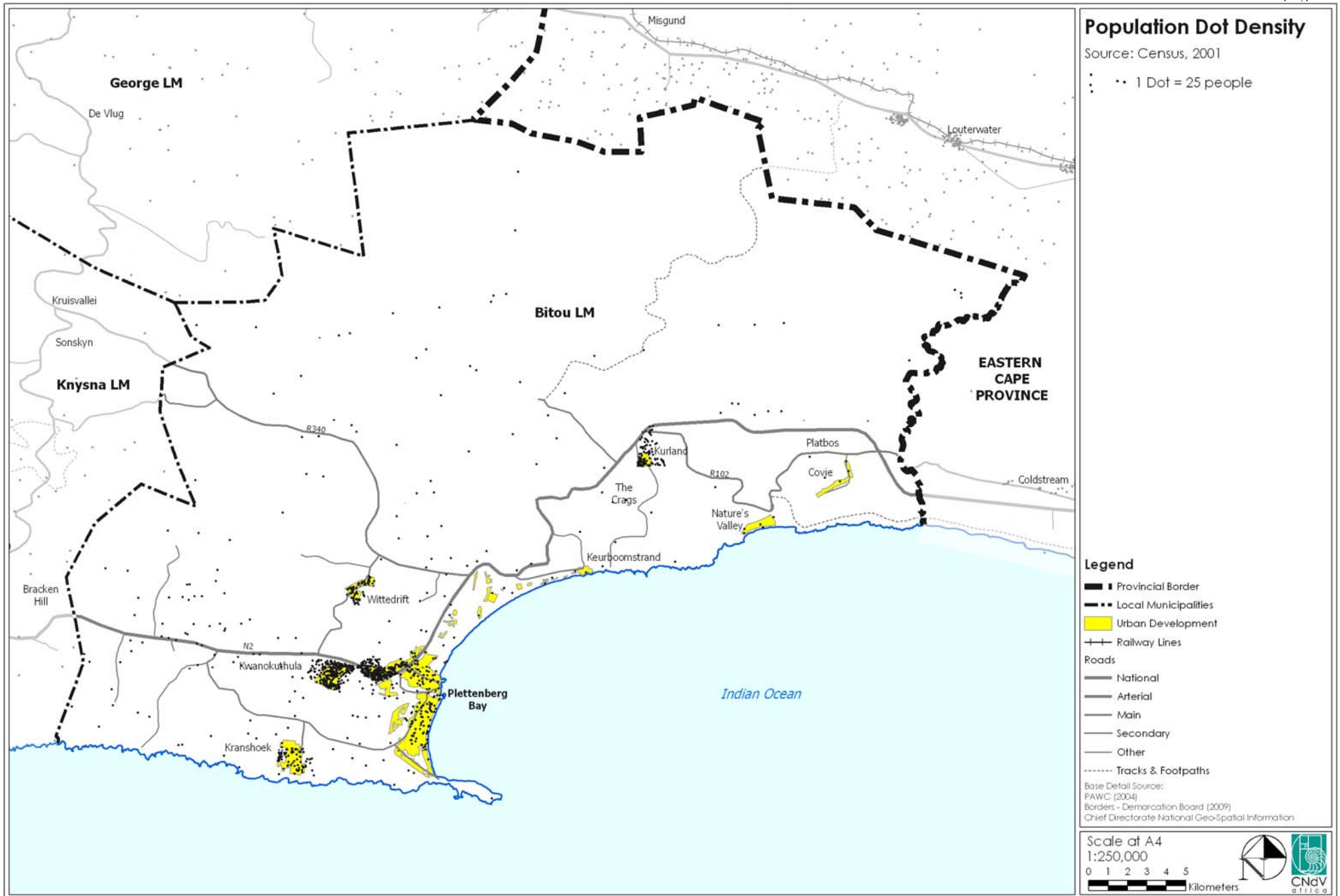


Figure 3.3.1.1 Population Density (2001)

3.3.1.3 Age Structure

Figure 3.3.1.3 indicates the population age profile for the Bitou Municipal Area as depicted in the LED Strategy, 2011/12.

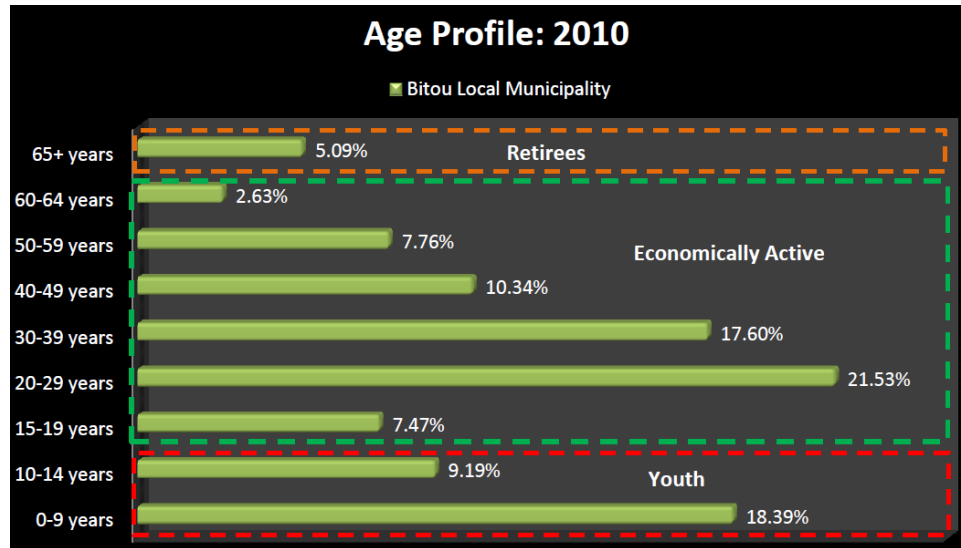


Figure 3.3.1.3 Age Profile (LED Strategy, 2011/12)

The largest portion of the Bitou population falls within the 20-29 age group (21.53%). As can be observed from the graph the Bitou Municipality has a youthful population. This is seen as positive as this result in a large work force who can potentially contribute to the economic growth of the municipality.

3.3.1.4 Gender

In terms of gender the LED Strategy, 2011/12, indicates that the Bitou population in 2010 is divided as follows:

Male – 50.36%
Female – 49.64%

3.3.1.5 Ethnic Groupings

Table 3.3.1.5 indicates the population distribution in 2010. Coloureds and Blacks formed the greatest part of the Bitou population. Together they formed 90% of the total population with Whites only making up 9.46%. There is a small Asian population of 0.43% of the total population.

	Eden District	Bitou Municipality
White	17.46%	9.46%
Asian	0.35%	0.43%
Coloured	53.37%	37.54%
Black	28.73%	52.65%

Table 3.3.1.5 Population Distribution, 2010 (LED Strategy, 2011/12)

3.3.1.6 Migration

The Socio-Economic Profile for the Eden District (2006) stated that net in-migration reduced from 2003 for the Eden District. Bitou Local Municipality is regarded as being the net receiver of in-migration, particularly Africans and Coloureds. Bitou has been highlighted as the second preferred destination (2nd to George) for the African and Coloured immigrants. Figure 3.3.1.6 predicts that the migration from the African population will decrease slightly and increase in the coloured population. Overall migration will also decrease.

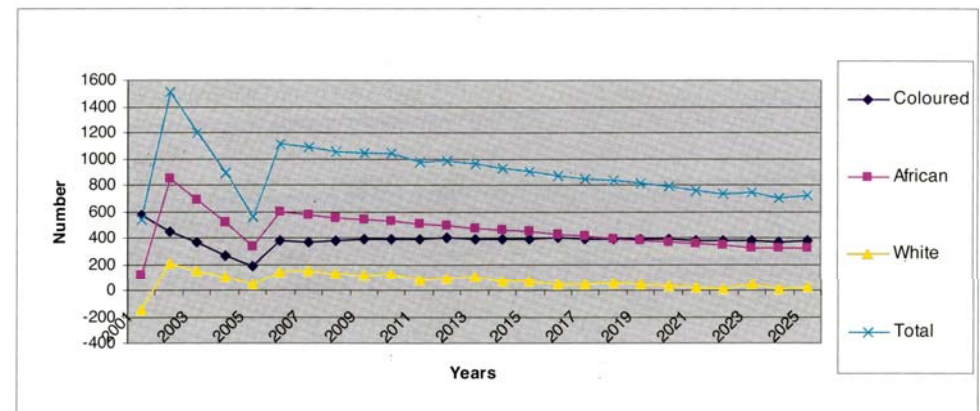


Figure 3.3.1.6 Projected racial net migration for Bitou (Source: Socio Economic Profile: Eden District, 2006)

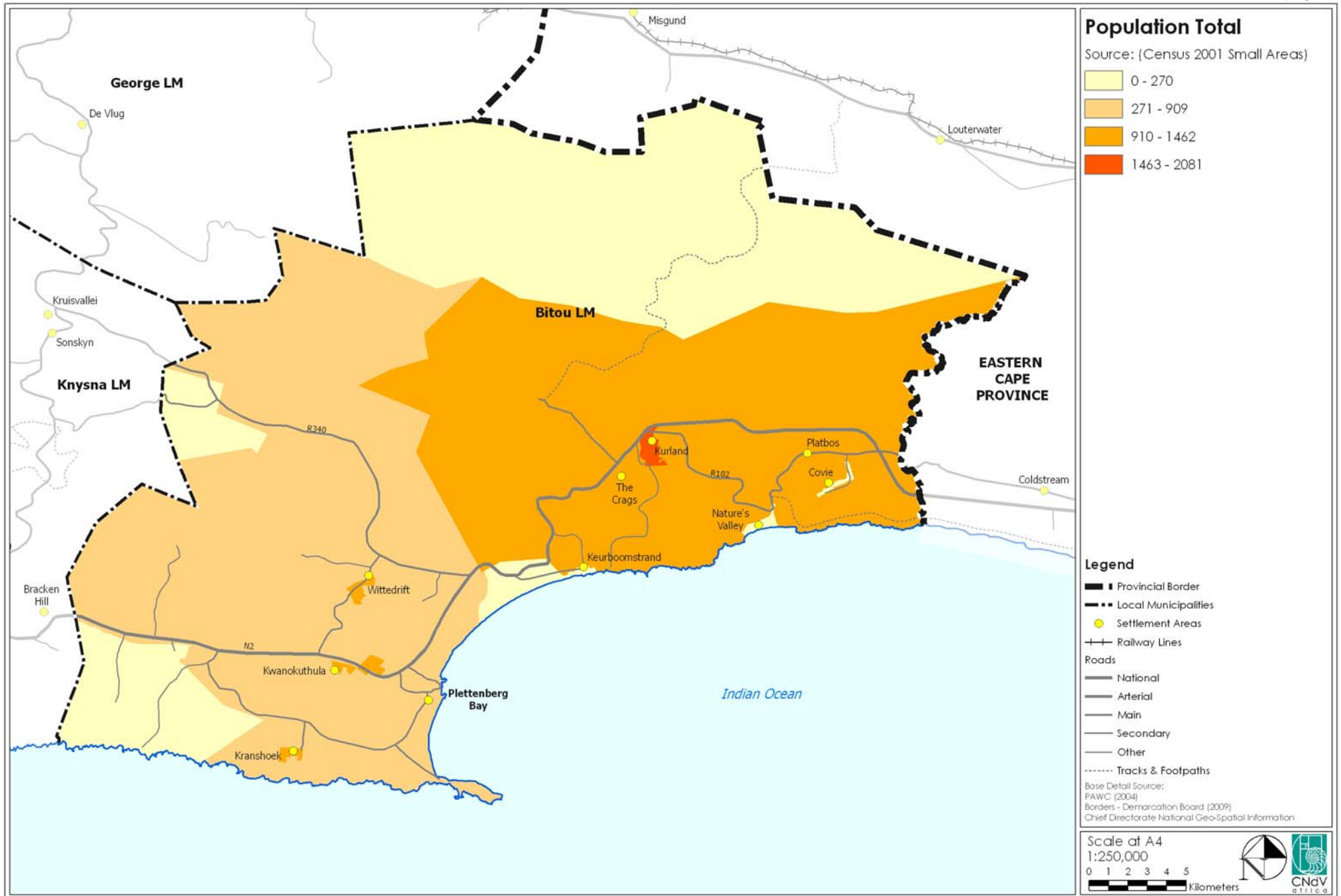


Figure 3.3.1.2 Population Density (Census)

3.3.1.7 Urbanisation and Population Distribution

The Socio Economic Profile: Eden District, 2006 indicated that 85% of the population lives in urban areas and 15% in rural areas. The total population indicated in this report was 36503 in 2006. Accordingly there would be approximately 31028 people in urban areas and 5475 people in rural areas.

Implications for Bitou Municipality

- The population is growing which necessitate improvements in infrastructure. This also increases pressure on housing.
- The relatively young population indicates a sizable labour force. Initiatives to empower and develop skills in the labour force would be vital in improving the economy of the municipality and reducing unemployment figures.
- Only 15% of the population reside in rural areas which creates difficulties in providing services (health care, education, etc) due to the low thresholds. Unique and area specific initiatives would need to be developed to cater for the rural communities.

3.3.2 HEALTH

Figure 3.3.2.1 indicates the location and number of health facilities within the Bitou Municipality. A Community Health Centre is located in Plettenberg Bay as well as clinics in Kwanokuthula. Clinics are also located in Kurland. Mobile clinics are present in Plettenberg Bay and Kranshoek.

The nurse to patient ratio in the Eden District is 42 and the Bitou Municipality is lower than this at only 25 (Bitou Socio Economic Survey, 2006).

The cure rate for TB was at 72% in 2006 with 740 individuals per 100 000 individuals contracting the disease. This cure rate was lower than the rate for the Eden District at the time and indicates that improvements are required in this regard. The number of HIV/AIDS deaths was also estimated to increase from 77 in 2006 up to 174 in 2010.

Implications for Bitou Municipality

- The Bitou Municipality currently has good medical services but means of improving the quality of the care should be sought. No medical facilities have been indicated in Keurboomstrand, Nature's Valley, Covie or Platbos and the provision of medical services in these areas should also be explored.
- The nurse patient ratio needs improvement and improved levels of care for TB patients need to be provided.

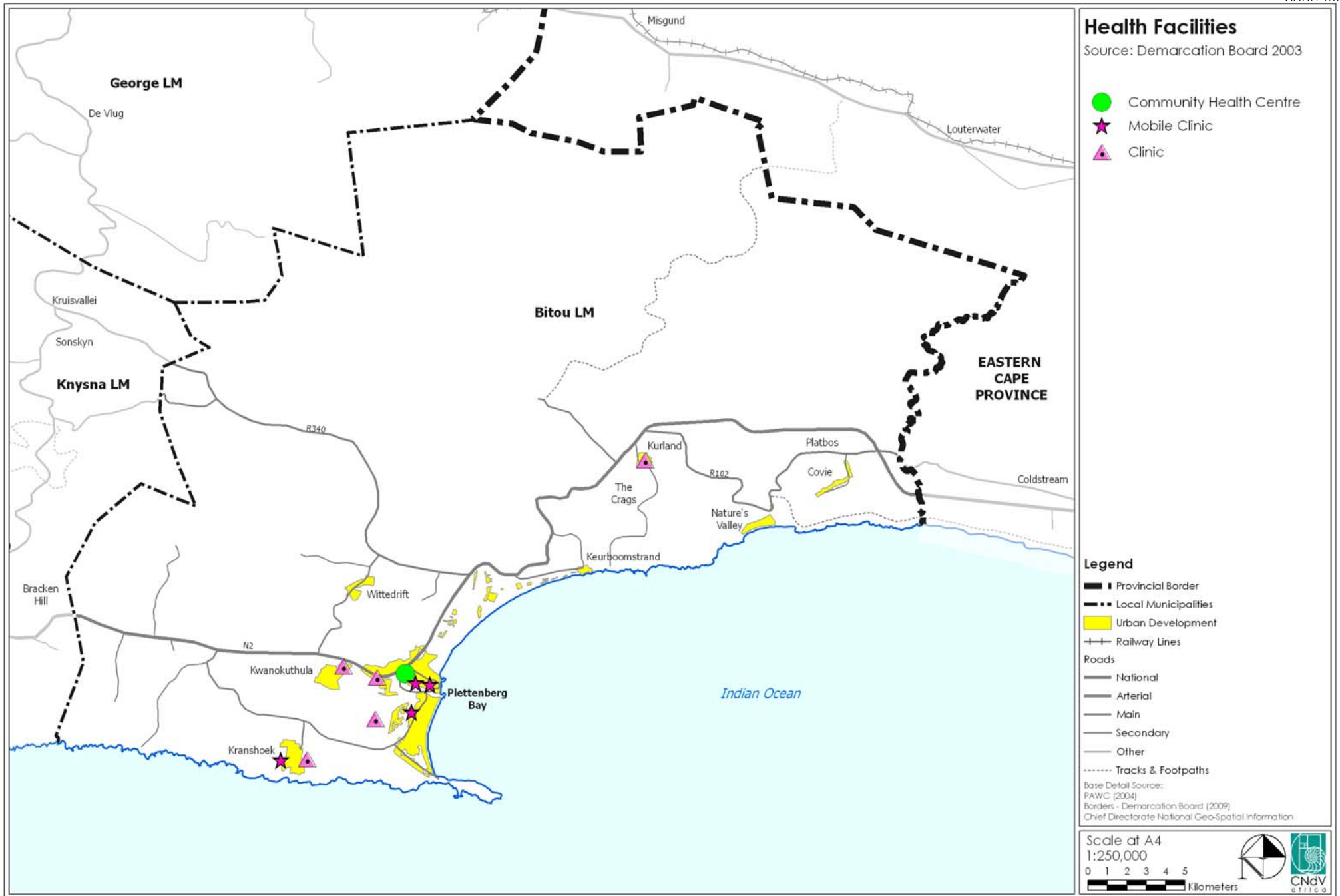
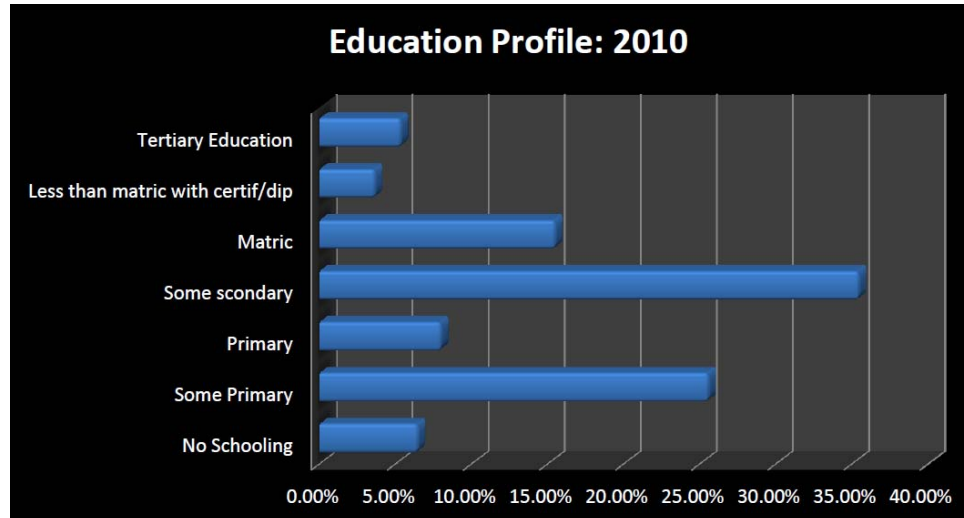


Figure 3.3.2.1 Health Facilities

3.3.3 EDUCATION

Figure 3.3.3.1 indicates the location of schools in the Bitou Municipality. Primary schools are located in Plettenberg Bay, Kwanokuthula and Wittedrift. Intermediate schools are located in Kranshoek, secondary schools in Kwanokuthula and a combined school in Wittedrift. Currently there are no schools in the areas of Keurboomstrand, Nature's Valley, Covie and Platbos.



Graph 3.3.3.1 Education Profile, 2010 (LED Strategy, 2011/12)

Graph 3.3.3.1 indicates the percentage of the total population and what level of education was attained.

The graph indicates that the Bitou population have low levels of education. Only about 15% of the population have a Matric qualification and less than 5% of the population have a tertiary education. The current population could find it difficult to attain good and stable employment given their low education levels.

Implications for Bitou Municipality

- The population of Bitou is growing, based on the information available. As a result, more housing and infrastructure is to be provided to accommodate this growth trend.
- Improvements in healthcare are needed especially the nurse: patient ratio (currently at 25, Eden District is at 49).
- HIV/Aids and TB deaths are too high and initiatives should be developed to reduce this growing figure.
- Medical facilities or the provision of medical services should be provided for in Keurboomstrand, Nature's Valley, Covie or Platbos.
- The provision of schooling in the settlements of Keurboomstrand, Nature's Valley, Covie and Platbos should be a priority.
- Initiatives should be developed to encourage pupils to finish matric.
- Improved transportation should be provided for scholars in the area.

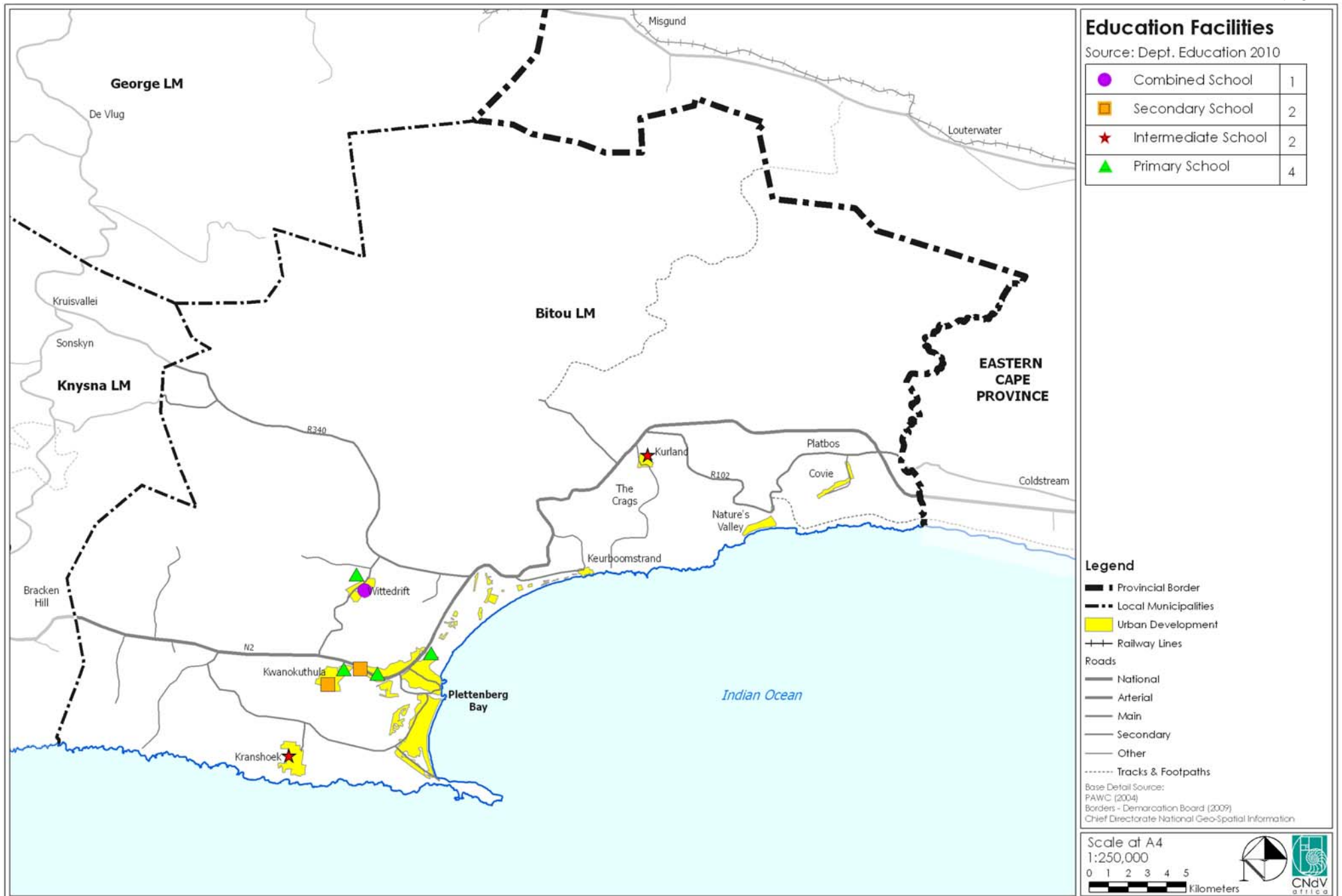


Figure 3.3.3.1 Educational Facilities

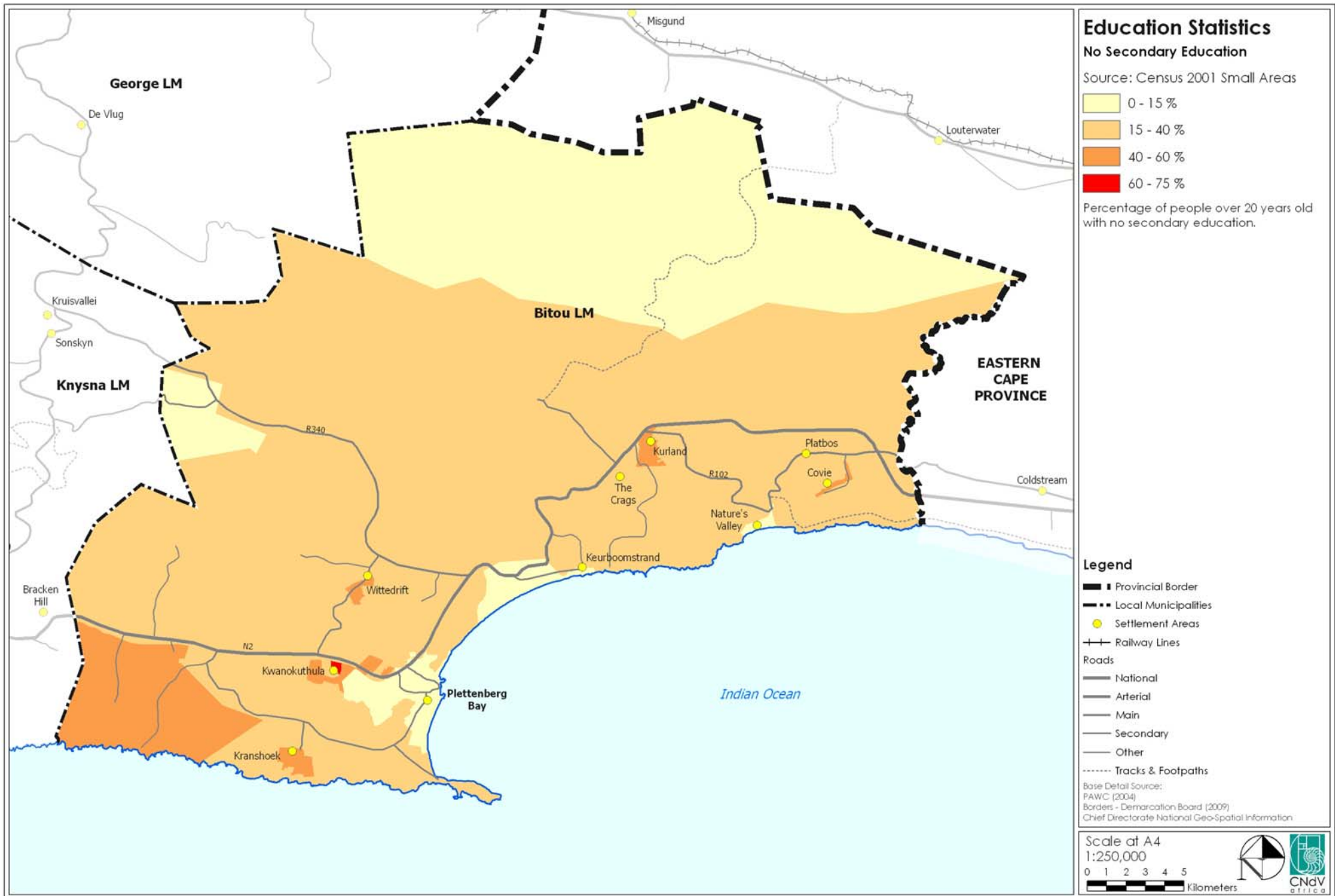
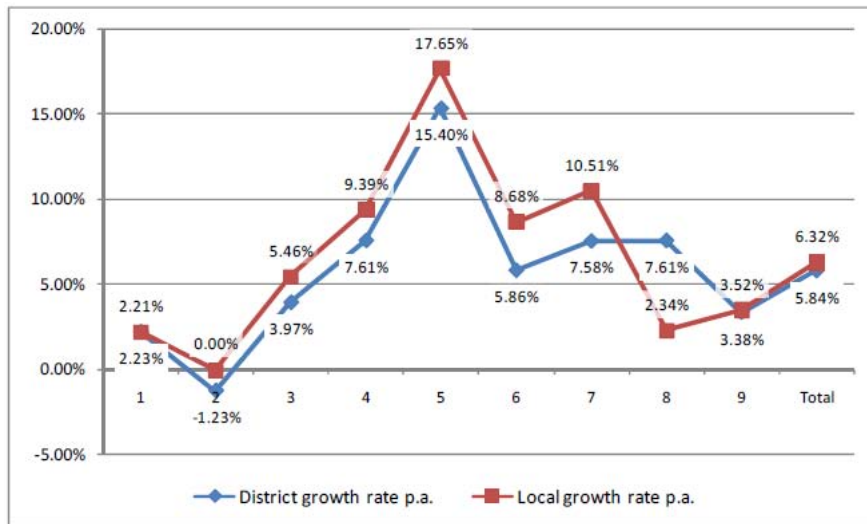


Figure 3.3.3.2 Census Education

3.3.4 EMPLOYMENT, OCCUPATION AND INCOME LEVELS

Multi-Purpose Business Solutions were appointed to prepare a brief economic overview of the Bitou Municipality. This study was used together with information from the Census surveys (1996 and 2001), the Socio Economic Profile: Eden District (Provincial Treasury Western Cape, 2006), the Community Survey (Statistics South Africa, 2007) and the Bitou Annual Report (Bitou Local Municipality – 2008/2009).

The Eden District Municipal area and the Bitou Municipal area grew in nominal terms at a rate of 5,84% and 6,32% per annum respectively from 2001 to 2009 (refer to last column in Figure 3.3.4).



Legend:

- 1 Agriculture, hunting, forestry and fishing
- 2 Mining and quarrying
- 3 Manufacturing
- 4 Electricity, gas and water supply
- 5 Construction
- 6 Wholesale and retail
- 7 Transport, storage and communication
- 8 Finance, insurance, real estate and business services
- 9 Community, social and personal services

Figure 3.3.4 An illustration of the annual growth rates per economic sector for Bitou and the Eden District from 2001 to 2009 (Source: Multi-Purpose Business Solutions, 2012)

The two economies illustrate similar growth patterns in terms of the general economy and individual sectors. Noteworthy is the difference in the growth of the Finance, Insurance, Real Estate and Business Services sector between the District and Local economy. The District achieved annual nominal growth rate of 7,61% as opposed to 2,34% for the sector in the local economy over the period 2001 to 2009. However, it should be stated that growth in the Construction sector of 17,65% per annum from 2011 to 2009 is off a low base. The sector only contributed 5,84% to the total GVA of the local economy in 2001.

The Bitou economy contributed approximately 6,62% to the economy of the Eden District Municipality in 2009. In terms of absolute numbers, the economy of Bitou generated R1 085,60 million of Gross Value Added (GVA), when compared to R16 432,33 million for the Eden District. The GVA contribution of the Bitou economy to the Eden District increased slightly from 6,37% in 2001 to 6,61% in 2009. Notwithstanding, the Bitou economy grew by 6,63% per annum from 2001 to 2009 or 63,23% over the period.

3.3.4.1 Labour Force

Table 3.3.4.1 shows that there has been a steady increase in the labour force from 1996 (8004) until 2007 (20195), an increase of 12191 individuals. The Labour Force Participation Rate (LFPR) indicates the total population aged 15 – 65 years in relation to the labour force (those employed and those seeking employment) as a percentage. The LFPR has increased slightly in 2007 (71.1%) from 1996 (69%), a 2.1% increase.

The number of individuals not economically active (NEA) has however increased with the increase in total population size. In 1996 the NEA was 3597 which has increased to 6693 in 2007.

Year	Employed	Unemployed	Labour Force	LFPR	NEA	Total pop. (15-65 years)
1996	6486 (81%)	1518 (19%)	8004	69%	3597	11601
2001	10395 (73.9%)	3680 (26.1%)	14075	70.2%	5983	20057
2007	17020 (84.3%)	3175 (15.7%)	20195	71.1%	6693	28391

Table 3.3.4.1 Characteristics of the total working age population and labour force (source: Statistics SA Census 1996, 2001 and Community Survey 2007)

3.3.4.2 Employment

Table 3.3.4.1 indicates that since 1996 those employed were 81% (6486) of the economically active population and in 2007 this was 84.3% (17020) of the economically active population. This indicates an increase in the number of employment opportunities created (± 10534 additional opportunities).

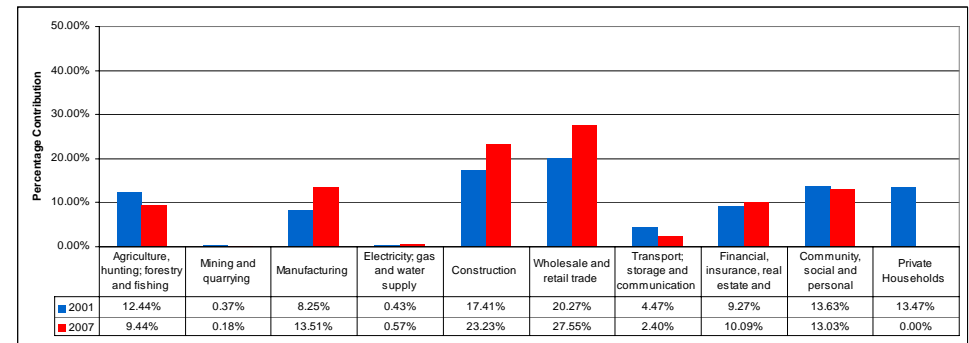
Table 3.3.4.2 and Graph 3.3.4.2 compares the main sectors of employment from 2001 with those of 2007. The total employment opportunities in these sectors increased in 2007 (12646) compared to those in 2001 (8967) by a total of 3679.

Sector	2001	% total	2007	% total	Diff Jobs	Growth PA	Annual Growth
Agriculture, hunting, forestry and fishing	1 117	12.46%	1 191	9.42%	74	6.62%	1.32%
Mining and Quarrying	42	0.47%	17	0.13%	-25	-59.52%	-11.90%
Manufacturing	733	8.17%	1 702	13.46%	969	132.20%	26.44%
Electricity, gas and water supply	30	0.33%	68	0.54%	38	126.67%	25.33%
Construction	1 526	17.02%	2 944	23.28%	1418	92.92%	18.58%
Wholesale and retail	1 837	20.49%	3 489	27.59%	1652	89.93%	17.99%
Transport, storage and communication	426	4.75%	306	2.42%	-120	-28.17%	-5.63%
Finance, insurance, real estate & business	863	9.62%	1 277	10.09%	414	47.97%	9.59%
Community, social and personal services	1 147	12.79%	1 651	13.06%	504	43.94%	8.79%
Private Households (2001)	1 246	13.90%	-	-	-	-	-
TOTAL	8 967	100.00%	12 645	100.00%	3 678	41.02%	8.20%

Table 3.3.4.2 Main sectors contributing to employment 2001 to 2007 (Multipurpose Business Solutions, 2012)

The biggest loss in employment opportunities between 2001 and 2007 was in the transport, storage and communication sectors with a loss of 120 opportunities.

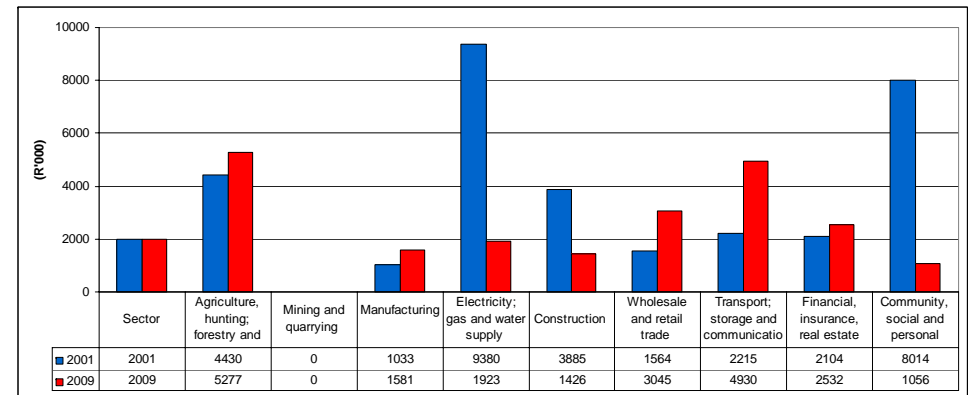
No category for private household jobs was included in the 2007 Community Survey and thus no comparison between the 2001 and 2007 figures could be made. In 2001 the contribution of this sector was 1246 opportunities. Mining and quarrying made up 0.47% of the total number of employment opportunities of the main sectors in 2001. A loss of 25 opportunities in this sector resulted in a negative growth of -59.52% between 2001 and 2007.



Graph 3.3.4.2 Sector contribution to Employment (Source: Multi-Purpose Business Solutions, 2012)

3.3.4.3 Bitou Economy and Local Economic Development

The largest sectors of the Bitou economy are Finance, Insurance, Real estate and Business Services followed by Wholesale and Retail Trade and Manufacturing, see Graph 3.3.4.2.



Graph 3.3.4.2 Illustration of the GVA by sector for the Bitou Economy - 2001 to 2009 (Source: Multi-Purpose Business Solutions, 2012)

These three sectors combined contributed almost two-thirds of the total GVA generated by the Bitou economy in 2009. The combined contribution of these sectors declined from 70,70% in 2001. The decrease in the GVA is attributed to a sharp reduction in the contribution of 26,26% by Finance, Insurance, Real estate and Business Services to GVA. Over the same period, the contribution of the Manufacturing sector to GVA

decreased from 15,54% to 14,75%. A sharp increase in Construction activity emerged over the period with the contribution of the sector increasing from 5,84% in 2001 to 13,14% in 2009. The latter represented an increase of 17,65% per annum from 2001 to 2009. Wholesale and Retail Trade also made a larger contribution to the GVA of the local economy in 2009 when compared to 2001 with a growth in the contribution to GVA of 19,26%.

3.3.4.3.1 Primary Employment Sector

The primary sector of the Bitou economy includes Agriculture, Hunting, Forestry and Fishing activity. As stated above, it is estimated that sector contributed 4,86% to the GVA of the municipal area in 2009. A decline in the contribution of primary economic activity to the total GVA of the Municipal area from 6,66% in 2001 is recorded. No mining activities occur in this area, and therefore no contribution is made by this sub-sector to the local economy.

3.3.4.3.2 Secondary Employment Sector

The secondary sector of the Bitou economy includes some Manufacturing, Construction and Electricity, Gas and Water Supply. The secondary sector contributed 22,79% to the GVA of the Bitou economy in 2001, while the contribution to GVA increased to 29,48% in 2009. The increase is essentially attributed to the Construction Sector that increased its contribution to the sector from 25,63% in 2001 to 44,57% in 2009. In current terms it is likely that the construction sector experienced a significant decline in activity thereafter and this would cause a significant slowdown in growth rates and the contribution of the secondary sector to the economy in general.

3.3.4.3.3 Tertiary Employment Sector

The Tertiary Sector of the Bitou economy includes Trade, Repairs and Hospitality, Financial Institutions, Real Estate and Business Services; Community, Social and Personal Services; and Government Services. The tertiary sector contributed 70,55% to the GVA of the local economy in 2001, which decreased to 65,66% in 2009. The contribution of government services to the local economy is unknown, but it is possible to postulate that it contributes a sizable portion to the overall GVA of the local municipality and makes a relative contribution to the Tertiary Sector.

3.3.4.4 Unemployment

The analysis for unemployment by is narrowly defined as based on the number of people who have not worked for 2 weeks prior to the survey date but have

taken active steps to look for employment. Table 3.3.4.4 shows that unemployment was concentrated within the Black population at 1961 individuals, 61.76% of the total number of unemployed individuals, in 2007. This relates to 9.71% of the total labour force. The Coloured population had an unemployment figure of 1155 which translates to a 5.72% of the labour force.

Population Group	Number of Unemployed	Percentage of Labour Force	Percentage share of Unemployed
Black	1961	9.71%	61.76%
Coloured	1155	5.72%	36.38%
Indian and Asian	45	0.22%	1.42%
White	14	0.07%	0.44%
TOTAL	3175	15.72%	100%

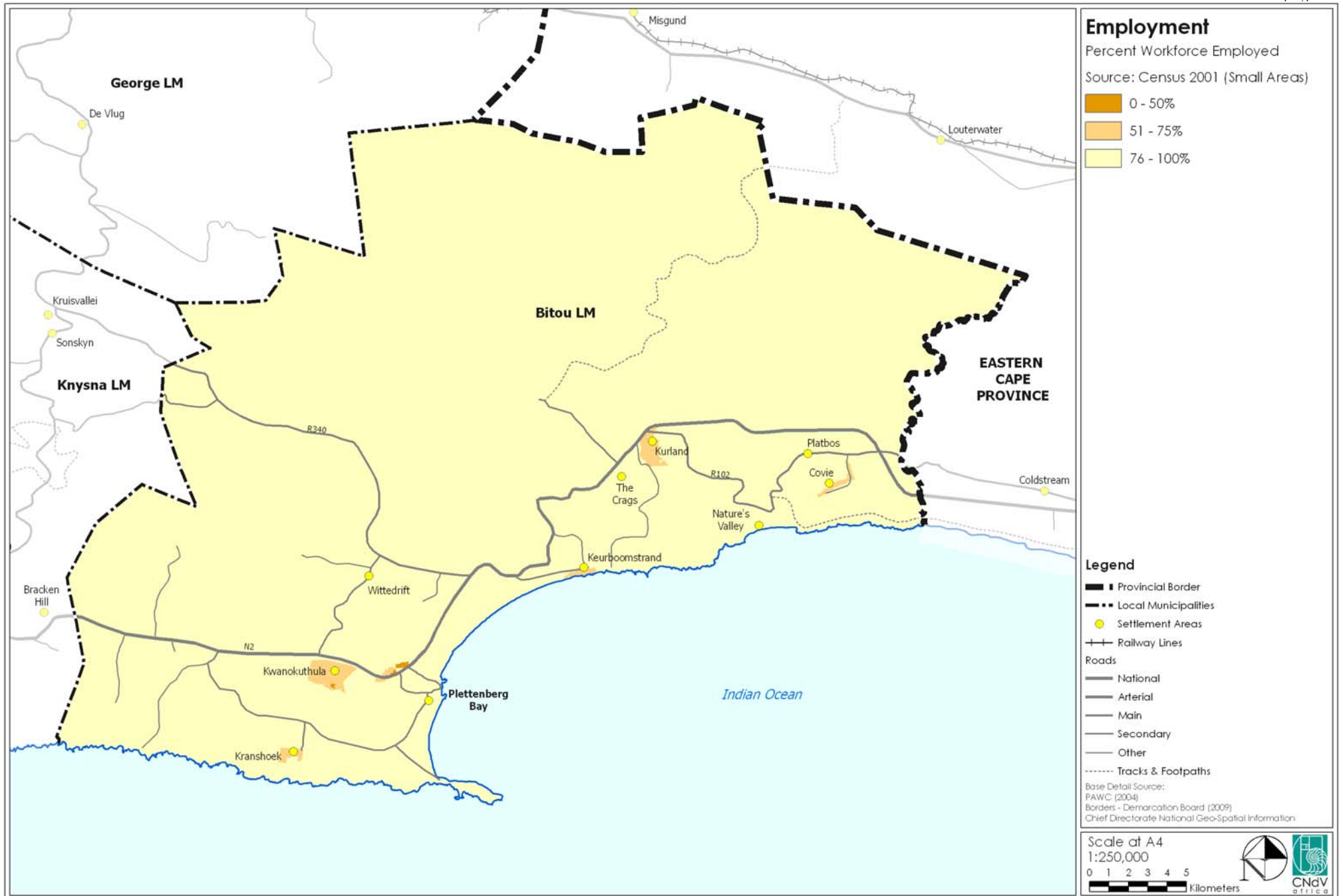
Table 3.3.4.4 Racial profile of unemployment in 2007 (Source: Community Survey 2007)

Figure 3.3.4.2 highlights areas where 50% of the workforce in those particular areas is unemployed. These areas are located in Covie, Kurland, Kranshoek and the lower income areas of Plettenberg Bay, indicating that employment creation initiatives are mostly needed in these areas.

Age	Number of Unemployed	Percentage of Labour Force	Percentage share of Unemployed
15-19	431	2.13%	13.58%
20-24	908	4.50%	28.61%
25-34	993	4.91%	31.29%
35-44	607	3.01%	19.12%
45-54	181	0.90%	5.70%
55-65	54	0.27%	1.70%
TOTAL	3174	15.72%	100%

Table 3.3.4.5 Unemployment (Source: Community Survey 2007)

Table 3.3.4.5 indicates the largest share of the unemployed are between the ages of 25-34 closely followed by the age group 20-24. The unemployed population amounts to 3174 which is 15.72% of the labour force.



3.3.4.5 Income

An assessment of the larger economic sectors contributing to the Bitou and Eden economies was done. The assessment of the larger sectors suggests that the Finance, Insurance, Real Estate and Business Services sector, which contributed 23,33% (2009) to the GVA (Gross Value Added) of the local economy, grew by 2,34% per annum over the period 2001 to 2009. The Wholesale and Retail Trade sector, with a 28,05% (2009) contribution to the GVA, grew at a nominal rate of 8,68% per annum over the period 2001 to 2009. Manufacturing, which contributed 14,57% (2009) to the local GVA grew at a nominal growth rate of 5,46% per annum over the period 2001 to 2009.

Economic Sector (R'million)	Gross Value Added				Growth for Period (%)	Annual Growth (%)
	2001	% of Total	2009	% of Total		
Agriculture, hunting, forestry and fishing	44303	6.66	52778	4.86	19.13	2.21
Mining and quarrying	0	0.00	0	0.00	0.00	0.00
Manufacturing	103338	15.54	158130	14.57	53.02	5.46
Electricity, gas and water supply	9380	1.41	19239	1.77	105.11	9.39
Construction	38851	5.84	142654	13.14	267.18	17.65
Wholesale and retail	156447	23.52	304542	28.05	94.66	8.68
Transport, storage and communication	22159	3.33	49303	4.54	122.50	10.51
Finance, insurance, real estate and business services	210466	31.64	253294	23.33	20.35	2.34
Community, social and personal services	80143	12.05	105690	9.74	31.88	3.52
Total	665087	100.00	1085630	100.00	63.23	6.32

Note: No mining and quarrying activity is recorded in the local municipal area in 2001 and 2009

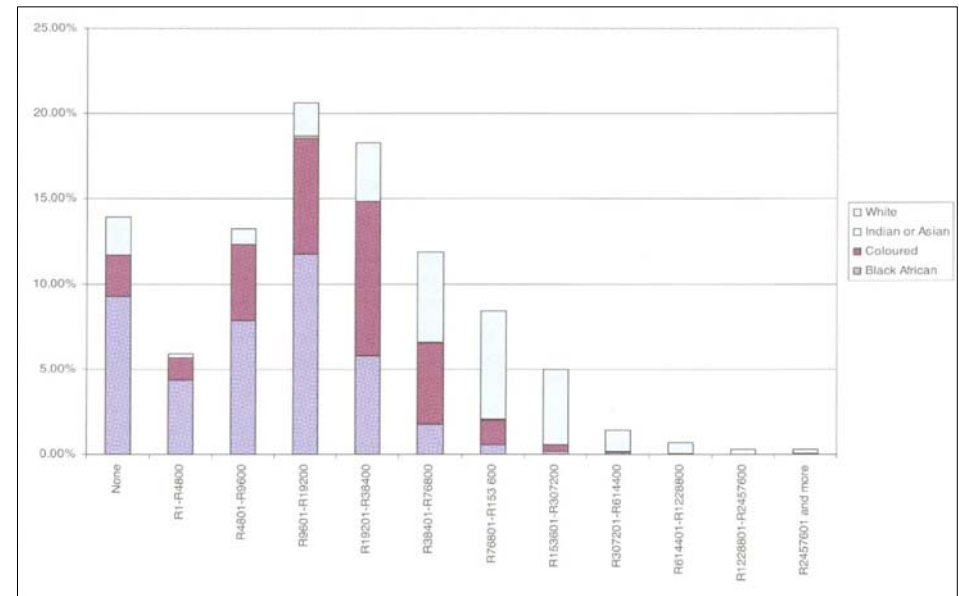
Table 3.3.4.5 Assessment of Sector Contribution to GVA in 2001 and 2009 (Source: Multi-Purpose Business Solutions, 2012)

Among the nine classified sectors, eight recorded an annual increase in economic activity with the Construction and Transport, Storage and Communication sector achieving strong individual performance on an annual basis, although the latter is off an extremely low base.

3.3.4.6 Individual and Household Income

Figure 3.3.4.5 provides a graphic representation of the geographical distribution of income in the municipality which shows that the areas of Kranshoek, Kwanokuthula, Kurland and Covie have the lowest income levels. Higher income areas are located north of Plettenberg Bay.

Graph 3.3.4.6a indicates that poverty is more prevalent in the African communities. In the higher income levels the white population is most prevalent.



Graph 3.3.4.6a Income distribution by population group, 2001 (Source: Census 2001)

Graph 3.3.4.6b shows that in 2007:

- About 41% of household heads earned below R3200 per month;
- About 17% of household heads earned between R3201 and R12800; and
- About 7% of household heads earned between R12801 and R204800.

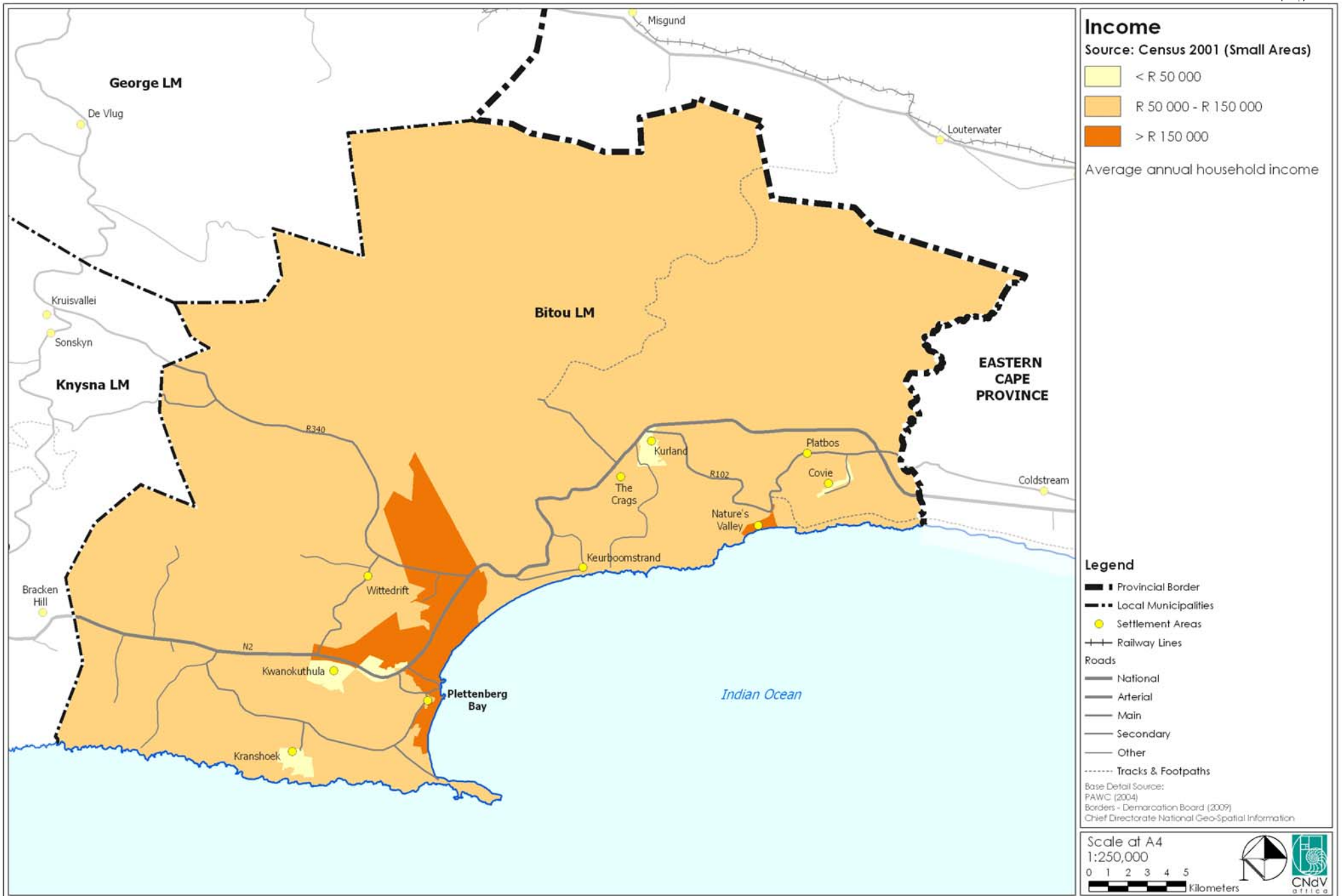
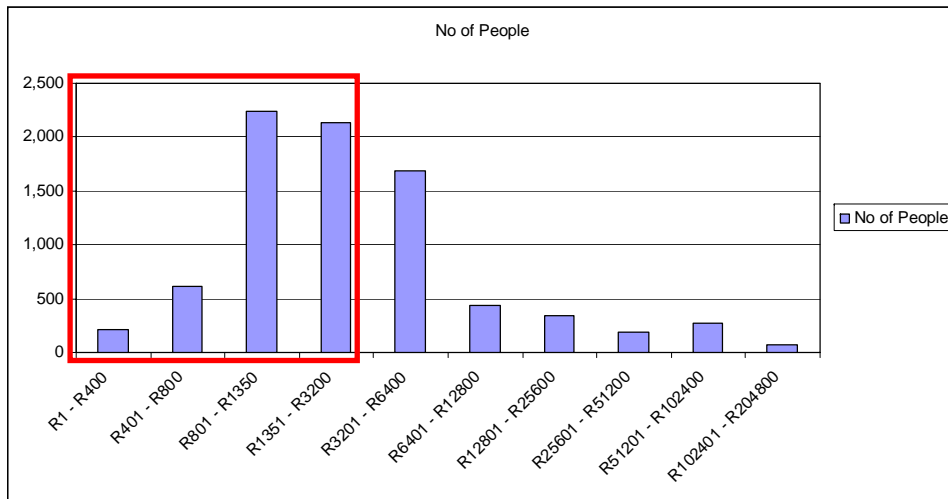


Figure 3.3.4.5 Income



Graph 3.3.4.6b Income distribution by household head, 2007 (Source: Community Survey, 2007)

3.3.4.7 Local Economic Development

Local Economic Development (LED) is done to identify which elements drive the economy and what can be done to strengthen these in an attempt to reduce unemployment. In 2005 a Local Economic Development Strategy was completed by PricewaterhouseCoopers Consortium.

The study identified four strategic sectors of the Bitou economy. The following sectors were identified:

- Tourism
- Manufacturing
- Services
- Trade and Construction

Tourism was identified as the key driver in the economy of Bitou and an emphasis was placed on the importance of providing growth in this sector in order to grow the economy and for employment creation. In Bitou tourism generates 8.7% of the district GRP and 8.6% of the employment. Bitou is a popular holiday destination and a popular retirement area. Bitou

attracts a large number of tourists over the holiday season. Unfortunately only a small portion of the population benefits from this influx of tourists. It was highlighted that efforts should be made to distribute the benefits to all in Bitou.

The **manufacturing** sector has also shown good levels of growth particularly in the food, textiles, non-metallic mineral products, metal products and furniture sub-sectors. This sector employed 8% (2001) of the total labour in Bitou. The growth of this sector has however not shown greater income levels amongst employees even though a greater number of employees have been employed. This was raised as a concern. It was also found that females were not represented in the management and technical categories and efforts should be made to ensure more gender and race diversity.

The **services** sector employed 8% of the total labour in 2001, up from 5.6% in 1996. High wages were identified in this sector, particularly in "Insurance and Pension Funds" and "Financial Intermediation". On average 81% the total procurement was made in Bitou. The percentage of goods procured locally was between 65% and 100%. Businesses in the sector mostly supplied services to private households, construction, architectural and engineering firms, window manufacturers and bricklayers.

Trade and construction was expected to grow considerably in the coming years. This was mainly attributed to significant population growth, social infrastructure spending, residential construction, tourism related facilities, commercial and industrial facilities and development of physical infrastructure. This sector generated approximately 33% of the total employment which is down from 36.9% in 1996 (approximately 15% of this is generated by construction).

On average businesses spent 35% of the procurement budget within Bitou. Building suppliers seldom procured goods locally. Negative aspects identified by businesses for their poor investment behaviour were increases in socio economic problems, bad service, poor management of town, drunkenness, increases in service charges, poor municipal service levels and crime.

Implications for Bitou Municipality

- The biggest sectors for employment generation were Wholesale and Retail, Construction and Manufacturing. To alleviate unemployment these sectors need to be strengthened.
- The largest sectors contributing to GVA were Finance, Insurance, Real Estate, Business Services and Wholesale and Retail. Encouraging growth in these sectors will be crucial in the future growth of the Bitou Municipality economy and the GVA generated by the municipality.
- Kranshoek, Kwanokuthula, Kurland and Covie have the lowest income levels. Specific employment generating initiatives are needed in these areas.
- Those elements which are unique in the Bitou Municipality and which could increase tourism should be developed. Positive “spin-offs” generated by tourism opportunities also need to benefit the larger community on not just a small sector of the population. Tourism could play an important part in alleviating unemployment.
- A favourable environment should be created for attracting increased levels of investment into the Bitou Municipality. For this to occur, special attention needs to be given to improving socio-economic conditions, poor municipal services and crime.

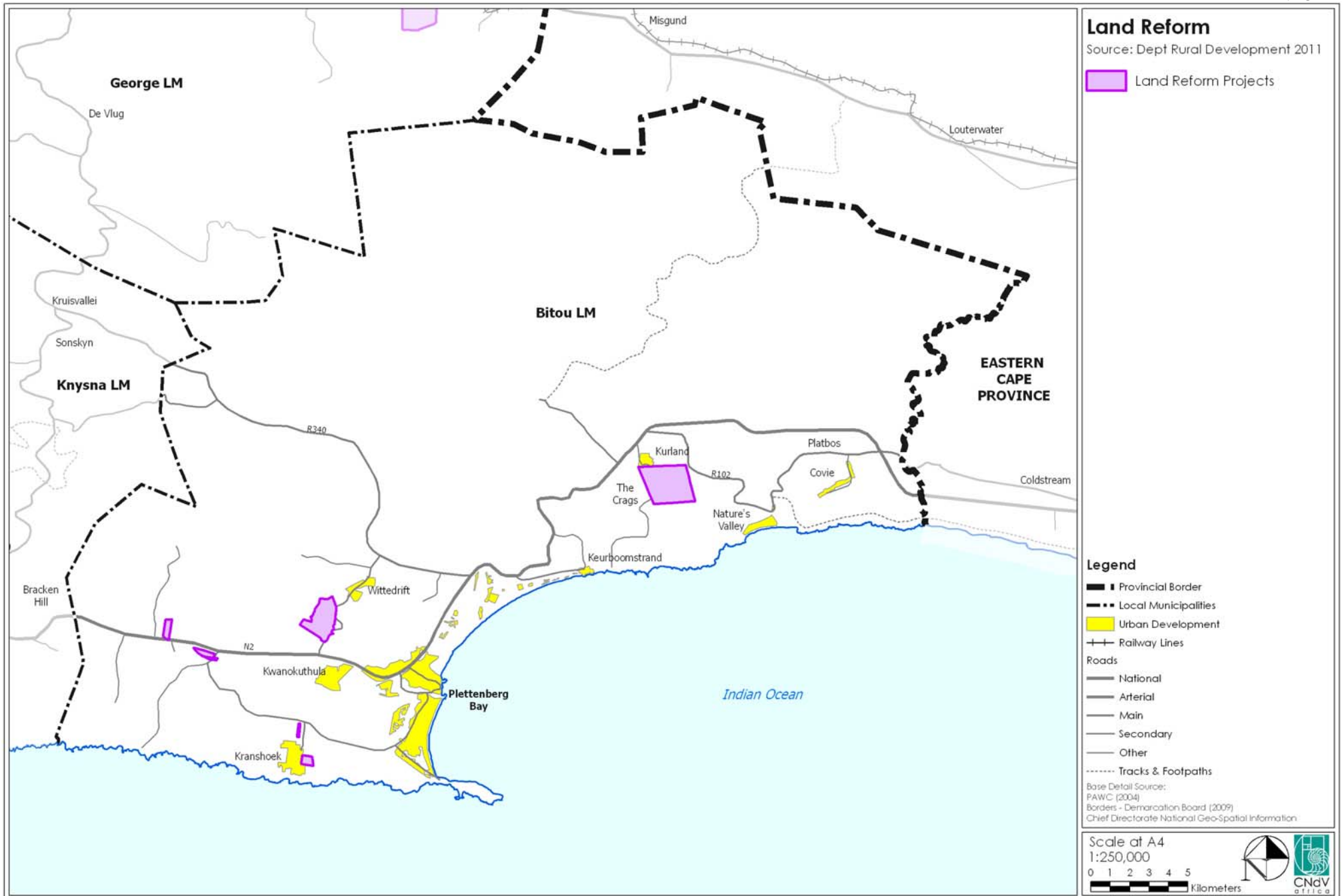
3.3.5 Land Reform

The following list of land reform projects was obtained from the Department of Rural Development and Land Reform (DRDLR). A total of 6 projects have been undertaken. The various projects have been mapped on Figure 3.3.5.1

	PROJECT NAME	PROPERTY DESCRIPTION	TYPE	HA	BENEFICIARIES	FARMING ACTIVITIES	BUDGET
1	Harkerville	Portion 12 of the farm Ruiterbosch No. 60	Settlement	9.6	241 Households	Settlement	Transfer of funds to municipality: 3 856 000 Balance: 0
2	Ericaville	Portion 7 of the Farm Kranzhoek No.432	SLAG	38.5	94 households	Honey bush tea, proteas, vegetables	Planning grant: 144 000 Capital Grant: 1 504 000 Balance: R 0
3	Forest Hall 1 Simunye Farmstead	Remaining extent of the Farm 303	LRAD	9.5	19	Vegetables	Land donated Project Cost: 380 000 Balance: R 0
4	Forest Hall PLAS	Remainder of Erf 562 Kurland	PLAS	86.	Lease	Vegetables	Land Acquisition: 4 600 000 Infrastructure development: 1 150 000 Planning grant: 675 000 Balance: R 141 036.95
5	Bitou Commonage	Remainder of Farm No. 487	Commonage	179	In Planning	Livestock grazing	Planning Grant: 1 359 261 Capital Grant 9 061 745 Infrastructure development funds R2 265 436
6	TRANCRAA Kranshoek	Portion 29 (portion of portion 6) of the farm Kranshoek	TRANCRAA	350	4000	Livestock and vegetables	15% Planning grant: 639 360 Balance: R408 850.70

Implications for Bitou Municipality

- Three land reform projects have considerable remaining budget which have not been spent. These three land reform projects will provide opportunities for vegetable production and livestock farming and initiatives in the SDF should be developed to encourage the fruition of these.



3.3.6 Cemeteries

The municipality currently have cemeteries in the following locations:

Location	Number of Cemeteries	% full
Plettenberg Bay	1	100%
Wittedrift	2	100%
Kranshoek	1	50%
Kwanokuthula	1	100%
New Horizon	1	100%
The Craggs	2	60%

The municipality currently have 8 cemeteries located throughout the municipal area. The majority of the cemeteries have no capacity.

Discussions have been underway to potentially locate a central cemetery in Bitou. No details were available at this stage regarding possible locations. Should a site be selected the following criteria would be important to consider:

- Vandalism of graveyards should be curbed through adequate security measures and fencing.
- Suitable land should be sought that is not susceptible to flooding and waterlogging. The following guidelines are suggested:
 - the water table should be at least 2.5 metres below ground level, or 0.7 metres below the base of the grave for medium sandy and clay soils;
 - where possible; in sandy soil conditions the water table should be at least 8 metres below ground level in order to provide a suitable attenuation zone;
 - burial in very permeable soil, such as gravel and sand, or very clayey ground should be avoided;
 - serious contamination may occur in rocky ground and such sites should be avoided.
- Sandy unstable soils should be avoided which cause difficulties in terms of side wall collapse. In this regard the following would be important:
 - Graves should preferable be excavatable by hand or machine without too much difficulty to a depth of between 1.8 – 2.8 metres;

- Ideally, sidewall collapse of the grave should not occur and grave walls should be able to stand unsupported.
- The cemetery should potentially be within walking distance from the relevant community. Easy access makes funeral processions possible where communities don't have access to vehicles and also increases the frequency and ease of subsequent visits

Implications for the SDF

- Finding vacant land for new cemeteries or extensions to existing cemeteries needs to be explored given the current capacity problems.

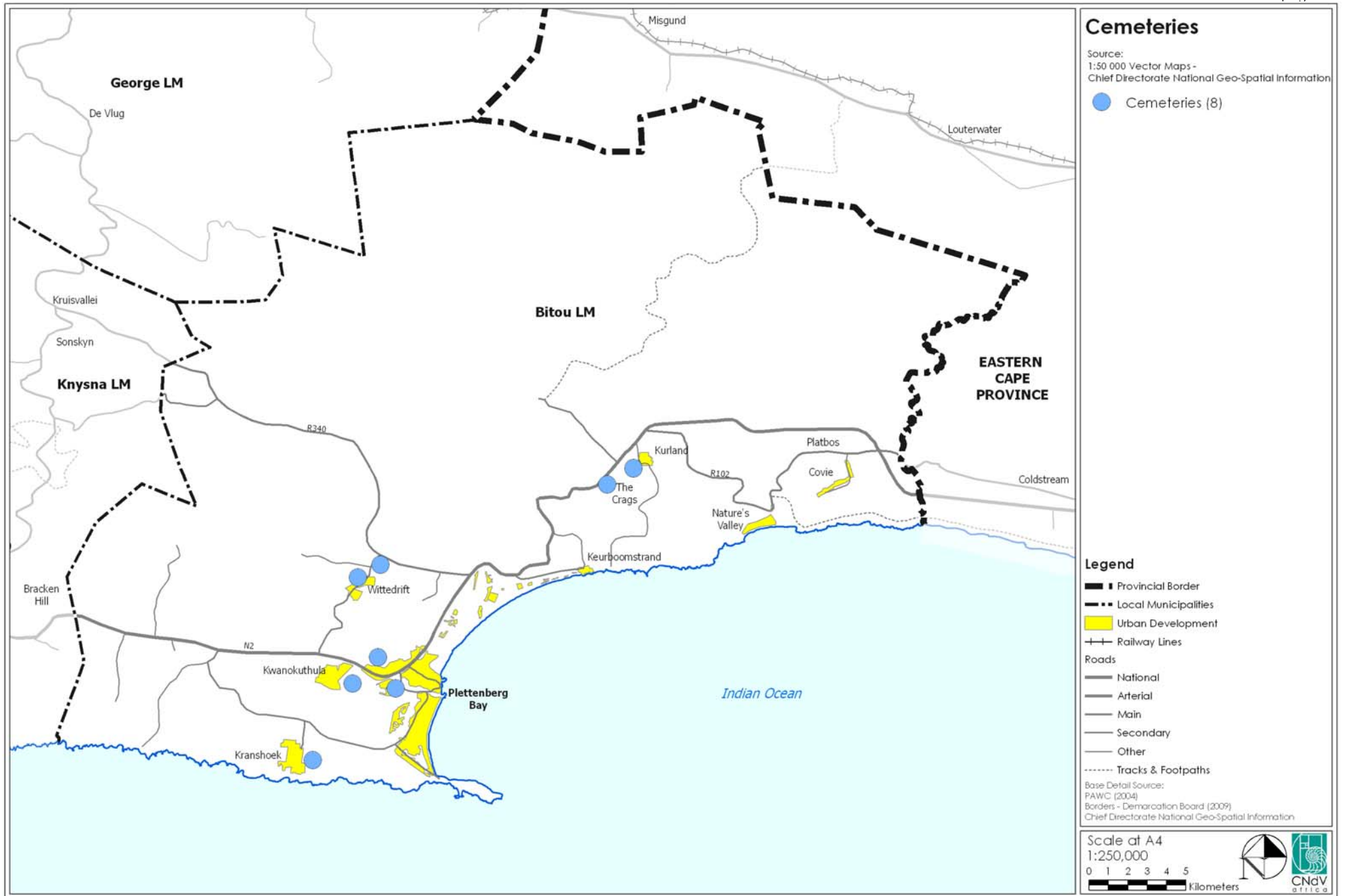


Figure 3.3.6.1 Cemeteries

3.3.7 Crime

There is only one police station in Bitou which is located in Plettenberg Bay. The crime statistics from March 2004 until March 2010 were analysed. Over the six year period a total of 8086 property related crimes were reported (this being the most common crime over this period). In March 2004 and 2005 very high incidences of these crimes were reported. Under this category, burglaries at residential properties were the most prevalent, followed by theft out of/from a motor vehicle.

Other serious crime and contact crime were high in March 2004 and 2005 but significantly reduced in the following years.

Contact related and crimes requiring police action are generally low in comparison with other crime levels.

In general policing has improved over the years 2004 – 2011 with all incidences of crimes decreasing. Only crimes requiring police action have been on the rise.

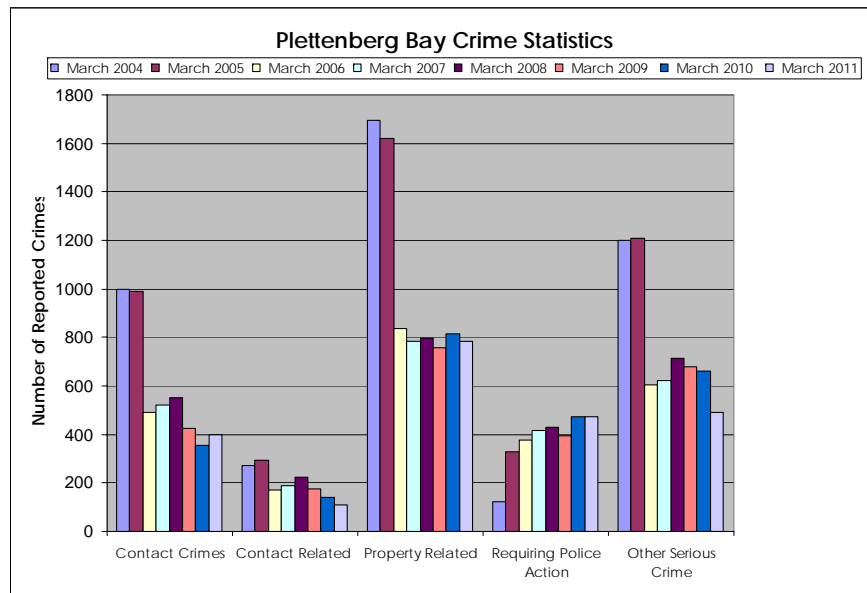


Figure 3.3.7 Plettenberg Bay Crime: 2004 – 2011 (source: www.saps.gov.za/statistics)

3.3.8 Property market patterns and growth pressures

One of the leading indicators in predicting economic activity and the impact of monetary policy changes are building statistics. The construction sector is cyclical by nature and is sensitive to changes in among others, interest rates. In addition, investments in non-residential buildings are also an indicator of potential future growth. Businesses, for instance, may be in the process of expanding, which may allude to an increase in future production capacity and/or expansion of business services.

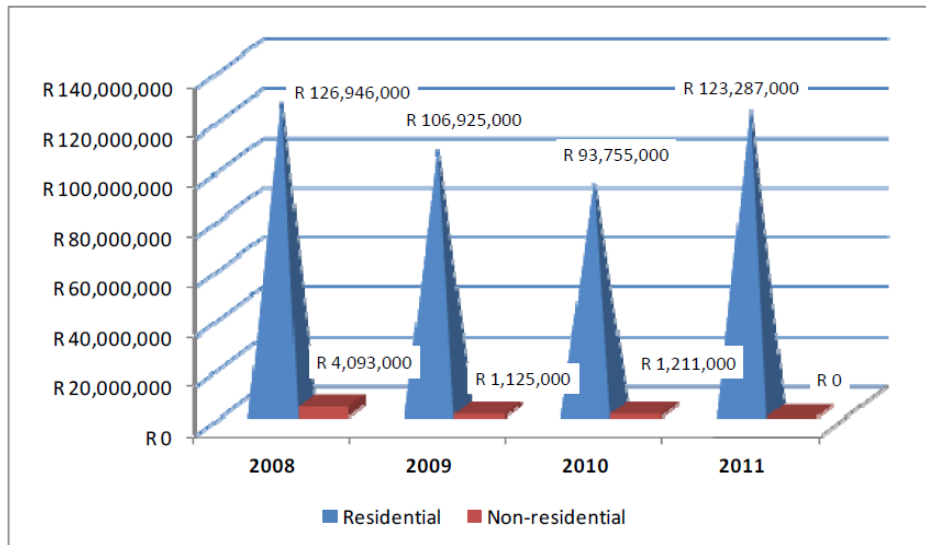
From the building statistics provided by STATS SA for the Bitou Municipality, it can be observed from Table 3.3.8 that an increase of 15,13% occurred in the number of new residential buildings over the period 2008 to 2011. A decrease in non-residential building activity is observed in the total value of buildings completed in the Municipal area (refer to Table 3.3.8). Non-residential buildings completed over the period refer more specifically to retail (shopping) space. The total value of buildings (irrespective of the nature and scope) completed over the period 2008 to 2011, totalled R457,3 million. The split between residential buildings and non-residential buildings is 99% and 1% respectively. The value of buildings completed for residential and non-residential is represented by 664 and 6 building projects, respectively. The policy of local procurement and content also assists with job creation among local residents. The changes in the residential and non-residential building activity are best considered by assessing the number of building projects in relation to the value of building activity. The findings are indicated in Table 3.3.8.

Number of projects	2008		2009		2010		2011	
Residential	152	98%	169	99%	168	99%	175	100%
Non-residential	3	2%	1	1%	2	1%	0	0%
Total	155	100%	170	100%	170	100%	175	100%
Value of projects	2008		2009		2010		2011	
Residential	R 126 946 000	97%	R 106 925 000	99%	R 93 755 000	99%	R 123 287 000	100%
Non-residential	R 4 093 000	3%	R 1 125 000	1%	R 1 211 000	1%	R 0	0%
Total	R 131 039 000	100%	R 108 050 000	100%	R 94 966 000	100%	R 123 287 000	100%

Note: No weighting of larger vs. smaller building projects are applied to the calculation of the value

Table 3.3.8 Number and value of new residential and non-residential building projects from 2008 to 2011 (Source: Multi-Purpose Business Solutions, 2012)

The annual value for residential and non-residential building activity is indicated in graph 3.3.8



Graph 3.3.8 Total value of residential and non-residential building activity on an annual basis from 2008 to 2011 (Source: Multi-Purpose Business Solutions, 2012)

Residential building activity reached a pinnacle in 2008 and could be attributed to the lag of completed buildings started before 2008. The value of new and renovated residential buildings in the Bitou municipal area totalled R126,9 million in 2008 while the value dropped to R123,2 million in 2011. This represents a reduction of 2,88% in value over the period. The highest annual value for non-residential building activity was achieved in 2008 with R4,09 million and the lowest annual value was zero in 2011.

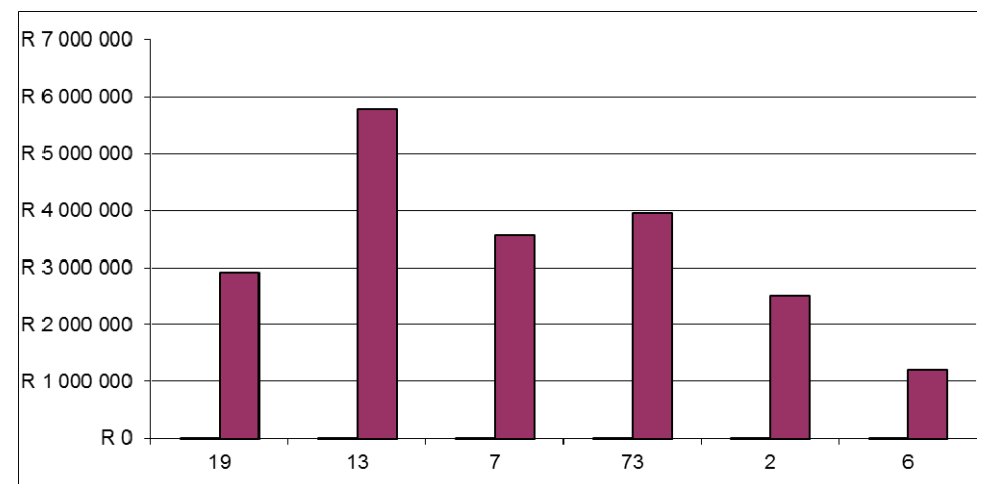
The value of non-residential building activity decreases from 2008 to 2011 by 100% or on a compounded basis by 100% per annum on average. In addition, the value of residential building activity decreased by an average of 0,97% per annum over the same period.

3.3.8.1 Urban Property Market

- There are 120 properties on the market with asking prices ranging from R1.2million to R5.7million;
- A significant number of properties (73) are for sale in Plettenberg Bay.
- The highest average asking price is in Keurboomstrand and the lowest in Wittedrift.

No.	Settlements	No. of Erven	Size (m ²)	Ave Plot Size	Total Asking Price	Average Asking Price
1	Keurbooms River	19	13075	688	55,525,800	R 2,922,411
2	Keurboomstrand	13	7653	589	75,095,000	R 5,776,538
3	Nature's Valley	7	10984	1569	25,000,000	R 3,571,429
4	Plettenberg Bay	73	53557	734	288,846,000	R 3,956,795
5	The Craggs	2	3231	1616	5,000,000	R 2,500,000
6	Wittedrift	6	4422	737	7,170,000	R 1,195,000
Total		120	92922		R 456,636,800	

Table 3.3.8.1 Property Sales (Urban) (Source: Property24 (Property24.com), Local Property Index (localpropertyindex.com))



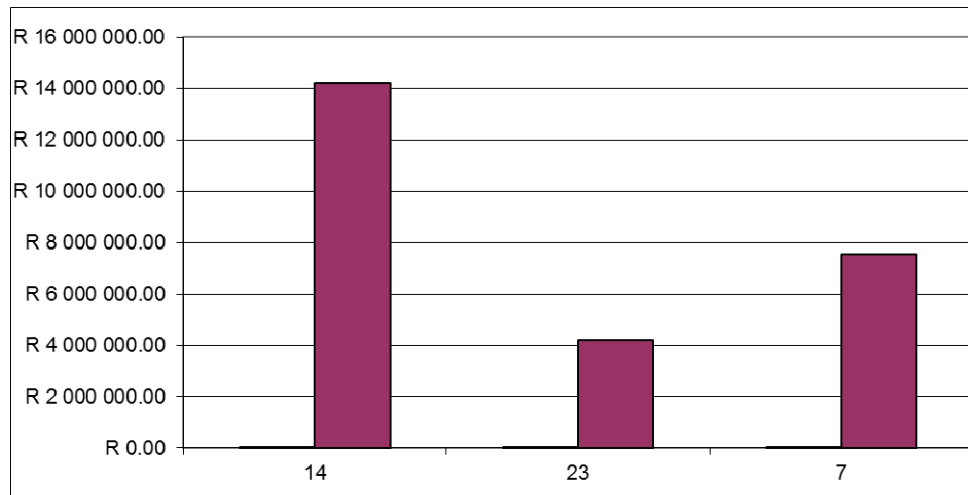
Graph 3.3.8.1 Property Sales (Urban) (Source: Property24 (Property24.com), Local Property Index (localpropertyindex.com))

3.3.8.2 Rural Property Market

- There are 44 rural properties on the market with asking prices ranging from R48 000 to R 260 000 per hectare.
- The largest numbers (23) of rural properties are for sale in The Craggs.
- The most expensive rural properties are located near Plettenberg Bay.

No.	Settlements	No. of Farms	Size (ha)	Ave Plot Size (ha)	Total Asking Price	Average Asking Price
1	Plettenberg Bay	14	2650	189	R 198 600 000	R 14 185 714
2	The Craggs	23	365	16	R 96 065 000	R 4 176 739
3	Wittedrift	7	1084	155	R 52 675 000	R 7 525 000
Total		44	4099.16		R 347 340 000	

Table 3.3.8.2 Property Sales (Rural) (Source: Property24 (Property24.com), Local Property Index (localpropertyindex.com))



Graph 3.3.8.2 Property Sales (Rural) (Source: Property24 (Property24.com), Local Property Index (localpropertyindex.com))

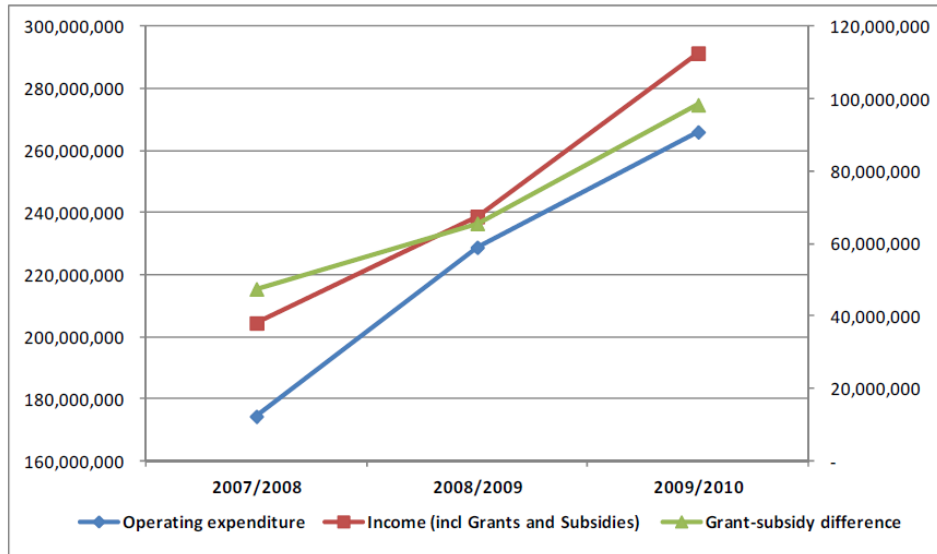
Implications for Bitou Municipality

- There has been a decrease in the property construction industry in general (both non-residential and residential). This could potentially be attributed to the recent recession or the availability of suitable land to construct.

3.3.9 Municipal Finances

3.3.9.1 Income and Expenditure Pattern

Graph 3.3.9.1 represents an illustration of the total operating income and expenditure together with the grants and subsidies for the Bitou Municipality over the period 2007/2008 to 2009/2010.



Graph 3.3.9.1 Operating Income and expenditure for Bitou (Source: Multi-Purpose Business Solutions, 2012)

The operating income (including grants and subsidies) of the Bitou Municipality increased by 42,51% from 2007/2008 to 2009/2010 or 19,38% on average per annum over the period. Operating expenditure increased by 52,51% over the period or 23,49% per annum on average from 2007/2008 to 2009/2010. The need for additional funding in the form of grants and subsidies is clearly illustrated and is required to cover the shortfall.

The graphic illustration in Graph 3.3.9.1 clearly indicates that in 2007/2008, operating income (including equitable shares, grants and subsidies) exceeded operating expenditure by 17,23%. In 2008/2009, operating income (inclusive of equitable share, grants and subsidies) exceeded operating expenditure by 4,35%, while total income exceeded operating

expenditure by 9,54% in the following financial year. The assessment also indicates the increase in reliance on grants and subsidies to fund operating expenditure.

Grants and subsidies increased by 106,95% from 2007/2008 to 2009/2010, although off a low base. Alternatively, grants and subsidies as a percentage of total operating revenue (excluding grants and subsidies), increased from 30,29% in 2007/2008 to 50,96% in 2009/2010. The latter indicates that grants and subsidies received do not exceed the operating income generated by the Municipality from its own activities, but this suggests that the reliance on grants and subsidies will probably increase further should the emerging trend continue.

It is also apparent from the population figures for the area that an increase in the population has occurred from 2001 to 2007 (Bitou Municipality IDP, 2012). In 2007, the population based on the Statistics South Africa Community Survey, totalled 39 002. The IDP of the Municipality (2010/2011) indicates an estimated population of 43 239 in the Municipal area in 2009. This represents an increase of 10,86% over the period 2007 – 2009. In terms of households, the IDP of the Bitou Municipality indicates 13 786 households in 2008. This figure increased to 16 385 households in 2010, an increase of 18,85% over the period 2008 to 2010.

Mortality rates, urbanization trends and lack of economic growth are factors that may impact on the size of the future population and household size in the Municipal area.

3.4.9.2 Provincial and National Transfers and Grants

Unconditional government grants in the form of equitable share increased from R13,17 million in 2009 to R14,30 million in 2010 (an increase of 8,56%). Conditional grants increased from R50,11 million in 2009 to R72,40 million in 2010 (an increase of 44,48%). Total government grants (conditional and unconditional), therefore increased by 37,01% from R63,28 million in 2009 to R86,7 million in 2010. In 2009 10,58% of the grants were capital grants and 89,42% operating grants. In 2010, 28,02% of the total amount of grants were capital grants and 71,98% were operating grants.

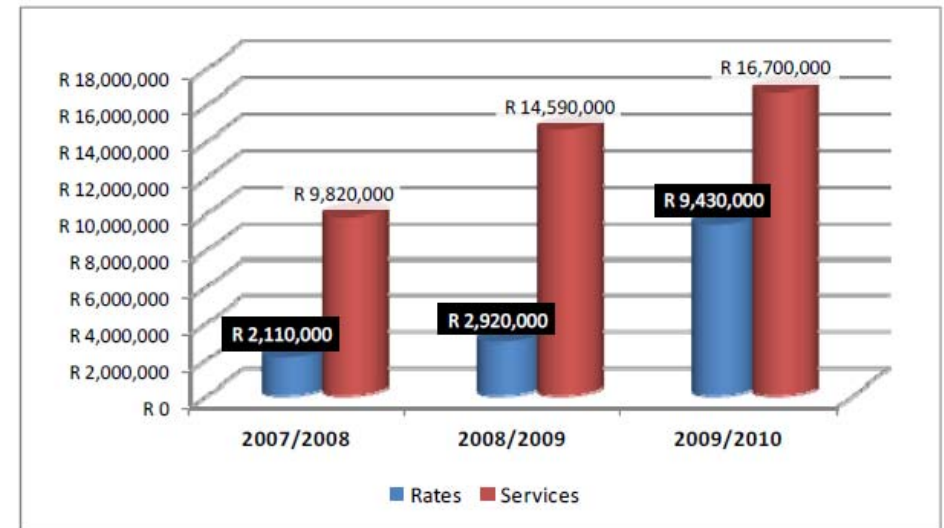
Provincial DPLG and Housing Grants increased from R21,01 million in 2009 to R44,5 million in 2010 (an increase of 111,80%). Other significant grants such as the National FMG, Municipal Infrastructure Grant, National Electrification Programme grant and the Neighbourhood Development grant also increased from R8,5 million in 2009 to R17,4 million in 2010. Flood monies grant decreased by 51,2% from R19,5 million in 2009 to R9,5 million in 2010.

Total unspent conditional government grants and receipts increased from R14,86 million in 2009 to R22,53 million in 2010.

3.3.9.3 Outstanding Rates and Services

The municipality experienced a general increase in outstanding consumer debt between 2007/2008 and 2009/2010 across all service delivery and rates categories. The largest increase accrued to services that include electricity, water, sanitation and solid waste removal. From 2007/2008, outstanding debt related to services increased by 48,57% from R9,82 million to R14,59 million. The following year the growth rate increased to 14,46% or outstanding debt of R16,7 million. An increase in outstanding rates was also recorded from 2007/2008 to 2008/2009 (38,39%) and from 2008/2009 to 2009/2010 (222,95%).

Overall outstanding debt increased by 119,03% from 2007/2008 to 2009/2010. Outstanding rates increased from R2,11 million to R9,43 million over the period, an increase of 346,92%. Outstanding fees for services increased by 70,06% over the period or from R9,82 million to R16,7 million. The findings are presented in Graph 3.3.9.3. The per capita debt outstanding for the purposes of the analysis is based on the economically active population, which was 10 395 and 17 020 in 2001 and 2007, respectively (Bitou Municipality IDP 2011-2012,2012). The outstanding debt per capita based on the 2001 Population census was R2 513,71 and based on the population in 2007, R1 836,52 per capita.



Graph 3.3.9.3 Outstanding debts in terms of rates and services (Source: Multi-Purpose Business Solutions, 2012)

The arrears in rates and services and housing rentals are shown on the following tables:

Arrears in rates and services (and housing rentals)

	Total	Rates and Taxes	Housing rentals
2009/2010	R26,81 m	R26.13m (97.46%)	R0.68 m
2008/2009	R17,85 m	R17,51m (98.09%)	R0.34 m

Total outstanding debtors represent 15,69% (2009/2010) and 11,34% (2008/2009) of actual operating income. The gross amount owed by debtors increased by 50,19% from 2008/2009 to 2009/2010.

Financial Performance Ratios

i) Cost Coverage (Actual Operating Income (as defined) / operating expenditure)

2009/2010	64,21%
2008/2009	68,79%

A figure above 100% would indicate operating income from own sources would be sufficient to cover operating expenditure, hence no need for grant and subsidy funding. The coverage of costs (operating expenditure) decreased slightly from 2008/2009 to 2009/2010. The decrease in the ratio from 2008/2009 to 2009/2010 indicates that operating expenditure increased at a faster rate than the increase in operating income.

ii) Liquidity: Net Current Assets: Net Current Liabilities

2009/2010	2,45 : 1
2008/2009	3,07 : 1

A decrease in the ratio by R0,62 of current assets for each R1 of current liabilities (or 20,2% from 2008/2009 to 2009/2010) is a negative as this indicator highlights the ability of the Municipality to meet its short term obligations. That being said, the current ratio is above the safer margin of 2:1. This trend must be monitored and corrective measures taken on a proactive basis should any further decline in the ratio occur.

iii) Solvency: Total Liabilities to Total Assets

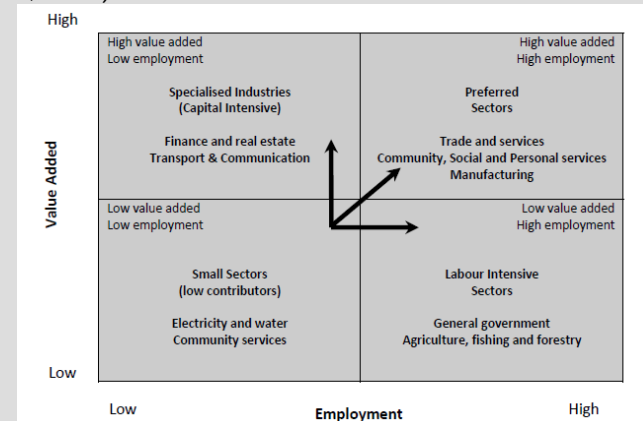
2009/2010:	50,58%
2008/2009:	47,74%

The solvency indicator offers an indication of the ability of the Municipality to meet its longer term obligations. The weaker solvency ratio is attributed to external loans acquired by the Municipality with a value of R23 million and an increase of R17m in the Municipality's trade payables.

Implications for Bitou Municipality

- There are improving levels of operating income. An increase in operating expenditure has occurred as well as the emergence of declining (negative) trends related to non payment of service fees which must be addressed in a proactive manner and positive payment trends should be re-enforced
- The reliance on grants and subsidies increased by 38,05% from 2007/2008 to 2008/2009, and increased again by 49,91% from 2008/2009 to 2009/2010 while actual operating income (as defined) only increased by 8,51% over the same term.

- Staff vacancy levels are at 13,26% of total staff at the end of 2010. None of these vacancies are in key positions although several managerial positions remain unfilled.
- Minimal resources in terms of capacity and finances are available to fund growth initiatives.
- A need exists to stimulate the local economy and build on the strength of core growing sectors that deliver gross value added and employment by introduce strategies that will reduce the decline in employment and migration.
- The most important contributors to the economy of the Bitou area, which are also aligned with a high value added and high employment focus, are Wholesale and Retail, Community, Social and Personal Services and Agriculture (although agriculture is not considered as a high value added economic activity). Transport, Storage and Communication is a sector with high value addition, but lower employment.
- The preceding graph indicates the importance of Trade and Services and Community, Social and Personal Services as economic activity that provides a high value-addition and employment. Notwithstanding, high leakage factors are prevalent in economies with narrow economic bases and therefore income leakage will erode to a certain extent the indirect and induced value added to the Bitou economy by the need to "import" various products and services. (Source: Multi-Purpose Business Solutions, 2012)



Economic sector performance profile of the Bitou Economy (Source: Multi-Purpose Business Solutions, 2012)



3.4 URBAN SETTLEMENTS AND HIERARCHY

3.4.1 Hierarchy and Role of the Settlements

The municipality has one main settlement, Plettenberg Bay, which serves as the main service centre providing higher order medical, educational, commercial and administrative services.

Three secondary settlements are dependent on Plettenberg Bay for major facilities. These are: Kurland, Kranshoek and Nature's Valley.

The surrounding rural areas contain a number of small towns. Covie, the Craggs, Keurbooms, Wittedrift, Green Valley, Harkerville, Kwanokuthula, New Horizons as well as Qolweni and Bossiesgif are regarded as smaller towns.

Plettenberg Bay and Kurland are situated along the N2 freeway whilst Kranshoek and Nature's Valley are situated along the coast and linked with connecting routes to the N2 freeway. The N2 freeway is the main mobility route through the municipality.

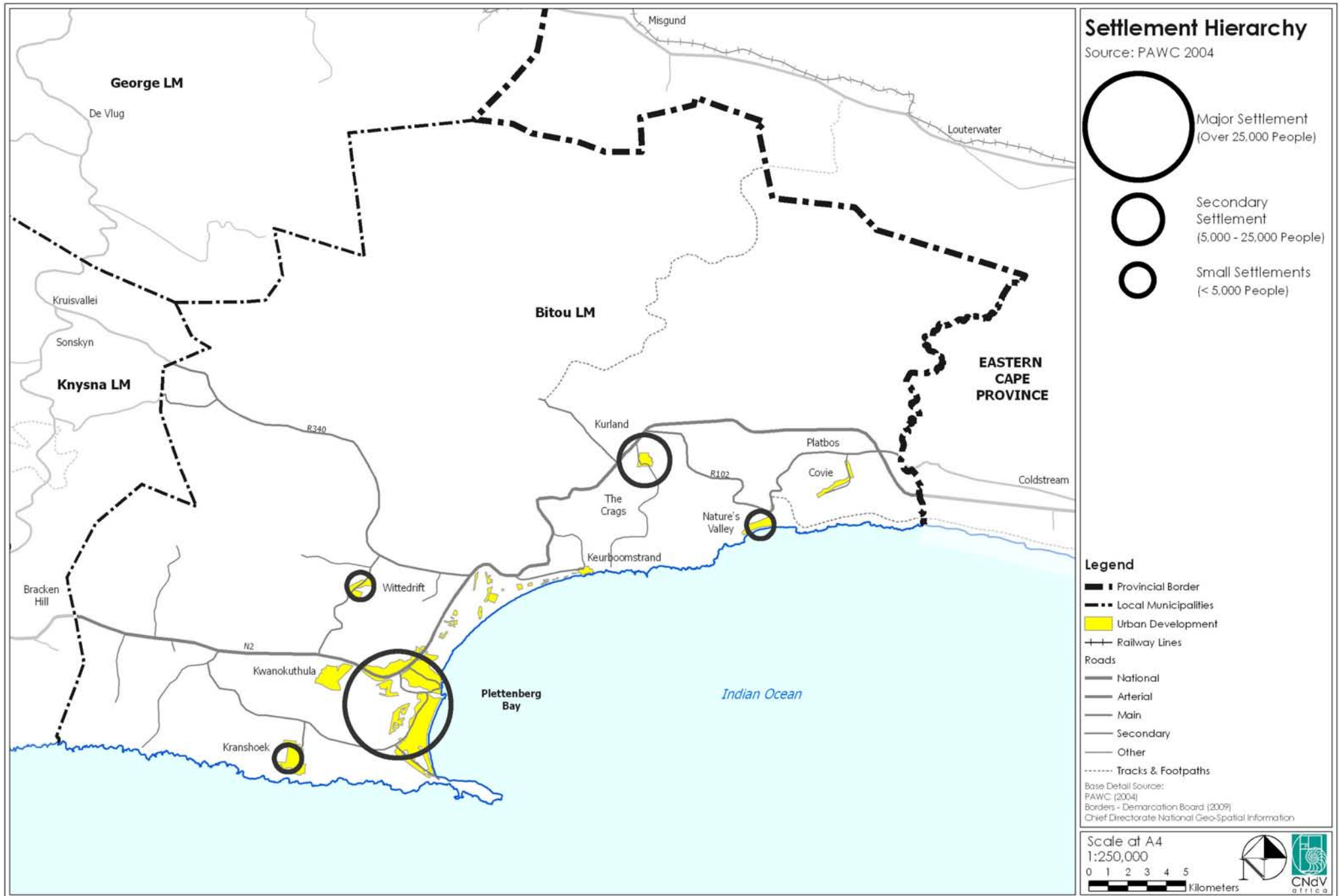


Figure 3.4.1.1 Hierarchy of Settlement, Linkages and investment priority

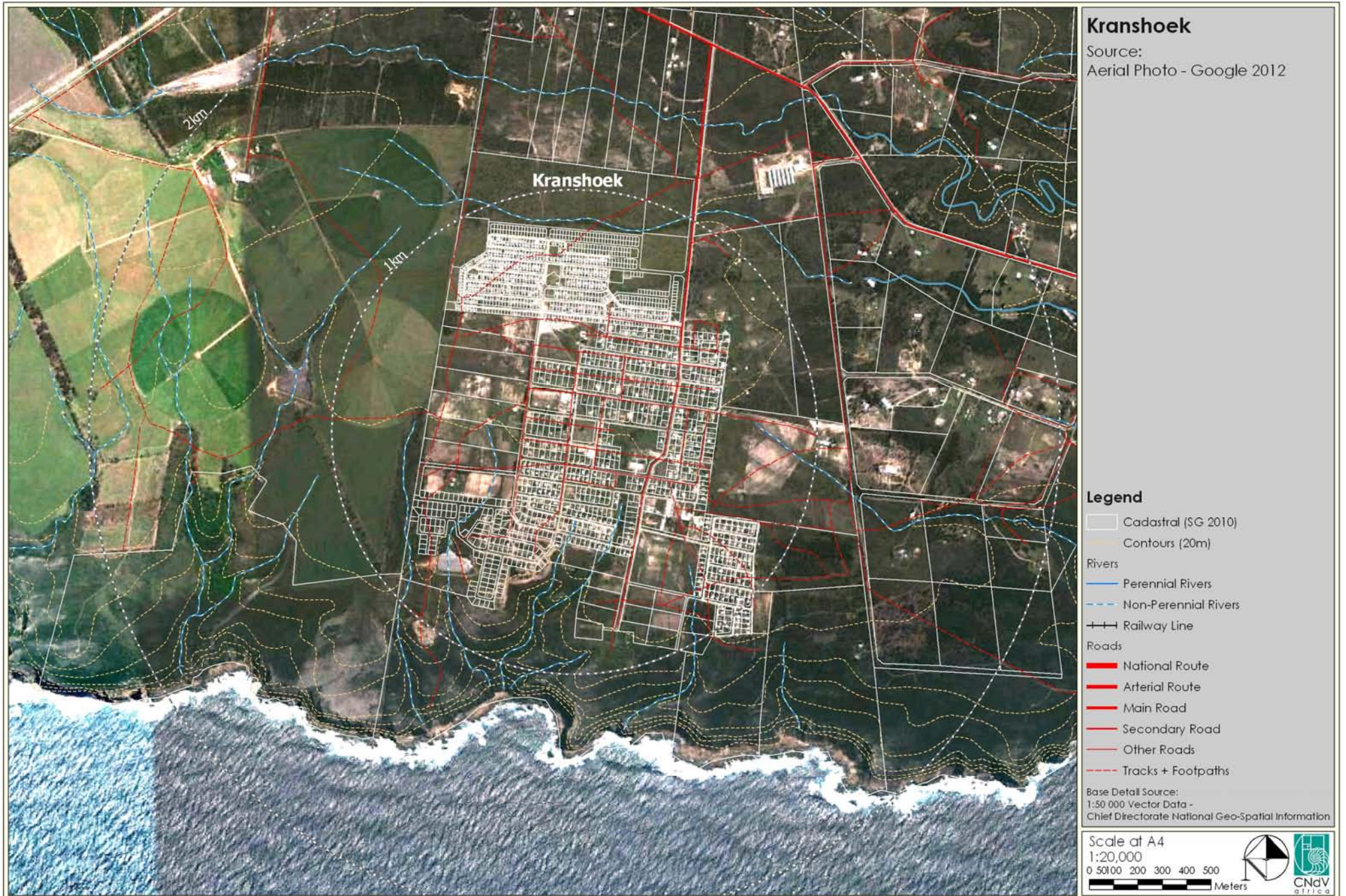


Figure 3.4.1.2 Kranshoek Aerial

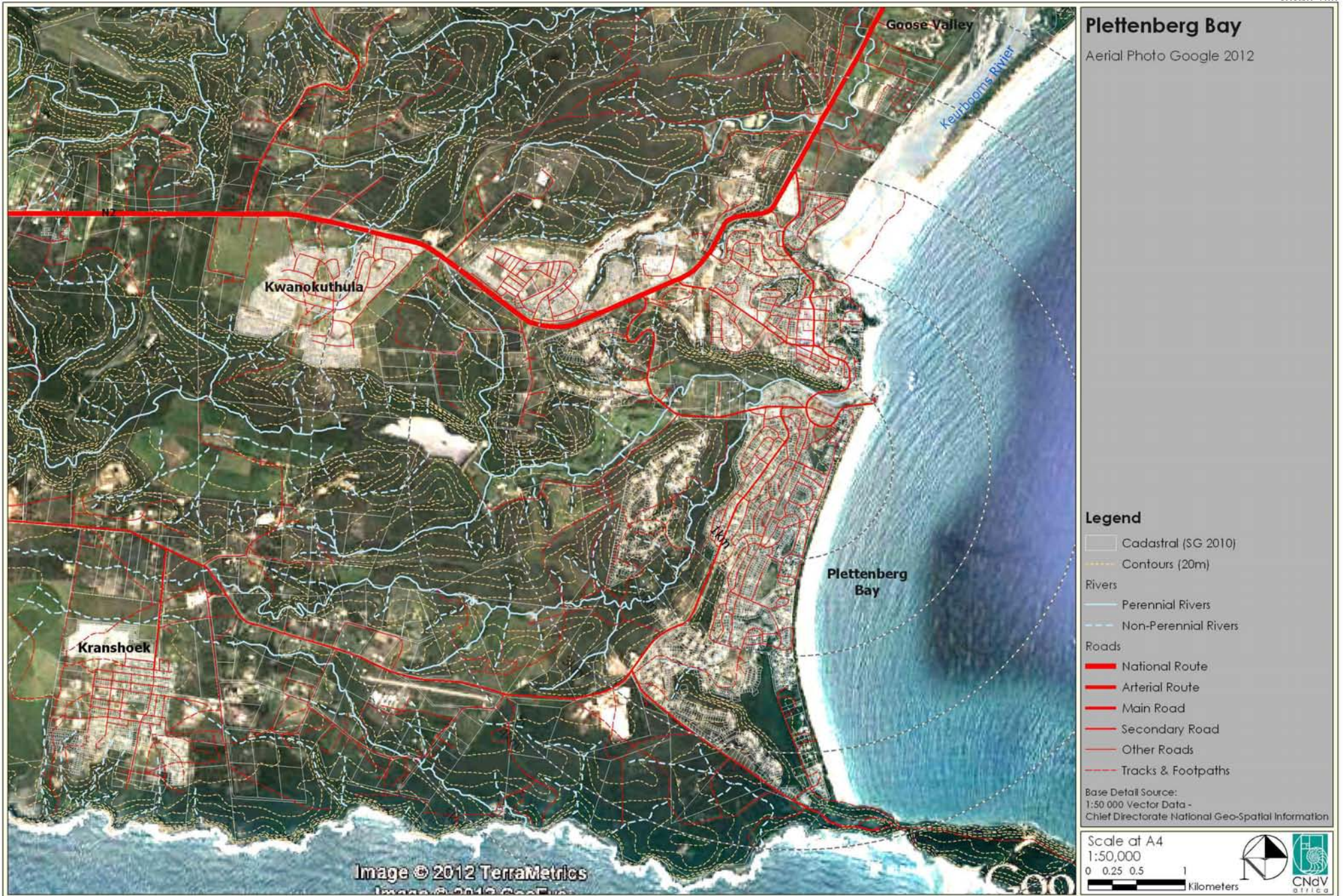


Figure 3.4.1.3 Plettenberg Bay Aerial

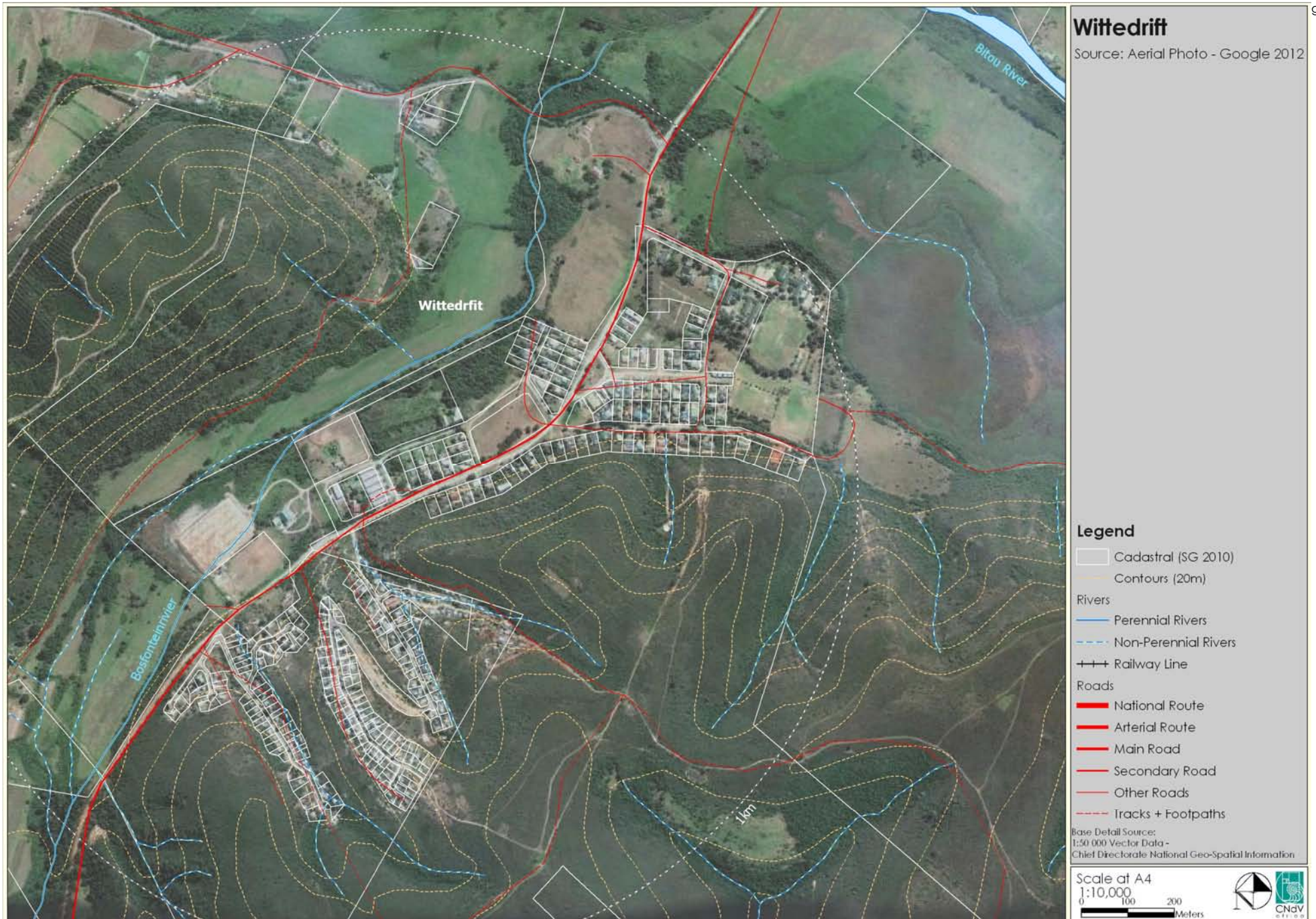


Figure 3.4.1.4 Wittedrift

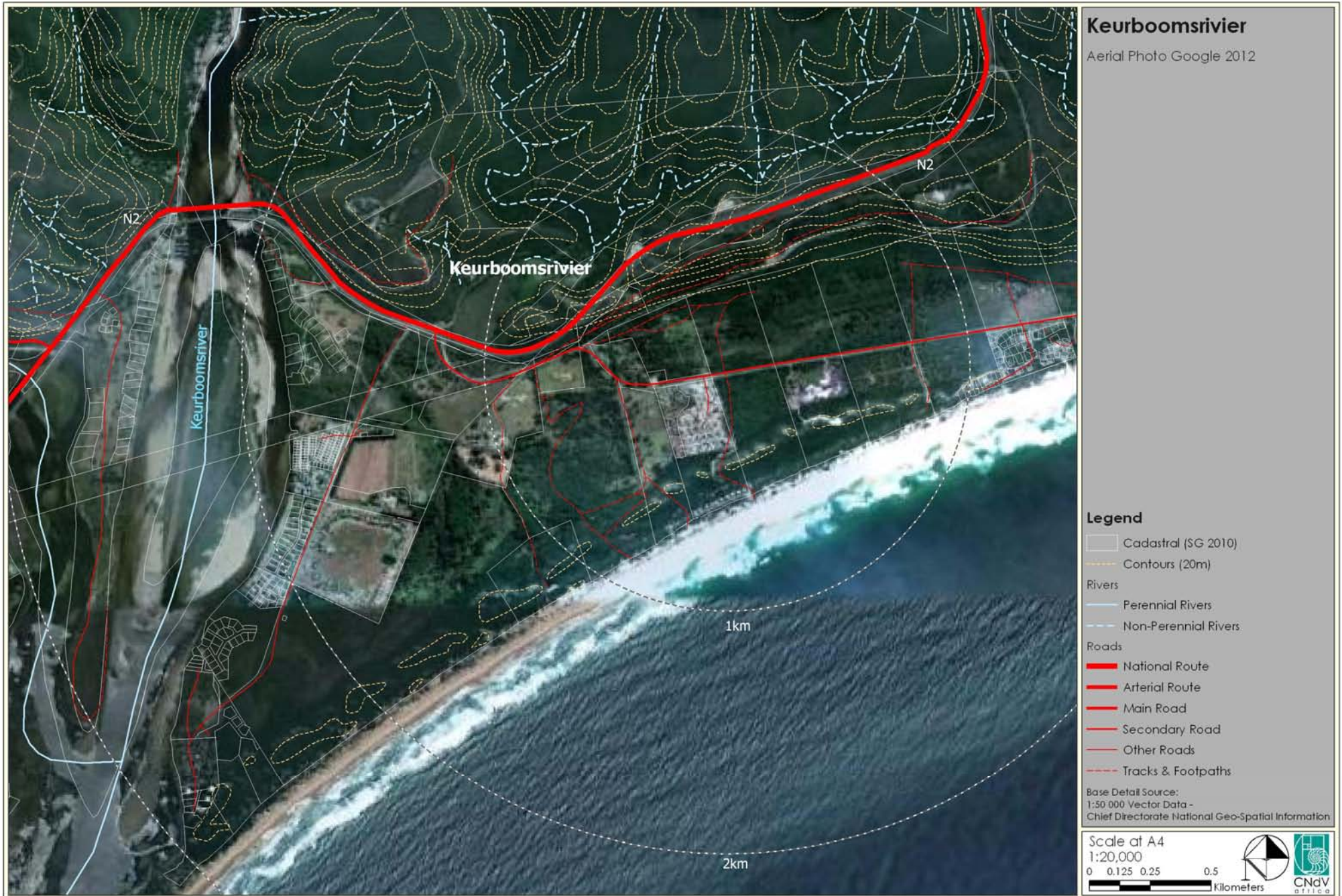


Figure 3.4.1.5 Keurboomsrivier

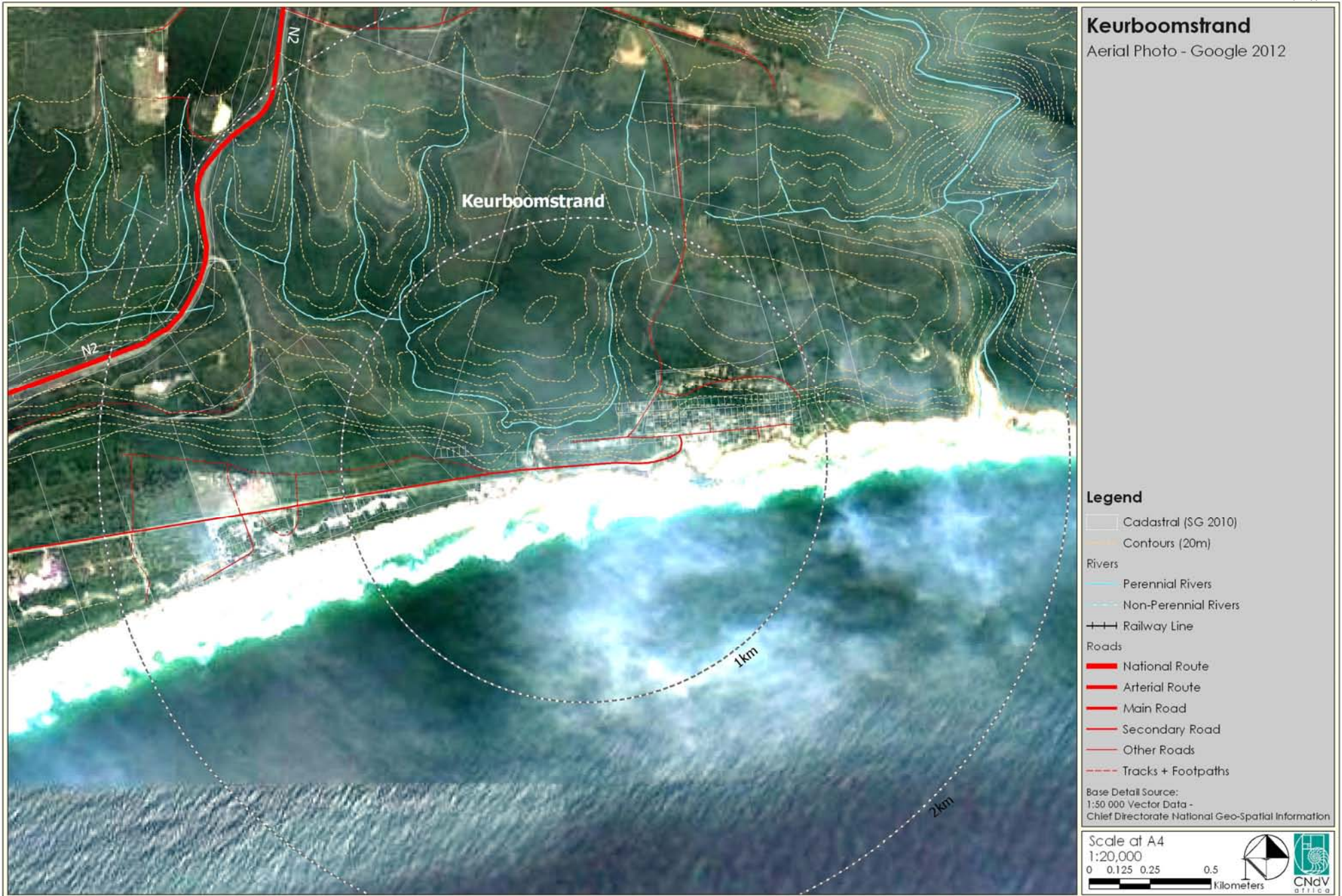


Figure 3.4.1.6 Keurboomstrand

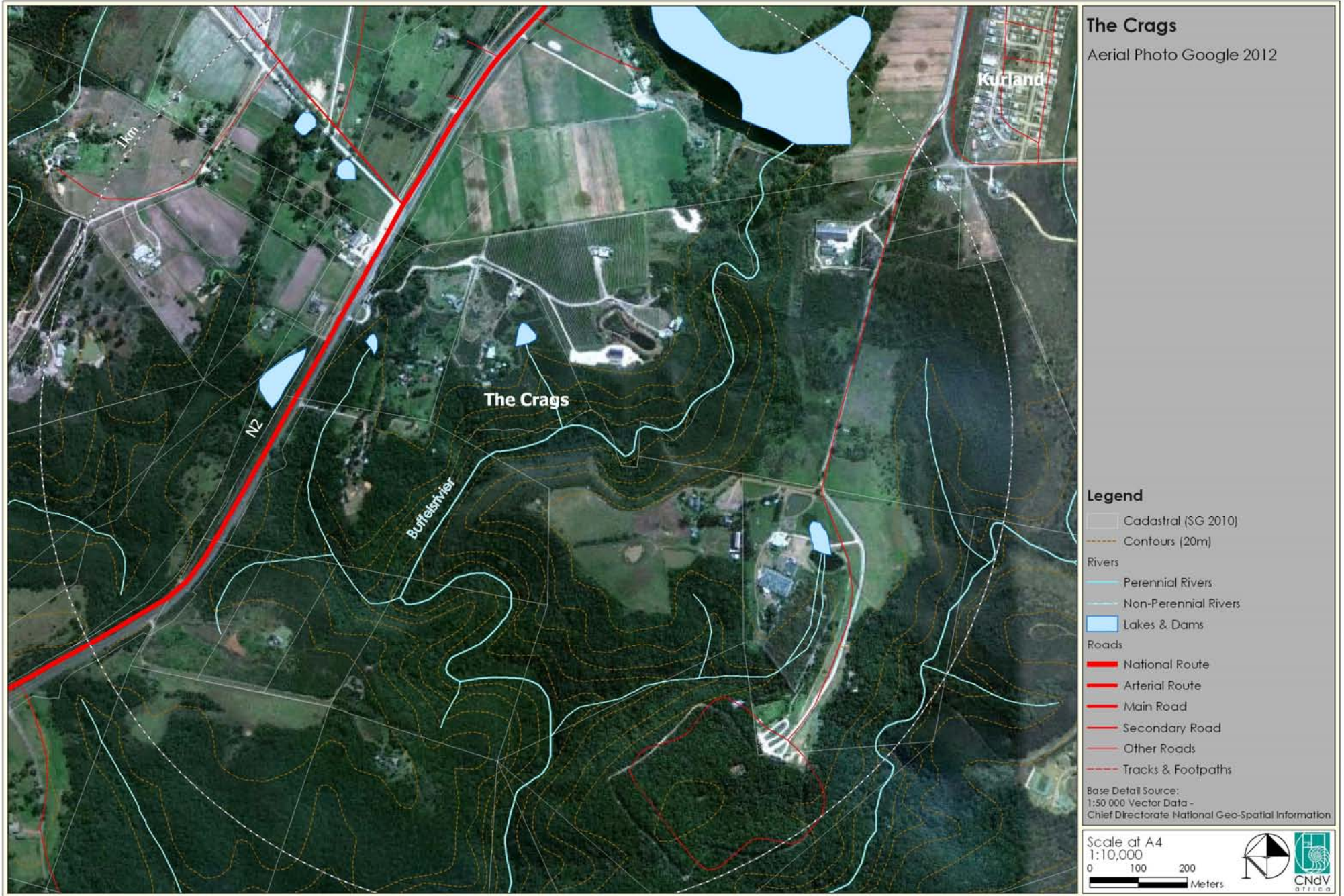


Figure 3.4.1.7 The Craggs Aerial

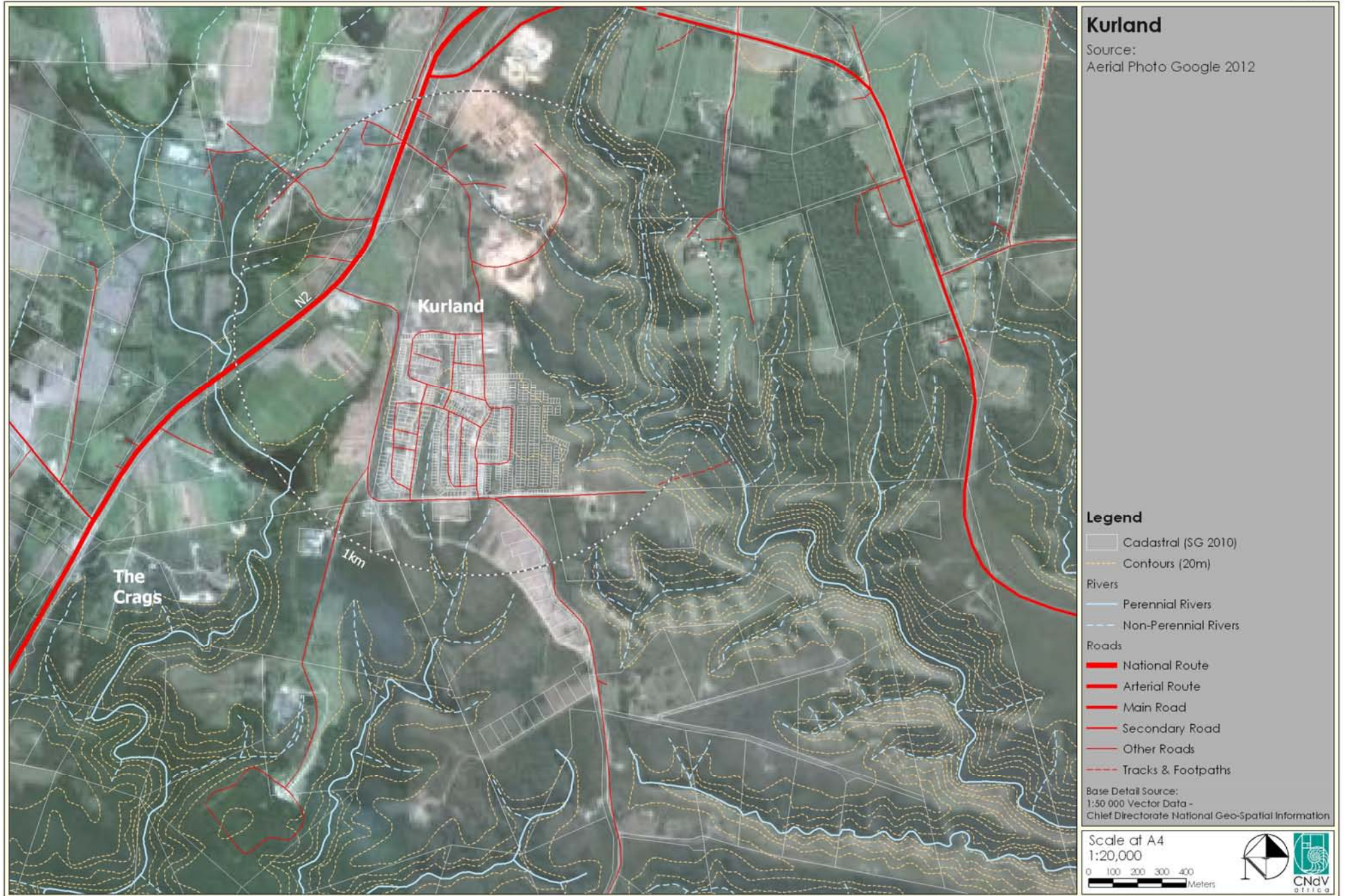


Figure 3.4.1.8 Kurland Aerial

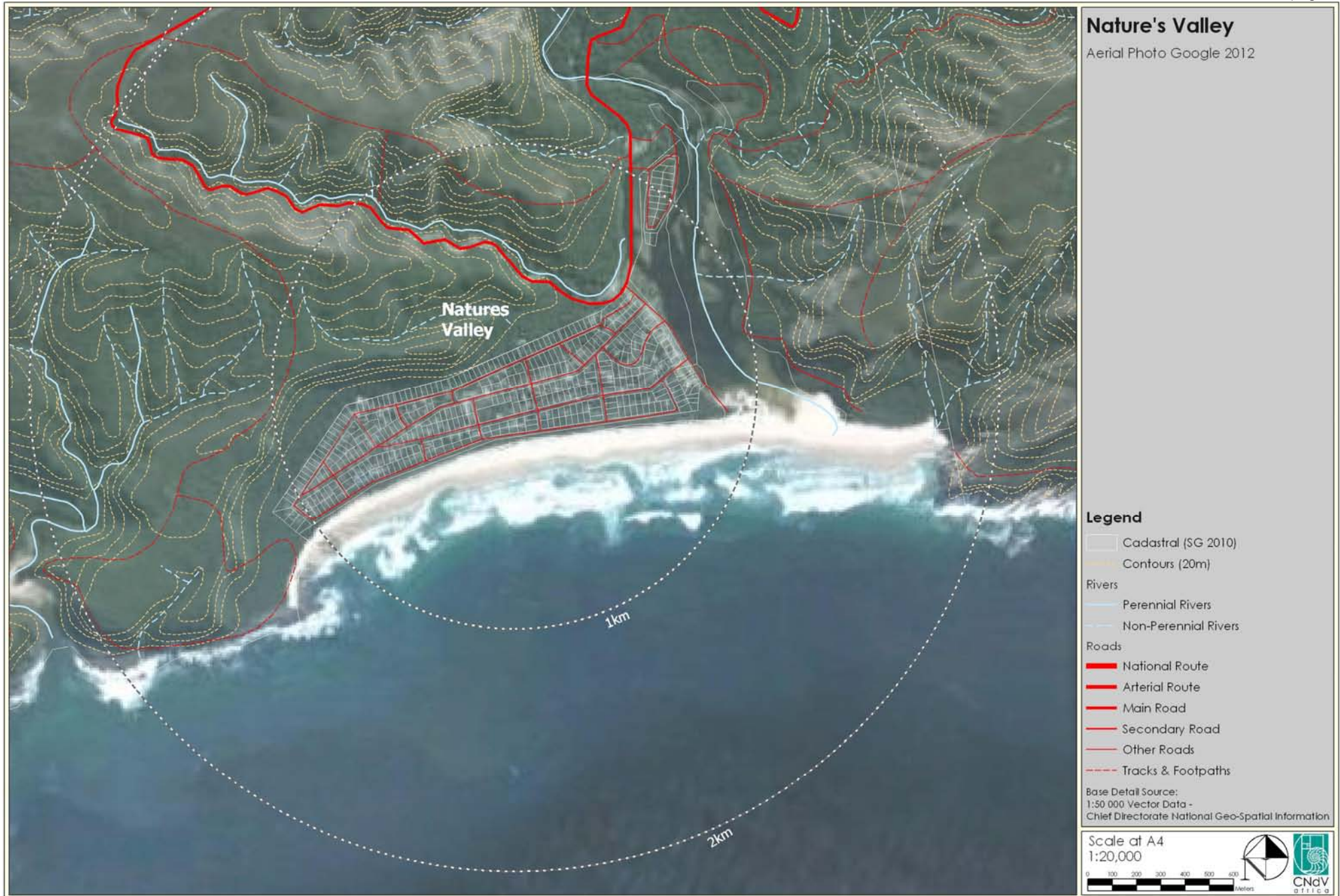


Figure 3.4.1.9 Nature's Valley Aerial

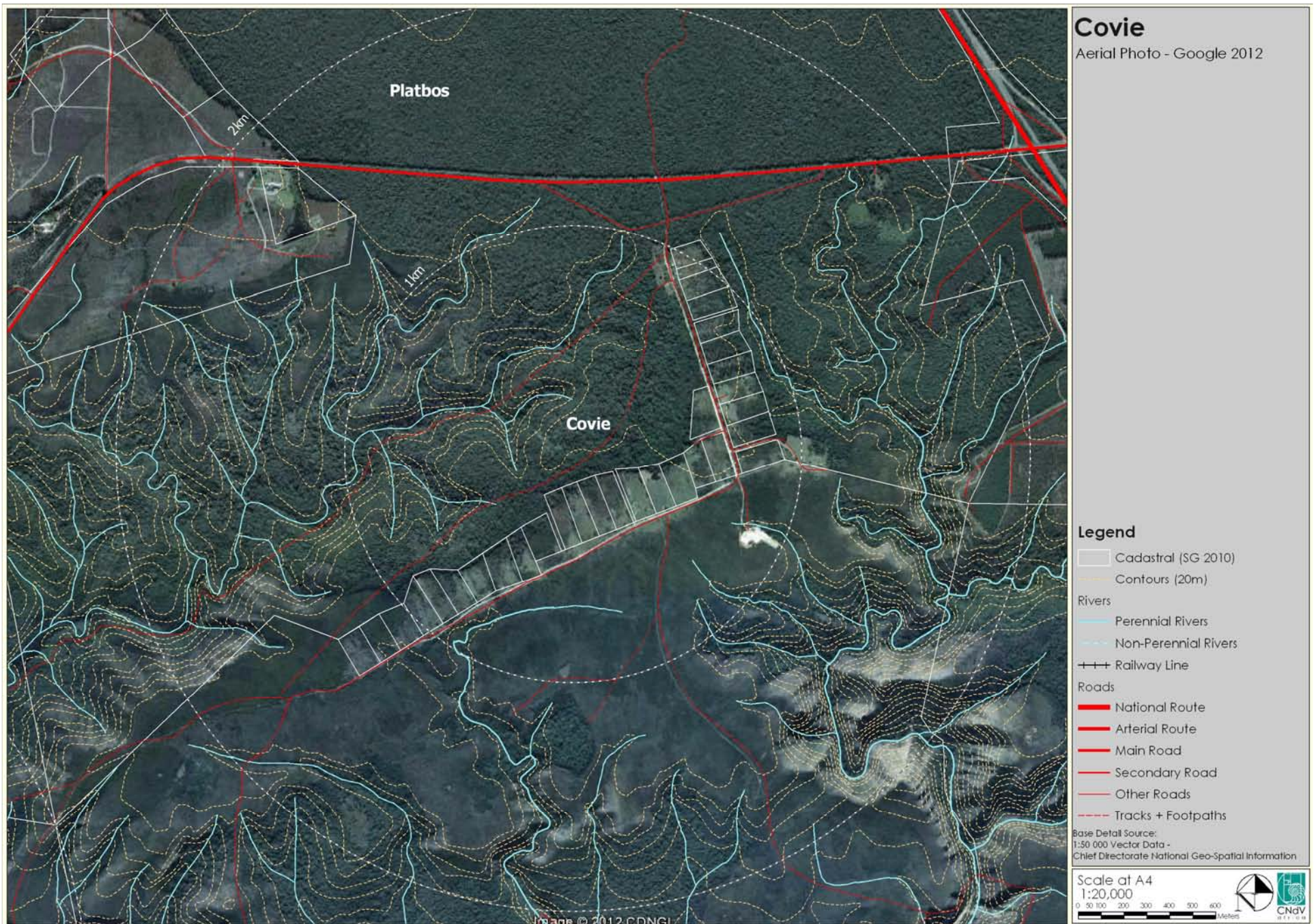


Figure 3.4.1.10 Covie

3.4.2 Transportation

3.4.2.1 Major Road and Rail Routes

The roads infrastructure of the Municipality consists mainly of National, Provincial and District roads. According to the Provincial Government of the Western Cape's Road Network Information System (RNIS), the Average Annual Daily Traffic (AADT) is estimated at 12500 vehicles per day on the N2 passing through Bitou.

The N2 freeway is the spine of the road network in the Municipality traversing it in the south and east, see Figure 3.4.2.1. In addition to serving the local population, it also plays an important role as an inter-provincial link between the Western and the Eastern Cape.

The character of the N2 freeway is changing due to the various development taking place between Knysna and Plettenberg Bay as more direct access is required to properties along its length.

The Eden District Integrated Transport Plan (EDITP, 2006) notes that due to the rate that development is taking place in the area and in order to ensure that N2 serves its function as inter provincial transport corridor, an alternative alignment for the N2 would need to be considered in the future.

Access is provided to Lang Kloof and the surrounding farming community by means of the MR390 and 395. These roads are carrying low volumes of traffic – 500-100 vehicles/day.

The primary public transport route in Plettenberg Bay is Marine Drive. Marine Drive is supported by other routes in the form of the MR382, MR383 and the MR384. The routes only experience traffic congestion during the high peak tourist season.

The condition of the road network in Plettenberg Bay is as follows:

- Total length of roads is 136.1km – 112.1km surfaced and 23.9km is unsurfaced;
- Replacement value of the road network in Plettenberg Bay is R71.7m;
- Approximately 1.0km of roads are in a poor condition;
- The road network is in a good condition.

The N2 freeway forms part of the main freight movement between Cape Town and Port Elizabeth. The IDP (2010/11) notes that 4.6 billion tons (or 7%) of the total national freight volumes are transported between Cape Town and Port Elizabeth. Freight related issues include:

- The transport of hazardous materials like chemicals, etc.;
- Noise pollution;
- Driver fatigue that results in road accidents;
- The long downhill grade from the east in the vicinity of Keurbooms may require arrestor beds.

Implications for Bitou Municipality

- The N2 freeway through the settlements needs traffic calming measures.
- An alternative mobility route to the N2 is to be considered.

3.4.2.2 Non-Motorised Transport

The EDITP indicates that there are more people who use non-motorised transport than public transport in Plettenberg Bay. Approximately 25% of commuters either walk or cycle.

The IDP (2010/11) notes that walkways and bicycles lanes are required along the N2 between Kurland and the Craggs, Beacon Way and Longships Drive and along the main streets in the residential areas. In order to improve the safety of scholars, walkways and pedestrian crossings are required at schools.

The EDITP indicated the need for a pedestrian bridge over the N2 to facilitate safe crossing of pedestrians at New Horizons and Kwanokuthula.

Implications for Bitou Municipality

- There are more people who travel by foot or bicycle than those who use public transport.
- In order to improve the safety of people who use NMT, it is proposed that the Municipality needs to adopt a NMT plan.
- Pedestrian crossings and bridges are to be provided where required, i.e. over the N2 to New Horizons and Kwanokuthula.

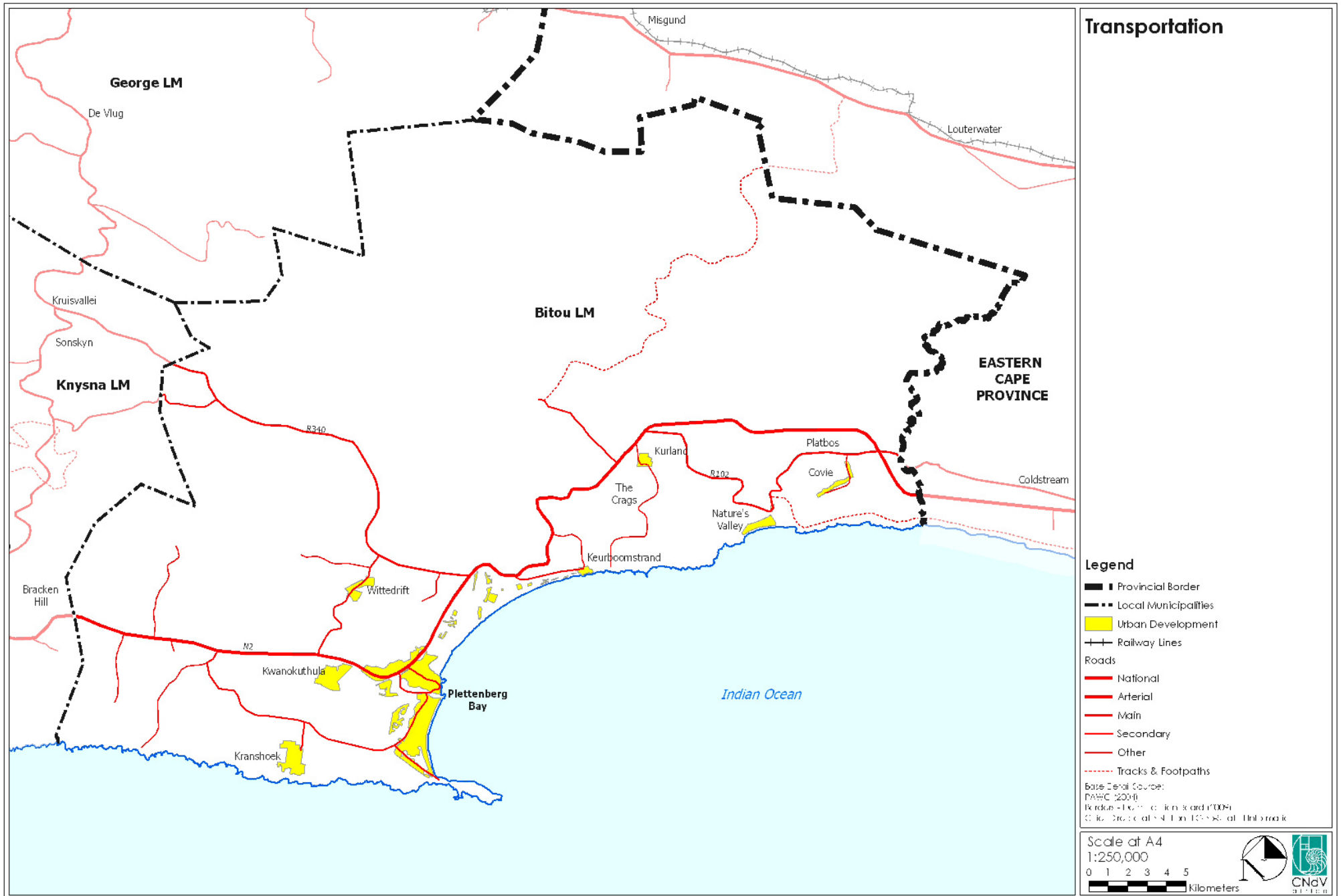


Figure 3.4.2.1 Access to Transport Infrastructure

3.4.2.3 Air

There is one airport located within the Municipality, Plettenberg Bay airport which has been linked to controversy over recent years.

During January 2004, SA Airlink withdrew their service to the airport because of non compliance of the airport with the SA Civil Aviation Authority's regulations and standards following an audit conducted in January 2003. Subsequently there have been several failed attempts to sell the airport and have it upgraded by new owners, or to have it upgraded by council.

During December 2004 the airport was sold to African Continental Development Corporation (Pty) Ltd and the Mafuloni Investment Holding (Pty) Ltd Consortium and was to be renamed the Garden Route Airport. The agreement included upgrades to the airport.

Due to nothing materialising from the venture another consortium put forward a proposal (to the Council) to upgrade the Airport and with SA Airlink's assistance (at no cost to the Council). The proposal included the following:

- Lengthening the runway to 1600m,
- Widening the runway to 30m,
- Strengthening the runway at the touch down zones on either end,
- A new terminal building,
- A new Global Navigation System to assist landing in bad weather conditions,
- Full compliance with the relevant aviation authorities.

None of these improvements took place.

After the February 2011 air craft crash off Robberg, Plettenberg Bay the Provincial Minister called for the temporary closing of the airport.

The Municipality carried out an audit on the facility and its equipment and received a certificate of compliance from the respective authorities.

The EDITP indicate that many respondents of a survey conducted with respect to different forms and functionality of transport in the Municipality

noted that the airport is under-utilised and should be upgraded to accommodate regular flights to and from Plettenberg Bay.

Implications for Bitou Municipality

- Improved facilities at the Plettenberg airfield can increase its tourism potential.

3.4.2.4 Public Transport

The ITP for the Eden District indicates that approximately 2800 people make use of public transport. Long distances services are provided by bus service operators, for e.g. Translux, Greyhound, City to City and Intercape. A local commuter bus service is non operational within the Municipality. The buses that do exist in the Municipality transport children to schools.

Minibus-Taxis also provide long distance services to Cape Town, Port Elizabeth, Willowmore and Beaufort West. The main mode of public transport in the Municipality is the Minibus-Taxi.

The municipality has two formally developed off-street MBT ranks – one is located in the Plettenberg Bay CBD off Marine Way and the other in the residential areas of Kwanokuthula at the corner of Shozana/Sisbuka Streets.

The CBD rank is designed to accommodate 42 MBTs. However this rank is 30% overutilised. The Kwanokuthula rank is designed to accommodate 56 MBTs. This rank is under utilised by approximately 23%.

The MBTs operate on seven different routes. Table 3.4.2.4 describes the routes travelled by the MBTs within the Municipality:

Route	Description
Route 724	From Plett to New Horizons
Route D69	From Plett to Wittedrift
Route 825	From Plett to Craggs
Route Kranshoek	From Plett to Kranshoek
Route 776	From Plett to Kwanokuthula
Route 826	From Plett to Knysna
Route 777	From Kwanokuthula to Plett

Table 3.4.2.4 MBT routes (Source: EDITP, 2006)

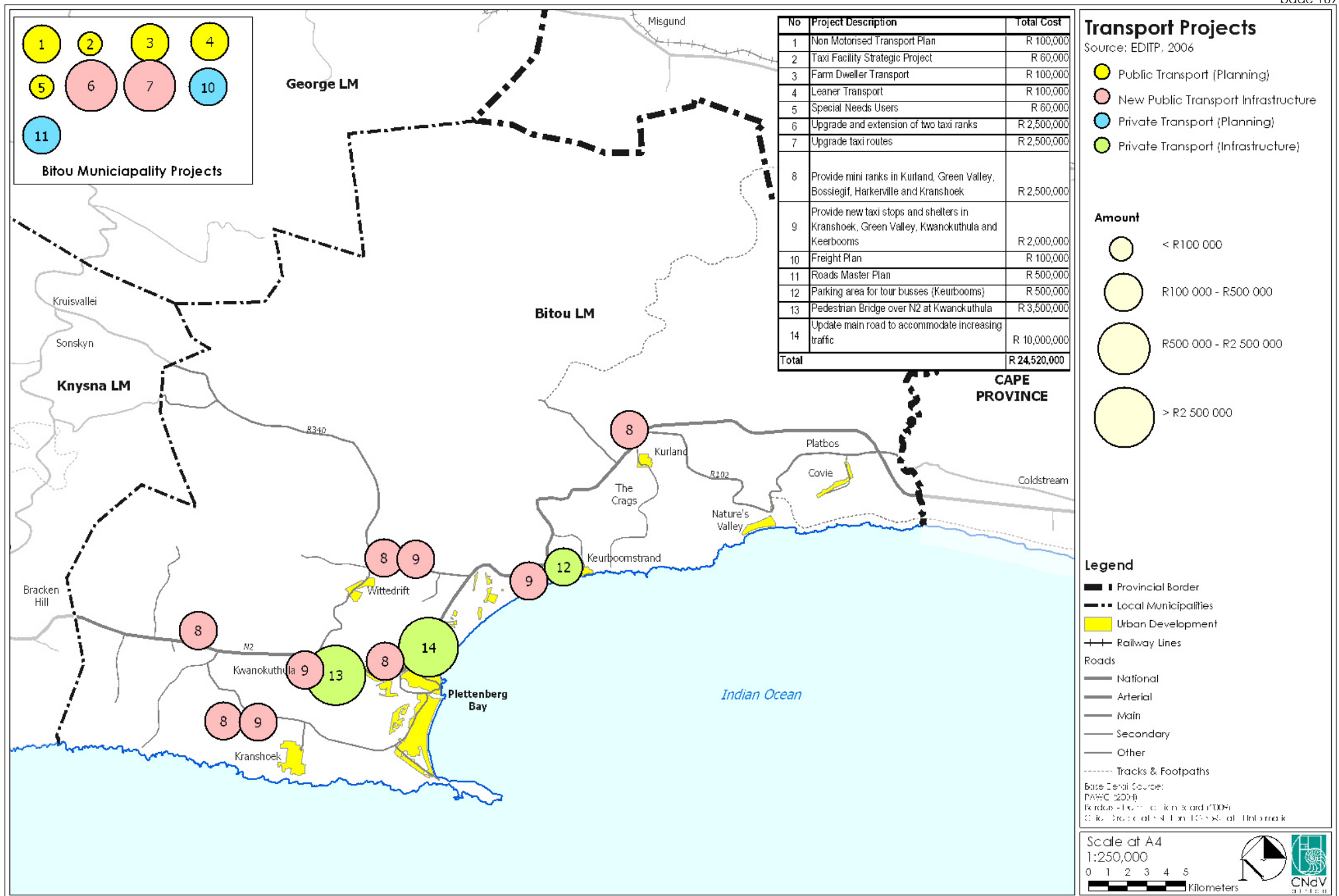


Figure 3.4.2.6 Priority transport improvement projects (EDITP, 2006)

The following is a summary of the public transport operations and infrastructure:

- Two formal ranks (Plettenberg Bay and Kwanokuthula);
- 958 trips are made per day;
- 5037 passengers are transported per day;
- 7 routes are travelled.

Implications for Bitou Municipality

- Since so many people use public transport, an improvement to these facilities would encourage its further use.
- Schools require additional drop off and pick up points.
- The over-utilisation of the CBD taxi rank should be addressed to improve public transport levels.

3.4.2.5 Potential Tourist Routes

At present Coach Tour operations provide unscheduled services to the various tourist attractions.

The main road in Plettenberg Bay experiences large volumes of traffic during the peak tourist seasons. It is proposed that this main road be upgraded to accommodate the increased traffic volumes experienced during the peak tourist season.

Implications for Bitou Municipality

- The development of scenic routes as tourist attractions should be explored.
- Poorly functioning roads which congest during the holiday season need to be upgraded to improve tourism in the area. Public transport could also be improved and made more attractive for tourists in order to reduce road use and traffic congestion.

3.4.2.6 Transport Improvement Proposals

Approximately R2million will be required to improve the surfaced and the surfaced roads in the Municipality to an acceptable standard. The

annual road maintenance budget is sufficient to keep the road network in a good condition.

The following priority transport improvement projects have been budgeted between 2006 and 2011:

#	Type of Project	Project description	Total Cost
1.	Public transport (planning)	Non Motorised Transport Plan	100,000
2.	Public transport (planning)	Taxi Facility Strategic Project	60,000
3.	Public transport (planning)	Farm Dweller Transport	100,000
4.	Public transport (planning)	Leaner Transport	100,000
5.	Public transport (planning)	Special Needs Users	60,000
6.	New public transport infrastructure	Upgrade and extension of two taxi ranks	2,500,000
7.	New public transport infrastructure	Upgrade taxi routes	2,500,000
8.	New public transport infrastructure	Provide mini ranks in Kurland, Green Valley, Bossiesgif, Harkerville and Kranshoek	2,500,000
9.	New public transport infrastructure	Provide new taxi stops and shelters in Kranshoek, Green Valley, Kwanokuthula and Keurbooms	2,000,000
10.	Private Transport (planning)	Freight Plan	100,000
11.	Private Transport (planning)	Roads Master Plan	500,000
12.	Private Transport (infrastructure)	Parking area for tour busses (Keurbooms)	500,000
13.	Private Transport (infrastructure)	Pedestrian Bridge over N2 at Kwanokuthula	3,500,000
14.	Private Transport (infrastructure)	Update main road to accommodate increasing traffic	10,000,000
Total			24,520,000

Table 3.4.2.6 Priority transport improvement projects and budgets (Source: EDITP, 2006)

Refer to Figure 3.4.2.6 for a depiction of the locations and total expenditure as per Table 3.4.2.6.



3.4.3 Solid Waste Management

Figure 3.4.3.1 indicates the positions of the current landfill sites in the Municipality. The landfill site is located on a leased portion of land located 2km outside of Plettenberg Bay on the Plettenberg Bay airport road.

The IDP notes that 95.3% of people have access to waste removal by means of the local authority and/or private companies in 2007. A very small percentage of people, 5% do not have access to rubbish disposal.

Waste is collected by the Municipality from the large Plettenberg Bay area as well as most of the surrounding settlements which include Kranshoek, Kurland, Bossiesgif and Harkerville. Waste is collected weekly from residential areas and daily in commercial sectors.

The new Refuse Transfer Station for Plettenberg Bay Technical Report (2010) estimates that the current waste generation in the area is some 68 tons/day. Applying a peak weekly and daily factor of 1,25 it is estimated that the peak daily generation rate during the holiday period will be in the order of 106 tons/day. If a 3.5% per annum increase in waste is applied, which is line with the estimated population growth, the expected waste to be generated by 2040 is estimated to be 167tons/day.

The Robberg Solid Waste Landfill has been in operation for approximately 20 years. The facility was first licensed in 1998 and was estimated to have a lifespan of 15 years. All domestic waste, with the exception of material collected for recycling, is deposited at the facility. Because of the poor management of the facility, the site has not been properly used. The level of the dump surface is currently 14m above its original licensed level of 82m above mean sea level.

The municipality has decided to not continue using its current landfill site. Instead containerised waste will be transported by road from the Kwanokuthula transfer station to PetroSA, Mossel Bay. The PetroSA site will be able to accept waste from the Municipality for at least two years.

Presently, the Eden District Municipality is applying for a licence for a regional waste disposal site, also near the PetroSA Refinery, which is expected to be in operation by 2013.

A waste transfer station will have to be established by the Municipality in order to transport the waste to the site in Mossel Bay. The Municipality is currently applying for a licence for such a transfer station to be located adjacent to the N2 highway, to the west of Kwanokuthula.

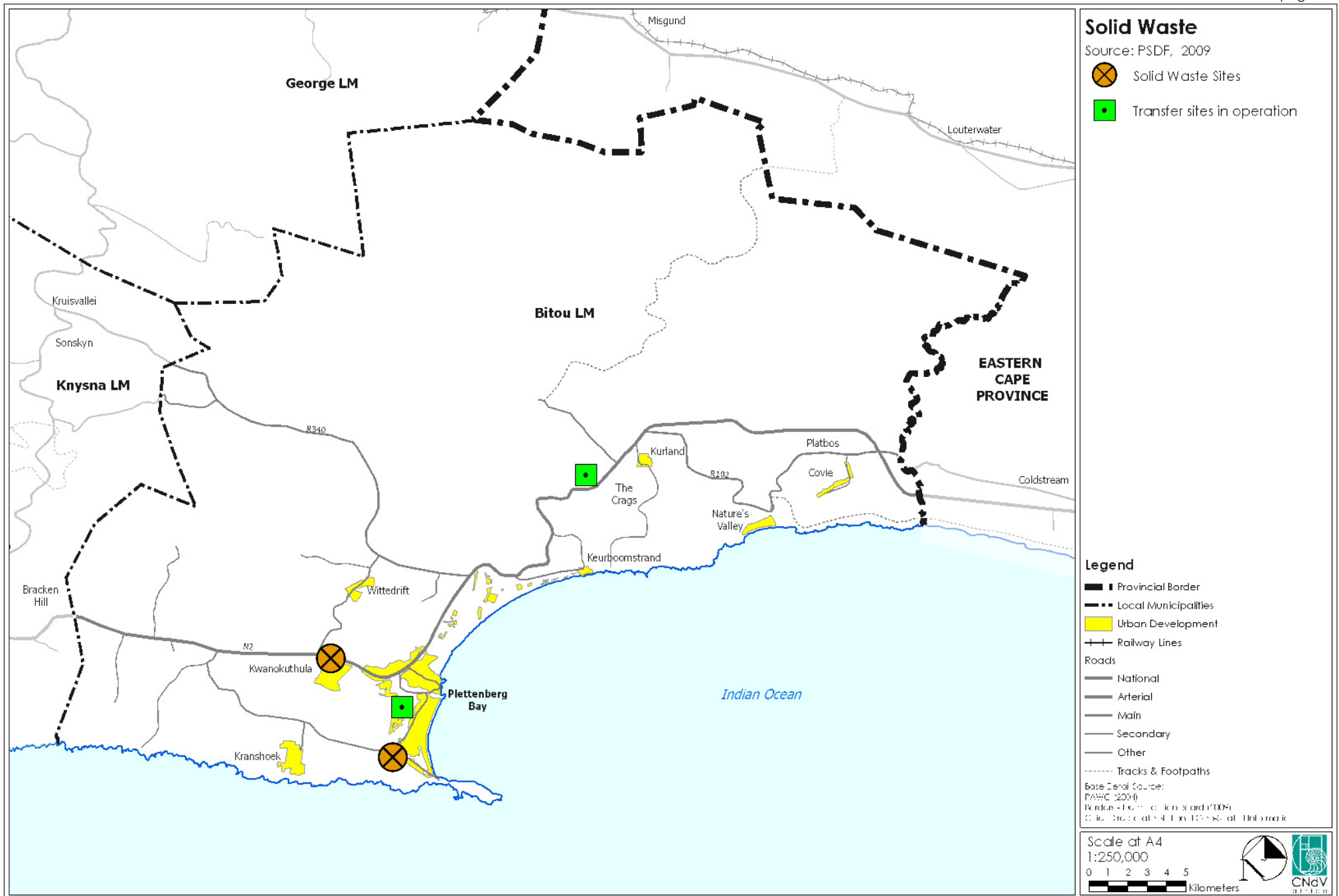
In addition, the Municipality is applying for licences for a number of local waste drop-off sites around the municipal area, from which waste will be removed to the transfer station and subsequent transport to Mossel Bay.

Domestic and a small amount of inert industrial waste will be disposed of at the transfer station. No hazardous wastes will be permitted to be disposed of.

The Municipality is proposing to treat garden waste by composting and the facility will either be incorporated into the transfer station land area or elsewhere. Builder's rubble will be accommodated at a small disposal site still to be developed elsewhere in Plettenberg Bay.

Implications for Bitou Municipality

- An appropriate waste management system is needed which caters for all of Bitou's population including the 5% who currently do not have access to waste removal facilities.
- The SDF needs to take cognisance of the newly planned regional waste disposal site at Mossel Bay and the waste transfer station, including the operational and management aspects associated with these facilities.
- Waste minimisation strategies are to be implemented.



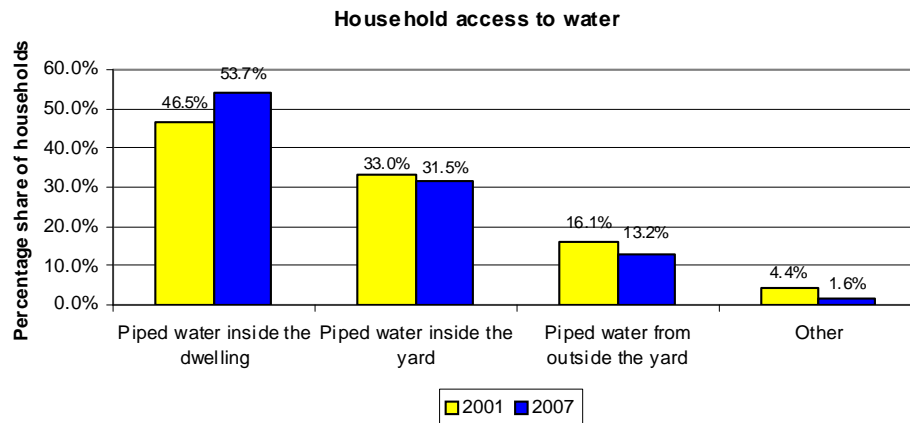
3.4.4 Water / Infrastructure

Figure 3.4.4.1 shows the Water Infrastructure Plan. Bitou has its sources of water from existing rivers and dams as per the table below:

Name	Source Type	Licensed abstraction (Mℓ/yr)	Current Use (2008)
Keurbooms	River	3154	2202
Roodefontein/ Piesang	River/Dam	12020	1130
Groot	River	365	75
Wit	River	219	175

Table 3.4.4.1 Surface Water Source (Source: WSDP, 2009/2010)

Graph 3.4.4.1 shows the main water sources used by the Municipality. There was an increase in the number of households who have access to piped water inside the dwelling from 2001 (46.5%) to 2007 (53.7%).



Total number of households (2001 =8 907 and 2007 =12 646)

Graph 3.4.4.1 Main source of water used by households (Source: IDP 2010/2011)

The Municipality monitors water quality and outsources samples for independent testing. Water quality is monitored on an hourly basis on incoming raw water at the Central Water Purification Works. The water produced is tested daily and weekly in the distribution network.

During 2009 Bitou encountered a water shortage and together with Knysna, George and Mossel Bay were declared disaster areas. An

additional result of the water scarcity was due to the Keurbooms River running dry.

Despite the water shortage crisis, the demand for water is on the rise. The IDP indicates the Kurland, Qolweni and Bossiesgif are the most vulnerable areas in terms of water demand.

During recent years the Municipality has limited the water supply to consumers and implemented water restrictions. The restrictions were necessitated by the reduction in annual rainfall in a number of successive years and less water being pumped due to mechanical and electrical outages in the raw water pumping stations.

Water lost through water reticulation and distribution is estimated to be approximately 12%. Non-revenue water (unauthorised water and unbilled authorised water) is estimated at 36%.

The Water Services Development Plan (2009) prepared for the Municipality has indicated that various water projects must be undertaken in order to expand, upgrade and rehabilitate the existing water system. This report proposed the following projects which are to be implemented between 2009 and 2013:

#	Description	Amount
1.	Study and construction of new water treatment works. Estimated capacity is 10 Mℓ/day	35,000,000
2.	Construction of a 3million m ³ off channel dam	40,000,000
3.	New water treatment works	20,000,000
4.	Construction of new 950m rising main (350mm dia steel) and installation of three new pumps set to deliver raw water to Plettenberg Bay	14,000,000
5.	Construction of 300 ℓ/s Double pipeline from Roodefontein to Plettenberg Bay central works	6,000,000
6.	Recharging of boreholes and charging	600,000
7.	Pumping main and reservoir Ladywood, new horizon and Qolweni	3,000,000
8.	5 Mℓ/day day filters (Central works)	4,500,000
9.	Nature's Valley Reservoir and pipeline	3 500 000
10.	New Ø500 raw water main	10,655,063
11.	New Ø500 raw water main & abstraction	13,000,000

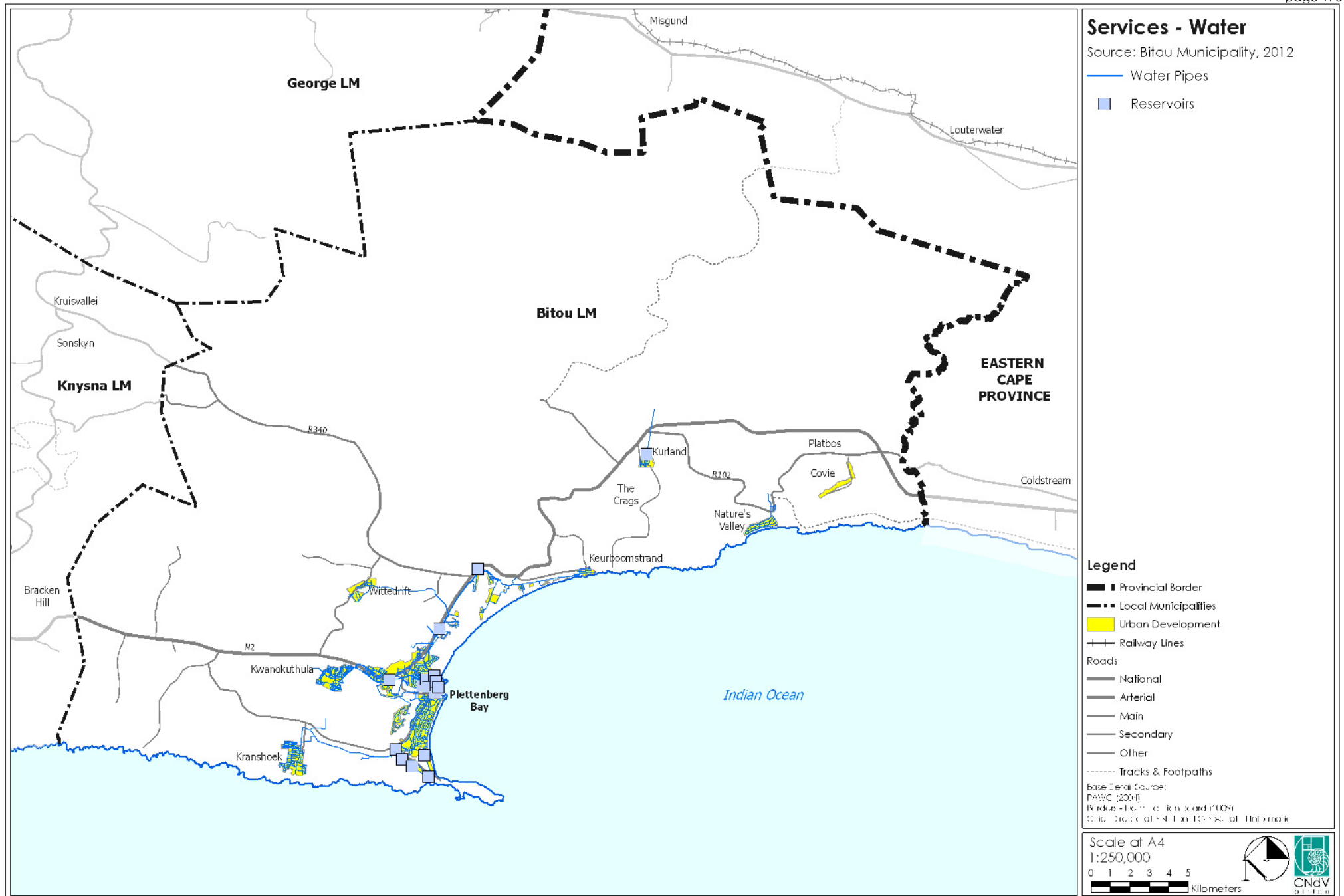


Figure 3.4.4.1 Water Infrastructure

#	Description	Amount
12.	Augmentation Programme, Off-channel dam (Keurbooms scheme)	2,500,000
13.	Network Master Plan	120 000
14.	Upgrade network South of Piesangriver	12,000,000
15.	Replace sandfilter (Kurland)	40 000
16.	Replace Lime saturator (Central)	200 000
17.	Bulk connector (W.w. to Rietvlei/ Keurboomstrand)	800 000
18.	Rural distribution	800 000
19.	Replace water pipe line Hopwood St	200 000
20.	Pressure reducing valves & manholes	425,000
21.	Replacement of borehole pump & motor Airport	180 000
22.	Replace aerator No.3 at Ganse Vallei	410,000
	Total	162,090,063

Table 3.4.4.2 Proposed water projects (Source: Water Services Development Plan, 2009)

The table below illustrates the licensed capacity in 2009/10 in comparison with the total demand. From this comparison it is evident that there is a undersupply.

Bitou Municipality (Mega litres)		
Capacity of system (licensed abstraction):	Annual	Daily
- Keurbooms River	3110	1
- Wit River	360	
- Groot River		
- DWEA (Purchased)	0.36	
Total Capacity	3470.36	1
Treated Water Supplied		
- Treatment works	3348	
- Urban Areas	3137	
Total Demand	6485	

Table 3.4.4.3 Water supply and demand (Source: Bitou Municipality WSDP 2009/10)

Implications for Bitou Municipality

- Due to the low rainfall, especially during the summer months, means that, while it should be encouraged, rainwater harvesting is unlikely to be sufficient for even domestic water needs, never mind demand from commerce, industry and agriculture.
- A range of water demand management strategies for all sectors needs to be developed.
- Construction of additional storage dams.
- Increasing quantity of licensed abstraction.
- Desalination of salt water to be considered.



3.4.5 Waste Water Treatment (Sanitation)

There are two waste water treatment works located in the Municipality, see Figure 3.4.5.1 - the Gansevelei and the Kurland WWTWs.

The different types of waste water treatment facilities are indicated in Table 3.4.5.1 below. This table shows that 83% of the sanitation facilities are water born, 2.5% are using tanks and 2.9% have no facility. 1.8% still use the bucket system.

In 2001 about 81.4% of households had access to flush toilets either by means of waterborne sewerage or septic tank. There was a slight in this in 2007 to 83%. The number of households that have access to the bucket systems also increased between 2001 and 2007 from 3.7% to 18.8% respectively.

There was a further decrease in the number of households who use chemical toilets of 1.4% from 2001 to 2007. The number of households that use dry toilet facilities increased by 0.2% from 2001 to 2007.

Toilet Facilities	2001	2007	Average annual growth 2001-2007 (%)
Flush toilet (connected to a sewerage system)	6340	10497	8.77
Flush toilet (with septic tank)	905	310	(16.35)
Dry Toilet facility	0	22	n/a
Pit toilet with ventilation (VIP)	172	474	18.41
Pit toilet without ventilation	321	779	15.92
Chemical toilet	128	0	(100.00)
Bucket toilet system	327	233	(5.49)
None	715	330	(12.09)

Table 3.4.5.1 Main toilet facility used by households (Source: StatsSA, Census 2001 and 2007 Community Survey)

The IDP notes despite the 2007 Community Survey data, all formal houses are connected to the network and there are no bucket toilets in the Municipality. All informal settlements have communal water borne toilet facilities used by at least five households at a time. The IDP has further stated that all new housing projects are to be inclusive of sanitation.

The Water Services Development Plan (2009) prepared for the Municipality has indicated that various sanitation projects must be undertaken in order to expand, upgrade and rehabilitate the existing sewerage system. This report proposed the following projects for between the period of 2009-2013:

#	Description	Amount
1.	Construction of new 200m diameter pipeline and pumping sets to serve Roodefontein housing and golf course development	5,000,000
2.	Waste Water Treatment works irrigation	300,000
3.	Upgrade Kurland Treatment Works	2,800,000
4.	Nature's Valley sewage Scheme	6,900,000
5.	Mechanical screw, press and upgrade Kwanokuthula P/S23	400,000
6.	Mechanical screw, press and upgrade Kwanokuthula P/S2	400,000
7.	Mechanical screw, press and upgrade Kurland P/S1 and works	420,000
8.	Replace aerator No.3 & 4 at Ganse Vallei	6,000,000
9.	Keurbooms East Sewerage completion	400,000
10.	WWTW internal roads	450,000
11.	Installation of lime dosing equipment	480,000
	Total	23,550,000

Table 3.4.5.2 Proposed sanitation projects (Source: Water Services Development Plan, 2009)

The Gansevalei sewerage works has a current capacity of 9ML/day and receives only 4 – 6 ML/day. The Kurland sewerage works has a capacity of 0.5 ML/day and receives 0.2 – 0.38 ML/day.

Implications for Bitou Municipality

- Care should be taken to extend the existing waterborne sanitation system, bearing in mind Bitou Municipality's water scarce situation, using conventional waterborne sanitation systems. In this regard, off-grid, small bore, dry and alternative technologies such as bio-gas (permanent occupation) or enviro-loos/biolytics/ventilated improved pit latrines (VIPL) (also suitable for periodic occupation) should be used. This is particularly applicable in the Craggs, Kurland and Nature's Valley.
- Sufficient capacity exists in at the Waste Water Treatment Works (WWTW) but care should be taken to manage this capacity and to adequately plan for future expansion of the existing works or determining locations for new sites.

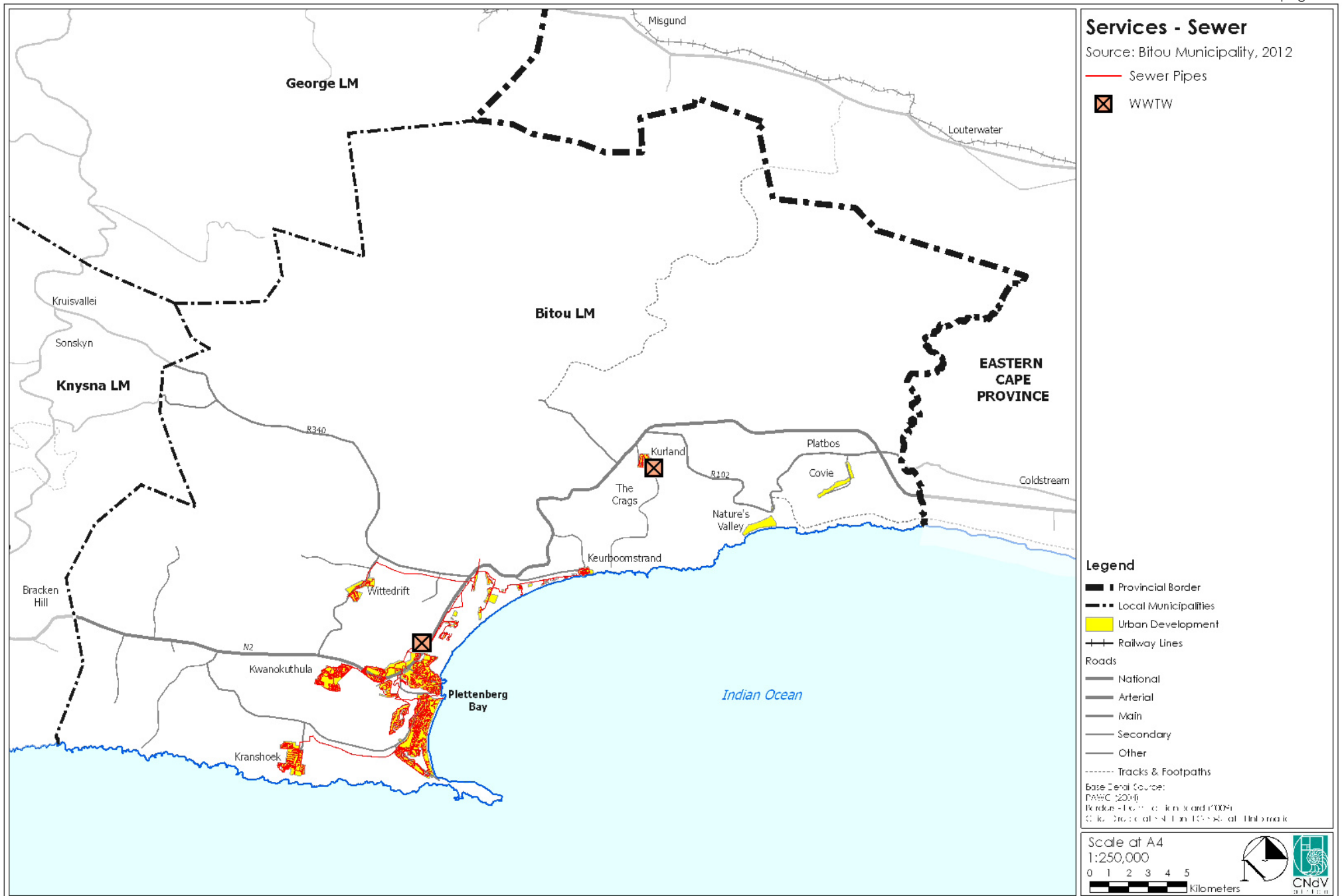


Figure 3.4.5.1 Waste Water Treatment Works: Bitou

3.4.6 Energy

The electricity network plan for the Municipality is shown in Figure 3.4.6.1. The plan shows one main west to west powerline cutting through the southern region of the Municipality. The main powerline closely follows the alignment of the N2 freeway.

Table 3.4.6.1 indicates that 85.5% of energy is obtained from electricity. While the remaining 14.5% was sourced from either candles, gas, paraffin, solar etc. Electricity has increased from 80.8% in 2001 to 85.5% in 2007. The percentage of households that use candles as a source of energy reduced drastically from 11.1% in 2001 to 1.1% in 2007. There has been an increase in the use of gas as source of energy from 2001 to 2007 by 0.2%. There has been a reduction in solar energy use from 2001 to 2007 by 0.1%.

Energy sources	2001	% share of households 2001	2007	% share of households 2007	Average annual growth 2001-2007
Electricity	7197	80.8%	10811	85.5%	7.0%
Gas	21	0.2%	46	0.4%	14.0%
Paraffin	664	7.5%	1527	12.1%	14.9%
Candles	986	11.1%	136	1.1%	-28.1%
Solar	21	0.2%	17	0.1%	-3.5%
Other	18	0.2%	109	0.9%	35.0%
Total	8907	100.0%	12646	100.0%	6.0%

Table 3.4.6.1 Main sources of energy for lighting (Source: StatsSA, Census 2001 and 2007 Community Survey)

The following issues were raised by the IDP:

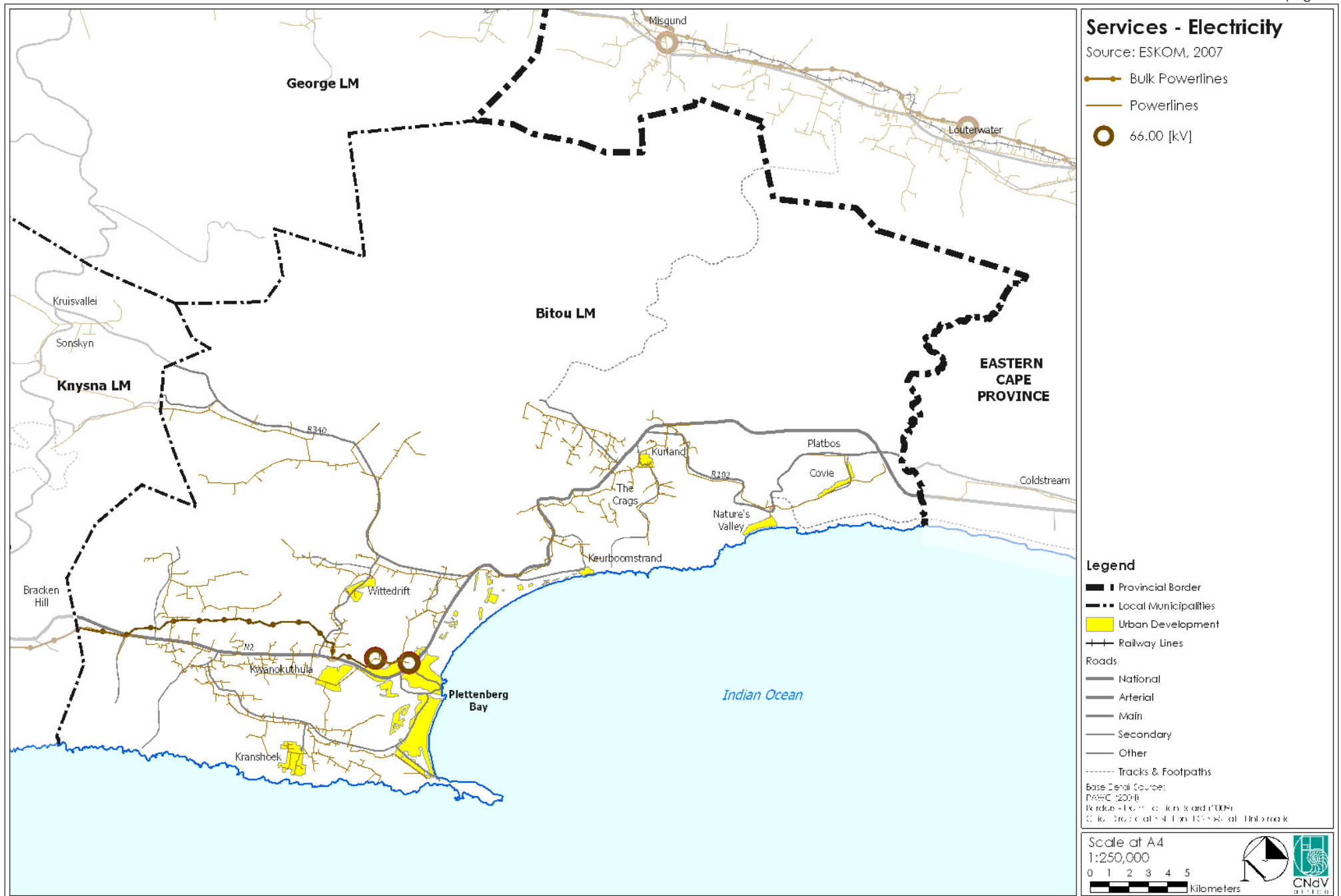
- Wards 1 and 2 contain the most informal settlements and which lack basic services;
- Many illegal electrical connections are found in Qolweni;
- ESKOM is not willing to increase the electricity supply because of the low carrying capacity of the Municipal network;
- The Municipality intends to improve its network.

No long term plan currently exists for electricity management in the municipality. Eskom have indicated a short supply for 8 to 10 years (they require R315m for system upgrades).

There are currently no alternative energy sources being used in the municipality.

Implications for Bitou Municipality

- Solar hot water cylinders and photovoltaic should be installed in all residential properties as well as industrial and commercial buildings.
- Renewable energy resources, which will combat the effects of climate change and provide energy to the municipality. Given the short supply identified by Eskom, this could be an environmentally sustainable way of increasing electricity supply.



3.4.7 Telecommunications

The telecommunications for the Municipality reflects the existing pattern of infrastructure as indicated in Figure 3.4.7.1. This plan shows that the central and southern regions of the Municipality generally have good access to both MTN and Vodacom networks.

An almost identical coverage is observed by both networks with the exception of a small western portion of the municipality that is only covered by MTN.

Both networks do not cover the northern most region of the Municipality, i.e. the area south of Eastern Cape border and a small along the western region of the Municipality. This is particularly concerning as people in those areas would not have access to cellular phone networks.

The municipality also noted that the cellular networks are regularly overloaded during the December holiday season and additional network capacity is required over this period. This is specifically applicable to Vodacom.

Implications for Bitou Municipality

- Telkom line coverage applies to all the areas;
- Telecommunication coverage is very good in the municipality but possible extension of the Vodacom and MTN networks into the central and southern regions of the municipality.

Free and easy

For years I was beholden to residing and working in the city and fleeing to the West Coast to find my freedom in a small fishing village on weekends. I didn't think ADSL was available in the village, but I made some enquiries when the perfect property for a work-from-home business came up for sale.

Telkom made my dreams come true by offering me the best of both worlds. I watch the waves roll in on Yzerfontein beach (all 16 miles of it) while surfing the net and manning my e-business.

From my window I see ostriches bobbing in the field and wild francolins pottering in my garden.

Yet I'm still as close to my customers as I ever was in the city, thanks to ADSL. Telkom has enabled me to transplant my business anywhere. It's a rare commodity, the stuff dreams made of.

EW Lewis, Yzerfontein

(source: Telkom 365 Magazine, Issue 3, Spring 2011, pg 3)

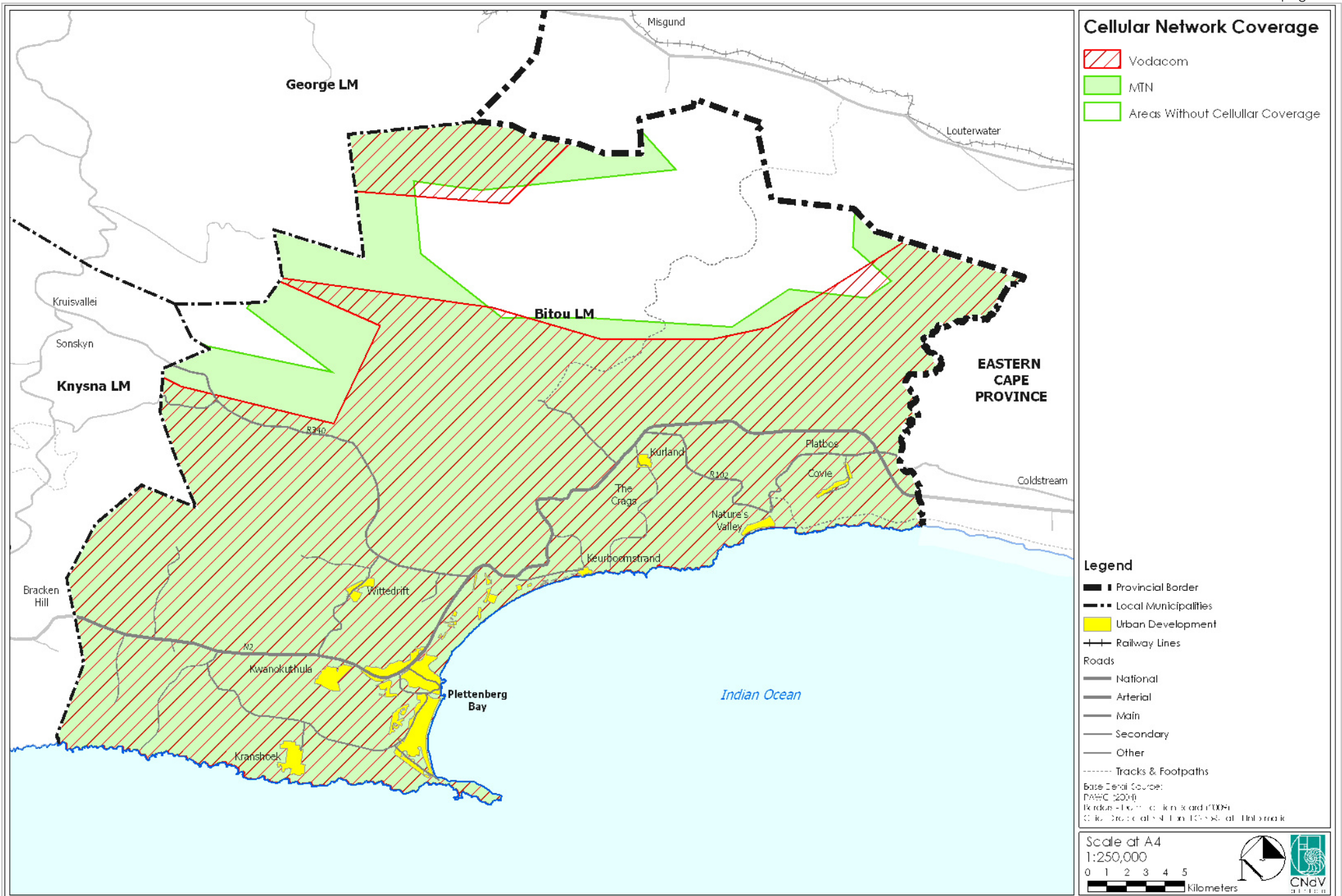


Figure 3.4.7.1 Telecommunications

3.4.8 Housing

Informal dwellings and traditional dwellings experienced the largest increase in between 2001 to 2007. The increase in informal dwellings is between 2.6-18% and traditional dwellings 2.7-8.2%.

There was very little change in rental units (20.1% and 20.5% in 2001 and 2007 respectively. The number of units to be fully paid and owned increased from 2001 to 2007 by 13.3%.

The housing backlog as per Council estimates equates to a total of 4049 which includes the areas of Kurland, Covie, Kranshoek, Kwanokuthula and New Horizons, see table 3.4.8.1. The housing demand audit conducted during February to May 2010 notes an estimated housing demand of 4298 units.

PRECINCT	NUMBER OF UNITS					
	Existing Formal Structures (Council)	Existing Informal Structures (Plan Ass.)	Housing Backlog (Council)	Housing Demand Audit and Database	Current Projects / Initiatives	Current Projects / Areas Identified
Kurland	476	308	432	674	188	188 Erven Completed/ 50 T Structure /50 Wet Cores
Subtotal Kurland	476	308	432	674	188	
Covie	21	40	1	8		
Subtotal Covie	21	40	1	8	0	
Wittedrift / Green Valley	196		198	277	575	Application ready 575 Units/2 Phases
Subtotal Wittedrift / Green Valley	196	0	198	277	575	
Kranshoek	1291		699	486	401	401 Erven Completed
						50 Top Structures/ 50 Wet Cores
Subtotal Kranshoek	1291	0	699	486	401	
Kwanokuthula	2532		1879	1373	92	Erven serviced:
					352	352 Existing services
					1362	1362 Erven Planned
Subtotal Kwanokuthula	2532	0	1879	1373	1804	
New Horizons/Oolweni/Bossiesgiff						
New Horizons	650		713	334		
Bossiesgiff	265	415	87	319		
Oolweni		1065		815		
Pinetree / Gaatjie		105		8		
Subtotal New Horizons	915	1585	800	1478		
Harkerville	52		80	3		
Plettenberg Bay	1570		29	3		
TOTAL	7053	1933	4049	4298	2968	
CENSUS 2007 (Bitou LMI)	10523	2027				

Table 3.4.8.1 Comparative housing demand summary, 2010 (Source: HSP, 2012)

The Sustainable Human Settlement Plan (Draft Aug 2012) notes that the housing demand as per the housing audit, i.e. 4298 units is the most reliable source in determining the Municipality's current housing backlog.

At the time of the production of the housing report the then housing initiatives (if implemented successfully) were expected to be sufficient to deal with the housing demand estimated at 4298 units, with a surplus of 210 units.

Various detailed housing strategies for each settlement were proposed. Table 3.4.8.2 compares the development potential of the land identified for housing strategies, to the housing demand in each area in order to determine if there is sufficient land available to deal with the estimated housing demand.

PRECINCT	AREA (ha)	NUMBER OF UNITS						Current Projects / Initiatives
		Density	A	B	D	A-D+E	B-D+F	
			Development Potential	Current Projects / Initiatives	Housing Demand Audit and Database	Surplus / Deficit (-)	Surplus / Deficit (-)	
Kurland	9.2	25	232	188				Project: 188 Subsidies
DI A Land	96.7	5	483					DI A Land
Subtotal Kurland	105.9		715	188	674	41	-486	
Covie*			100					Covie Development Plan Estimate
Subtotal Covie			100	0	6	94		
Wittedrift/Green Valley Sports Field	6.8	25	173					Sports Field
Watson Lemon Street	3.5	20	70					Watson Lemon Street
Subtotal Wittedrift / Green Valley	10.3		242	0	277	-35		
Kranshoek								
Phase 1 (Southeast): 426	27.1	17	426	426				Phase 1 (Southeast): 426
Phase 2 (North): 670	62.3	11	670					Phase 2 (North): 670 Subsidies
Gap Market (Southwest)	17.2	11	185					Gap Market (Southwest)
Subtotal Kranshoek	106.6		1,211	426	486	726	85	
Kwanokuthula - Erf 5344	3.6	25	90					2000 Subsidies Approved
Erf 7153	7.7	25	194					841 Completed
Erf 6285	4.0	25	100					1359 to follow
Hill View	73.8	25	1,868					
Eastern Strip	32.6	25	824					
Subtotal Kwanokuthula	121.5		3,077	2,000	1,373	1,704	627	
New Horizons/Oolweni/Bossiesgiff				1362				1500 Subsidies /922 In Process
Subtotal New Horizons	0.0		0	1362	1,476		-114	
Subtotal Harkerville	0.0		0	0	3	-3		
Ebenezer	81.9	25	2,075					
Ladywood	190.4	20	3,807					
Subtotal Ebenezer / Ladywood	272.3	45	5,882	0	0	5,882		
TOTAL	616.5		11,322	4,088	4,298	6,930	210	

Table 3.4.8.2 Housing development potential, 2010 (Source: HSP, 2012)



The HSP proposed the following priority initiatives in order to deal with the housing backlog:

- **Kurland:**
 - Construction of 100 BNG units.
 - Construction of 96 site/wetcores.
 - ABS projects.
 - Remaining demand of 466 BNG units to be provided on DLA land.
 - Complete transfer of DLA Land to Council.
 - Commence with Township Establishment (at least 444 units).
 - Facilitate construction of community facilities required.
 - Facilitate/promote economic development in surrounding areas.
- **Covie**
 - Implement Covie Development Strategy with maximum of about 100 residential units.
- **Wittedrift/Green Valley**
 - Provide 242 IRDP units around sportsfield and around Watson and Lemon Streets.
 - Limit future expansion due to limited economic development potential.
 - Community facilities to be shared with Wittedrift.
- **Kranshoek**
 - Provide at least 426 BNG units.
 - Transfer existing erven and structures to owners.
 - Facilitate/Promote economic development in surrounding areas.
 - Facilitate construction of community facilities required.
 - Investigate possibility of direct road link to Kwanokuthula/N2 to improve regional accessibility and enhance economic potential.
- **Kwanokuthula**
 - Complete 2000 BNG housing units in Kwanokuthula which will deal with the current demand.
 - Investigate possibility to establish 353 rental flat units (social housing) in the Kwano City precinct.
 - Cater for Gap Market/Economic Housing Demand in Ladywood area.

- Implement nodal development proposals emanating from Coming Together Initiative.
- Consider formalisation of backyard rental units in Kwanokuthula.
- Facilitate provision of community facilities in line with Land Use Budget.

- **New Horizons**

- Complete 922 and 440 IRDP units currently planned.
- Earmark Ebenezer area for future expansion of New Horizons/Qolweni and Kwanokuthula.
- Provide community facilities at the designated nodes.

Implications for Bitou Municipality

- Additional housing does not need to be provided if the priority housing initiatives are completed.



3.4.9 Land Ownership

Figure 3.4.9 is indicative of the pattern of land ownership in the Municipality.

The figure shows that the majority of land in the Municipality is privately owned.

62% of the land is privately owned, 14% is owned by the state, 0.2% is owned by the Municipality, while 0.3% is owned by parastatals.

A large proportion of the state and privately owned land is covered under various reserves and national parks.

The national parks include the Garden Route National Park, while the reserves are either provincial or private. Provincial reserves include the EC Soetkraal Nature reserve and Keurbooms River Nature Reserve.

The private nature reserves include the Wadrif Private Nature Reserve; Plettenberg Bay Country Club Private Nature Reserve; Annex Arch Rock Private Nature Reserve; Brackenburn Private Nature Reserve and Kiaruna Private Nature Reserve.

Implications for Bitou Municipality

- The municipality needs to acquire appropriately located land for development.
- There is a contradiction between land under formal conservation and private ownership – to be checked

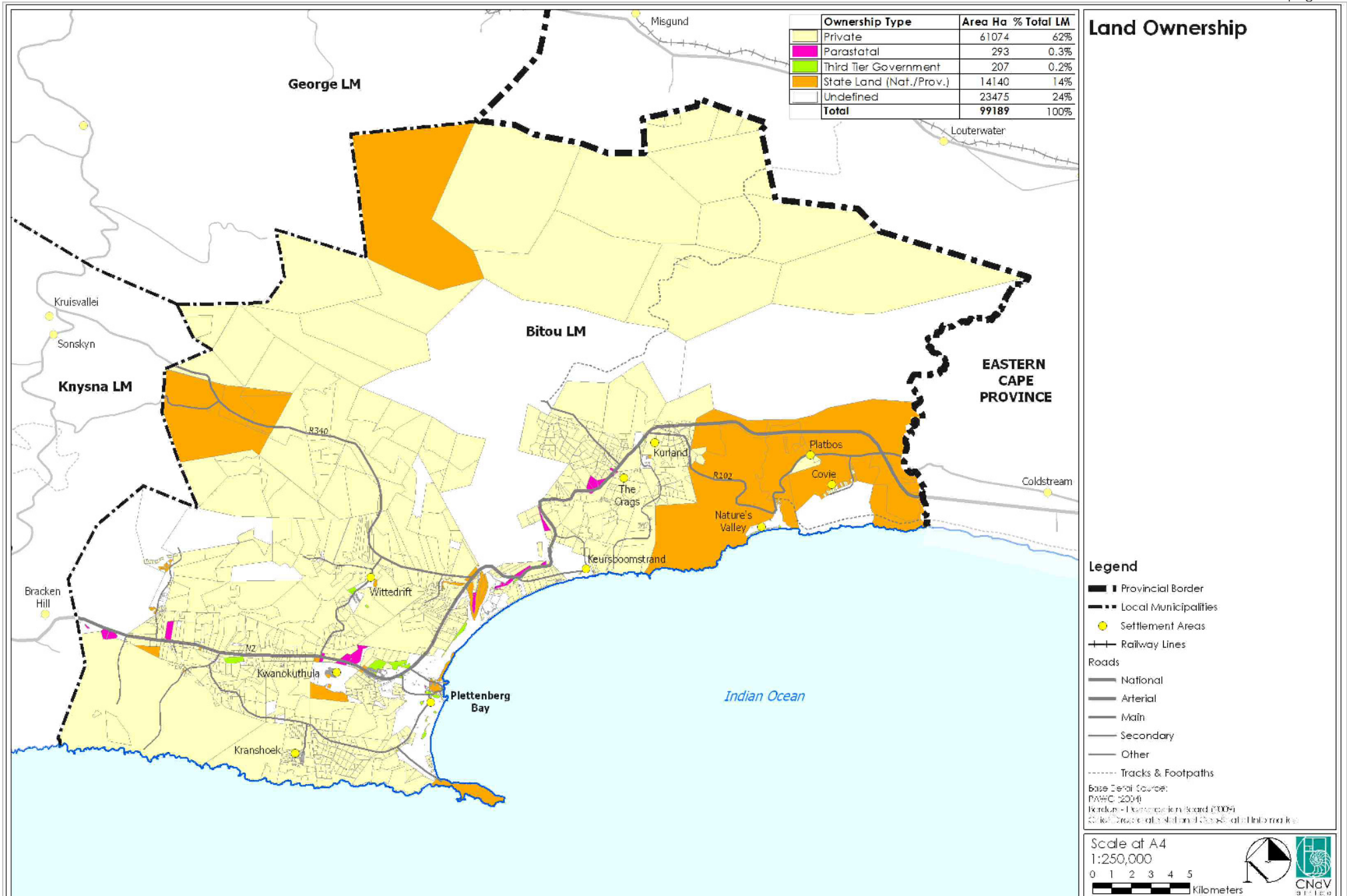


Figure 3.4.9.1 Ownership : Bitou Municipality

3.4.10 Vacant Land

The vacant land in the settlements of the Municipality is located on Figure 3.4.10.

The Human Settlement Plan (2010) states that there are a number of vacant land portions in the eastern and western parts of Kwanokuthula contains a number of vacant land portions in the eastern and western parts. The total area of vacant land available in Kwanokuthula measures approximately 121.47ha.

The eastern portion of vacant land in Kwanokuthula has been earmarked for the Kwanokuthula Urban Node and Kwano City development.

The vacant land located to the western part of the settlement is proposed to accommodate industrial activity, proposed high density residential development and single residential sites.

The Bitou Municipality compiled the following summary of vacant land in the ownership of the municipality:

- 1) A portion of Erf 1725, Plettenberg Bay (situated at the corner of Pachena Point Road and Fowey Rocks Avenue);
- 2) A portion of Erf 1725, Plettenberg Bay (situated at the corner of Pachena Point Road and Jumnet Drive);
- 3) A portion of Erf 1893, Plettenberg Bay (the vacant portion of the rugby field site situated in Griz Nez Avenue);
- 4) A portion of Erf 1893, Plettenberg Bay (the vacant portion of the rugby field site situated in Planier Drive);
- 5) Erf 3161, Plettenberg Bay 9situated at the corner of Challende Drive and Bowtie Avenue);
- 6) Unmade portion of Callander Street (situated between Jackson Street and San Gonzales Street);
- 7) A portion of Erf 1896, Plettenberg Bay (situated in Maplin Drive);
- 8) A portion of Erf 256, Plettenberg Bay (situated to the west of Longstone Park);
- 9) A portion of Erf 256, Plettenberg Bay (situated in Pachena Point Drive);
- 10) A portion of the Green Point Avenue street reserve;

- 11) Portions of Erven 1895 and 1897, Plettenberg Bay (situated to the east of Brackenridge, also known as Blackwood Forest);
- 12) Erf 2856, Plettenberg Bay (situated in Cutty Sark Avenue) and portions of Erf 2096, Plettenberg Bay (situated in Flying Cloud Drive).

Figure 3.4.10 identifies the location of each of these portions of land.

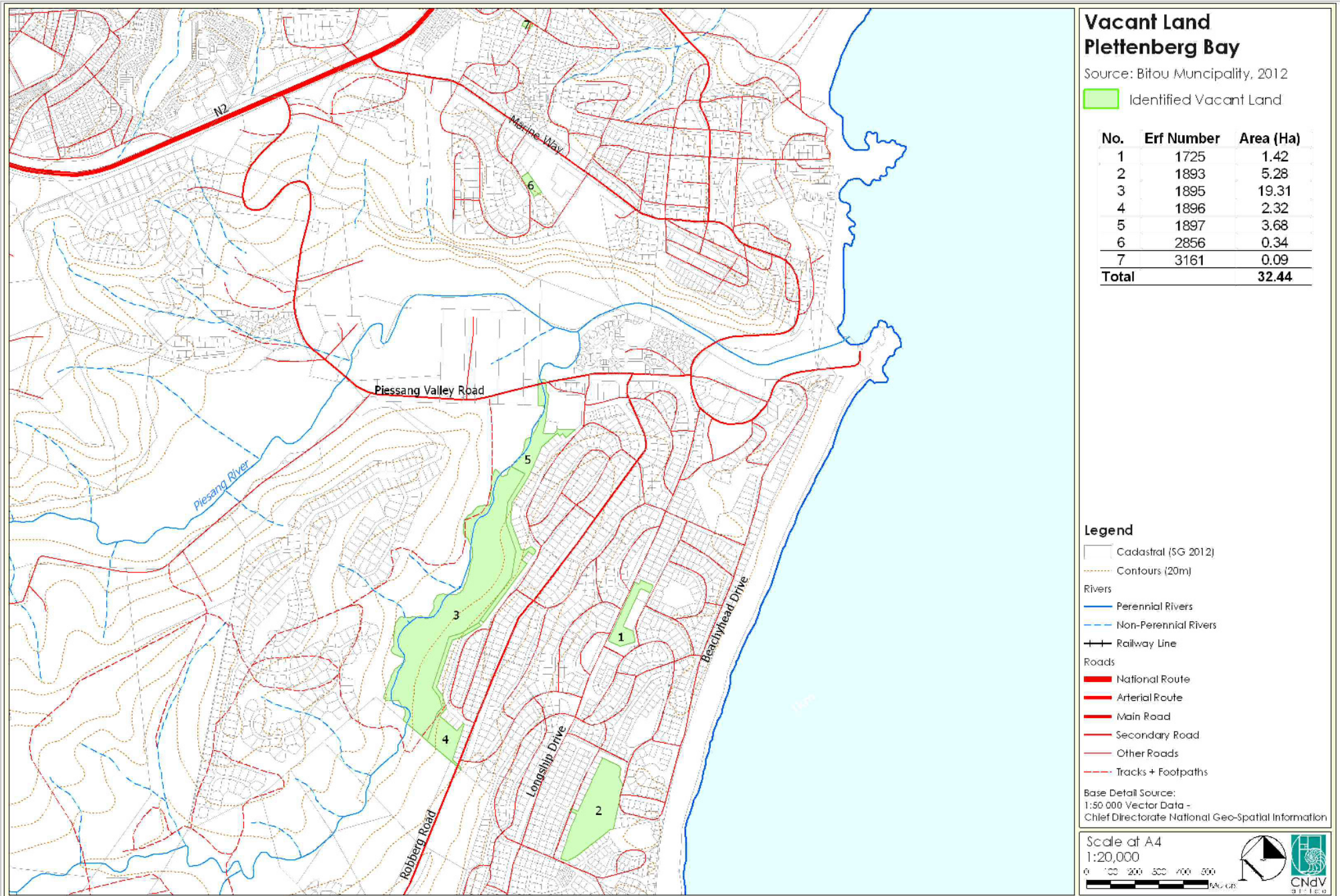


Figure 3.4.10 Vacant Land

3.4.11 Tourism

The tourism industry plays a key role in the South African economy, both from its contribution to GDP and from its contribution to employment, tourism is dependant on both domestic and foreign visitors both in the sense of domestic to Plettenberg Bay region and the Western Cape and also in the sense of national and international visitors.

Bitou can be described as being rich in culture and an often visited tourism destination in the Western Cape. Many important heritage sites, see Figure 3.4.11.1, are located in the Municipality, these include various monuments (Garden of Eden, Griekwa monument, St. Andrews Redbourn Church, Forest Hall and Matjies River Cave).

Very popular and well frequented nature reserves, Robberg Nature Reserve and the Garden Route National Park are located within the region. Robberg Nature Reserve has been earmarked as a world heritage site. The Municipality is also home to the very well known, locally and internationally, Plettenberg Bay beach.

Nature's Valley, which is located approximately 30km from Plettenberg Bay is considered to be the most unspoilt area in the Bitou. The area is frequented for its indigenous forests, pristine coastline and the Nature's Valley Rest Camp which forms part of the Tsitsikamma National Park.

The Craggs is known for its polo fields, wildlife sanctuaries (the Elephant Sanctuary), arts and crafts. It is located inland, 30km from Plettenberg Bay.

Wittedrift, a quaint rural village, is visited for its abundance of bird life and by nature lovers.

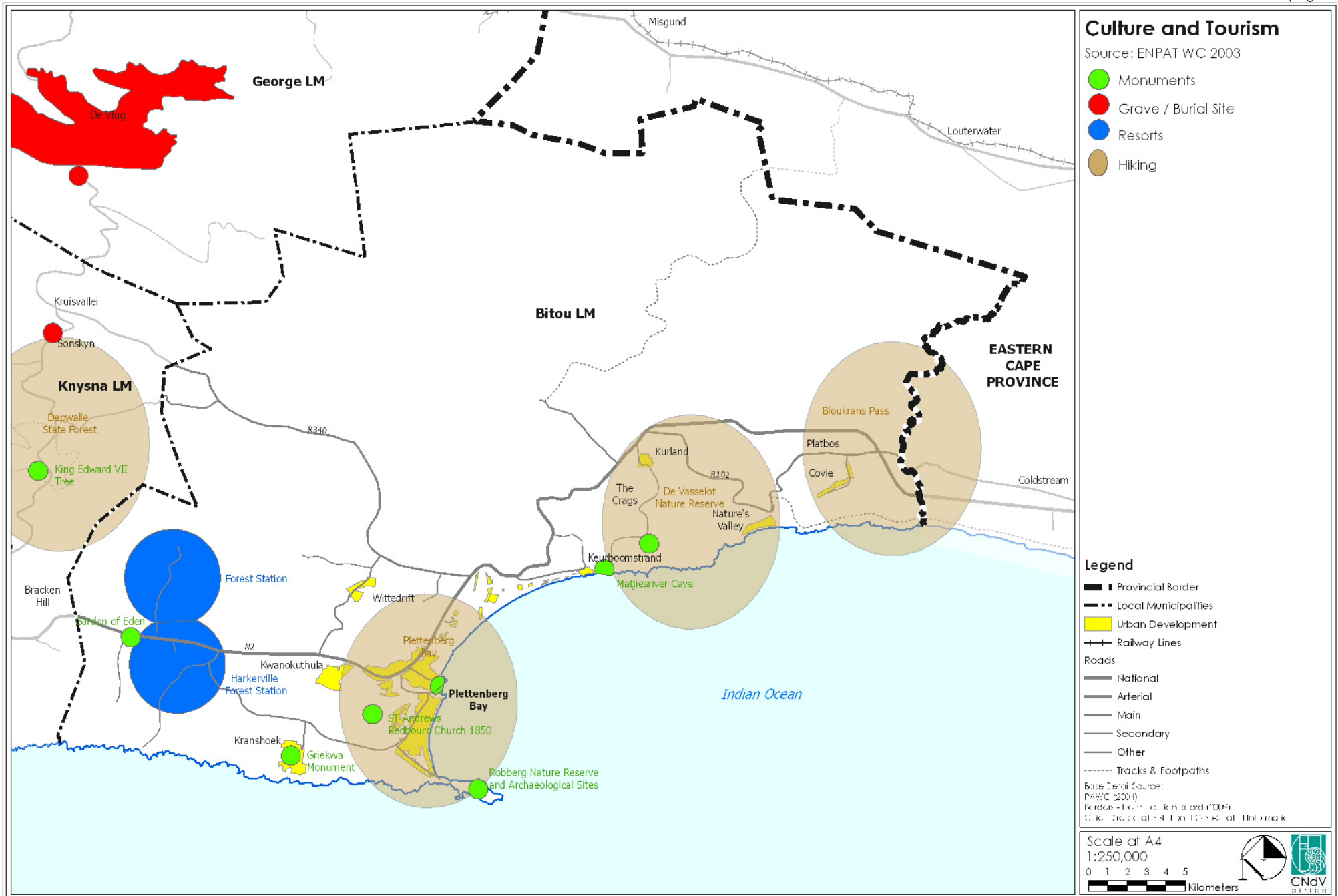
In 2010 Plettenberg Bay was awarded two accolades in the annual TripAdvisor Travelers Choice Awards. The town was voted the third best Beach and Sun Destination in Africa and the eighth most popular wildlife destination in Africa.



Figure 3.4.11.2 Plettenberg Bay beach front and the Beacon Island Resort situated on the peninsula.

Implications for Bitou Municipality

- Tourism is an important economic driver in the Municipality.
- The improvements to the roads noted in previous sections should be encouraged in order to accommodate the increasing number of tourists to the region.
- Resources include cemeteries, monuments and buildings rich in architecture.





4. PUBLIC PARTICIPATION

4.1.1 INTRODUCTION

The Guidelines for the Formulation of SDF's (January 2011) have been applied in the process of drafting a Spatial Development Framework for the Bitou Municipality, situated in the Western Cape Province of South Africa. The guidelines prescribe 7 phases, of which 2 phases involve public participation. The purpose of this section is to serve as record of the public participation phases undertaken during the Bitou Municipal SDF process.

4.1.2 GUIDELINES FOR THE FORMULATION OF SDF's (January 2011)

These guidelines comply with the Municipal Systems Act (MSA) (Act 32 of 2000), the National Environmental Management Act (NEMA) (Act 67 of 1998) and the principles of the Development Facilitation Act (DFA) (Act 67 of 1995). The following section briefly describes where public participation fits in this process.

4.1.3 PUBLIC PARTICIPATION PHASES

The SDF guidelines (referred to in 4.1.2, above) stipulate a total of seven phases of which public engagement (or public participation) forms part of in order to:

- Identify strategic issues,
- Create awareness of the process;
- Stimulate future thinking; and
- Provide valuable information for analysing the status quo.

The guidelines make provision for two public participation phases, Phase 2 and 5 (refer to Figure 4.1.3).

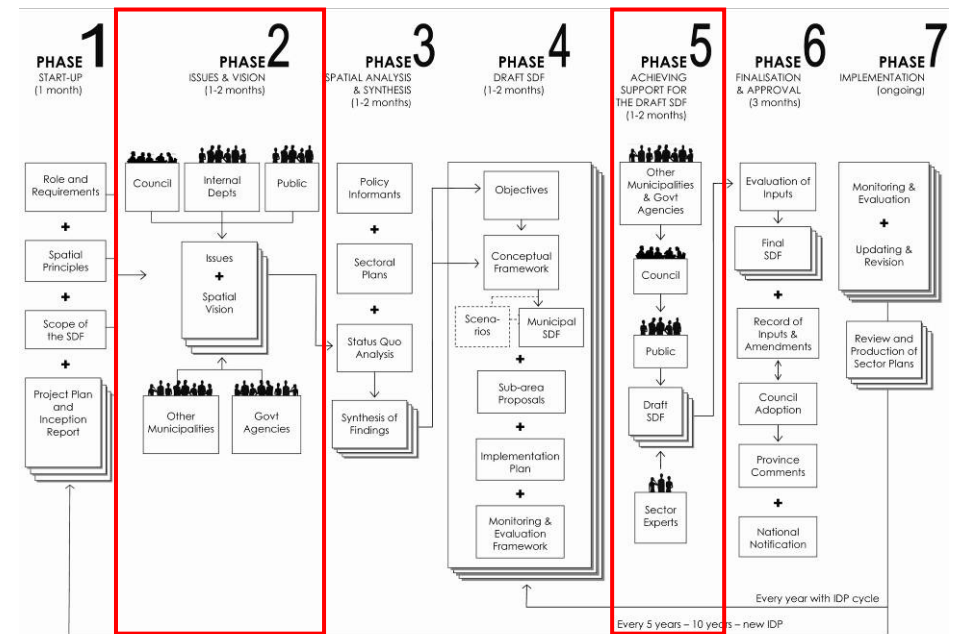


Figure 4.1.3 Public participation phases

Phase 2 involves consultation with Council (local or district), internal departments, the public, other municipalities/districts and government agencies. The main purpose of this phase is to gain an understanding of the current issues within the municipality/district and to formulate a spatial vision or desired future scenario for the study area.

Phase 5 again involves public consultation. The purpose is to achieve support for the draft SDF by consulting with municipalities/districts, government agencies, local councils, the public and various sector experts. Inputs from this phase will be evaluated and incorporated into the draft SDF in order to produce a final SDF which would then be presented for Council adoption.

4.2 PUBLIC PARTICIPATION: PHASE 2 REPORT BACK

CNdV were invited to present at the Council's monthly Mayoral Committee meeting of 30 March 2012. The purpose of the presentation was to:

- Inform the Councillors of the current SDF and HSP process;
- Obtain inputs regarding the issues and problems that should be addressed in these processes;
- Formulate a vision for Bitou Municipality; and,
- To confirm the extent of the Public Participation process required.

As part of the presentation, an overview of the project and initial status quo report findings were presented.



Figure 4.2 Council Mayoral Committee Meeting, Piesang Valley Community Hall (30 March 2012)

4.2.1 ISSUES AND PROBLEMS

The following issues and problems were raised at the meeting:

- There is a concern around areas that are identified as central nodes as there are further nodes outside of these identified central nodes that have their own possibilities (Kranshoek, Kurland, Wittedrift, etc). Special attention needs to be given in the SDF to these smaller nodes and their potential.
- Investment needs to be encouraged in economically viable areas.
- A strategy with respect to the implementation of the SDF needs to be determined, i.e. is the best approach bottom up (e.g. like Kurland) or top down.
- A mechanism is required to speed up development applications.
- Farms between Wittedrift and New Horizons to be considered for ending off of development and then alternative uses on the borders to prevent repeat of informal settlement growth in the area.
- The SDF needs to address the lack of Cemeteries. The IDP has been noting this issue for the past 12 years.
- To align the SDF with the IDP and LED, the population statistics from these two reports need to be used for the SDF report.
- The SDF should include methods and/or processes that are required for proposals to be implemented e.g. Rezoning, EIA's etc with requirements and timeframes.
- The SDF is to have a plan that shows the various activities/proposals/land uses in a respective precinct and also indicate if Rezoning and EIA's are required. If Rezoning and EIA's are necessary, these are to be carried out by the Municipality.
- It was suggested that each Ward become its own node since each Ward has its own needs. Each node can then have its own social facilities and economic hub.
- Covie must be seen as its own settlement.

4.2.2 SPATIAL VISION

The following items were raised as important aspects which need to form part of the spatial vision of the municipality:

- The IDP vision is still endorsed by the Municipality.
- The SDF vision should be unique to Bitou and not capable

of being applied to other municipalities as well.

- In order to overcome problems and issues a clear vision needs to be in place and synchronisation is required with Province.

4.2.3 WAY FORWARD

The following public participation process was agreed upon at the meeting:

- In order to avoid confusion with the community, the public participation process will be linked to the IDP process;
- The IDP advertisement will make reference to the SDF and its process;
- The IDP meetings will include a presentation of the SDF and its process.

5. CONCEPTUAL DEVELOPMENT FRAMEWORK

5.1 VISION AND CORE IDEAS

“The Garden Route’s Sustainable Tourism Playground for the Benefit of All”

Implications of the Vision:

- The vision acknowledges the reality that Bitou's greatest economic asset is the range of superb lifestyles that make it attractive to the local and international jet set;
- These lifestyles are based on the following:
 - superb scenery in the form of seemingly untouched mountainous forests offering a backdrop to long sandy beaches;
 - a range of adventure and leisure pursuits including golf, polo, mountain biking and entertainment and restaurant experiences;
- The quality of Bitou's natural environment is a key factor in the success of these attractions, either providing the resource for the activity, e.g. hiking and mountain biking or the setting for holiday homes and views from golf courses and polo fields;
- The public policy and spatial planning challenge created by such lifestyles is not that they should occupy a low public policy priority because they are only accessible to a small elite but rather to ensure that the benefits of supplying the resources needed to sustain such lifestyles are spread as widely as possible:
 - For instance, with respect to spatial planning rather than settlements becoming a series of exclusionary gated communities with little attention paid to the urban development needs of the majority every effort should be made to develop those parts of the settlements in which they live and to put in place inclusionary spatial frameworks in which it is convenient and efficient for the

poor to participate in the urban economy to the greatest extent possible;

- This principle should be extended even further to ensure that it is as easy for the rich to access urban opportunities offered in the less well-off parts of the settlements as for the poor to access the well-off areas to render their goods and services;
- Thus, Bitou municipality, should in terms of this vision be doing the following:
 - Facilitating, but with spending the minimum of public resources, the increase of attractions that attract wealthy residents; – these include, conserving the natural environment, promoting accessibility through the upgrading of the airport and installing excellent IT services, and more golf courses, polo facilities, MTB and hiking trails, accommodation and restaurant venues;
 - Making sure that every effort is made to broaden access to economic opportunities spinning off this wealthy core market, e.g. compulsory caddies on golf courses, street markets and public transport interchanges integrated into shopping centres, township retail that is easily accessible to external passing traffic;
 - Ensuring that this strengthening of attractions is not done at the expense of the natural or social environment. For example, any further golf courses should follow Audubon or similar concepts making maximum use of natural vegetation and minimum consumption of water or use recycled waste water, similar principle should apply to polo fields including using hardy indigenous grasses such as Buffalo rather than Kikuyu;
 - Directing the majority of public resources to ensure that the settlements work as well as possible for the poor and middle income groups. This includes planning and implementing development programs such as Coming Together and extending this approach to other settlements such as Kranshoek, Kurland and Wittedrift;
 - Agriculture, although a minor economic sector in the Bitou economy remains important as a creator of low skilled jobs and the limited amount of arable land means that protection and better use of this resource should occupy a high priority.

5.1.1 BITOU MUNICIPALITY: LAND DEVELOPMENT OBJECTIVES

The municipality has embarked on a number of planning projects, amongst the others, the Coming Together Project, the Keurboomstrand Area Local Structure Plan, and an Integrated Coastal Management Plan. The abovementioned plans are prepared in more detail than the envisaged Bitou SDF and must therefore inform the Bitou SDF as detailed plans. The planning boundaries for each need to be spatially reflected on the SDF with suitable annotations to indicate that the provisions of the local, more detailed plans will prevail.

The text box below sets out the municipality's Land Development Objectives as supplied by the Bitou Municipality, 28 May 2012 – Annexure A: Memorandum on SDF Development Objectives.

Land Development Objectives (reference: Bitou Municipality, 28 May 2012 – Annexure A: Memorandum on SDF Development Objectives.):

1. Provision of Infrastructure

The Bitou municipality will provide municipal infrastructure services to all developments in Urban Areas.

Urban Areas are defined as:

- *Where existing township development has occurred within the Urban Edge;*
- *Extensions of existing urban development where development is contiguous (i.e. abutting) to existing municipal infrastructure services within the Urban Edge;*
- *Low density Resort Zone developments in proximity (within 1 kilometre) of urban areas; and,*
- *Specific resort and industrial developments outside of the Urban Edge where, by prior arrangement, such service provision can be feasibly provided.*

2. Development outside of urban areas

Developments in all other areas will be responsible for providing, meaning capital, operating and management costs, their own bulk (treatment plants), link and individual services to the standards required by DWAF and the municipality.

Developments with site specific impacts (e.g. a lodge, eco- type residential HOA's) could be positively regarded if they contribute to ensuring conservation friendly land use.

3. Provision of public facilities and amenities

Provision for public transport and education facilities, public open space and social amenities will be required on a pro-rata basis from all development through development contribution levies, the erection of facilities and the maintenance thereof, where such facilities are either a provincial or a municipal function as determined in the Constitution of South Africa Act, 1996, Act 108 of 1996.

4. Corridor and Node Developments

The objective of the Bitou Municipality is to establish two corridor related developments, in order to rectify or reverse the spatial patterns of development creating outlying townships that depend on central functions. Nodal development will be encouraged within the settlements as a first stage of development along the N2-Plettenberg Bay corridor.

4.1 *The Kwanokuthula/New Horizons/Plettenberg Bay corridor is one, with the Coming Together Project focusing on this corridor. It entails the development of the Ladywood area for infill development between the three previously segregated development areas, the upgrading of the New Horizons and Kwanokuthula neighbourhoods and the establishment of private sector investment initiatives in and around the segregated townships;*

4.2 *Kranshoek is another township, which should be developing as a future growth node (development occurring back towards Plettenberg Bay along the airport road corridor). Growth in this should commence from the Kranshoek node. Development must eventually link Kranshoek and Plettenberg Bay, while also serving a potential tourist and scenic route. The natural environment must be maintained along the road, while the bio-diversity corridor along the coastal section should be retained, i.e. development in this area should be located between a scenic corridor along the road and a bio-diversity corridor along the sea;*

Various approvals and authorisations for commercial and industrial development have been granted in this area. Thus, it can be expected that job seekers will be travelling over shorter distances along this route and suitable provision for transport interchanges

should be created at identified non-residential nodes along the route.

The provision of bulk services is a challenge to the area, as it is relatively flat with insignificant topographical features that would allow for the establishment of water reservoirs. The Kranshoek sewerage is connected to the Plettenberg Bay WWTW at Ganze Vallei, by means of pipelines and pump stations. The electricity supply in the area is provided by Eskom, with suitable capacity for gradual development and supply upgrading until around 2014.

In view of the aforementioned densities around Kranshoek should be of a typical urban nature, with densities up to 25 dwelling units per hectare gross on land contiguous with Kranshoek, where development can occur for upwards of 1 000 units. The development should be of medium to low residential density nature for a variety of market groups, ranging from GAP to middle income and higher income residential opportunities, where no subsidy-type development occurs on the edge of the urban area.

No development should be permitted to the west of Kranshoek which boundary should form the Urban Edge. Development should be phased from Kranshoek eastwards.

The development outside of the indicated Urban Area should be limited to the land development objective set for development in rural areas.

The Bitou municipality envisages the undertaking of an area based environmental authorisation application together with suitable planning proposals to facilitate the development of the aforementioned two corridors and/or nodes. Funding of the project must be included in the NDPG and contributions from private land owners in the area who will benefit from the planning and environmental authorisation processes.

5. Development In Rural Areas

The Department of Agriculture (national and provincial) unilaterally and without suitable consultation with the municipality determine what properties 'should be suitably rezoned out of agriculture' to allow sub-division of non-viable agricultural properties (land units). This has significant negative effects on development in the municipal area.

The Bitou municipality is in need of suitable developments that enhance the local economy. The LED strategy of the municipality indicates that the

tourism and agricultural (growing viticulture) sectors are the two major economic drivers in the area. However, tourism relies predominantly on the attraction of the natural environment, consisting of the natural topographical features with its unique bio-diversity, together with marine environment. The majority of the Bitou municipal area is indicated as being of critical biodiversity significance on the critical biodiversity maps and designations approved in terms of NEMA, 2004, Act 10 of 2004, and National Environmental Management Act, 2003 Act 57 of 2003. In terms of the aforementioned legislation, no agricultural activities other than the extensive use of the natural veld for the keeping of farm animals, is permitted.

The Department of Environmental Affairs and Development Planning (DEA&DP) is currently investigating a solution to deal with this challenge. The SDF should address these areas collectively and make overarching proposals as to their appropriate SPCs. Further development should be in keeping with CBA policies.

6. Themes

The Bitou Local Economic Development Strategy focuses on the agricultural and tourism sectors as the main local economic sectors. Tourism needs to be destination focused, as there are no real individual attractions in the area.

Conservation of the natural environment is critical for the Bitou area, as it is probably one of the major attractions from a tourism perspective, as explained

above. Cultural resources in other parts of the Bitou have not yet been exposed to the tourism market, e.g. the Griekwa culture around Kranshoek, which is an island of poverty with a tremendous potential for integrated development. Forestry, the natural attractions and the heritage resources thus give the overall theme for the area. To build on the unique qualities of each area, the following broad themes are proposed:

6.1 Nature's Valley

This area is in the heart of the natural environment with limited access and capacity for development. Its theme should be linked to its limited size, environment and setting, i.e. a low density and intensity use residential area primarily for holiday purposes. There should be no further development;

6.2 Kurland/Crags

Kurland and The Crags have a well-defined tourism character, with numerous accommodation establishments on small holdings and farms. It also has timber and brick yards, dairies and a winery, which give it a different, service industrial character. Its theme should thus relate to the tourism attractions in an agricultural setting, while permitting the urban component to expand. Urban expansion should create a spread of market sectors, to complement the existing low income residential neighbourhood, while not detracting from the rural land uses and tourism attractions. The SDF should make proposals for this to become a balanced urban settlement according to the principles of walking distance access and functional and socio-economic integration.

6.3 Keurboomstrand and Keurbooms River

A strong holiday/resort character predominates the area. It is fairly homogeneously developed with residential and resort uses, wedged between sea and the coastal plateau slopes. Altering its character by permitting commercial and other non-residential development could detract from the area's attraction. The theme should thus be a low density residential one. Land between these two settlements will be considered to be outside of the Urban Edge and therefore all services should be off-grid.

6.4 Plettenberg Bay-Kwanokuthula-New Horizons

This is the activity hub of the Municipality. Its theme should be service industrial and economic development. It must incorporate an institutional theme, to facilitate the development of state administrative functions;

The SDF must include proposals to designate development areas around Bossiesgif and Qolweni for urban development (subsidised settlements) and middle and higher income development, as edge developments. All development must be of a mixed market nature, to create economic benefits for cross-subsidisation of the lower end developments.

6.5 Wittedrift/Green Valley

This area contains the only Afrikaans/English medium high school in the area. It has good accessibility (albeit the western access road is still a gravel road). Green Valley is expanding with informal settlements into

private land, southwards towards Bossiesgif and Qolweni. Wittedrift should be themed as an education centre, where educational facilities of all nature should establish. Numerous proposals for tertiary training facilities, e.g. culinary and hotel schools, private colleges and skills development centres have been mooted for the area.

The SDF must include proposals to designate areas around Green Valley and the southern side of town, for educational and urban development similar to that around Bossiesgif and Qolweni.

These proposals must be based on the settlement planning principles of walking distance as the primary measure of access, and functional and socio-economic integration.

6.6 Kranshoek

This area has a unique cultural theme that should be enhanced by creating suitable opportunities for the development of tourist attractions in unique natural environments and settings. It is to be promoted as a balanced, self-sufficient settlement with commercial and retail frontages onto the main road and a possible resort onto the coast to the south. In the long term the extension of the tarred section should be extended to the N2. A long term growth corridor is proposed to the east. The settlement's cultural heritage potential should be promoted.

6.7 English medium high schools

Better located English medium high schools are required in the Plettenberg, New Horizons, Kwanokuthula corridor.

Links between Kranshoek and Kwanokuthula require consideration.

6.8 Harkerville/Kranshoek

In the areas of Harkerville and Kranshoek, high income/market housing is to be promoted. Furthermore, there is a need for a housing guideline for Kransbos and Harkerville to ensure that any further housing maintains the character of the area to be prepared as a separate focused task from the SDF.

5.2 MACRO-CONCEPTUAL FRAMEWORK

5.2.1 NATURAL SYSTEMS SYNTHESIS, see Figure 5.2.1.

- Bio-physically the municipality is extremely diverse comprising;
 - three major river valleys; Piesang, Bitou, and Keurbooms;
 - the forest covered Tsitsikamma mountains to the north; and,
 - a varied coastal corridor comprising rocky headlands, flood plains, estuaries and sandy beaches.
- These provide the basis for identifying nine distinctly different bio-regions in the municipality which form the basis for more accurate policy formulation and spatial development proposals at the local level;
- It has one of the largest percentages of formally protected land of any municipality in South Africa. This land is incorporated in the Garden Route National Park and comprises mountains, inland plateaus, a coastal corridor and a marine reserve;
- Agriculture is relatively limited with only 16% of the land suitable for intensive farming and 32% for stock farming on natural veld. Much of what there is has been subdivided below the commercially viable minimum set by the Department of Agriculture;
- This provides an opportunity for smaller scale agriculture and land reform initiatives to support the food security of the region;
- The agricultural consultants have noted that there is a considerable amount of land lying fallow and ways to bring this land into production should be investigated;
- The rivers are in relatively good health compared to most municipalities in South Africa no doubt due in part to the large percentage of their catchments under formal conservation protection;
- The municipality is in the process of preparing an Environmental Management Framework (EMF). A detailed review of the CBA mapping is currently underway (see Figure 5.2.2 for the current CBA mapping);
- The outcome of the EMF will be addressed during the municipality's IDP process.

- Endangered vegetation is competing with cultivated land and urban development (as illustrated by the overlay of the critically endangered SANBI maps with the cultivation and urban development land), see Figure 5.2.1. This competition is particularly evident in the built footprint of Plettenberg Bay as well as the Wittedrift Valley, which means that development needs to be sensitive to this;
- The valley regions of the municipality appear to be endangered, including the Piesang Valley and Bitou Valley;
- The areas with slopes greater than 1:4 appear to be the best protected and least endangered from a biodiversity perspective. Much of this land is formally conserved.

The municipality is also in a relatively high rainfall region. Thus, problems of water supply that are experienced during droughts are more due to problems on the infrastructure supply side than an overall shortage of the resource. More could be done in terms of water demand management – rainwater harvesting, grey water recycling, lowering of pressures in the reticulation network, than is happening at present.

The SANBI data on Critical Biodiversity Areas (CBAs) requires ground-truthing as it appears that “critically endangered” and “endangered” vegetation can be found within the built footprint of central Plettenberg Bay.

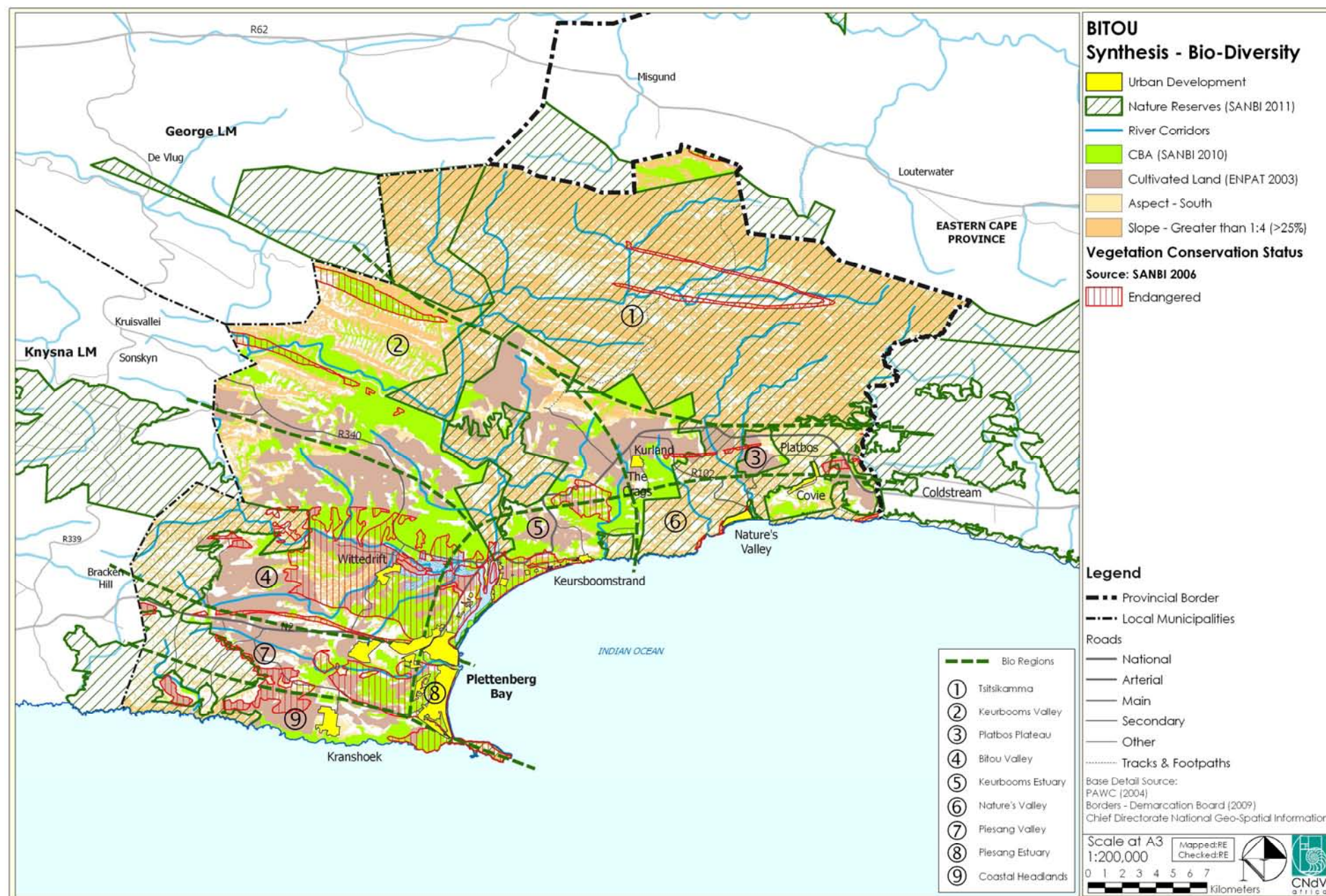
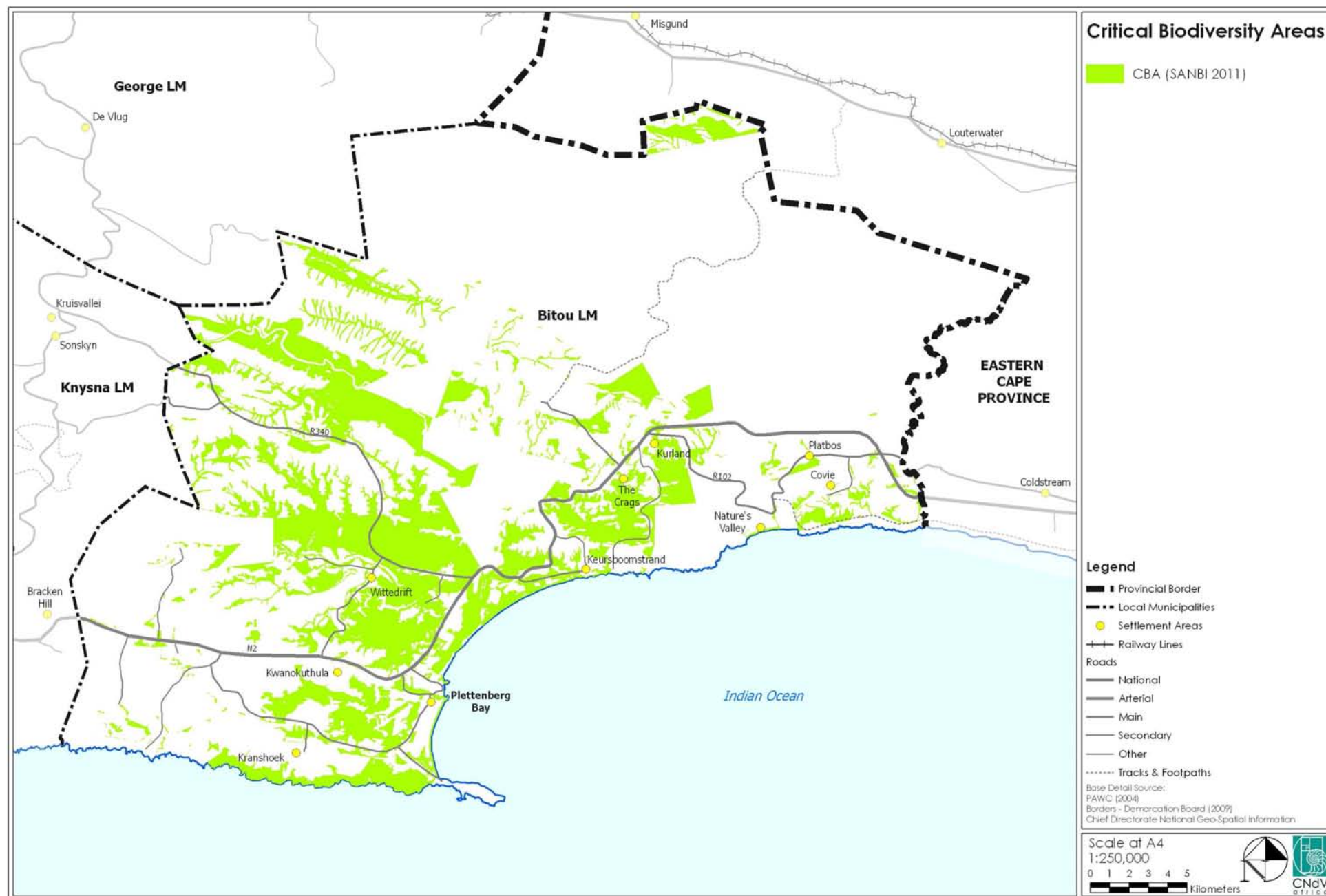


Figure 5.2.1 Bitou Municipality: Natural Systems Synthesis



5.2.2 SOCIO-ECONOMIC AND BUILT ENVIRONMENT SYNTHESIS, see Figure 5.2.2

- The socio-economic patterns of the municipality typify the warping of an equitable socio-economic and physical plane where, instead of all resources being spread evenly across the terrain, see Figure 5.2.2a below, they are concentrated in one or two locations with large disparities experienced elsewhere;
- Most of Bitou's population is concentrated in the N2 corridor between Kwanokuthula and Plettenberg Bay;
- Most high order community facilities and business activity are found in this concentration;
- However, at the local neighbourhood scale, this concentration is spread over 5 kilometres along the N2 resulting in a highly inefficient and unviable pattern especially for poor people without private motor vehicles. The Coming Together program is directly addressing this challenge, see Figure 5.2.2b;
- There are three main outlying villages all with very different histories and spatial advantages and disadvantages:
 - Kranshoek is the last destination of the Griqua people who were moved across South Africa beginning originally in West Griqualand in the Northern Cape before being moved to Kokstad in Kwa-Zulu Natal and finally to this location. It is spatially remote from the remainder of

Plettenberg bay being about 8kms across the Piesang River Valley and, even in its local vicinity, is set back over a kilometre from

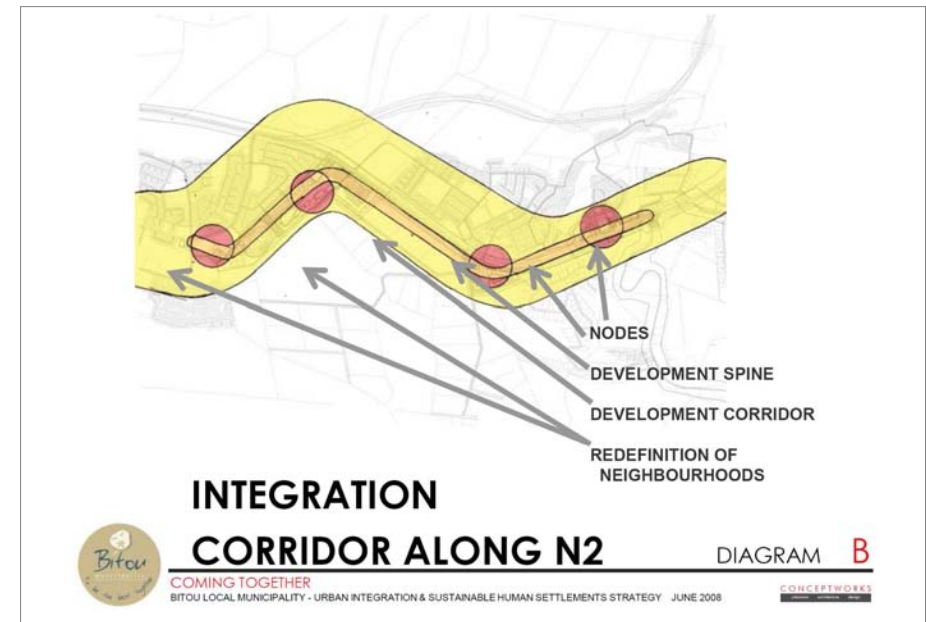


Figure 5.2.2b Integration Corridor along N2 (source: Bitou Municipality, Coming Together Project, 2012)

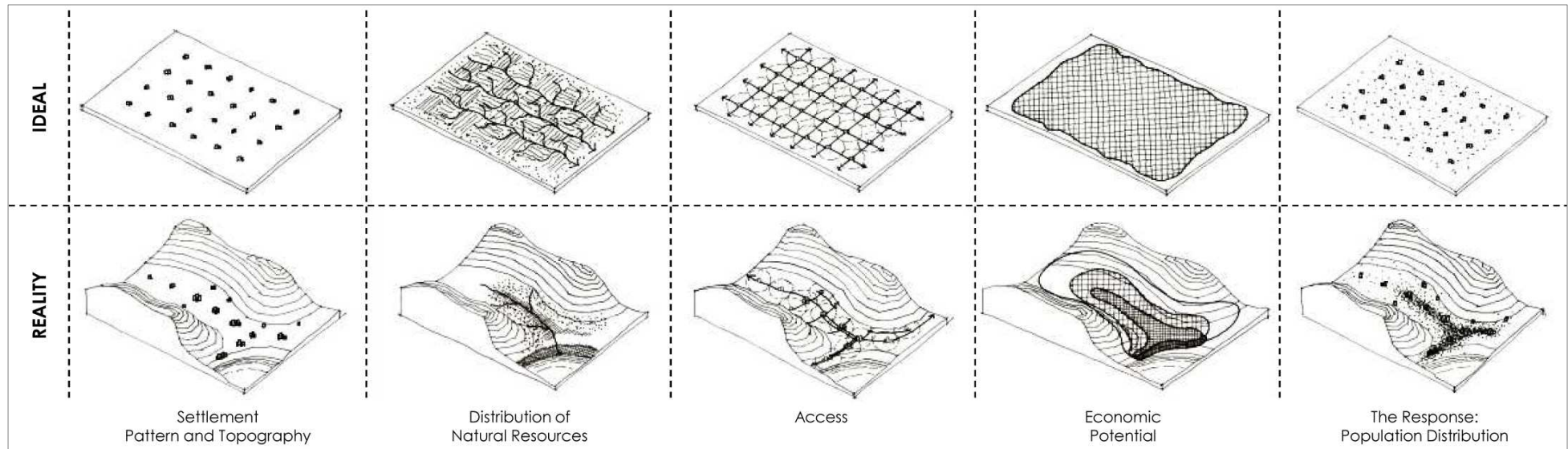


Figure 5.2.2a Differences between Ideal and Actual Patterns of Resources and Opportunities

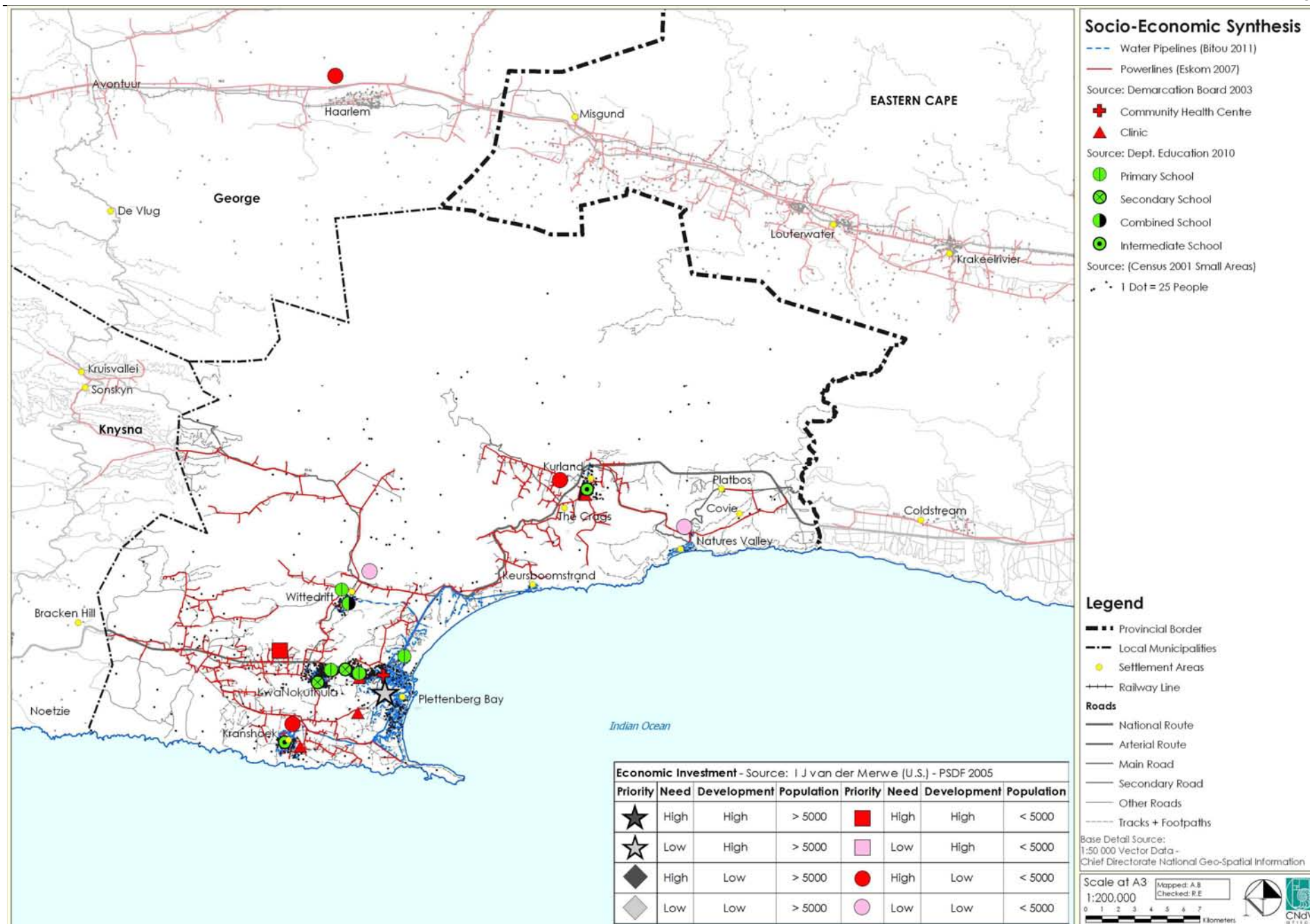


Figure 5.2.2 Bitou Municipality: Socio-economic Synthesis

the intersection with rural Robberg Road that provides its access. Local employment opportunities are limited and work is found either in Plettenberg Bay or on surrounding farms;

- Kurland Village is a dormitory settlement housing industrial and farm workers. It is set back about one kilometre from the N2 national route some 20kms from Plettenberg Bay. There are some employment opportunities within walking distance but generally levels of unemployment are high;
- In contrast to the establishment of the above two settlements Wittedrift is an historic village that originally served farmers in the fertile Bitou Valley. Hence it has a small civic and convenience shopping focus on the main route linking it to the Uniondale road to the north and gravel to the N2 at Kwanokuthula to the south. In recent years a low income settlement, Green Valley, has become established on the hillside around the corner from Wittedrift;
- The other two settlements with very small permanent populations are:
 - Natures Valley, a well-established second home settlement on the Groot river estuary; and,
 - Covie, a former woodcutter's settlement on the headland east of Natures Valley. This settlement was almost destroyed in the apartheid era and is currently subject to a land claim process.

5.2.3 SECTOR GVA CONTRIBUTIONS (see Table 5.2.3 and Graph 5.2.3)

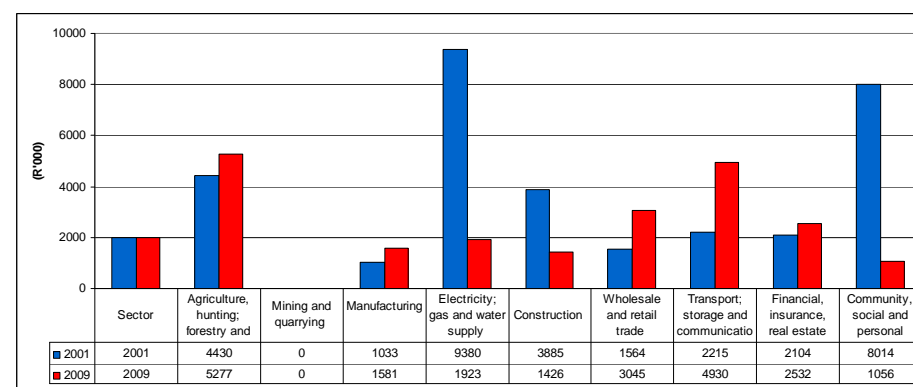
- The primary sector comprises agriculture, forestry and some mining, mainly quarrying of building materials;
- Agriculture's contribution to GVA is less than 5% and appears to be declining;
- The secondary sector, comprising manufacturing, construction and transport is surprisingly strong, contributing 30% to GVA in 2009. However, much of this is due to the construction sector which increased its contribution from 26% in 2001 to 46% by 2009. This is likely to have been driven by the second home market and is likely to have declined during the recession. This highlights the need to promote more sustainable economic sectors whose construction needs will not be as volatile – for example, increased government facilities, market related housing for permanent residents, infrastructure and low income housing and possibly industrial and commercial developments;
- The largest growth and biggest contributors to the local economy are the wholesale and retail and finance, real estate and business services sectors. Much of this will include tourism activities. This pattern suggests a decline in the productive (secondary) sectors of the economy and, with the large consumption component driving the wholesale and retail sectors, indicates the importance of lifestyle to the Bitou economy. The municipality's

location is too remote from the large national concentrations of business and people and its local population too small to otherwise make the secondary (productive) sectors viable;

Economic Sector (R'million)	Gross Value Added				Growth for Period (%)	Annual Growth (%)
	2001	% of Total	2009	% of Total		
Agriculture, hunting, forestry and fishing	44303	6.66	52778	4.86	19.13	2.21
Mining and quarrying	0	0.00	0	0.00	0.00	0.00
Manufacturing	103338	15.54	158130	14.57	53.02	5.46
Electricity, gas and water supply	9380	1.41	19239	1.77	105.11	9.39
Construction	38851	5.84	142654	13.14	267.18	17.65
Wholesale and retail	156447	23.52	304542	28.05	94.66	8.68
Transport, storage and communication	22159	3.33	49303	4.54	122.50	10.51
Finance, insurance, real estate and business services	210466	31.64	253294	23.33	20.35	2.34
Community, social and personal services	80143	12.05	105690	9.74	31.88	3.52
Total	665087	100.00	1085630	100.00	63.23	6.32

Note: No mining and quarrying activity is recorded in the local municipal area in 2001 and 2009

Table 5.2.3 Assessment of Sector Contribution to GVA in 2001 and 2009 (Source: Multi-Purpose Business Solutions, 2012)



Graph 5.2.3 Sector contribution to GVA (MPBS, 2012)

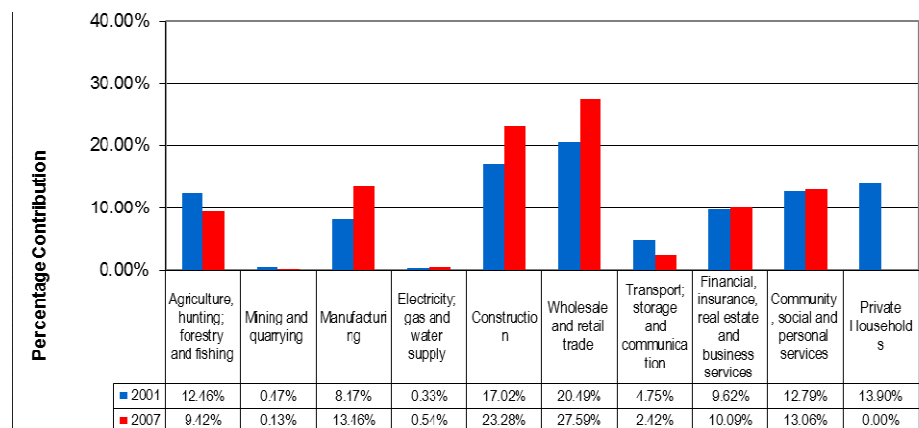
- Bitou's biggest attraction remains the quality of its natural environment and the relatively quiet pace of life in the urban settlements. The key market drivers that this attracts are tourism and lifestyle related. Businesses will locate here because:
 - 1st, their owners want to live in pleasant surroundings; and,
 - 2nd, they are not at too much of an disadvantage compared to their competitors in the large urban centres;
- The main disadvantage being located in Bitou relates to distance from the main markets. This can be overcome to some extent by high quality and fast IT platforms that allow excellent virtual connectivity as well as air transport connections for when people do have to travel;
- Thus, Bitou municipality has to focus on the following:
 - how it can increase opportunities for people to live permanently in its high quality environment without diminishing this quality, e.g. insensitive urban development that weakens the rural ambience;
 - providing infrastructure, e.g. improved IT platforms and air transport that overcomes to the greatest extent possible its disadvantage of distance from the main centres;
- Improving its road infrastructure is also important. The need to upgrade the following routes has been identified:
 - Baviaanskloof to Hankey (R332 and R331);
 - Airport road from Plettenberg Bay to the N2 past Kranshoek;
 - Piesang Valley Road;
 - Bloukrans Pass from N2 toll near Stormsriver to Coldstream (R102);
 - Prince Alfred Pass from Uniondale to Wittedrift (R340 and R339);
 - Grootrivier Pass (R102) from Craggs to Natures Valley and N2 - maintenance.

5.2.4 SECTOR EMPLOYMENT CONTRIBUTIONS

- The following sectors made the largest contributions to employment in 2007:
 - Wholesale and retail trade;
 - Construction;
 - Manufacturing.
- There was a significant increase in employment in the Manufacturing, Construction and Wholesale and retail trade sectors between 2001 and 2007.

Sector	2001	% total	2007	% total	Diff Jobs	Growth PA	Annual Growth
Agriculture, hunting, forestry and fishing	1 117	12.46%	1 191	9.42%	74	6.62%	1.32%
Mining and Quarrying	42	0.47%	17	0.13%	-25	-59.52%	-11.90%
Manufacturing	733	8.17%	1 702	13.46%	969	132.20%	26.44%
Electricity, gas and water supply	30	0.33%	68	0.54%	38	126.67%	25.33%
Construction	1 526	17.02%	2 944	23.28%	1 418	92.92%	18.58%
Wholesale and retail	1 837	20.49%	3 489	27.59%	1 652	89.93%	17.99%
Transport, storage and communication	426	4.75%	306	2.42%	-120	-28.17%	-5.63%
Finance, insurance, real estate & business	863	9.62%	1 277	10.09%	414	47.97%	9.59%
Community, social and personal services	1 147	12.79%	1 651	13.06%	504	43.94%	8.79%
Private Households (2001)	1 246	13.90%	-	-	-	-	-
TOTAL	8 967	100.00%	12 645	100.00%	3 678	41.02%	8.20%

Table 5.2.4 Main sectors contributing to employment 2001 to 2007 (Multipurpose Business Solutions, 2012)



Graph 5.2.4 Sector Contribution to Employment (MPBS, 2012)

5.2.5 BROAD SPATIAL CONCEPT

The following main spatial elements of the municipality provide the basis for the SDF proposals:

- N2 Settlements to be focused around Ladywood;
- Kranshoek as a remote and isolated settlement 'om die hoek' from Plettenberg Bay;
- Tsitsikamma indigenous forest and mountains;
- Kurland/the Craggs ad-hoc settlements along the N2;
- Piesang, Bitou and Keurbooms River Valleys, with Wittedrift/Greenvally as the focus in the Bitou valley;
- Keurbooms estuary and floodplain settlements and steeply incised river valleys and table lands around Nature's Valley;
- A large belt of forests and steep slopes in the north which are protected and not developable;
- The N2 highway acts as the primary movement corridor along which settlements are located, with the Plettenberg Bay/New Horizons/Kwanokuthula settlement complex acting as the primary regional settlement of the municipality; and,
- Plettenberg Bay/New Horizons/Kwanokuthula settlement complex forms a part of the larger Eden "growth engine" stretching some 140km along the N2 from Mossel Bay, through George, Wilderness, Sedgfield and Knysna to Plettenberg Bay.

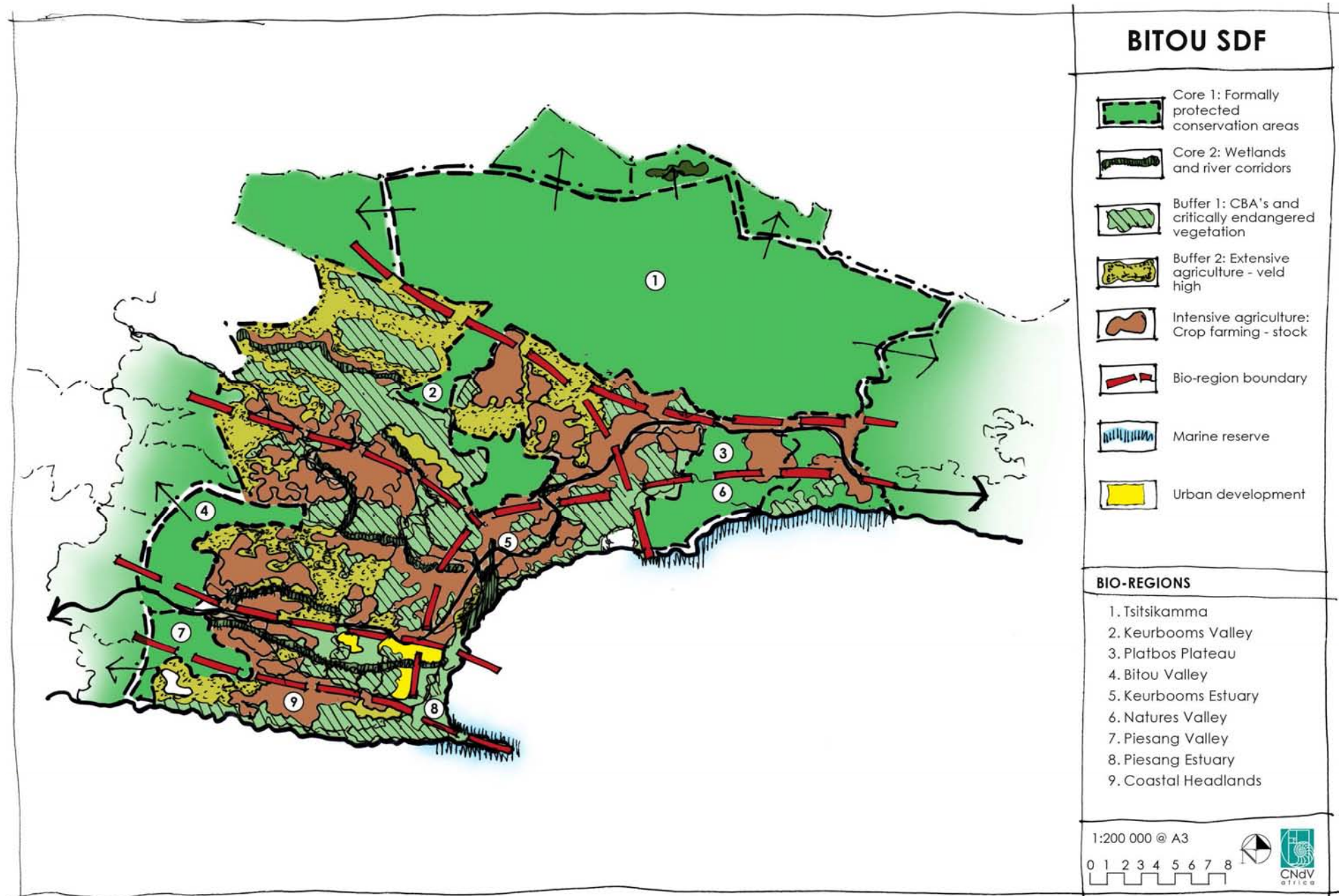


Figure 5.2.5.1 Draft Municipal Spatial Development Framework

5.3 MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

Figure 5.3 indicates the draft spatial development framework for the municipality as a whole.

It comprises the following elements for which policies are proposed in the following sections:

- Bio-regions;
- Spatial Planning Categories for land Use Management;
- Sustaining the Economy;
- Major Infrastructure Projects;
- Major Tourism Destinations;
- Scenic Tourism Routes;
- Community Tourism Projects;
- Local Tourism Initiatives;
- Land Reform;
- Housing and Land Need;
- Overarching Principles to Guide Proposals;
- Urban Design Guidelines;
- Principles for Facilities Planning;
- Potential Rural Nodes and Periodic Rural Markets; and
- Settlement Hierarchy and Structure

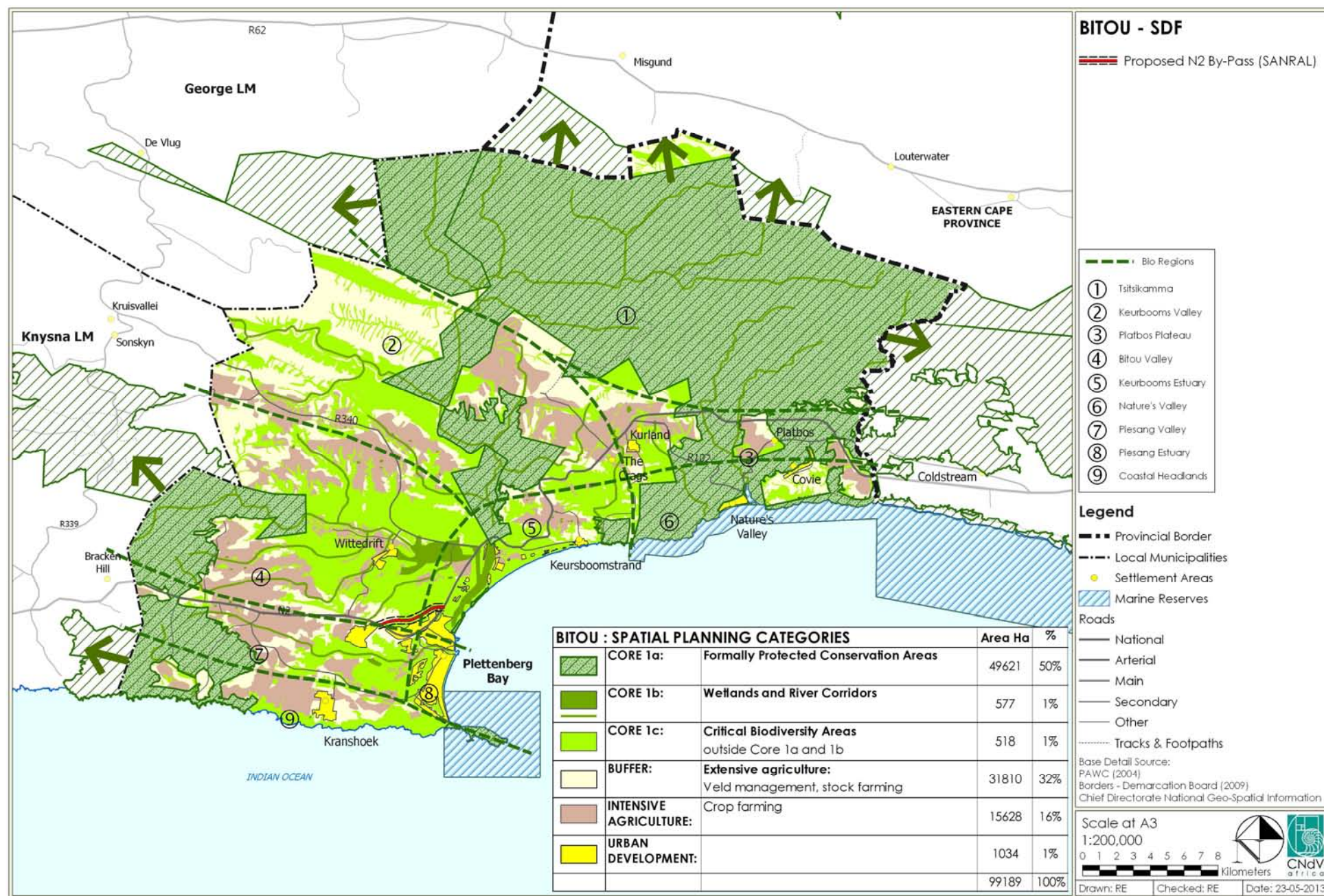


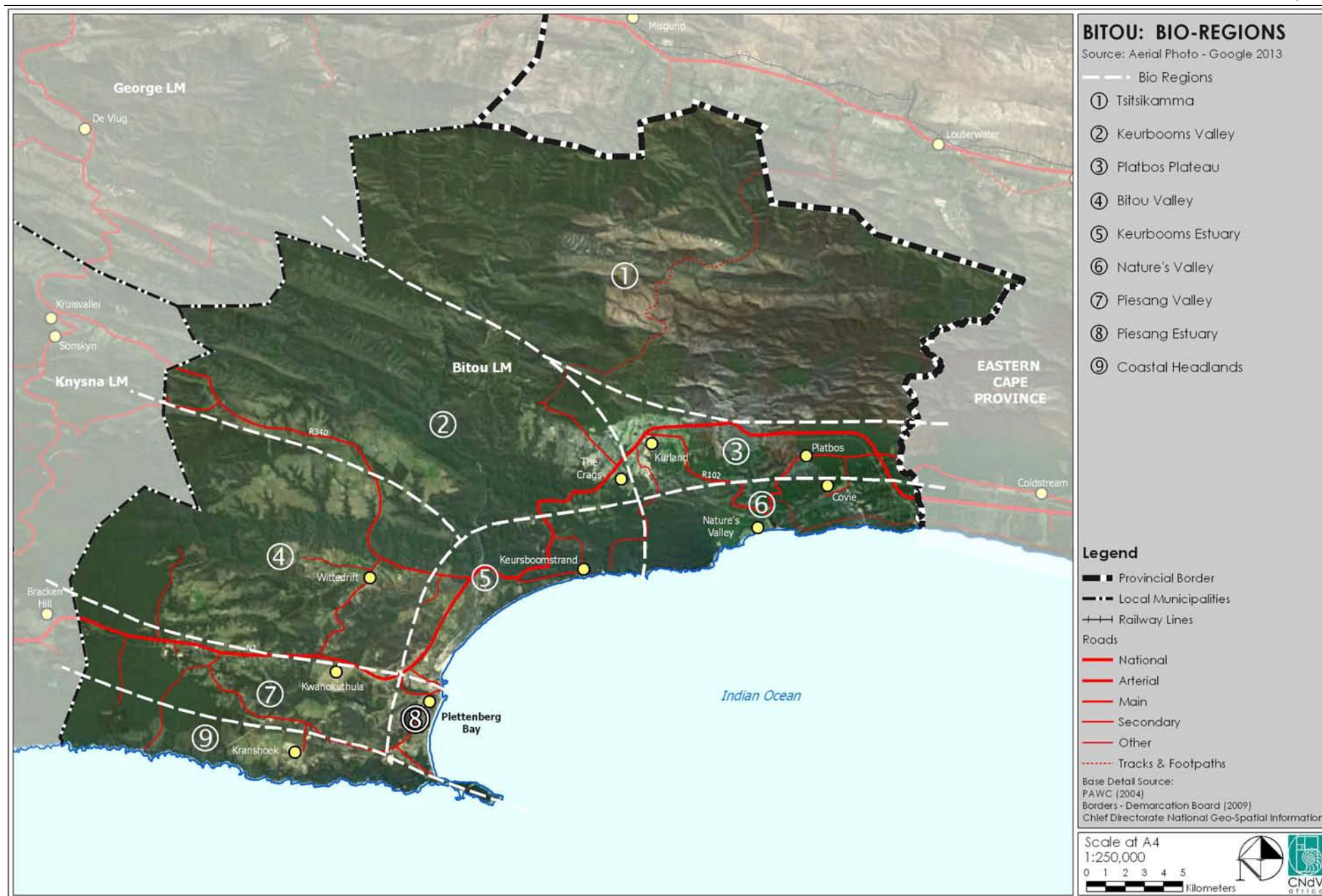
Figure 5.3 Municipal Spatial Development Framework

5.3.1 BIO-REGIONS

The main spatial elements give rise to the following bio-regions to guide spatial planning policy:

	1	2	3	4	5	6	7	8	9
	Tsitsikamma	Keurbooms Valley	Platbos Plateau	Bitou Valley	Keurbooms Estuary	Natures Valley	Piesang Valley	Piesang Estuary	Coastal Headlands
Altitude (m)	500 – 1 250	250 - 500	250 - -500	250 - 500	0 - 250	0 - 250	250 - 500	0 - 250	0 – 250
PEOPLE									
Population distribution	Very sparse population	isolated farms	Covie Kurland/The Craggs (± 5 000)	Wittedrift (± 1300)	Goose Valley Keurbooms River Keurbooms Strand (500)	Holiday town (250)	Kwanokhutula/ New Horizons (± 20 000)	Plettenberg Bay (± 7 000)	Kranshoek (± 5 000)
ECONOMY									
Agriculture GVA cont. in mun. R50 m Emp ± 1 000 (2007)		See Bitou valley	Dairy farming and horse breeding (polo) around Kurland	± 2000 ha under cultivation					
Tertiary GVA cont. R650 m Emp 6 400	Very low key tourism - SANParks	n/a	Brick manufacturing and timber around Kurland, tourism enterprises, house shops in Kurland	2 or 3 retail shops	Roadside farm stalls, cafes, restaurant, boat marina	2 or 3 retail shops,	Part of Plett urban complex	Manufacturing, service and retail centre for municipality	House shops - Kranshoek, some tourism
BIOPHYSICAL									
Renewable energy potential	Solar - medium	Solar - Low – medium	Solar - medium	Solar - Low – medium	Solar - Low – medium	Solar - Low – medium	Solar - Low – medium	Solar - Low – medium	Solar - Low – medium
Hydrology	Mainly draining into the Keurbooms river	Largest catchment with high Tsitsikamma rivers flowing into the Keurbooms	Deeply incised by Groot, Bobbejaan and Bloukrans river gorges	Meandering river with extensive wetlands	Large estuary for the Keurbooms and Bitou rivers	Cut through by Salt, Bobbejaan and Groot V-shaped river valleys	Long river valley and tributaries	Short rivers and watercourses	Short rivers and watercourses
Landscape character	High mountains with indigenous forests	Steep V – shaped valleys and interlocking spurs	Flat tableland between mountains, gorges and coastal valleys	Broad u shaped flood plain	Flat coastal estuary and dune fields	Deeply incised coastal valley	Shallow valley	Rocky headlands and river estuaries	Suspended coastal plain above rocky cliffs

Table 5.3.1 Bio-regions and characteristics



The 9 bio-regions are:

5.3.1.1 *Tsitsikamma*

- T1** The municipality should engage with the conservation authorities to ensure that economic growth and employment opportunities stemming from tourism in these areas are maximized.

5.3.1.2 *Keurbooms River Valley*

- KR1** Identify strategies to ensure maximum use made of agricultural land.
- KR2** Upgrade the gravel access road to the Uniondale Road as a scenic route. All building plan applications for residential dwellings and other buildings along this route should include visual impact assessments to ensure that views from this road are not negatively impacted.

5.3.1.3 *Platbos Plateau*

- PB1** Kurland and the Craggs should be developed as a settlement based on the principles of:
walking distance as the primary measure of accessibility;
functional integration
socio-economic integration
- PB2** Identify strategies to ensure maximum use made of agricultural land;
- PB3** Covie should be promoted as an off-grid settlement using sustainable technologies. Its economic future would be enhanced by having direct access onto the Natures Valley Road. This will require negotiations with SANParks.
- PB4** The possibility of a resort overlooking the coast but set back from the Otter Trail route should be considered.

5.3.1.4 *Bitou River Valley*

- BV1** Promote development of Wittedrift/Green Valley as a settlement based on the principles of:
- walking distance as the primary measure of accessibility;
 - functional integration
 - socio-economic integration
 - taking into account locations for education institutions;
- BV2** Identify strategies to ensure maximum use made of agricultural land;

- BV3** Promote low key private nature reserves with minimum accommodation to promote conservation of Endangered shale fynbos vegetation, similar to Wadri Private Nature Reserve, to create a corridor linking into the Garden Route National Park to the west;

- BV4** Upgrade the gravel access road to the N2 as a scenic route. All building plan applications for residential dwellings and other buildings along this route should include visual impact assessments to ensure that views from this road are not negatively impacted.

5.3.1.5 *Keurbooms Estuary and Flood Plain*

- KE1** The future of this estuarine flood plain should be promoted such that the development of each property contributes to a private nature reserve conserving the primary dunes and a significant expanse of the flood plain behind so the spatial qualities of the larger whole are retained and this sub-region is not split up into a series of walled off development estates which destroy its sense of place.

5.3.1.6 *Natures Valley*

- NV1** No further development rights should be considered;
- NV2** A strategy is required to ensure that this area becomes self-sufficient in term of basic services provision (electricity, water, sewerage, etc.) as the municipality cannot be expected to continue to provide full urban services to an isolated community of this nature. Off-grid services should be promoted;
- NV3** Maintenance is required on the access road to ensure that it retains its scenic route qualities.

5.3.1.7 *Piesang River Valley*

- PRV1** Identify strategies to ensure maximum use made of agricultural land;
- PRV2** Promote low key private nature reserves with minimum accommodation to promote conservation of Endangered shale fynbos vegetation to the west of Plettenberg Bay Country Club Private Nature Reserve. This could include extending the golf course, providing this is done along Audubon or similar principles, and providing MTB and hiking trails through this area;
- PRV3** Integrate settlements on northern slopes into Coming Together corridor.

5.3.1.8 Piesang Estuary

- PB1 Continue to promote development and densification of the current urban settlements but ensure that ubiquitous development typologies such as standard shopping centre or house and apartment design found elsewhere in the country are not repeated so as to not weaken the local sense of place.
- PB2 Produce an urban design framework and guidelines to implement policy PB1 above building on the main street redevelopment as precedent;
- PB3 Integrate with Coming Together corridor.

Together corridor has reached critical mass and giving attention to ensuring that Robberg Road retains its scenic route qualities.

5.3.1.9 Coastal Headlands

- CC1 Investigate requirements for airport to receive scheduled regional airline services;
- CC2 Ensure land use planning takes into account land use restrictions to allow development of airport;
- CC3 Promote tarring of Robberg Road to N2 from Kranshoek entrance to be implemented as a scenic route with cycle lanes and not a standard provincial arterial route.

All building plan applications for residential dwellings and other buildings along this route should include visual impact assessments to ensure that views from this road are not negatively impacted;
- CC4 Create direct exposure to Kranshoek on Robberg Road via a nodal development;
- CC5 Investigate feasibility of community tourism node south of Kranshoek;
- CC6 Identify strategies to ensure maximum use made of agricultural land to west of Kranshoek;
- CC6 Promote low key private nature reserves with minimum accommodation to promote conservation of biodiversity along coast line;
- CC7 Prepare detailed plan for strategic implementation of this corridor whose public investment should be prioritized only after the Coming

5.3.2 SPATIAL PLANNING CATEGORIES FOR LAND USE MANAGEMENT

The Spatial Planning Categories provide the basis for managing rural land uses. The general conditions guiding what activities may occur within each category are generally in accordance with those set out in the Provincial Spatial Development Framework and are summarized on Figure 5.3.

5.3.2.1 Core 1: Formally protected areas

Core SPCs, comprising formally protected natural areas.

50% of Bitou LM is formally protected with 45% under SANParks and 5% under Cape Nature.

5.3.2.2 Core 2: River and wetland corridors

A key aspect of the municipality's sustainability is the protection of its river systems and water bodies many of which are in a critically endangered state as identified by SANBI. For this reason the municipality needs to limit bank side and development in the high catchments to the greatest extent possible.

In order to protect water quality careful management is required, including the alignment of a no plowing or urban development set back line.

A minimum 30m setback line is required from the banks of all river and water bodies unless otherwise delineated by hydraulic engineers (flood lines) and or ecological set back lines (fresh water ecologists)

The only Endangered river identified by SANBI is the upper reaches of the Keurbooms where it flows through the farms before entering the Keurbooms River Nature Reserve at which point its conservation status improves to Vulnerable. This status is enjoyed by all of the other major rivers in the municipality. This indicates the important role played by various formally designated conservation areas plays in their protection.

Bitou municipality is relatively well off compared to most other municipalities in terms of the quality of its rivers and this status should be continues to be protected.

5.3.2.3 Buffer 1: Endangered Vegetation outside of Core 1 Areas

Most of the shale fynbos in the municipality has been classified as Endangered by SANBI with a small core near Wittedrift in the flood plain classified as Critically Endangered.

Where land containing shale fynbos is not under the plough or pastures it should be either:

- Encouraged to become a private conservancy or game farm of which there are already a number in the area; or
- Used for extensive agriculture (grazing) under strict veld management and rotational grazing methods that will improve bio-diversity as well as carrying capacity, see SPC Buffer 2 below.

Formally protecting these sensitive areas will require massive resources so it is intended that land owners be encouraged to protect them via stewardship agreements or private conservancies in return for rates rebates and the appropriate use of land for eco-tourism and other income generating ventures. Funds for alien vegetation removal which also have benefits in terms of improving water quality and quantity can also be mobilised.

There are already a number of private nature reserves serving as precedent, particularly in the Keurbooms, Kurland area. The Wadrif Private Nature Reserve north of Wittedrif is conserving some of the Critically Endangered Shale fynbos in this area.

Endangered Shale Fynbos is also found in the Piesang Valley. The Plettenberg Bay Country Club Private Nature reserve is found here and could form the core of a complex of private nature reserves in this vicinity.

The Keurbooms estuaries floodplain also contains Endangered Shale Fynbos.

Note - When a property is proclaimed as a Conservancy or Stewardship area those portions to be used purely for conservation purposes should be proclaimed Core 1 SPC and those portions containing accommodation or buildings should remain Buffer 1.

5.3.2.4 Buffer 2: Extensive Agriculture

There are large parts of the municipality, including large portions of Bitou south whose vegetation is not classified Endangered but where responsible grazing management can create a double benefit in improving stock carrying capacity as well as improving biodiversity. These areas can also be used for tourism, game farming and possibly hunting.

5.3.2.5 Intensive Agriculture

There is relatively little intensive agriculture in the municipality making the protection of land where this can occur very important. The agricultural specialists note that only 2000 hectares of a possible 5 000 hectares is currently being cultivated. Efforts should be made to bring this land back into cultivation, possibly through small scale farmer support programs such as under the Land Reform program

This land is also be an important resource in terms of food security in the long term. Currently Bitou has less land in agricultural production, 2 000 hectares, than would be required to sustain the municipality's current population on only an all vegetarian diet, i.e. \pm 3 000 hectares. Conserving the full 5 000 hectares is therefore important to secure Bitou population's long term food security.

5.3.2.6 Environmental sinks

- There appears to be sufficient capacity in the WWTWs for Plettenberg Bay (Gansevlei) and Kurland with their both having approximately 30% spare capacity. There are a number of upgrade and maintenance requirements for the networks.
- It will be important to start promoting green technologies in waste water treatment as soon as possible in the urban areas as well as the rural areas outside of the Urban Edges. The latter is already being promoted as municipal policy;
- WWTW to outlying settlements with low development potential, low social needs and populations less than 5 000 people such as Nature's Valley should be carefully considered with respect to the opportunity cost of not spending this money in areas where all of these criteria are met.

Key	SPC	Description	Policies	Notes	Responsibility
	Core 1a	Formally protected conservation areas	Formally protected areas, including those under SANParks and CapeNature control, should continue to enjoy the highest levels of protection. Further continuous corridors between the mountain and the sea, such as that between Natures Valley on the coast and the Garden Route National Park in the Tsitsikamma Mountains, should be promoted. The municipality should engage with the conservation authorities to ensure that economic growth and employment opportunities from these areas are maximized.		Municipality SANParks CapeNature Tourism organisations
	Core 1b	Critical Biodiversity Areas (CBAs) outside of formally protected conservation areas	Conservation of endangered vegetation areas shall be encouraged through the promotion of conservancies and stewardship projects with limited eco-tourism development rights and/or donations to formal conservation agencies. All CBAs should be ground-truthed before they are finalized. Conservation of CBAs should be incentivized through the granting of limited development rights as per the rural Land Use Planning and Management Guidelines for Holiday Accommodation, low density rural housing, low impact tourist and recreational facilities (CapeNature 2010).		Municipality Dept of Nature Conservation Dept of Tourism SANBI
	Core 2	River corridors and wetlands	River corridors and wetlands, including ephemeral pans, must be protected from urban, agricultural and mining activities to a distance of at least 30 metres from their banks unless closer setback lines have been determined by a geohydrologist and freshwater ecologist.		Municipality, DWAF, Dept of Agriculture, SANBI
	Buffer	Extensive agriculture / grazing	Rotational grazing and other veld management best practices shall be promoted livestock grazing so as to improve biodiversity and stocking rates.		Municipality Dept of Agric
	Intensive Agriculture	Irrigation and dry land crop and pasture farming	All existing and potential land suitable for intensive agriculture shall be protected from conversion to other uses including conservation. Agriculture water demand management must be practised and intensive agriculture water supplies shall be protected and not diverted to other uses. Investigate methods to bring the agricultural land currently lying fallow back into production if possible.		Municipality Dept of Agric Consultant
	Urban Settlement	All land used for urban purposes in towns, villages and hamlets.	Urban development shall be promoted within urban settlements according to the settlement planning principles, see Section 5.1.5 Ensure all necessary human and financial resources are available to implement the Coming Together Project.		Municipality
	Urban Edge	Outer boundary of urban settlement aligned to protect natural and agricultural resources and to promote more compact settlements	No urban development shall be permitted outside of Urban Edges.		Municipality Dept of Agric

Table 5.3.2 Spatial Planning Categories

5.3.3 SUSTAINING THE ECONOMY

Bitou's economy rests largely on tourism and some agriculture and the necessary support sectors for these economic drivers such as manufacturing to a lesser extent and wholesale and retail, financial, and business services to a much greater extent.

However, although Bitou's natural environment compensates to a large extent its distances from major centres creates a significant challenge to economic development beyond the 2 to 3 times a year tourism market.

To improve and consolidate these roles the following needs to occur:

First, the natural environment needs to continue to be conserved and care needs to be taken that insensitive development projects that could damage this resource are not permitted;

Secondly, the economic and employment opportunities of this natural environmental resource should be optimised to the greatest possible including sustainable natural resource harvesting and tourism.

Thirdly, the SPCs that protect agricultural resources must be strongly managed. This is likely to require an integrated approach from municipal officials and the Department of Agriculture.

Fourthly, key infrastructure including water supply networks, roads, the airport and the IT infrastructure must be upgraded.

Fifthly, the Coming Together Program must be promoted to the greatest extent possible. It would appear to be one of the most ambitious urban restructuring programs in the country and could serve to place Bitou on the map as the municipality that has done the most to creating a new urban South Africa.

Sixthly, settlements need to be well managed with respect to crime, grime and urban quality. The appearance of heritage buildings and other building fronting onto important roads must be improved and promoted. These measures will help to ensure that the towns are as appealing as possible to visitors, potential new permanent residents and locals.

5.3.4 MAJOR INFRASTRUCTURE PROJECTS

- Water:
 - Bitou experienced a severe water shortage in 2009.
 - Kurland, Bossiesgif and Qolweni are the most vulnerable;
 - As a result a new treatment works. (R35m), 3mm³ dam (R40m) and new rising mains and other infrastructure (± R50m) have been proposed;
 - No mention is made of water demand management strategies, for example, rain water harvesting, grey water recycling, and these should be promoted forthwith;
- Roads requiring maintenance and upgrading include:
 - Tourism roads;
 - i. Baviaanskloof to Hankey (R332 and R331);
 - ii. Airport road from Plettenberg Bay to the N2 past Kranshoek;
 - iii. Piesang Valley Road – upgrade;
 - iv. Bloukrans Pass from N2 toll near Stormsriver to Coldstream (R102);
 - v. Prince Alfred Pass from Uniondale to Wittedrift (R340 and R339);
 - vi. Grootrivier Pass (R102) from Craggs to Nature's Valley and N2 - maintenance
 - Urban roads;
 - i. Traffic calming and pedestrian links along N2 where it functions as a local urban road between Kwanokhutula and Plettenberg Bay
 - ii. Public transport routes between Plettenberg Bay, Kwanokuthula, New Horizons, Kranshoek, Wittedrift, The Craggs and Knysna
- Plettenberg Bay airport:
 - Bitou needs to reduce its friction of distance between major centres to the greatest extent possible.
 - The airport can play a key role in this even if it is significantly upgraded to make video conferencing and Skype a convenient and affordable reality;
 - There used to be scheduled Air link flights to the airport until January 2004 when the service was withdrawn, not due to lack of demand, but due to non compliance with airport regulations.
 - If this service was viable then it is likely to be so much more viable now;
 - Knysna is also in need of a regional airport which could be served by this airport, specially if the Harkerville, Kranshoek Road was tarred;
- Allowance should be made for Plettenberg Bay airport to grow in size and service but only up until the level where its operations do not diminish the environmental quality that is core to Bitou's economic future;
- This means that allowance needs to be made for noise contour and runway approach land use plans as residential development should not be permitted within the 55dba noise contour.

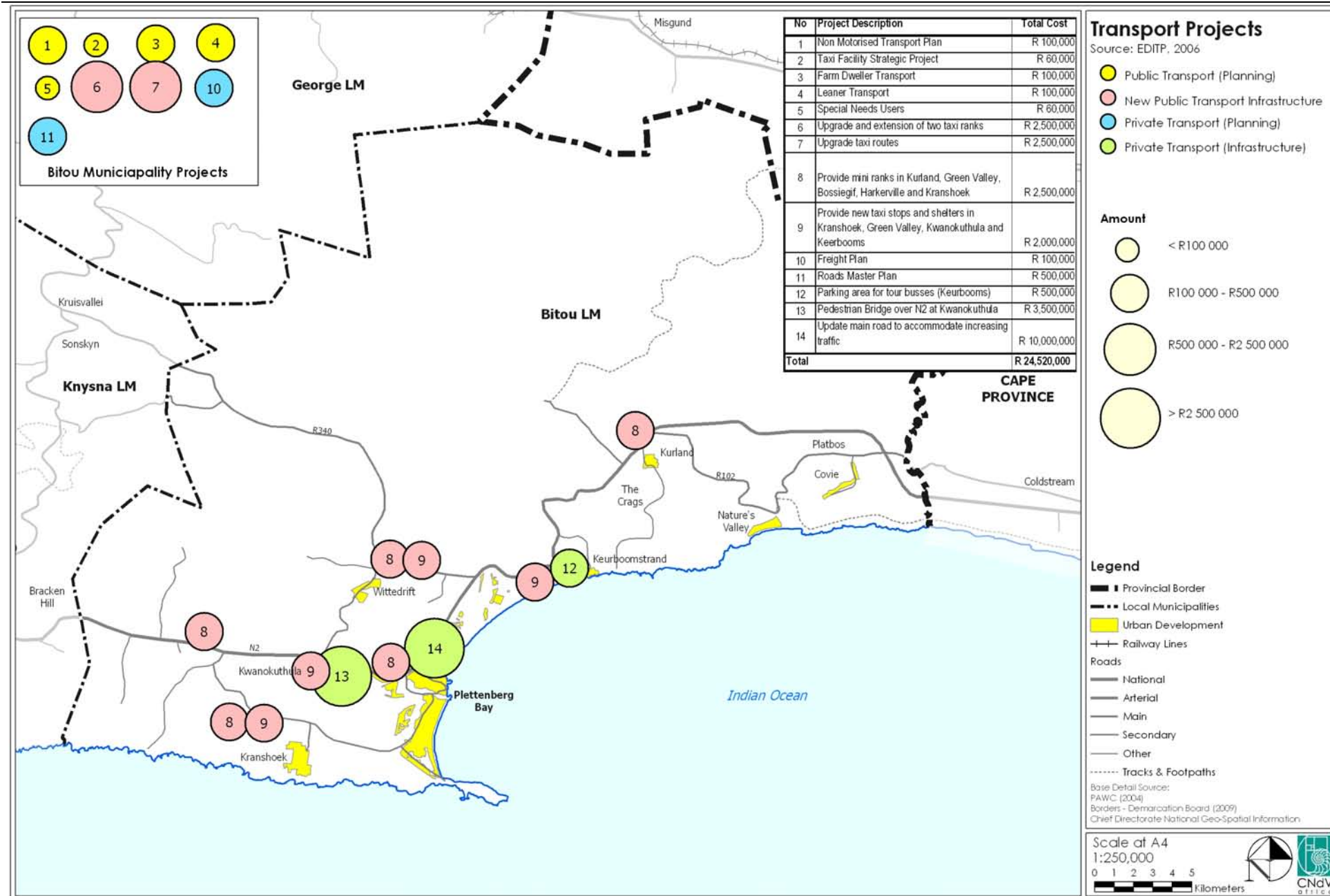


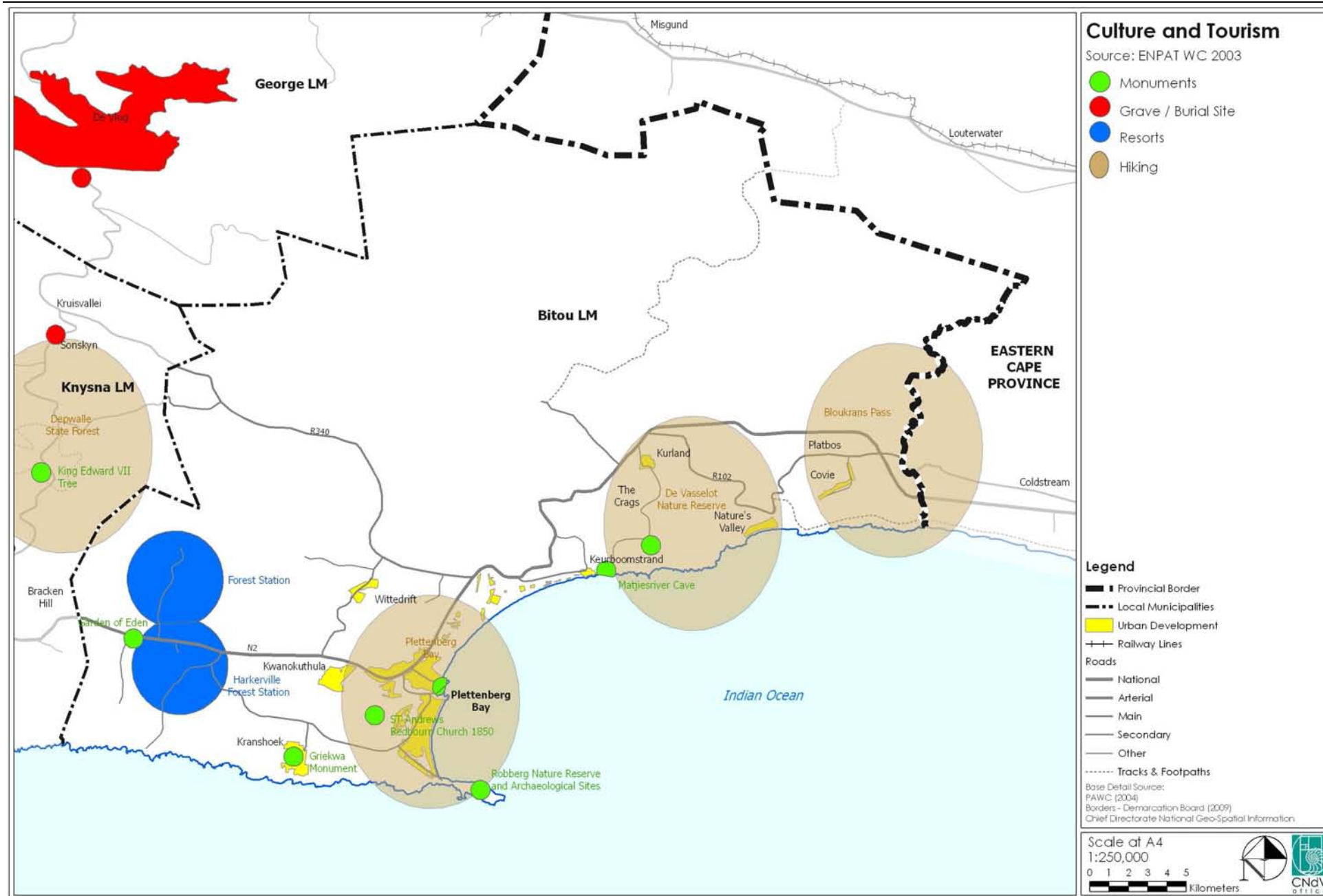
Figure 5.3.1 Priority transport improvement projects (EDITP, 2006)

5.3.5 MAJOR TOURISM DESTINATIONS

The following main tourism destinations with major related attractions are identified:

- Monuments: Garden of Eden, Griekwa monument in Kranshoek, St. Andrews Redbourn Church, Old Timber Store, Van Plettenberg Beacon in Plettenberg Bay, Forest Hall and Matjies River Cave near Keurboomstrand.
- Nature reserves: Keurbooms River Nature Reserve, EC Soetkraal Nature Reserve, Robberg Nature Reserve, Plettenberg Bay Country Club, Wadrif Nature Reserve, Kiaruna Nature Reserve, Backenburn Nature Reserve, Annex Arch Rock Nature Reserve, Tsitsikamma National Park.
- Polo fields, wildlife sanctuaries (Elephant Sanctuary), arts and crafts near the Crag.
- Bird watching near Wittedrift.
- Beaches and estuaries.
- Hiking, bird watching, cycling and horse riding along the coast and the various nature reserves and natural areas.
- Overnight accommodation and holiday towns such as Kranshoek.
- Golf courses (Plettenberg Bay and Goose Valley).

Bitou Municipality is striving for Blue Flag Status for all their beaches.



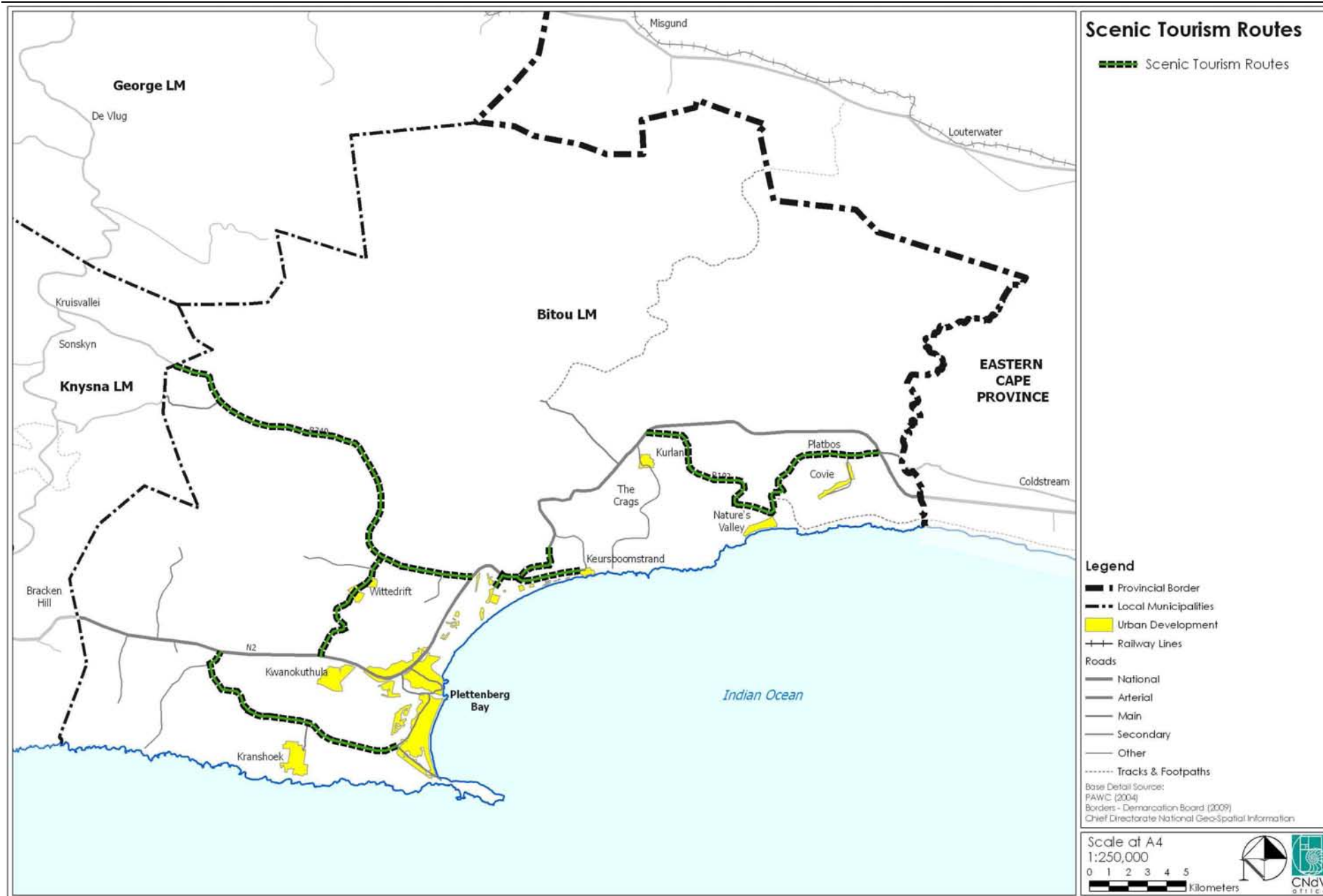
5.3.6 SCENIC TOURISM ROUTES

Figure 5.3.6.1 indicates the identified Scenic Tourism Routes. The management and preservation of the scenic and tourism qualities along these routes are important in the Bitou Municipality.

Bitou Municipality should undertake the development of a Tourism Scenic Routes Management Study for the identification of any additional routes and to ensure appropriate management guidelines for these routes. In this regard the following is of importance:

- The identified scenic tourism routes should be acknowledged and promoted amongst the appropriate government structures and the general public, possibly as part of a marketing strategy, to create awareness regarding the importance of these routes. In this regard major tour operators, theme route organisations and local tourism information centres could be key role-players.
- The study should identify a general vision and objectives for the identified routes to ensure cohesion in terms of their management.
- Possible road upgrades should be identified in instances where these routes are unable to cope with additional traffic volumes or where these routes are inefficient in facilitating a tourism function. When identifying upgrades, access to scenic amenities and the visual environment, should be of high importance.
- A holistic approach is required in terms of signage and advertising which preserves the visual and scenic qualities of the routes.
- A regular maintenance plan should be prepared and implemented to ensure the road surface and verges remain in a good state. Of importance in this regard is:
 - Clearance of alien vegetation;
 - Implementation of appropriate planting and the identification of desirable plant species;
 - Litter collection;
 - Maintenance of signage, fencing and other visual elements; and
 - Maintenance of picnic areas and ablution facilities;
- The study should address guidelines regarding the visual impact of buildings and development, construction along the route and the erection of boundary walls and fences;
- Identified routes include:
 - R340 from the N2 towards Kruisvallei on Prince Alfred's Pass;
 - The Wittedrift Road between the R340 and the N2;
 - The Kranshoek Road between the N2 and Plettenberg Bay;
 - The Old N2 and Keurboomstrand access road; and,

- The R102 between the N2 via Nature's Valley.



5.3.7 COMMUNITY TOURISM PROJECTS

Opportunities exist in Bitou Municipality where communities have access to land with tourist potential, for example, Kranshoek, Covie, and south of Kurland

Village, where joint ventures could be created between the community and experienced operators. !Xaus Lodge in the Kalahari is an example of one such successful venture.

!X AUS LODGE

**KGALAGADI PARK
LUXURY LODGE**

NUMBER OF BEDS 24

MAXIMUM PEOPLE PER ROOM 2 people

POWER SOURCE Self-generated electricity (5 hours a day)

SUPPLIES All meals are catered for by the lodge. A curio shop sells artworks made by the #Khomani San

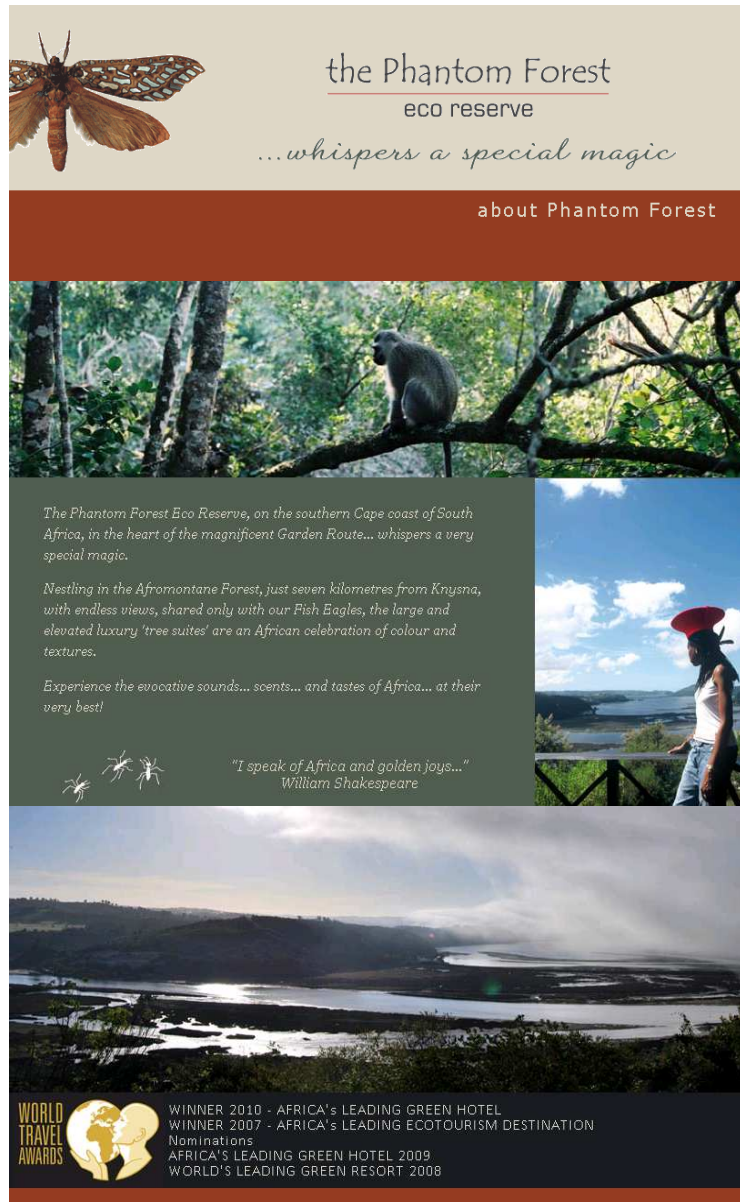
ACTIVITIES Early morning guided dune walks, visiting #Khomani San crafters, sunset drive with sundowners on the dunes, night game drives & star gazing through telescopes

! Xaus Lodge is run by a private concessionaire on the !Ae!Hai Kalahari Heritage land returned to the #Khomani San and Mier communities. It is the only fully-catered luxury lodge to be located in the Kgalagadi Transfrontier Park. It is a 24-bed thatched luxury lodge that blends into the landscape of this remote wilderness area. Situated on the red dunes of the Kalahari it overlooks an enormous salt pan where, from the privacy of the deck of your own chalet, you can observe the animals drinking at the waterhole below.

For more information contact:
Transfrontier Parks Destinations
info@xaulodge.co.za
+27 21 701 7860 (office)
+27 79 7711418 (mobile)
www.xauslodge.co.za



Development in Wittedrift will require very detailed guidelines to ensure that it is as unobtrusive as possible. Phantom Forest in Knysna could serve as useful precedent.



5.3.8 LOCAL TOURISM INITIATIVES

The Aartmoorders is one of Bitou's tourism projects where the Kranshoek community partners with private and experienced operators in the garden route.

The operators empower the local community to exploit the existing tourism potential and give them tour guiding lessons.

Activities to choose from when visiting Kranshoek:

- Historical walk or drive to the Griqua National Head Office;
- Visit the Griqua monument
- Visit the school, crèche and the church built with funds raised by the Griquas
- Walk or drive to Eden to Addo's Aartmoorders, a stone land art piece symbolising three elephants placed on a view point overlooking the pristine fynbos and rocky coast of the Robberg Coastal Corridor.
- Hike from the Aartmoorders, through the fynbos down to the rugged coast.

5.3.9 LAND REFORM

- **Land to be acquired or reserved for land reform activities or for proactive acquisition**
 - All rural land can be viewed as a target for proactive acquisition as there are many options for participation as well as different market sectors that the land could be used for. For example:
 - Large commercial farms – farm equity share arrangements; on the same properties
 - Small farms not viable for large commercial farming operations. There are a number of such farms in the coastal, Piesang and Bitou valley sub-regions.
- This program can be an important opportunity in bringing back into production agricultural land currently lying fallow;
- Land reform can also promote participation in other rural livelihoods such as tourism and conservation and does not have to be limited to agriculture
- **All land in rural areas outside the Urban Edges of settlements should be subject to the Land Reform Program target, not just "agricultural" land.**

Reasons

It is difficult to precisely identify bona fide agricultural land. For example:

- Is land defined agricultural so defined if farming is the sole, or majority source of income?
- Is hobby farming considered agricultural or not?
- What is the situation if a large piece of agricultural land is converted to a private nature reserve and used for conservation and tourism. Is it no longer agricultural and therefore exempt from land reform? Would this be equitable to those land owners still farming as a primary economic activity?

Clearly, the definition of agriculture is problematic and too widely open to interpretation, nor is it considered still relevant in today's mixed rural economy which includes hobby farming, tourism and biodiversity conservation, as well as bona fide agriculture. The rural economy is much more diverse than it was when black people were excluded from the land during the late 19th and early 20th centuries.

It is suggested that the real issue was not so much dispossession of the land but the removal from the economic opportunities that its ownership and access represented.

Therefore, it is suggested that the prime issue is restoring and enabling access to the rural economy in whatever form it now finds itself. Land ownerships' role as a means to achieving that goal.

For these reasons it is proposed that land reform should apply to ALL rural land outside of urban settlements.

5.3.10 HOUSING AND LAND NEED

Table 5.3.10.1 below summarises the housing and land need in the municipality for the main settlements and the rural areas. It is derived from the work on the waiting list databases of the municipality and DHS is checked by the consultants. How it is proposed to accommodate the housing need in the main settlements is dealt with in detail in their respective sections later on in this report.

Housing Land and Need				
Settlement	Current Housing Backlog (hh)	Future Need (no. of hh)	Total Need (units)	Land Need (ha)
Kurland	674	1341	2015	60.17
Covie	6	37	43	1.32
Wittedrift/Green Valley	277	633	910	27.22
Kranshoek	486	1007	1493	44.66
Kwanokuthula	1373	3874	5247	157.77
New Horizons (Qolweni/Pinetree/Bossiesgif)	1142	5275	6417	194.58
Total	3958	12167	16125	486

Table 5.3.10.1 Housing unit need: Backlog and Forecast to 2030 (Waiting list IQVision)

5.3.10.2 Housing Toolkit

In order to:

- realistically understand the development potential of the various pieces of available land in the main settlements; and,
- use housing projects as a tool for promoting a number of urban settlement restructuring objectives such as:
 - o compaction
 - o inclusion
 - o improvement of business, community and public transport thresholds
 - o increasing the number of people within convenient distance of urban opportunities; and,
 - o reduce their travelling burden

the concept of a housing toolkit has been developed.

This comprises a simple mix of housing typologies defined by density, configuration and income group as indicated in Table 5.3.10.2 below.

Housing Typologies:							
	Site & Service	BNG (completed units)	GAP		Market		
Typology			Townhouses	Apartments	Single Dwelling Unit	Townhouses	Apartments
Plot Size (m²)	195	195	195	N/A	500	200	N/A
Unit Size (m²)	N/A	40	50	50	200	100	100
Storeys	1	1	1 to 2	2 to 3	1 to 2	1 to 2	2 to 3
Average du/ha	30	30	30	100	10 to 15	30	100

Table 5.3.10.2 Housing Typologies according to plot size, unit size, height, density and market segment.

An illustration of these typologies can be seen in Annexure A.

5.4 OVERARCHING PRINCIPLES TO GUIDE PROPOSALS

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

5.4.1 BIOREGIONAL PLANNING

Bioregional planning has gained increasing importance in recent years as a methodology for simply and effectively addressing the issue of land use management in regional planning. Four main land use management zones or areas can be identified, see Figure 5.4.1.1.

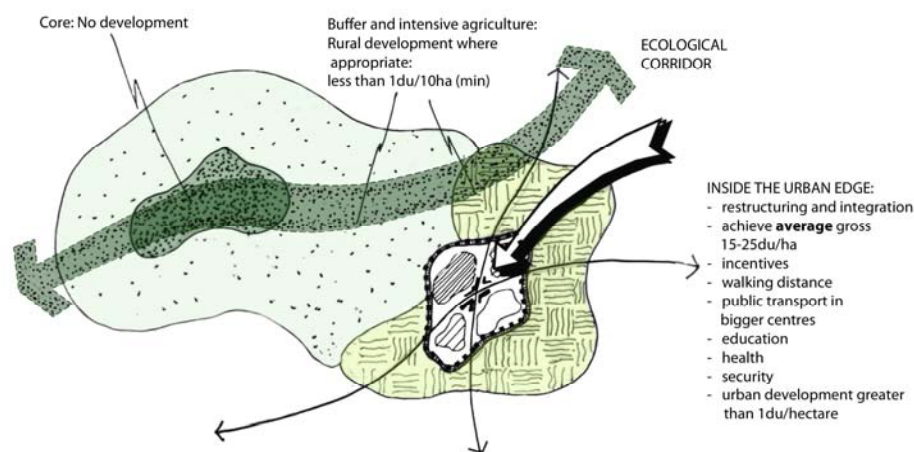


Figure 5.4.1.1 Bioregional Planning Zones

5.4.1.1 Core Areas

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

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

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

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

Core 1a:

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

Core 1b:

- Critically Endangered remnants of areas of biodiversity wherever they may occur, i.e. Critical Biodiversity Areas (CBAs) that are not formally protected.

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

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

5.4.1.2 Buffer Areas

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

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

These areas can generally be used for Extensive Agriculture where good veld management and rotational grazing practice improve biodiversity.

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

5.4.1.3 Intensive Agricultural Areas

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

5.4.1.4 Urban Settlement

- Increase gross average densities to 25du/ha in settlements requiring public transport;
- Increase gross average densities to 15du/ha in small rural settlements that do not require public transport

5.4.1.5 The Urban Edge

- Urban settlements must be located within the Urban Edge;
- All other uses should, as a general rule, be located outside the Urban Edge;
- In some instances, e.g. small scale intensive agriculture, market gardens/allotments, may be located within the Urban Edge; and
- The Urban Edge should enclose sufficient land to accommodate settlement's growth for the next 10 – 20 years.

It is further proposed that two Urban Edges are to be considered for the settlements in the next review of the SDF:

- The first Urban Edge is to indicate the line beyond which development may not extend; and,

- The second Urban Edge is to indicate the line where development may extend to but the provision of services will be to the cost of the developer/landowner.

5.4.2 WALKING DISTANCE AS THE PRIMARY MEASURE OF ACCESS

The need to ensure that people have access to a variety of opportunities is implied in a number of the DFA principles (S3(c)(i), (iii)). This requires an understanding of the relationships between different activities in terms of spatial proximity (close and far), access and time.

In the past accessibility has usually been considered in terms of travel time in private vehicles, however, this measurement is not only environmentally unsustainable, as it is mostly dependent on access to private motor vehicles but also reflects a denial of the reality that the majority of our citizens do not have private vehicles, may not always be able to afford public transport and thus have to spend significant time and energy walking to fulfil their needs.

Thus appropriate **walking distance** should always be used as the measure for accessibility. 20 minutes or 1km is regarded as an acceptable distance to walk and should be used as a basis of settlement design, see Figure 5.4.2.1.

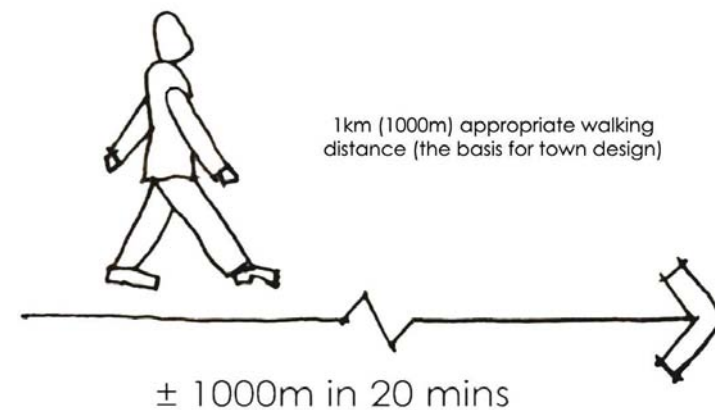


Figure 5.4.2.1 Walking distance

5.4.3 INTEGRATION OF URBAN ACTIVITIES

The implementation of the walking distance principle to promote greater access to opportunities for all people, will require the functional integration (DFA principles S3 (c)(i),(iii),(v)) of urban activities. At least **50% of urban activities** should be **within walking distance** of where people live, see Figure 5.4.3.1.

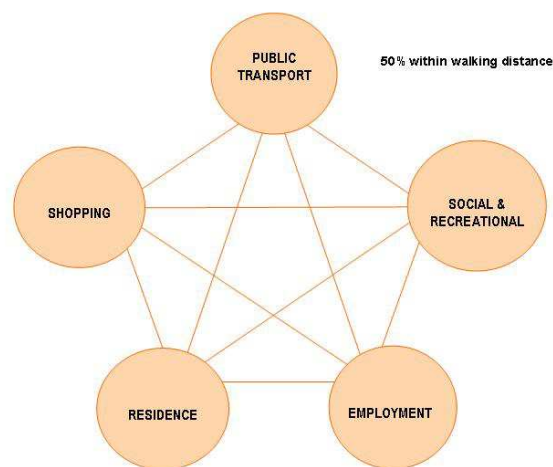


Figure 5.4.3.1 Integration of Urban Activities

5.4.4 SOCIO-ECONOMIC INTEGRATION

The principle of access and integration, also requires socio-economic integration (DFA principle S3(c)(i),(vii)). Little progress has been made in this regard since the advent of democracy. In reality there is often community resistance to integration of poor, middle and high income communities, and bank valuers often downgrade property values where informal settlements or low income housing is provided in close proximity to middle and high income housing. The use of a **socio-economic gradient** with relatively small differences in income and property value between adjacent communities can help mediate this problem.

Figure 5.4.4.1 illustrates how a high level of socio-economic integration can be achieved in a 1km radius, applying this principle.

In particular efforts should be made to locate low income neighbourhoods nearer to the core or nodes of settlements and away from the periphery.

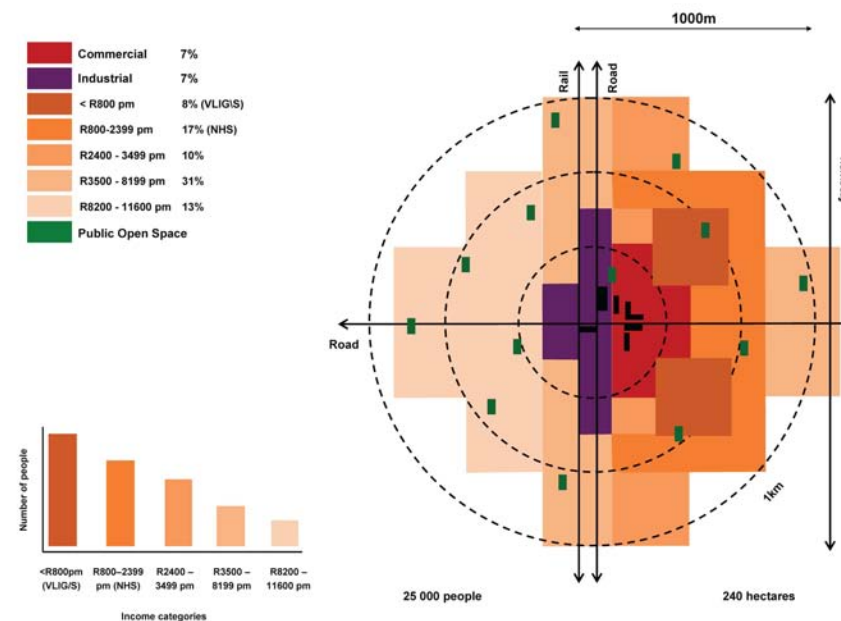


Figure 5.4.4.1 Socio-economic gradient (shows how different socio-economic groups can be planned within walking distance of each other)

5.4.5 DENSIFICATION

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

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

5.4.5.1 Densification Plan

There are two main aspects to this challenge. The first is to promote densification whereby, according to a well thought out plan that takes into account environmental factors such as biodiversity and the water quality and

quantity of river systems, public open space requirements and areas for economic activity, the densities of a settlement are increased.

In most South African settlements urban densities need to double.

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

5.4.5.2 Pattern of Densification

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

The word "average" must be stressed because it could well be that there are appropriately low densities on the urban periphery, forming an interface on the urban fringe, and much higher densities in the highly accessible cores of the settlement, see Figure 5.4.5.2.

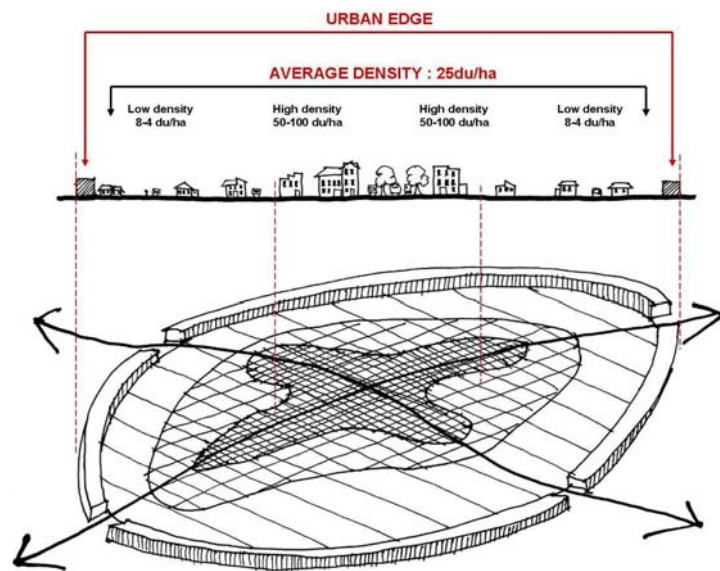


Figure 5.4.5.2 Establishing an Urban Edge

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

5.4.5.3 A New Approach to Arterial Road Cross-Sections

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

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

One method to both protect the limited access mobility function of such routes as well as permit development alongside is to split the cross-section of the road between access and mobility sections, see Figure 5.4.5.3. Such a cross-section can carry high levels of abutting urban development, ideally in a mixed-use configuration.

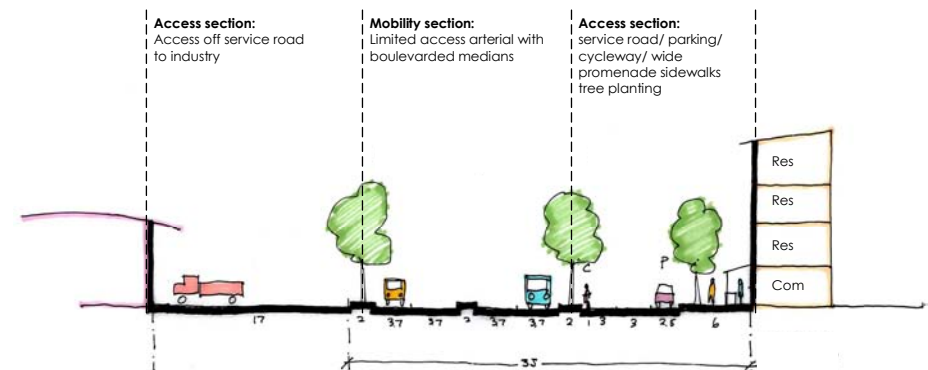


Figure 5.4.5.3 Mobility/access cross section

5.4.5.4 *Densify along Major Routes*

The major routes in a settlement carry the largest amount of traffic, whether in private, public or non-motorised modes. Thus, their potential for maximizing urban opportunities is greater than minor roads. This implies that to maximize the economic advantages of these routes they should have as many people working and living alongside them as possible, see Figure 5.4.5.4. This also provides a pattern for predictability and consistency whereby erven abutting major routes can be earmarked for densification whereas erven within residential blocks can maintain their quiet, low density ambience.

(Note: ideally this principle should **not** be applied along freeways or national routes as they are too dangerous, noisy and polluted.)

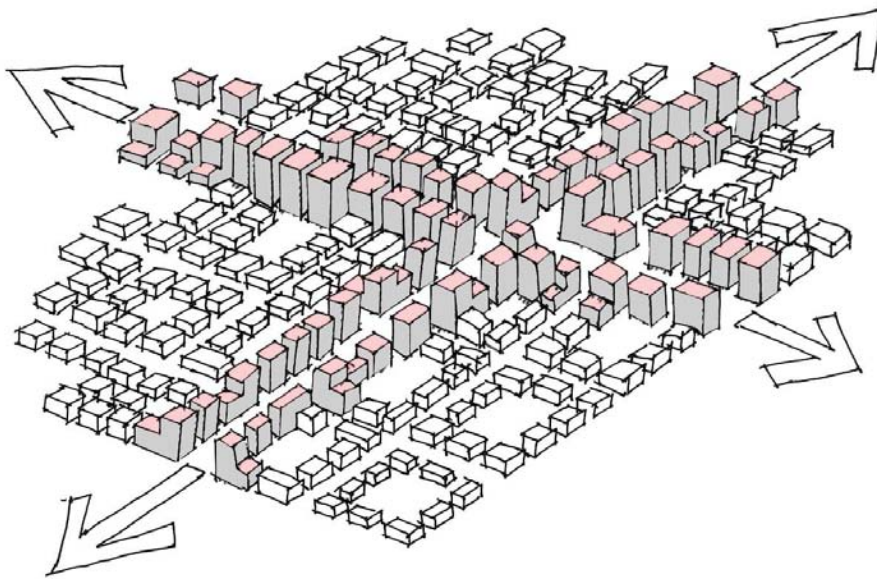


Figure 5.4.5.4 Densification along Major Routes

5.4.5.5 *Densify Vacant and Under-Utilised Areas*

Thus, land that is either vacant or has low density development not of heritage value provides good opportunities for densification for either public or private sector projects. Many poorly designed public open spaces fringed by the backyards of abutting houses and which are often unsafe as a result offer potential in this regard, see Figure 5.4.5.5.



Figure 5.4.5.5 Densification of Vacant and Under-utilised Areas

5.4.5.6 Avoid "Town-Cramming"

It is important that densification happens according to an overall framework that seeks to optimize public transportation and access to business and community facilities and is not "willy-nilly" directed at any piece of open space wherever it may be located in an ad-hoc and opportunistic fashion, see Figure 5.4.5.6. This kind of approach is likely to have an unnecessarily negative impact on people's perceptions of property values and create needless resistance to densification;

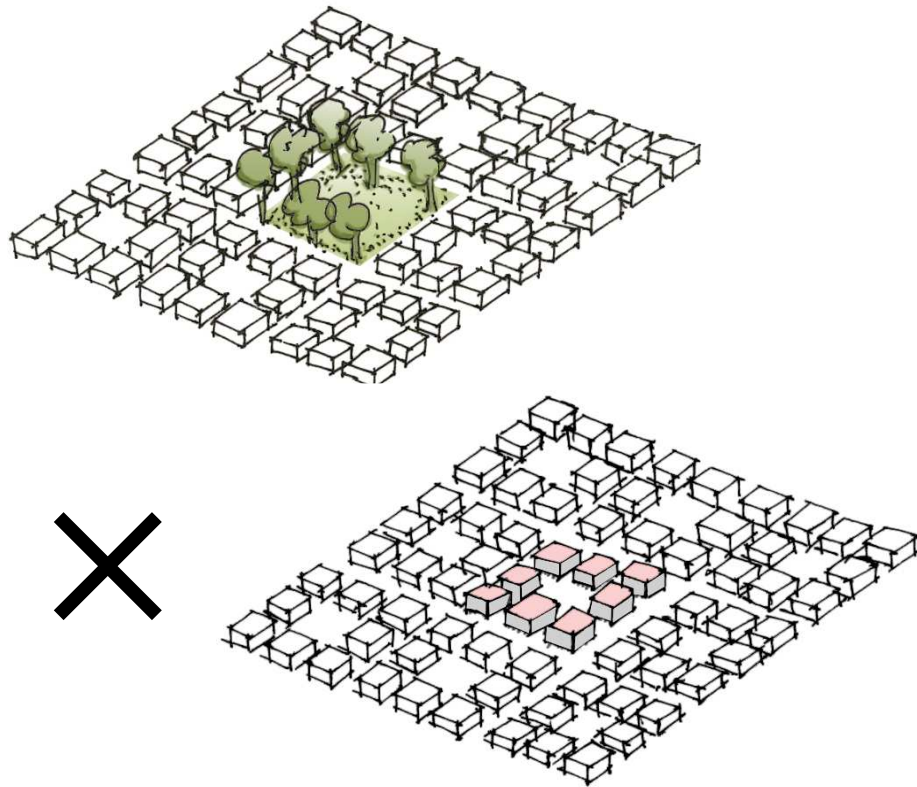


Figure 5.4.5.6 Avoid "Town-Cramming"

5.4.5.7 Preserve Well-Located Open Spaces

In fact, well located open spaces become more precious when there are more people in an area. In many instances, although it may be more complex, it may often be preferable to encourage the demolition and redevelopment of properties abutting the open space rather than developing the open space itself, see Figure 5.4.5.7.

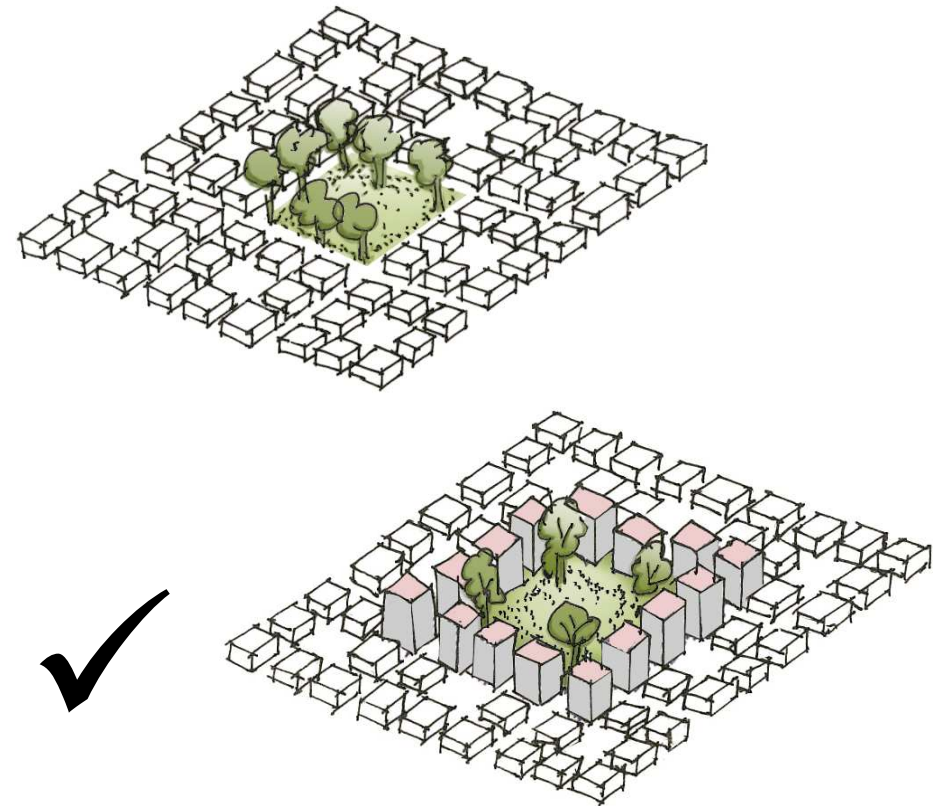


Figure 5.4.5.7 Preserve Well-located Open Spaces

5.4.6 SMART GROWTH PRINCIPLES

The following Smart Growth Principles should be used to help achieve integrated and efficient human settlements (source: Smart Growth BC):

1. Provide for a mix of different kinds of land uses, e.g. residential, retail, business, and recreational opportunities.
2. Create well-designed compact neighbourhoods where the different activities are in close proximity to each other.
3. Provide a variety of transportation choices, including private, public and non-motorised transport opportunities that are safe
4. Create a variety of housing opportunities, i.e. in terms of function, form and affordability.
5. Encourage growth in existing communities this can be done through infrastructure upgrade, urban renewal new amenities and densification.
6. Preserve open spaces, natural beauty, and environmentally sensitive areas.
7. Protect and enhance agricultural lands and secure these as a productive a land base for food security, employment, etc.
8. Utilize smarter, and cheaper infrastructure and green buildings and promote renewable and sustainable technologies.
9. Foster a unique neighbourhood identity building on the unique and diverse characteristics of each community.
10. Nurture engaged citizens through residential work, and play areas. Engaged citizens participate in community life and decision-making.

5.4.7 INTENSIFICATION CORRIDORS AND LINKAGES

The municipality's population is too sparse and the settlements too far apart to warrant a municipal level system of this nature. These elements will rather be applied at the settlement scale to promote restructuring of the towns.

The potential for two corridors have been identified:

- Kwanokuthula-New Horizons-Plettenberg Bay is already well advanced with large settlements already in place albeit with an integrating framework, the Coming Together program, that still has to be implemented;
- The second corridor is to try and link Kranshoek into the Plettenberg bay settlement system. While there are strong moral imperatives to do this given the Kranshoek community's history of forced removals there are practical challenges to be overcome. These include:
 - the need to establish an economic base for the settlement itself,

- improving its accessibility into the larger system between it and Plettenberg Bay; and,
- balance this with the constraints and opportunities created by the airport.
- The airport's opportunities include its role as an economic catalyst half way between the two settlements. Its constraints relate to the need to keep noise residential development out of contours below 55dba and approach areas.

An Intensification Corridor, see Figure 5.4.7.1, is intended to promote a mutually supportive increase in residential (mixed income) and economic (mixed use) activity straddling the major routes of a settlement to:

- Contribute to its environmental quality by increasing levels of human activity, and provide opportunities for new and contemporary development while at the same time respecting and conserving a settlement's heritage, even if only for its tourist appeal;
- Increase its economic and employment opportunities within convenient access of residents
- Make efficient use of expensive existing infrastructure, roads, pipe and cape networks; and
- Increase contributions to the Municipal revenues through increased rates and service consumption charges.

When promoting an Intensification Corridor it will be necessary to bear in mind the possible need to address ceilings in transport and civil service capacities.

The following are important ingredients for the Intensification Corridors:

- Higher density and greater height closer to spine road of Intensification Corridor;
- Provide development control clarity;
- High quality urban environment;
- High quality pedestrian environment;
- Maximise economic opportunities by allowing for markets and other opportunities to provide access to small and informal businesses from well located space;
- Redevelopment to higher densities; and
- Subdivisions to provide higher densities.

Principles:

- **Provide sensitive infill and redevelopment of major arterial axis in clearly defined precincts;**



Figure 5.4.7.1 Intensification Corridor

- Corridors to concentrate activities and support its speedy initiation especially in more rural areas, should be delineated to include one erf on either side of the identified street, otherwise called the spine of the corridor;
- Sensitively integrate towards existing heritage buildings;
- Enhance the street experience through landscaping and guiding the architecture of new developments;
- Encourage multiple levels of entry into the economic market and enhance job creation. Intensification corridors should be limited to residential, office and retail uses and only compatible light industrial uses, e.g. non-nuisance manufacturing or craft activities that may require a retail outlet on the same premises.
- Define a single uniting structure or framework of nodes and linkages between town and township; and,
- Encouraged supporting densification pattern and infrastructure provision.

5.4.8 NODES

This will be shown at town level.

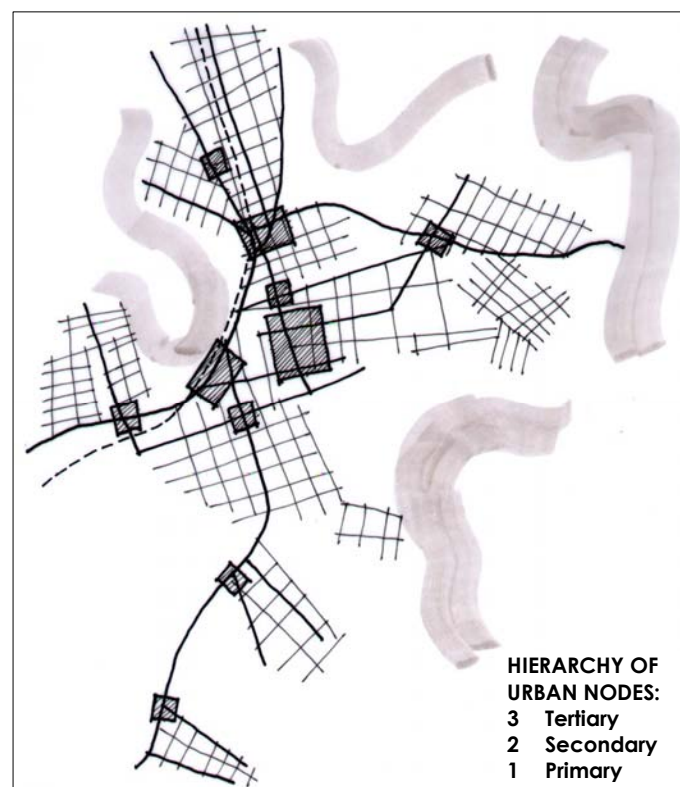
There should be three levels of hierarchy of urban nodes containing business and community facilities. Facilities should be clustered together as far as possible to strengthen support thresholds, and increase the viability of community and business facilities:

- Tertiary: technikons, hospitals, courts, multi-purpose centres, regional or metropolitan transport interchanges, museums, art galleries, indoor sports complexes, regional shopping centres;

- Secondary: high schools, day care centres, hospitals, libraries, sports and community halls, sportsfields; and
- Primary: primary schools, crèches, clinics, bus and mini-bus taxi stops.

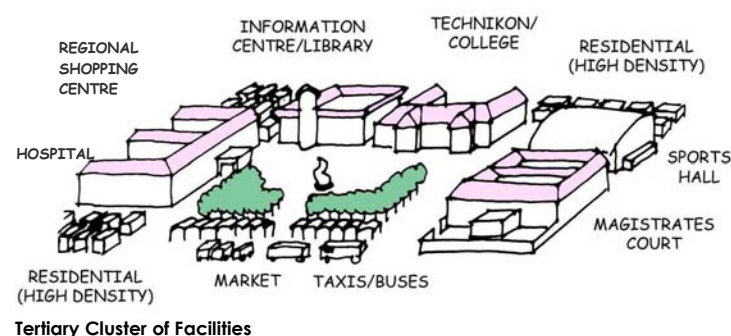
Principles

- **Implement projects on a focused, strategic and hierarchical basis with the largest investments for higher order facilities that will be enjoyed by the greatest number of people.**
- **Nodes should be located at strategic intersections enjoying high levels of access according to their status in the hierarchy, see Figure 5.4.8.1.**

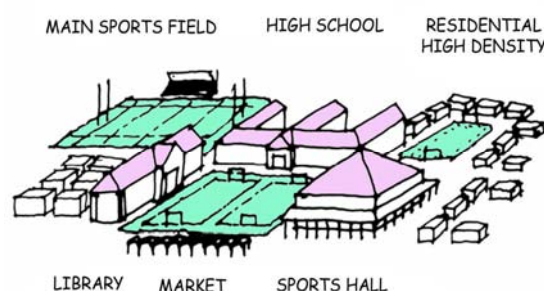


Clustering Civic, Commercial and Residential Activities

Figure 5.4.8.1 Nodes



Tertiary Cluster of Facilities



Secondary Cluster of Facilities



Primary Cluster of Facilities

5.4.9 LAND USE INTEGRATION AND INTERFACES

The intensification areas are seen as the prime instruments for promoting integration between the towns and townships of the urban settlements.

Principles:

- **Locate activities (residential, transport, work, recreation, etc.) so that at least 50% of them are in walking distance;**
- **Sensitively locate different income groups within the 1km radius : e.g. very low not right next to the very high income;**
- **Locate most frequented activities in the most central / accessible localities, e.g. industrial and commercial, see Section 5.4.8;**
- **To promote socio-economic integration as a general rule Human Settlement schemes should not be targeted at a single income group exclusively, usually subsidy or Site and Service, but should always include at least a GAP housing and top structure subsidy component even if only comprising 10% or 20% of the units;**
- **The arrangement of housing for the various income groups should be according to the principle of the socio-economic gradient with the higher end of the market closest to the main thoroughfare;**
- **Use all well located vacant land, i.e. within 1 to 2kms of urban centres;**
- **Locate all future residential areas within walking distance of urban centres where space permits; and,**
- **Locate all future subsidy housing within walking distance of nodal centre where space permits.**

Interface principles:

- **The change between different schemes and income groups must happen along the midblock and not across the street, see Figure 5.4.9.1;**
- **Where relevant occupants of properties must be given freehold tenure, i.e. title deeds, immediately so that shack upgrading will commence as soon as possible; and**

- **The more formal the units the closer they should be to the main public thoroughfare or adjacent upmarket housing, see Figure 5.4.9.1.**



Figure 5.4.9.1 Socio-economic Integration and Interface Treatment

5.4.10 THE URBAN EDGE

These should be reviewed to ensure that:

- Sufficient protection is given to land requiring conservation,
- That compaction rather than expansion of urban settlements is encouraged so as to promote non-motorised transport modes where appropriate.
- There should be little need for motorized transport for most trips in the settlements but due to their layout the following distances are experienced:
 - Plettenberg Bay – Kwanokuthula (4 – 6 kms)
 - Plettenberg Bay – New Horizons (2 -4 kms)
 - Plettenberg Bay – Kranshoek (8 kms)
 Note: convenient walking distance <1kms
- It should be noted that these are extreme distances for even South African small town settlements and illustrates the great importance of the proposed Come Together Program for the Plettenberg Bay-New Horizons-Kwanokuthula corridor

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

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

This pattern can be likened to a "doughnut" whereby there is an increasing move of low income, middle income and high income housing as well as industrial and office estates and regional shopping centres to the periphery of settlements; see Figure 5.4.10.1.

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

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

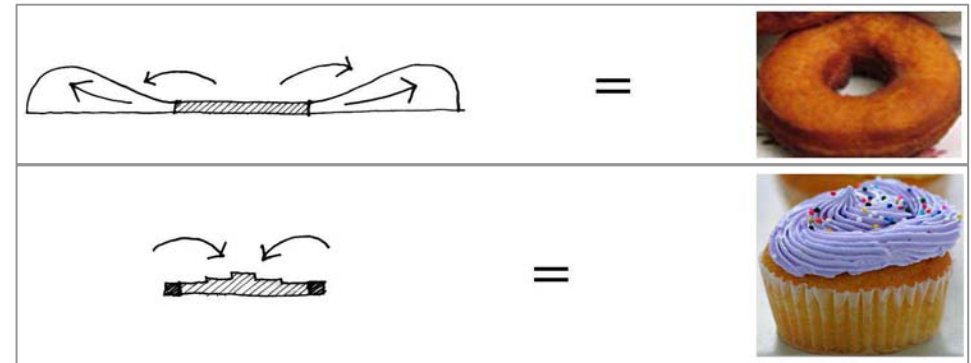


Figure 5.4.10.1 From "Doughnut to Cupcake"

5.4.11 INFILL, DENSIFICATION AND THE SUBURBS

It is clear that infill and densification is required in order to restructure Breede Valley's settlements. Fortunately, the settlements within Breede Valley Municipality have some well located vacant land to contribute to this.

Guidelines for selected settlements are given in Sections 5.9 to 5.14.

5.4.12 DEVELOPMENTS NEAR AIRFIELDS

Given the location of the Plettenberg Bay airfield, any development, especially residential developments, close to it should be treated with extreme sensitivity for the following safety reasons:

- The possibility of aircraft crashes as a result of problems on either take off or landing;
- The impact of crop sprayers and jettisoning either fuel or pesticides and herbicides by planes who frequent this airfield; and
- The high levels of noise near the runways.

Given the above, it is proposed that:

1. Noise contours be determined in terms of the Regulations promulgated in terms of NEMA and SABS or similar appropriate regulations or best practice;
2. No residential development be permitted within the 55dBA or higher noise zone;
3. Only if a Noise Impact Assessment makes a positive recommendation and there are acceptable mitigation measures, can residential development be permitted within this zone;
4. The SABS, codes (SANS 10103) for developments close to noise zones should be applied;

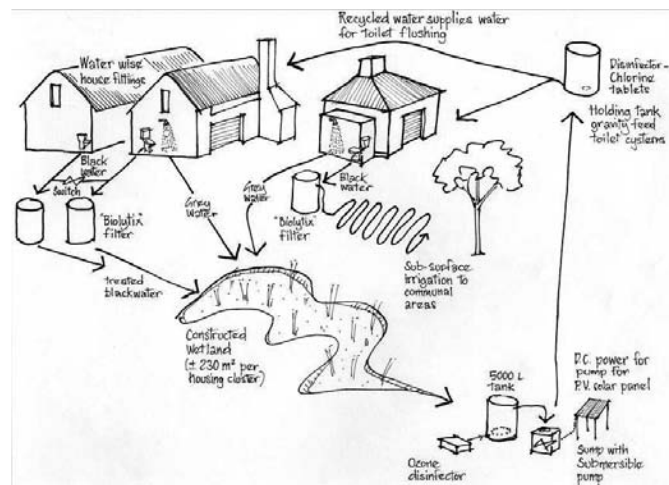
5.4.13 INFRASTRUCTURE

The following principles shall apply:

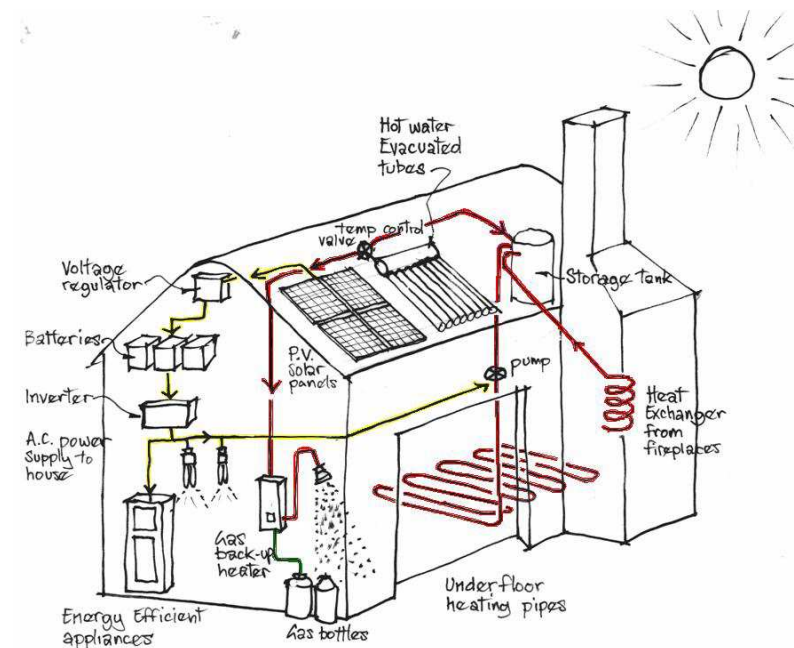
- Ensure a base level of services only is available for all residents in the Municipality including those households qualifying for indigent grants;
- Where possible implement GAP housing schemes as part of subsidy projects so as to help cross-subsidise required infrastructure projects;
- For low density settlements, where the high cost of conventional grid services are prohibited and not preferred and to promote sustainable use of natural resources reduce dependency on conventional grid services, the following are proposed:
 - Promote the use of solar hot water projects so as to reduce operating costs;
 - Promote use of solar of water heaters, PV panels, grey-water recycling, waste separation at source, and passive building design to as to minimize energy, solid waste and water demand, see Figures (a) and (b);
 - Encourage rainwater harvesting and grey water (water from hand basins and kitchen sinks) recycling, see Figure (c).

Churchaven on the West Coast that is serviced by means of off-grid technologies.

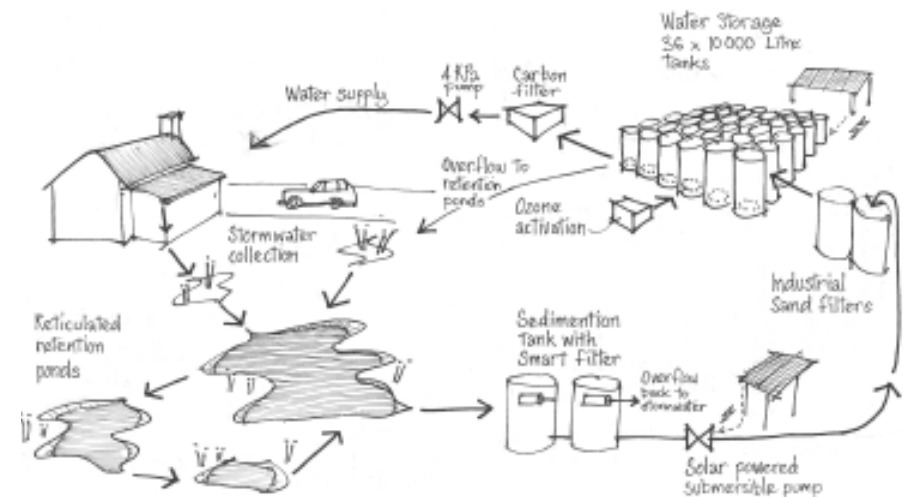
There is no electricity or piped water. Water is supplied by means of rainwater tanks, water heated by means of solar hot water heaters and electricity is obtained from photo-voltaic panels



(a) Sanitation System based on sustainable principles



(b) Solar Energy Generation for off-grid energy generation



(c) Rainwater harvesting for sustainable use of water

Figure 5.4.13.1 Off-grid infrastructure options

5.5 URBAN DESIGN GUIDELINES

The following urban design guidelines are proposed to guide **all** future development in the Municipality:

- UD1 Create open space systems that integrate the elements of a settlement to contribute to a meaningful urban structure. This can be done by:
- Providing connectivity between open spaces;
 - Establishing linkages between open spaces;
 - Aligning the open space system with public buildings; and
 - Ensuring an improved quality of linkages through the continuation of special activities or functions along major routes.
- UD2 Link symbolic elements (statues) or public facilities (library, clinic, etc.) to open spaces in relation to their importance and character.
- UD3 Ensure the definition of the public spaces through the effective design of an interface between public and private domains.
- UD4 Create visual recognition and surveillance along open spaces and public routes. This can be achieved through:
- Locating buildings around open spaces and streets so that sufficient enclosure is created;
 - The appropriate height of buildings; and
 - Locating the highest buildings to the southern side of the open space, with lower buildings or trees on the northern side.
- UD5 Markets should be permitted at highly accessible locations in terms of the movement network and urban structure to ensure the greatest viability possible. These locations could be modal interchanges and intersections.
- UD6 As a general rule the erection of shopping centres on the periphery of settlements should be discouraged. This should only be permitted if the intention is to initiate a new urban node at the specific location and the proposed shopping centre development is in line with the growth direction of the settlement.
- UD7 Accommodate a variety of users in and uses along the streets by doing the following:
- Concentrate intensive activities along major vehicular and public-transport routes;
 - Locate majority of public buildings and increase densities along these routes; and
 - Locate buildings closer rather than further from the streets to increase pedestrian activity, a sense of enclosure and surveillance.
- UD8 Create appropriate road cross-section widths that can provide for vehicle traffic, parking, pedestrian movement, cycling and landscaping.
- UD9 Urban block length should promote access (penetration) and encourage economic activity by orientating the short side of blocks to major streets wherever possible.
- UD10 Space buildings from each other to provide adequate solar access to buildings. In this regard the roof pitch of buildings should be orientated so that roof solar panels have a maximum continuous direct access to the sun.
- UD11 Any proposals for the redevelopment of existing buildings should consider their heritage value, elements of the vernacular architecture and, where possible, retain these important elements. Similarly, the historical characteristics of existing buildings should be considered to draw from their elements that could be integrated into the design and construction of new buildings close by.
- UD12 The use of local materials should be encouraged in the construction of new buildings.
- UD13 Encourage appropriate water-wise landscaping.
- UD14 Ensure that the main streets of the urban areas are appropriately landscaped to encourage a pleasant gateway treatment into the settlements.

5.6 PRINCIPLES FOR FACILITIES PLANNING

The following is a guideline, related to a settlement population, should be used for the location of various social amenities and services. The information in the following section is sourced from CSIR Guidelines for the Provision of Social Facilities in South African Settlements. (CSIR, 2012)

The following principles for the planning of facilities are applicable:

5.6.1 COMMUNITY HEALTH CARE CLINIC (CSIR, 2012)

Population threshold range	60 000 - 140 000 people
Access distance	90% of population served within 5 km*
Site size	1.5 ha minimum
(*National Department of Health target)	

5.6.1.1 Description

Open 24 hours a day, 7 days a week, offering a broad range of primary health care services including observation beds, accident and emergency services, midwifery services, but not surgery under general anaesthesia.

5.6.1.2 Minimum Requirements

Space for an ARV Clinic has been included. Ratio of one Community Health Centre to eight Primary Health Clinics preferred.

5.6.2 PRIMARY HEALTH CARE CLINIC (CSIR, 2012)

POPULATION THRESHOLD RANGE	optimal 40 000 people (range 5 000 - 70 000 people, largely for those not privately insured)
ACCESS DISTANCE	90% of population served within 5 km*
SITE SIZE	0.5 ha (range 0.2 ha - 1.0 ha)
(*National Department of Health target)	
Note: Mobile and Satellite Clinics may be used when the demand is too low or too dispersed for a permanently stationed facility that operates for more than 32 hours per week.	

5.6.2.1 Description

An appropriately equipped permanent facility (government or private) at which a range of primary health care services are provided for at least 8 hours per day and 4 days per week.

Mobile and satellite clinics may supplement these static clinics in areas where the threshold is less than 5 000 people as a temporary measure but their space/land requirements are more flexible and are thus not dealt with here.

5.6.2.2 Public Clinic Prototypes (CSIR, 2012)

CLINIC TYPE	MINIMUM SITE SIZE (HA)	CATCHMENT POPULATION
Small to medium-sized clinic	0.2	5 000 – 20 000
Large clinic (with or without maternity)	0.5	30 000 – 50 000
Extra large clinic (with or without maternity)	1.0	60 000 – 70 000

(National Department of Health 2007)

5.6.2.3 Threshold Issues

Primary health clinics cater largely for the uninsured population (those without medical aid membership or health insurance), thus the socio-economic class of an area and its disease profile will impact on usage rates and demand. Those in the high income bracket or those who have medical insurance mainly make use of private doctors who deliver a similar service to that of a clinic.

In metro areas with high development densities mega-clinics serving a catchment area of 100 000 or more people may be required or may be suitable.

Sharing and clustering — recommended a primary health clinic may be clustered with:

- a library;
- a primary school;
- a secondary school;
- tertiary education/trade schools;
- a community hall;
- an indoor sports hall;
- neighbourhood and district parks;
- urban agriculture;
- L1 hospital.

5.6.3 FIRE STATION (CSIR, 2012)

POPULATION THRESHOLD RANGE	100 000 people (indicative only, overriding factor is reach and density)*
ACCESS DISTANCE	8 - 23 minutes response times. Response times and area risk classifications are major considerations for location of fire station (see details overleaf)
SITE SIZE	0.3 ha suburban station 1.2 ha regional headquarters

**In low-density areas the provision of fire-fighting equipment and personnel is often different to that of high density areas, for instance bakkie pumps and part-time volunteers rather than fixed fire stations may be provided, and the particular circumstances in a specific low-density area would determine service provision rather than fixed standards.*

5.6.3.1 Description

Structure or area for storing fire-fighting apparatus (vehicles and other equipment), and where fire-fighters are stationed. May include limited dormitory facilities and work areas such as meeting rooms, workshop, practical training areas, gymnasium, etc.

5.6.3.2 Location Factors

Good access to major transport routes – without local traffic congestion to allow for rapid response, i.e. outside the core development area but still nearby. Requires proximity to utilities (power, water, waste reticulation, etc.). Possible co-location with other similar services.

5.6.3.3 Site Requirements

To be situated on flat land as far as possible or on land that requires minimal reconstructive work, e.g. backfilling, leveling.

Facility Sharing and Clustering – recommended. A fire station may be clustered with:

- a cemetery;
- an L1 hospital;
- a police station.

5.6.4 POLICE STATION (CSIR, 2012)

POPULATION THRESHOLD	60 000 - 100 000 people
ACCESS DISTANCE	8 km urban/metro; 15 km peri-urban; 24 km rural and settlement type E; settlement types F, G and H subject to SAPS work study and requirements of the area
SITE SIZE	0.1 ha - 1 ha

5.6.4.1 Description

A building which accommodates police officers and other members of staff of SAPS or the Metro police. Often contains offices, temporary holding cells and interview rooms and may provide living quarters for personnel on-site.

5.6.4.2 Threshold Issues

To improve visible policing and response times, the provision of one station per 30 000 people is considered desirable by city planners. Current averages are approximately in line with 1:60 000 as proposed by Behrens and Watson (1996) and others.

5.6.4.3 Location Factors

Good access to community being served. Where areas are beyond 24 km a SAPS Contact Point may be established.

5.6.4.4 Density and Development Context

Threshold may be reduced in areas of high crime.

Facility sharing and clustering – Recommended a police station may be clustered with:

- a cemetery;
- a fire station.

5.6.5 LIBRARY (CSIR, 2012)

POPULATION THRESHOLD RANGES	Local: 5 000 - 70 000 people; Regional: 200 000 people; Regional (Reference): 450 000
ACCESS DISTANCE	Local: 8 km - 10 km; Regional: 15 km; Regional (Reference): 50 km
SITE SIZE – EXAMPLES	0.05 ha (minimum 0.03 ha) Varies depending on facilities provided and if stand-alone building

5.6.5.1 Description

Public Libraries provide resources and services in a variety of media to meet the needs of the general public for education, information and personal development. They generally house fiction and non-fiction books for lending and reference purposes as well as having facilities such as study areas, meeting rooms, and may provide the public with access to computers and the internet.

Mobile libraries and container libraries may be used in areas of dispersed demand or to supplement existing services when required. Their space/land requirements are more flexible and are thus not dealt with here. Also, school libraries may be used as outreach points.

5.6.5.2 Threshold Issues

It is preferable that not more than 70 000 people should be served by a local-type library. Large regional libraries may have thresholds as high as 450 000 people and there would possibly be one or two per metro.

LIBRARY THRESHOLDS	SITE SIZE EXAMPLES
20 000	0.05 ha
40 000	0.1 ha
60 000	0.2 ha
100 000*	0.56 ha

**Libraries of a higher-order such as those housing large reference collections have a threshold of about 100 000 persons and would require 0.56 ha*

¹{UNESCO - Department Arts and Culture}.

5.6.6 THUSONG CENTRE (CSIR, 2012)

Population threshold	1 per Local Municipality (see below for other service centres)
Access distance	1.5 km; maximum 25 km
Site size	Varies depending on range of services offered and facilities provided (see overleaf for site size examples); Thusong – minimum floor area of 0.06 ha translates into site area of approximately 0.16 ha - 0.2 ha (PPDC 2008).

5.6.6.1 Description

Thusong Centres provide information and services to communities in an integrated way. They form a hub within communities at which a multitude of government services and other community services can be accessed. Key anchor services include departments of Home Affairs, of Labour and of Social Development and specifically SASSA Service Offices.

5.6.6.2 Threshold Issues and Service Hierarchy

Policy regarding Thusongs is currently under review. Expected that a range of centres will be defined for different types of settlements ranging from cities to small towns. Basic access times and service offerings are expected to remain the same. Largely anticipated that a range of staff capacities and building sizes will emerge. Should be linked to different access distances based on how remote the locations are.

5.6.6.3 Location Factors

Each centre is unique (depending on community needs) and may be located either in a single building or as part of a cluster of buildings. If facilities cannot be provided on one site they should be within a 1 km radius of each other.

It is recommended that pension and other welfare pay points are not provided in stand-alone facilities but are clustered within centres such as these and/or use existing public facilities such as post offices for security purposes. In less-densely populated, low density areas mobile pay points may need to be provided in accessible locations. It is of benefit to users if several services are provided on the same day at the stopping points of these mobile services.

5.7 POTENTIAL RURAL NODES AND PERIODIC RURAL MARKETS

The potential of rural nodes is derived from the rural economic opportunities that are generated by their location and "attracting force". However, in some nodes these forces are so small that permanent infrastructure or services cannot justify permanent buildings or staff

Initially, these nodes, can be supported through periodic markets at which mobile services, for instance, home affairs, pension pay outs, clinics, libraries can be dispensed

This approach could be applied at settlements with low threshold populations to ensure that the necessary services can be provided.

Where such facilities do not exist, periodic service centres should be established for co-ordinated use by a wide variety of government, non-government and private organisations.

These periodic service centres should be located at points of highest access according to the same principles.

The services of various government departments and private sector organisations should be co-ordinated into a mobile caravan of dedicated buses and vans which travels from periodic service centre to periodic service centre stopping for morning or afternoon sessions as appropriate.

Local arts and crafts people and business people should be encouraged to trade in the stop-over periods of the mobile service caravans at the periodic service centre. The location of shops and abattoirs should also be encouraged here.



Library bus

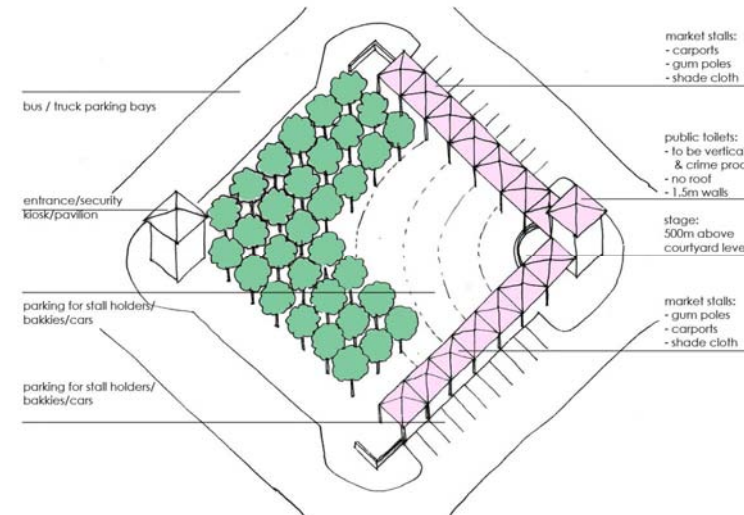


Home Affairs bus

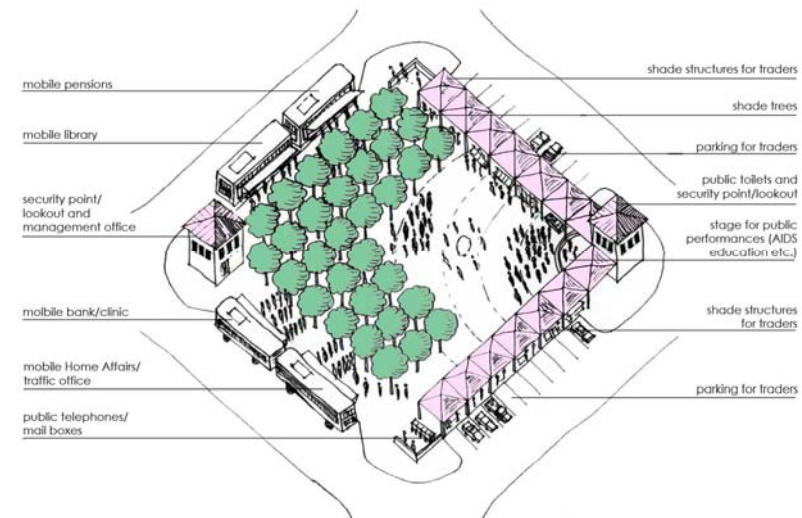


Mobile clinic

This approach can be used to supply services to outlying communities with insufficient thresholds to sustain permanent staff and businesses, e.g. Kranshoek, Kurland, Wittedrift and Covie. The infrastructure can also be used for Saturday morning markets located at highly accessible nodal points.



Periodic service concept



Periodic service activities

5.8 SETTLEMENT HIERARCHY AND STRUCTURE

Unlike municipalities on the large, flat, relatively uniform plains in the centre of the country whose settlement pattern hierarchy and structure reflects Chistaller's Central Place Theory the pattern in Bitou is very similar to that described in Figure 5.2.2a, Differences between Ideal and Actual Patterns of Resources and Opportunities, pg 188.

Plettenberg Bay originated as a small fishing village in the Piesang River estuary with a hinterland of farming and forestry operations. It became a popular holiday destination in the 1940s and building on its isolated and scenic location coupled with superb beaches and generally good all round weather. The low skilled employment requirements in the agriculture, tourism, domestic work and construction industries saw the low income population grow in response to these opportunities. Construction of an airstrip and the upgrading of the N2 further strengthened Plettenberg Bay's strategic position in the municipal settlement hierarchy.

Wittedrift's growth potential was capped in terms of the limited agricultural hinterland it serves and the nearby location of the higher order Plettenberg Bay. Similarly, Kurland, although better located on the N2 than Wittedrift, also had its growth potential capped by the limited growth potential in its immediate hinterland and competition from nearby Plettenberg Bay.

Kranshoek's location, in contrast to the other settlements, has very little inherent economic rationale at all. It was identified as a schedule site on which to settle the Griqua people after they had been moved from the Kalahari near Kimberley and, later on, from southern Kwa-Zulu Natal, around Kokstad.

The only way the growth potential of these smaller settlements is going to be improved is by careful and realistic enhancements in their supporting infrastructure that accurately targets existing economic potentials in the tourism and agricultural sector.

It will be very difficult to create projects that are sustainable and do not represent a waste of money that could have been spent better elsewhere in the municipality on a ward by ward basis unless those wards have clear economic or locational advantages that can be built on.

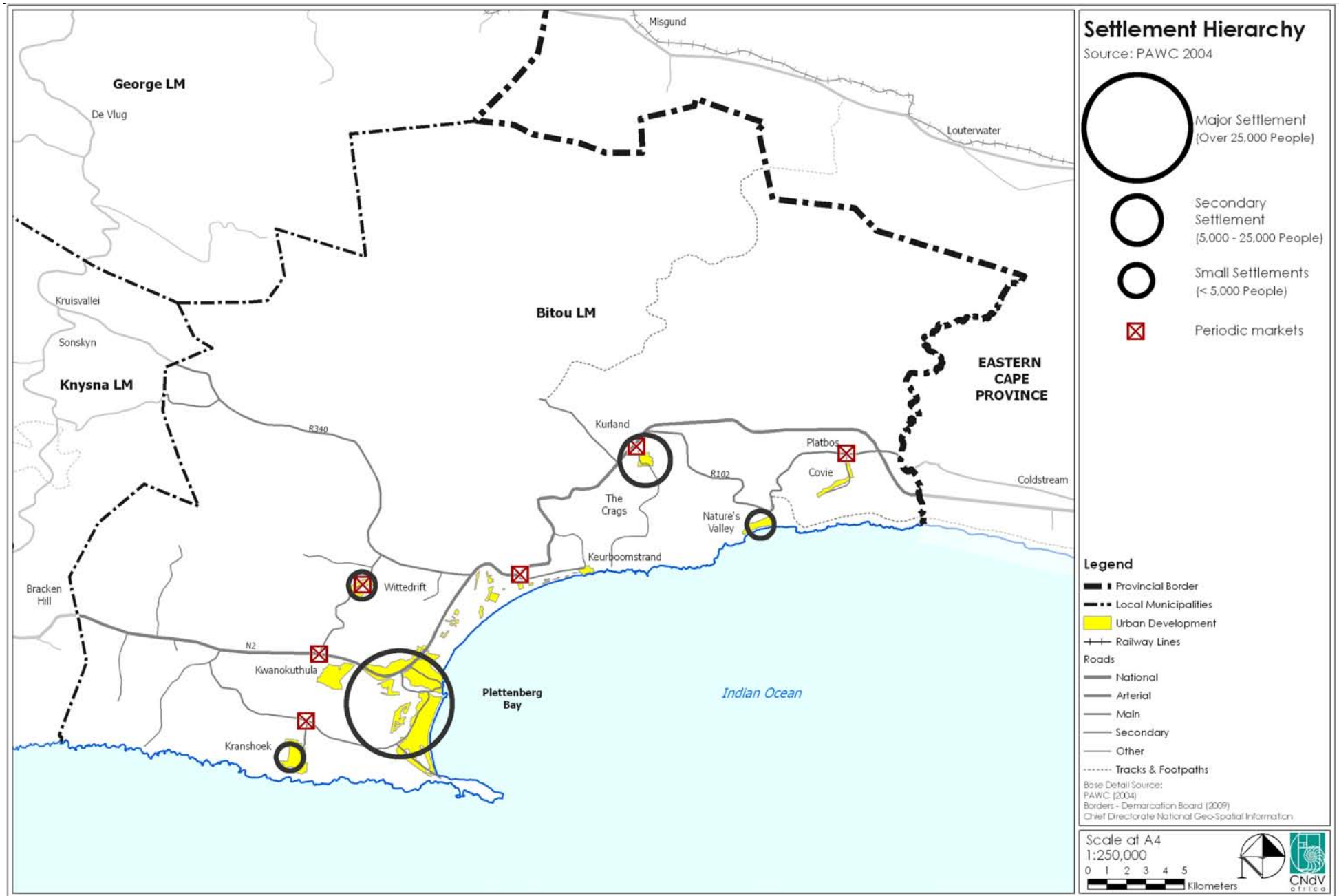


Figure 5.8.1 Hierarchy of settlements, linkages and investment priority

5.9 KRANSHOEK ($\pm 5\ 000$)

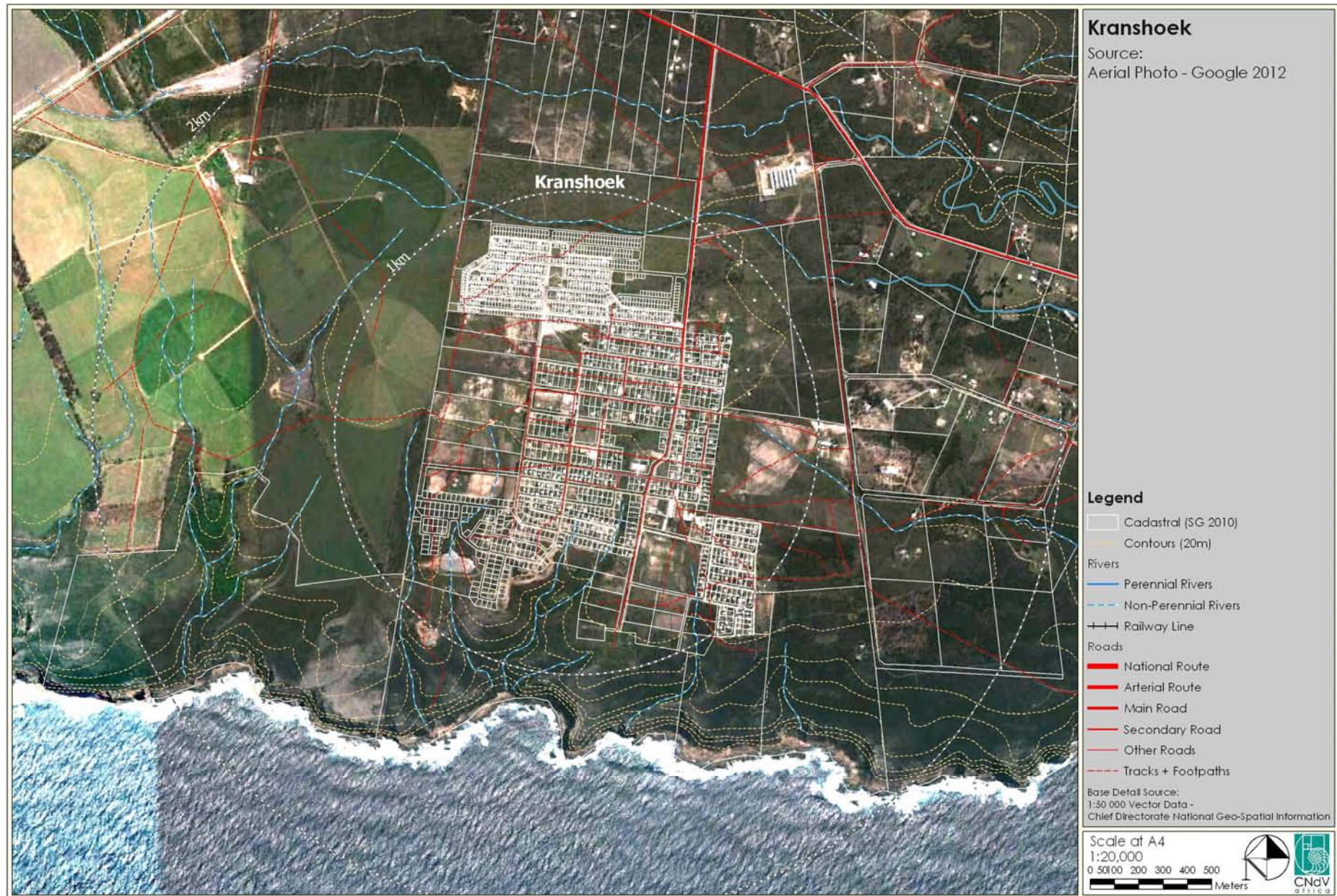


Figure 5.9.1 Kranshoek Aerial photograph

5.9.1 SPATIAL ANALYSIS, see Figure 5.9.2

- Kranshoek comprises a number of township extensions loosely linked together by a network of tar and gravel roads;
- There are some approved but not completely developed townships;
- The township extensions are set back approximately one kilometre across vacant land from Robberg Road, the main rural road from Plettenberg Bay that gives access to the airport and then proceeds to Harkerville to the west where it connects onto the N2;
- Kranshoek's audited housing demand is approximately 470 households.
- Currently land has been identified for about 820 units including 50 GAP units.
- The opportunity should be taken to design and locate this housing between the Robberg Road intersection and the northernmost extensions so that it contributes to a much improved gateway experience to the village;
- The tarred section of Robberg Road stops at Kranshoek thus giving the impression of the settlement being at the 'end-of-the-road', although the road does continue;
- The entrance to Kranshoek is very low key being demarcated only by a sign board;
- Kranshoek has a primary school and clinic and a small business centre which is remotely located within the settlement and does not enjoy direct access even off the main internal access road;
- There are large tracts of agricultural land to the west that are actively farmed, some of it by members of the community. There is also some agricultural land to the east although its farming happens on a much reduced scale;
- Plettenberg Bay airport is also to the east. Its management concession has recently been awarded to a consortium who intend to upgrade the airport in the coming years;
- Its western approach flight path cuts across the internal access road to Kranshoek.
- The airport and its growth are considered a vital component in Bitou's ongoing economic and employment success in the future;
- However, this may impose limitations on residential development in this vicinity of Kranshoek if air traffic at the airport increases to levels where noise contours that indicate the position of the 55 dba contour within which no residential development is usually permitted, cross over the settlement;
- To the south Kranshoek is set back from a dramatic rocky headland which could have potential for a resort;
- The Kranshoek community's interesting but traumatic history is presently only celebrated in a monument near the beginning of the settlement and there is no heritage centre or museum whose presence is well publicized and which could be of greater appeal to tourists



End of tar road at entrance to Kranshoek



Proposed Robberg Road scenic route linking N2 west to Kranshoek node and Plettenberg airport



Kranshoek Village

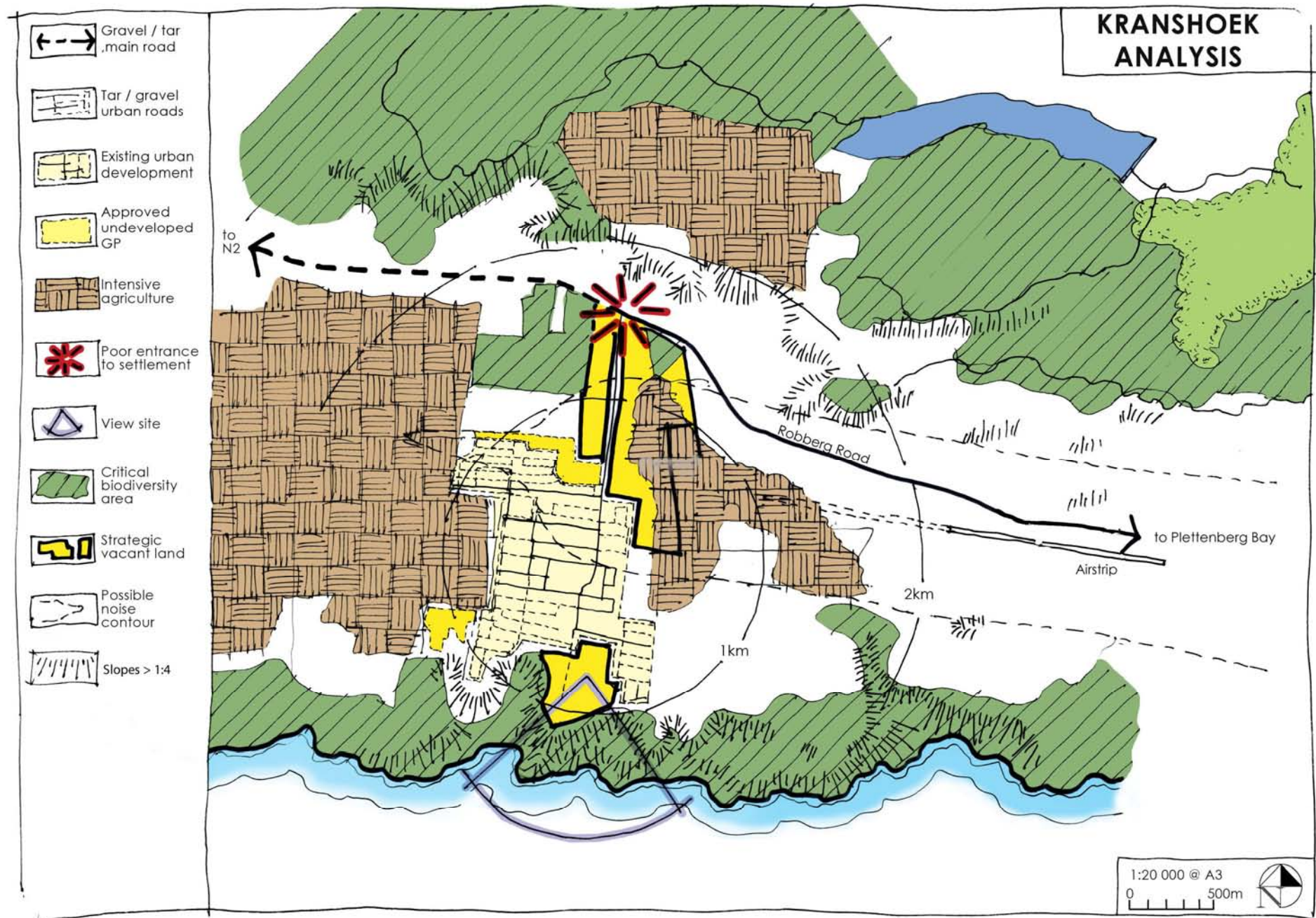


Figure 5.9.2 Kranshoek Analysis

5.9.2 KRANSHOEK: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.9.3

5.9.2.1 Core landscape areas *Notes:*

- Robberg Road passing the access intersection should be treed and landscaped as a scenic route with non-motorised transport facilities. These should be in keeping with the rural road environment. Thus the pedestrian facilities should be design more as a rural path than an urban side walk;
- Those CBAs near the intersection with Robberg Road can be managed as such, for example, as an indigenous community garden, however, the importance of creating a visually exposed urban entrance to Kranshoek cannot be overestimated and land near the entrance road should be used for this purpose;
- Agricultural land abutting the west and east boundaries of Kranshoek should be retained for this purpose and its more intense use encouraged, especially be members of the community;
- Those parts of the coastal corridor not required for the proposed resort should be designated as a Core 1 SPC but included as a community or private nature reserve or as a contractual national park over which the community has some say.
- The remainder of this corridor that could be used for a resort should be designated as a Buffer 1 SPC which promotes conservation but allows economic activities;

5.9.2.2 Urban Development *Notes:*

- Two main areas should be targeted in order to consolidate and reinforce a more enabling urban structure for the settlement:
 - First, land should be acquired on either side of the access road up to Robberg Road;
 - In order to reinforce the sense of linkage and integration future township development should prioritise creating a linear corridor towards the Robberg Road intersection before spreading laterally. This principle should be applied on the large block of land already owned by the municipality in this vicinity;
 - Second, a resort node should be developed between the southern boundary and the rocky headland to the south;
- The new development area indicated below Robberg Road may not be developable due to environmental considerations (existing wetland and rare vegetation). This requires further investigation.
- High income housing/market housing to be promoted.
- The urban edge was delineated to protect the surrounding intensive agricultural areas and the CBA areas north of Kranshoek.



Church on Robberg Road near Harkerville



Proposed scenic road to be tarred westwards to Harkerville and the N2 to Knysna



Social upliftment project in Kranshoek

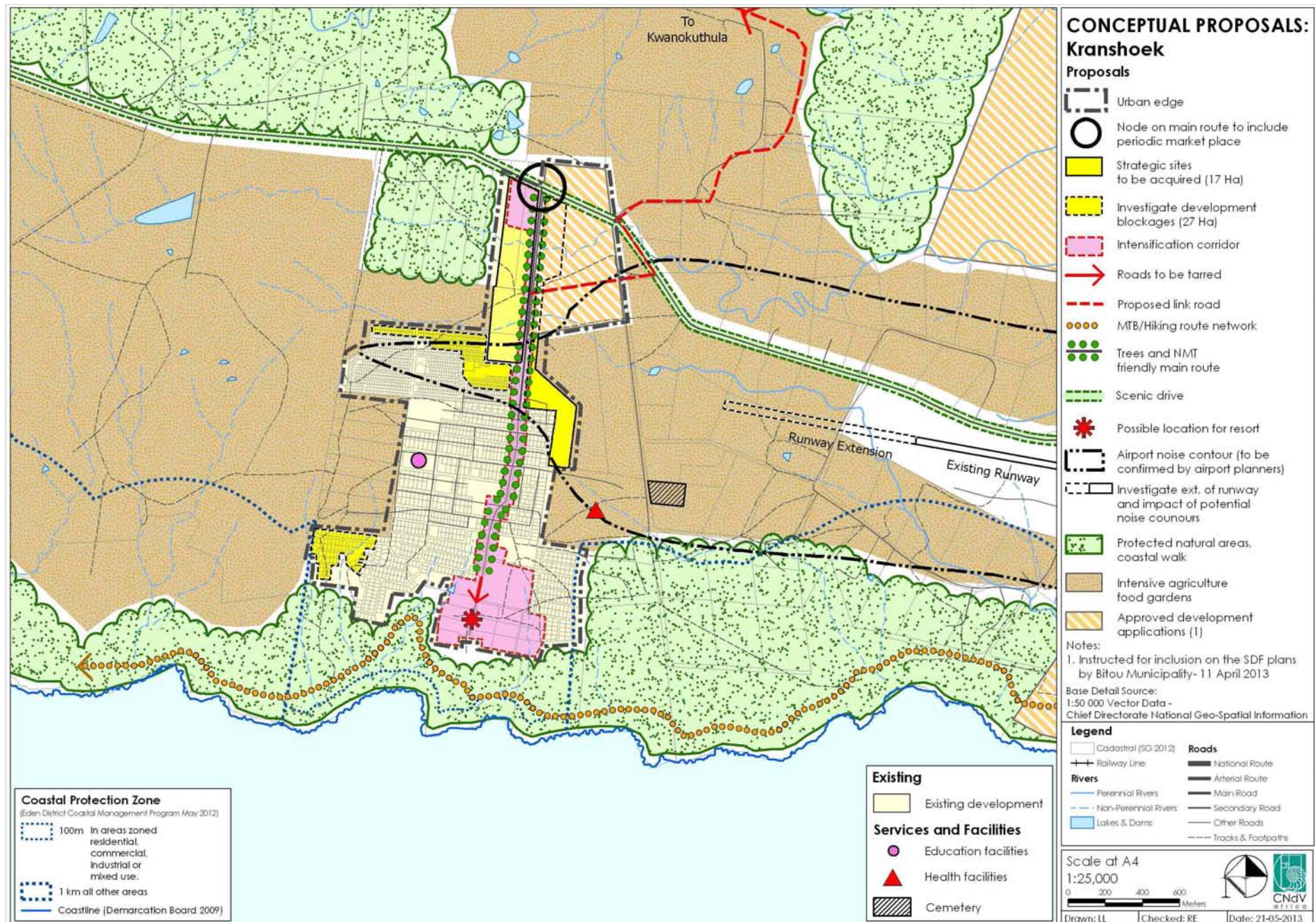


Figure 5.9.3 Kranshoek SDF

5.9.2.3 Heritage Areas

Notes

- There is little in the current urban fabric of the settlement that could comprise a heritage area or precinct. However, it is proposed that a heritage centre which may be no more than a single room to begin with be included in the proposed node on the Robberg Road intersection;

5.9.2.4 Urban Restructuring

Notes

- For Kranshoek to become a more efficient, functional and convenient settlement that develops a strong sense of place it is necessary to develop a simple but effective urban structure or framework to organise the current and future spatial activities of the settlement;
- It is proposed that this takes the form of a single spine along the main route of the settlement connecting from the Robberg Road to the proposed resort node to the south of the settlement;
- This will form the main access road to the proposed resort and it should be as appealing to visitors as possible as well as to promote the image of the settlement and its residents, i.e. Kranshoek 'High Street'. Therefore it should be properly landscaped and provided with NMT facilities that are continuous with those proposed for the upgrading of Robberg Road. Thus, it could be envisaged that residents from Plettenberg Bay could cycle along Robberg Road past the airport to have refreshments at the proposed Kranshoek Resort, view the heritage centre and then proceed further to cycle in the Harkerville Forests to the east;
- A node is also proposed at the intersection of Kranshoek 'High Street' and Robberg Road. This could include the proposed heritage centre, a farm stall as well as a Farmers' market selling produce from the surrounding farms. While not enjoying the exposure to traffic on the N2 that the Sedgfield farmers' market does this could be a smaller version of this market.

5.9.3 KRANSHOEK: TRANSPORT PROPOSALS

- In addition to the upgrading of Robberg Road as a scenic route to the N2 and the main internal road into Kranshoek as a pedestrian and cycle friendly high street it is proposed that the possibility of creating a formal link road from Kranshoek to Kwanokuthula bridging the Piesang valley and using the alignment of existing farm roads and jeep tracks be investigated.



Services being installed in Kranshoek



Site of proposed node at entrance to Kranshoek off Robberg Road



Upgrading of Robberg Road to airport – NMT facilities to be provided

5.10 PLETTENBERG BAY-NEW HORIZONS-KWANOKUTHULA ($\pm 20\ 000$)



Figure 5.10.1 Plettenberg Bay – New Horizons - Kwanokuthula Aerial photograph

5.10.1 SPATIAL ANALYSIS, see Figure 5.10.2

- These settlements comprise the main economic engine of Bitou municipality;
- They currently comprise three disparate settlements loosely linked by the N2 national highway;
- This route is both an important economic opportunity in that it carries freight and passengers between as far afield as Cape Town and Durban right through the settlement but also a major safety and noise hazard to residential communities immediately abutting it;
- It also functions as a local access road for these communities resulting in traffic with very different traffic characteristics mixing on the roadway;
- Furthermore, the Road Access Management guidelines required to facilitate the high levels of mobility required by a national through route are very different to those for a local route promoting high levels of economic activity and access;
- These transport challenges are exacerbated by the spread out nature of these N2 settlements with parts of Kwanokuthula being over 5 kilometres from Plettenberg Bay CBD, requiring either public or private motor vehicle transport;
- Large tracts of well-located vacant land have been identified which, if development is phased to begin close to the transport corridor, will help to improve transport, business and community facility thresholds;
- Therefore, the 'Coming Together' program is an important step in creating a more efficient, convenient, viable and equitable structure to the settlement. Key nodes and corridors have already been identified which will help to address the challenges identified above;
- This program has already seen some successful projects. The upgrading of Main Street appears to have catalyzed the redevelopment of abutting businesses and prevented the flight of upmarket tenants to the out-of-town shopping centre built at the eastern entrance to the N2, a process which has seen many CBDs descend into urban decay;
- Robberg Road forms a second, minor route off which access is taken to the suburbs leading to the Robberg Peninsula. The road swings westwards along the southern ridge of the Piesang River Valley parallel to the airport runway;
- Within the 'U' formed by the N2 road corridor and Robberg Road lies the Piesang Valley, an undulating area of hills and valleys surrounding a large dam. It includes the Plettenberg Bay golf course and Brackenridge Private Residential Estate, a conventional suburban gated development. The valley contains large areas of Shale Fynbos and is designated a Critical Bio-diversity area requiring conservation. There is also agricultural activity further to the west;
- Bringing more of this land under conservation presents a challenge in which private investment will have to be mobilized;
- There are a number of farm roads and jeep tracks in the valley which have potential as part of a mountain bike and hiking network;
- The southern arm of the U passes through a number of small holdings surrounding the airport on which a wide variety of activities occur including light industry and agriculture;
- The airport is seen as a vital component of the municipality's successful growth in the future and care must be taken to ensure that residential development which may prevent its future expansion is carefully controlled.



Pedestrian link along N2 - sufficient space for service road



Retail node at entrance to Kwanokuthula



Vacant land near African market site - Kwanokuthula

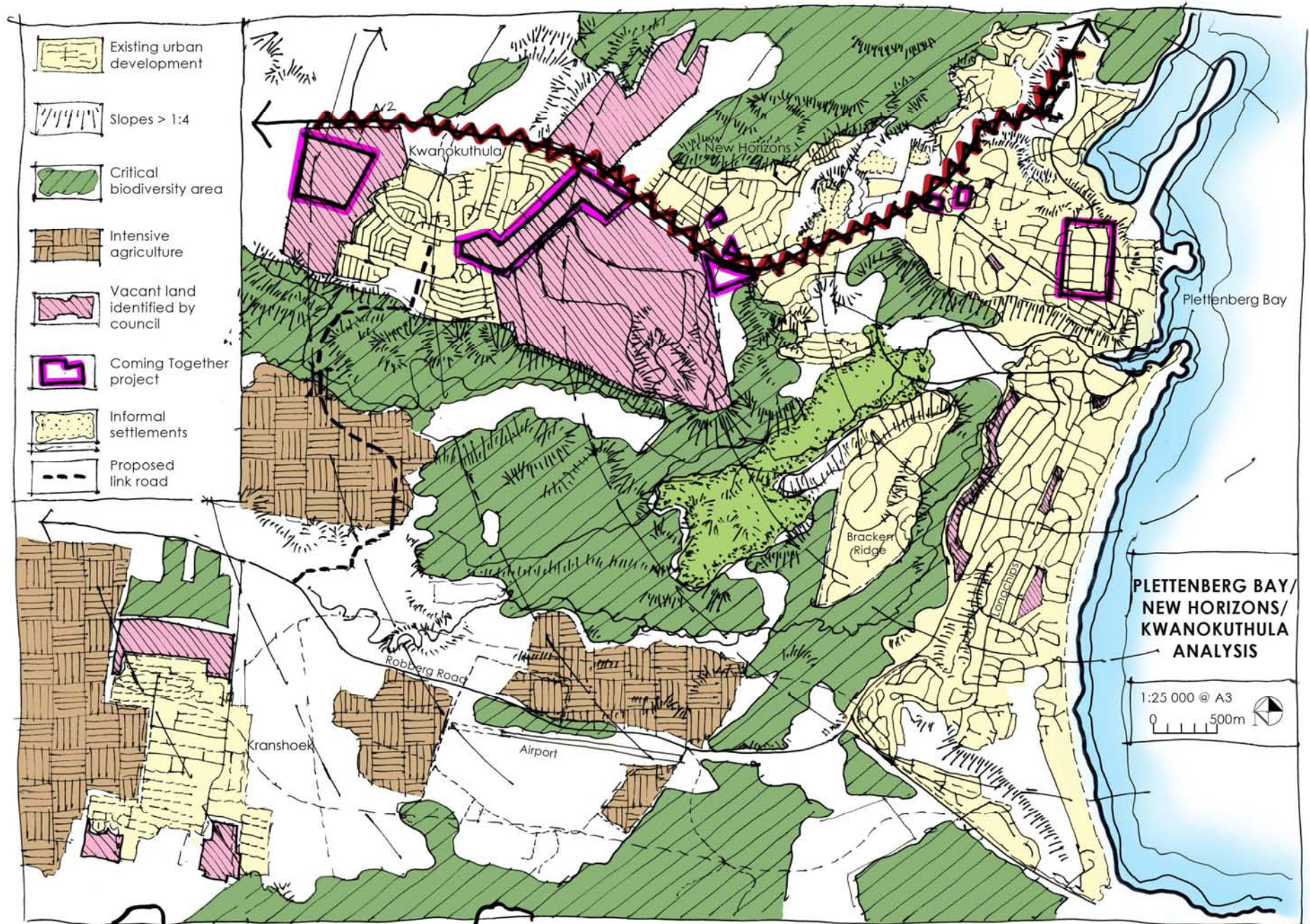


Figure 5.10.2 Plettenberg Bay Analysis

5.10.2 PLETTENBERG BAY: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.10.3

5.10.2.1 Core landscape areas

Notes:

- The Piesang River Valley should be developed as a series of private nature reserves which are designed in such a way that sufficient security and privacy is afforded to future residents but that public and environmental benefits are maximized;
- The valley also has a role in consolidating the main attractions that Plettenberg bay has to offer, namely upmarket leisure and lifestyle opportunities;
- As it is unlikely that public funding can be secured in this context this will have to be leveraged from private interests;
- However, it is essential that private development impacts as little as possible on the environmental integrity of this area;
- Therefore the following is proposed;
 - There should be a network of MTB and hiking routes;
 - Another golf course can be contemplated but this should be developed according to minimum impact principles using Audubon or other similar appropriate codes;
 - As much land as possible should be incorporated in conservation reserves;
 - Limited residential accommodation should be considered;
 - This would be considered outside of the Urban Edge and be built according to green principles using off grid to the low densities proposed in the Provincial Manuals on development in this context;
 - The visual impact of such development should be as limited as possible;
- Robberg Road should be constructed as a scenic route beginning with tree planting. The cross-section to future upgrades of the road should be amended to provide safe walking and cycling facilities;
- River corridors should be designated as Core 1 SPCs with no plowing or urban development permitted with 32 metres of the banks unless set-back lines have been determined by a fresh water ecologist.



Double storey unit at Kwanokhutula



N2 near Ladywood showing space for service roads to left



Site of proposed node at Ladywood to right with sea views in background

5.10.2.2 Urban Development

Notes:

- There is more than enough land to cater for the housing backlog;
- Kwanokuthula and New Horizons require a total of approximately 2 800 units of which there is currently already surplus land to provide another 1 700 units over and above this;
- However, the opportunity should be taken to create new precedent setting mixed income mixed use projects with a range of housing typologies and other land uses on better located sites abutting the N2 transport corridor;
- The urban edge was delineated to provide sufficient protection to land requiring conservation, promote public and non-motorised transport and encourage the infill of vacant land parcel within the existing urban areas.

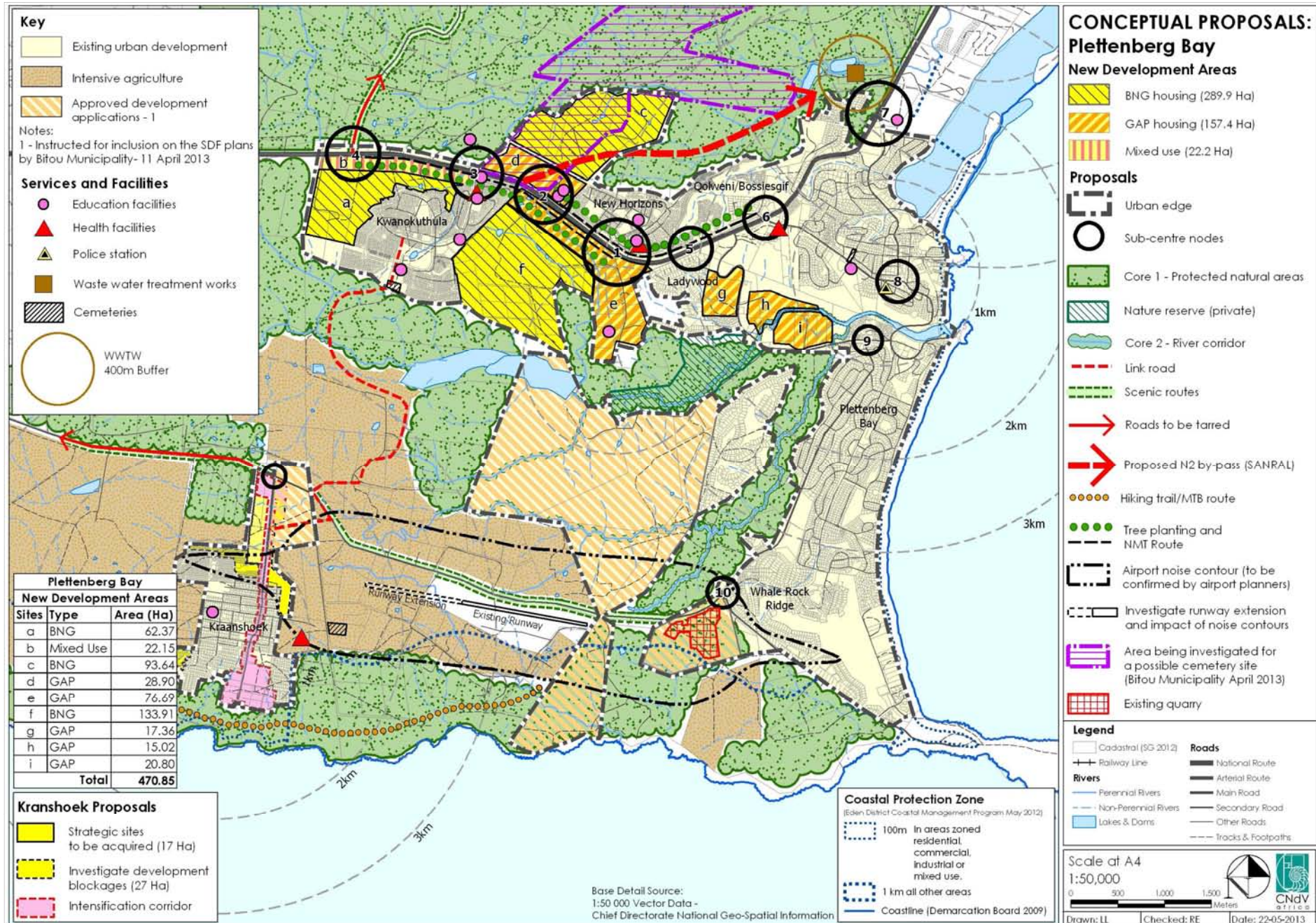


Figure 5.10.3 Plettenberg Bay SDF

5.10.2.4 Urban Restructuring

Notes

- The main challenge facing this urban settlement is to ensure that future development improves the current urban structure.
- As mentioned previously the Coming Together program has already made concrete proposals in this regard;
- A series of nodes containing varying concentrations of commercial and community facilities are proposed as a corridor along the N2.
- These will be fulfilling essentially local functions for their abutting neighbourhoods as well as working together as a system along which agglomeration and critical mass benefits can be enhanced through exposure to larger markets;
- A local transport system is key to the success of such a system.
- This can be achieved in the presence of the N2 through the creation of maximum access single sided service roads which offer continuous visual exposure to N2 traffic but to which access is only taken at the intervals prescribed by the Road Access Management Guidelines for a national facility of this nature. Thus, access intersections off the N2 should be spaced between 800 and 1000 metres;
- These service roads should be properly landscaped and provided with public and non-motorised transport facilities and short and long term parking
- Development should be focused at the nodes in order to increase the economic opportunities for the local community, see Section 5.4.8;
- The following sub-centre urban nodes to be developed in order of priority, see Figure 5.10.3, p 223:
 - ☐ Intersection at Saringa Road and the N2 south of New Horizons.
 - ☐ Along the N2 at the turn-off to the Plettenberg Bay Secondary School.
 - ☐ Intersection at Sishuba Street and the N2 north of Kwanokuthula.
 - ☐ Along the N2 at the turn off to Wittedrift
 - ☐ Intersection at Green Oak Road and the N2 north of Ladywood.
 - ☐ Intersection at Marine Road and the N2 south of Qolweni/Bossiesgif.
 - ☐ Intersection at Beacon Way and the N2.
 - ☐ Intersection of Sewell Street and Strand Street.
 - ☐ Intersection at Piesang Valley Road and Robberg Road.
 - ☐ Intersection at Robberg Road and the turn-off to Whale Rock Ridge.
- No more high income housing is to be permitted around the town of Plettenberg Bay unless it is completely "off the grid".



Looking towards Bholweki showing space for services roads



Dramatic gateway to Plett town



Public art in upgraded 'high street' in Plettenberg Bay

5.11 WITTEDRIFT (± 1 300)

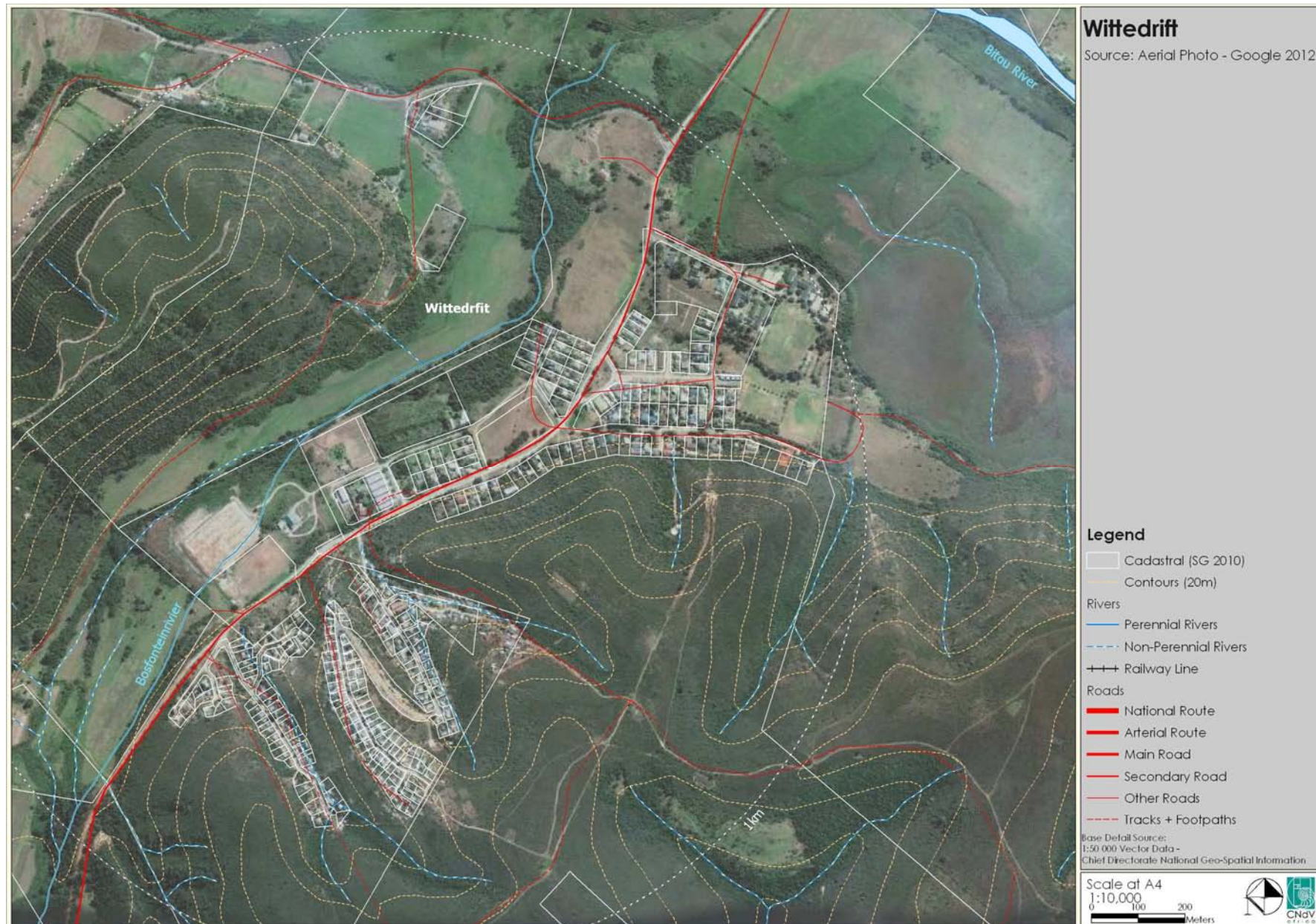


Figure 5.11.1 Wittedrift Aerial photograph

5.11.1 SPATIAL ANALYSIS, see Figure 5.11.2

- Wittedrift is located before the intersection where the gravel road down the pass from the N2 near Kwanokuthula crosses the Bitou River flood plain and intersects with the N2 Keurbooms – Uniondale Road;
- The original village is situated on north facing slopes slightly above the flood plain;
- It has a small, crescent shaped convenience retail node that forms the heart of the settlement.
- The high school, the only one in Bitou offering English and Afrikaans medium, is situated to the west;
- To the south is Green Valley a lower income housing settlement constructed up three kloofs towards the ridge that overlooks Wittedrift;
- There is an informal settlement at the top of the northern most kloof;
- On top of the hill overlooking the town is a relatively flat ridge which is also free of vegetation deemed as a Critical Biodiversity Area (CBA);
- Much of this ridge is within one kilometre walking distance of the remainder of the settlement albeit up steep slopes;
- There is a network of gravel roads and jeep tracks connecting this ridge to the various components of the settlement;
- The valley bottoms contain either floodplain vegetation or intensive agriculture, irrigated in many instances;
- Development in this area is likely to be more vulnerable to flooding and a flood line determination study should be undertaken if more development is contemplated in the low lying areas;
- There is a large block of plantation forest on the western slopes of the ridge to the west of the settlement;
- Residents are either employed on the surrounding farms, work in the service businesses and education institutions in the village or commute to Plettenberg Bay;
- There appears to be interest from further tertiary education institutions wanting to establish themselves in the settlement;
- The scenic quality of the area is in danger of being undermined by insensitive urban development;
- The municipality has identified two pieces of vacant land, one on the flood plain below and the other on the western boundary of Green Valley;
- As well as the flat land on the headland outside of a CBA there is also some undeveloped land north of the CBD and large piece of flat land to the east on the toe of the hill.



New housing creating positive urban space in Wittedrift node



Modernist house on slopes above Wittedrift demonstrating need for building design guidelines regarding context

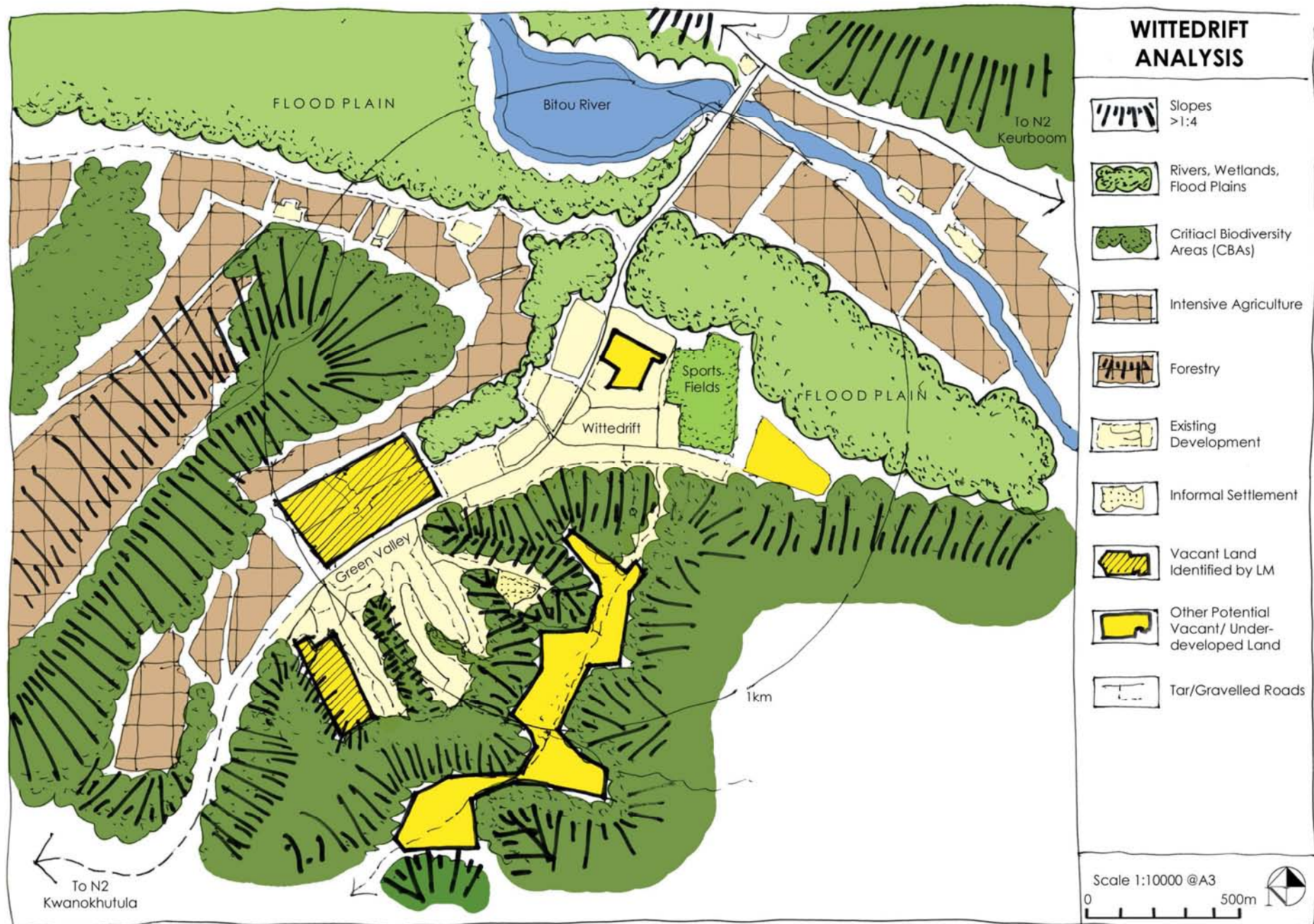


Figure 5.11.2 Wittedrift Analysis

5.11.2 WITTEDRIFT: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.11.3

5.11.2.1 Core landscape areas

Notes:

- The river corridors and flood plain should be protected as a Core 2 SPC in which no development or plowing is permitted within 32m of the banks unless a set-back line has been determined by a freshwater ecologist;
- Critical Biodiversity areas should be designated as Core 1b SPCs and their conservation encouraged by way of private nature reserves or conservancies in which limited development according to the Provincial guidelines manuals for development outside of the Urban Edge;
- Urban design, landscape and architectural guidelines are required to minimize negative visual impacts on the landscapes;
- Within the proposed Urban Edge CBAs should be managed as municipal nature reserves;

5.11.2.2 Urban Development

Notes:

- Rather than developing further south on the hill side slopes abutting Green Valley it is proposed that all future development be concentrated on either side of the main access road creating a stronger image and sense of arrival in the settlement. The Urban Edge is delineated to give effect to this aim.
- Flood lines should be determined for the land on the lower side of this road to ensure that it is safe to develop here;
- The development of other existing vacant land in the village should be encouraged;
- The large piece of vacant land to the east, see area I, could be suitable for a large education institution;
- If land for more upmarket development is required in order to strengthen support for businesses and facilities the flat land on top of the ridge could be considered;
- This land offers excellent views and is within one kilometre walking distance of all parts of the existing settlement;
- However, any development here will require very detailed guidelines to ensure that it is as visually unobtrusive as possible. Phantom Forest in Knysna could serve as useful precedent.
- In general all new and existing buildings in Wittedrift should be subject to Urban Design Guidelines to ensure that construction and renovation enhance rather than detract from the settlement sense of place;
- High income/market housing to be promoted on the headland, see area J.

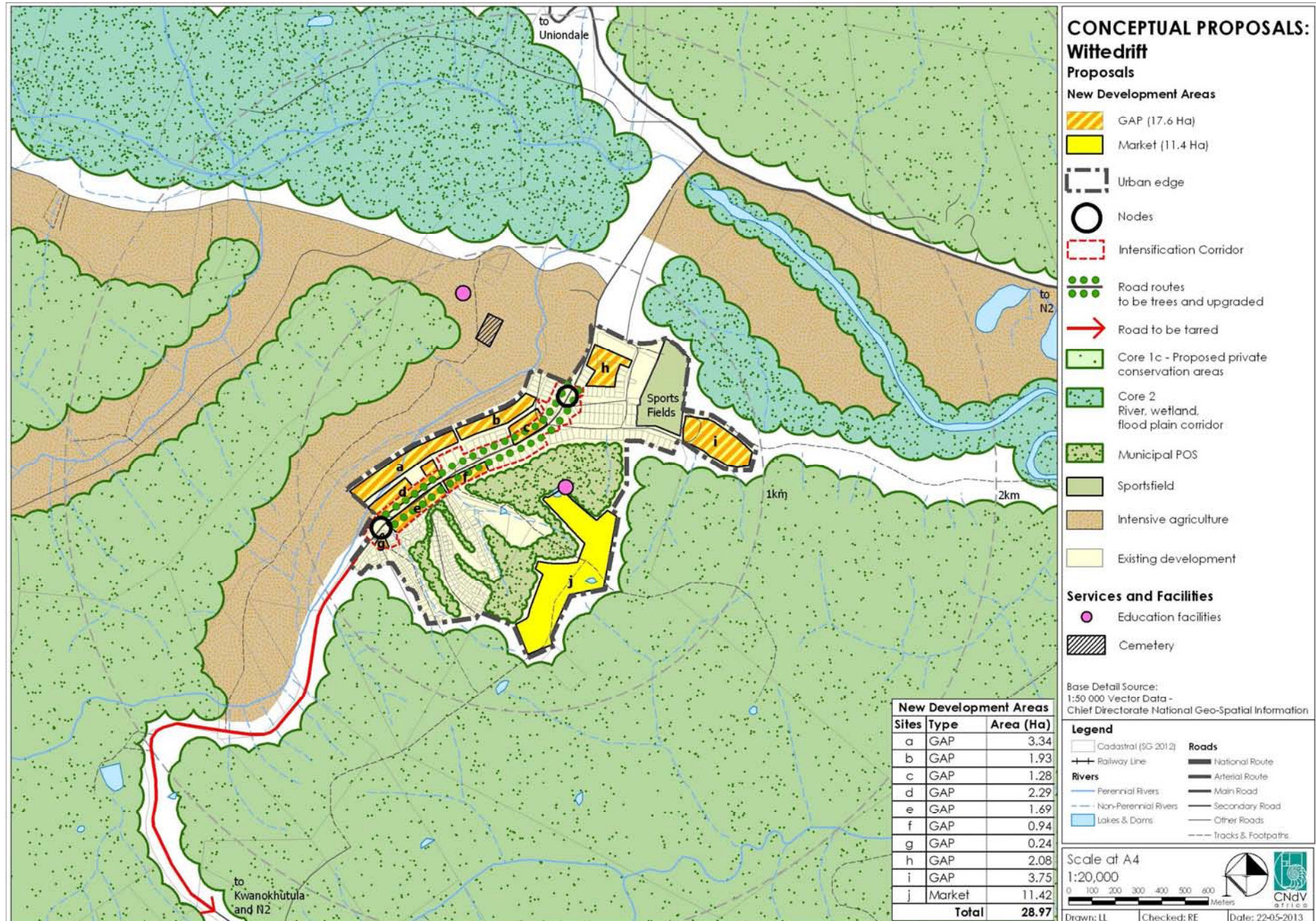


Figure 5.11.3 Wittedrift SDF

5.11.2.4 Urban Restructuring

Notes

- In order to strengthen the sense of arrival in Wittedrift, better integrate Green Valley into the rest of the settlement, and create opportunities for small home businesses to take advantage of passing traffic a new node is proposed at the first intersection of Green Valley;
- This should link through to the existing node formed by the current CBD;
- Appropriate intensification of abutting properties and small home retail and service businesses taking advantage of passing trade along this route can be permitted;
- This section of the route should be properly landscaped and treed and a pleasant pedestrian and cycle environment created for residents and visitors;

5.12 KEURBOOMS RIVER (± 500)

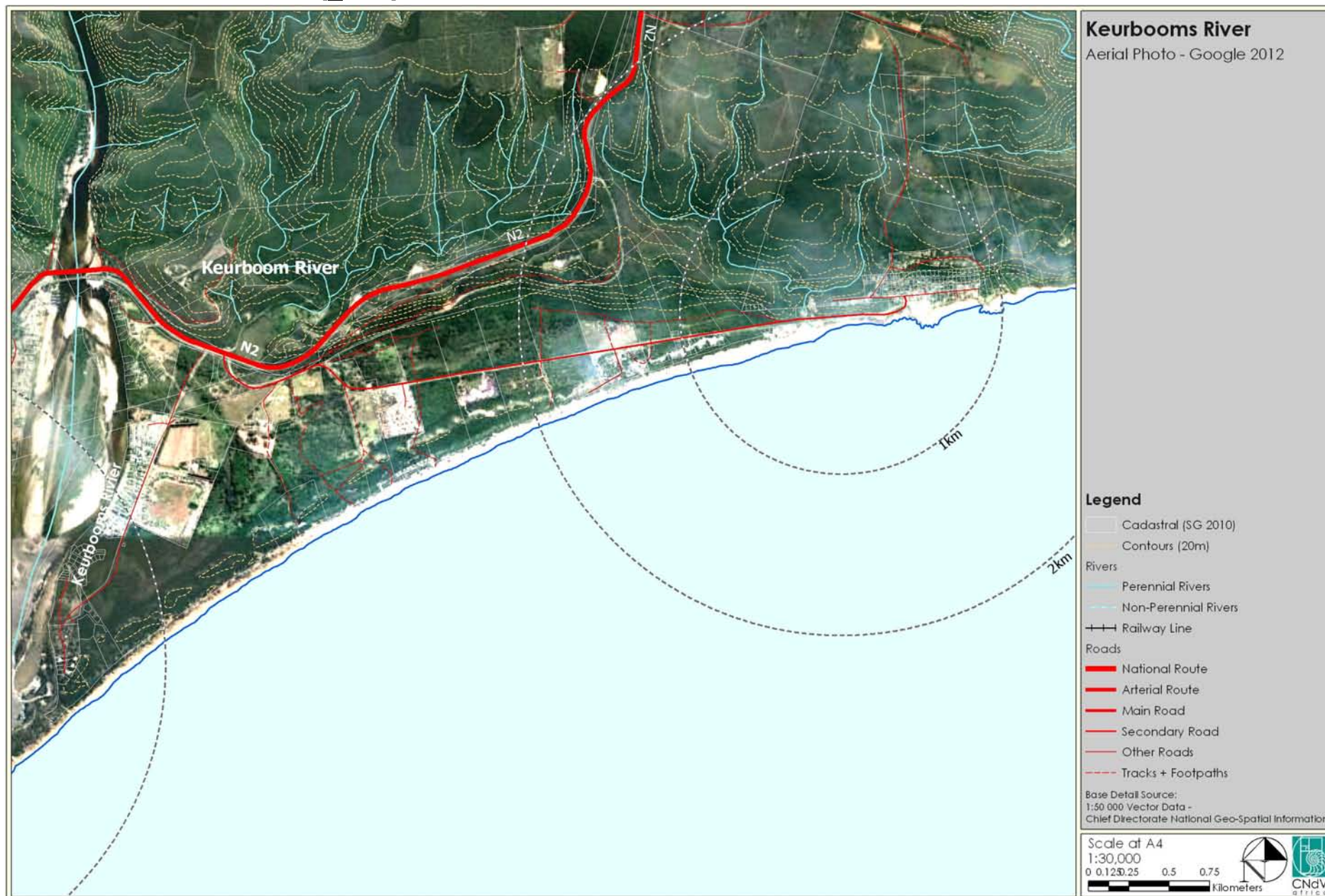


Figure 5.12.1 Keurbooms River Aerial photograph

5.12.1 SPATIAL ANALYSIS, see Figure 5.12.2

- Keurbooms including a number of disparate urban development on the Keurbooms River estuary and floodplain;
- They include:
 - Turtle Creek and Goose Valley golf estates;
 - Keurbooms marina;
 - Keurbooms River holiday resort comprising various project typologies, single residential, group housing and gated estates;
 - Keurbooms hotel complex in the middle of the floodplain; and,
 - Various holiday resort townships to the east culminating in Keurbooms Strand which has a small restaurant and convenience shopping node;
- Spectacular views of the area are enjoyed from the old N2 route which winds its way down the outside of the hill slope overlooking the floodplain and estuary with dramatic views through to Plettenberg Bay;
- The current N2 alignment makes its way down to the Keurbooms River through a cutting and does not enjoy this scenic quality along this section;
- There are agricultural remnants near Keurbooms River;
- The access road from Keurbooms River intersects with the N2 only 100 metres away from the intersection with the road to Keurbooms Strand. There is a well-known farm stall in this vicinity.
- There is a row of primary barrier dunes along the coastal edge of the flood plain;
- The indigenous vegetation on the estuary floodplain is Endangered Shale Fynbos which has been designated as a CBA in this area as well as elsewhere in Bitou;
- The Eden district coastal policy plan carried through the recommendations in which a 1 000 metre setback line is designated in areas that are zoned either Agricultural (or presumably Rural) or Undetermined. In urban zones the set back line should be 100 metres. These set-back lines can be more accurately defined on a detailed project by project basis. For example it may be possible to reduce these set-backs on rocky head lands as compared to sandy beaches.
- Most of the development at Keurbooms is within the 1 000 metres coastal setback line and some in the Keurbooms Strand area is within the 100 metre setback;
- The bird breeding colony at the spit on the Keurbooms River should be a protected area and a no-go zone for people, dogs, horses, etc.



Gated village at Keurbooms River



Protea Hotel Keurbooms



View from old N2 scenic road of Keurbooms floodplain with estuary and Plettenberg Bay in background

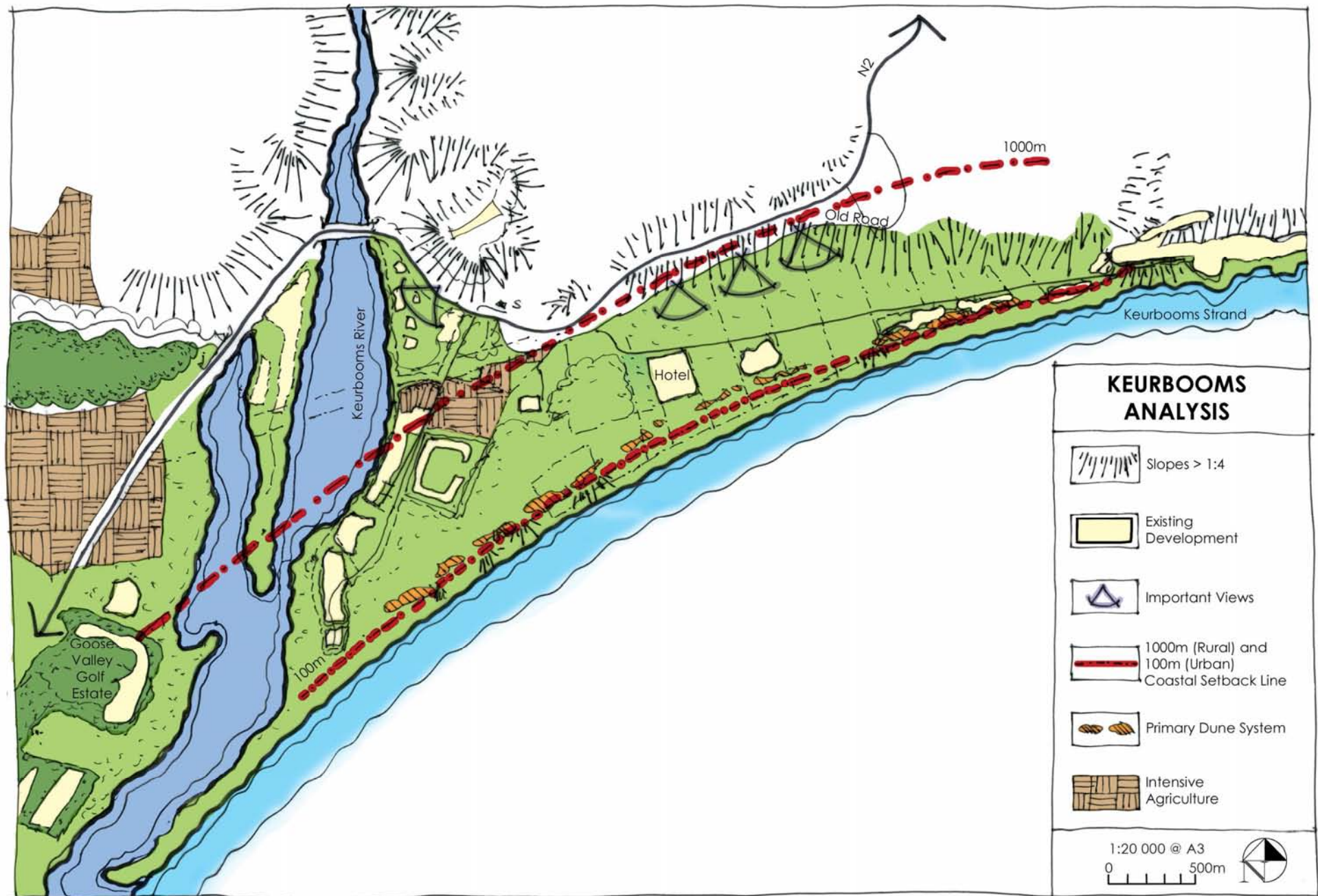


Figure 5.12.2 Keurbooms River Analysis

5.12.2 KEURBOOMS RIVER: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.12.3

5.12.2.1 Core landscape areas

Notes:

- The interior of the flood plain should be kept free of further development and should be conserved as a Buffer 1 SPC conservancy or private nature reserve. This is proposed rather than the Core 1 SPC recommended by SANBI for CBAs so that private owners are able to obtain some development rights in order to create the resources necessary to maintain the conservancy;
- The fringes of the river and the coast should be protected as Core 2 SPCs. The alignment of this SPC can be determined by a fresh water ecologist;
- The road to Keurbooms Strand, the first section of the road to Keurboom beach as well as the old N2, should be declared as scenic routes.
- This does not necessarily mean that they are converted to treed avenues but rather that their views and scenic quality is protected from inappropriate urban development. This can be achieved by preparing a visual resource management corridor along the routes for which guidelines are prepared for developments within this corridor;



Sensitive sedges and mudflats in Keurbooms estuary

5.12.2.2 Urban Development

Notes:

- In general the flood plain should be kept free of urban development which should be encouraged to locate along its fringes;
- A balance has to be found between utilizing the most attractive sites and complying with the coastal set back lines;
- Two areas of potential are identified;
 - Limited opportunities behind the fore dunes for sensitive development which is able to take sneak views of the coast;
 - Larger opportunities along the northern fringe where the flood plain meets the hillside. Development here could be permitted on the lower slopes so as to take advantage of the spectacular sea views across the plain;
- All development in this area would have to be subject to strict urban design, architectural and land use guidelines;
- High income housing/market housing to be promoted.
- The Urban Edge was delineated taking the coastal setback line, 1:4 slopes, and environmentally sensitive areas into consideration.

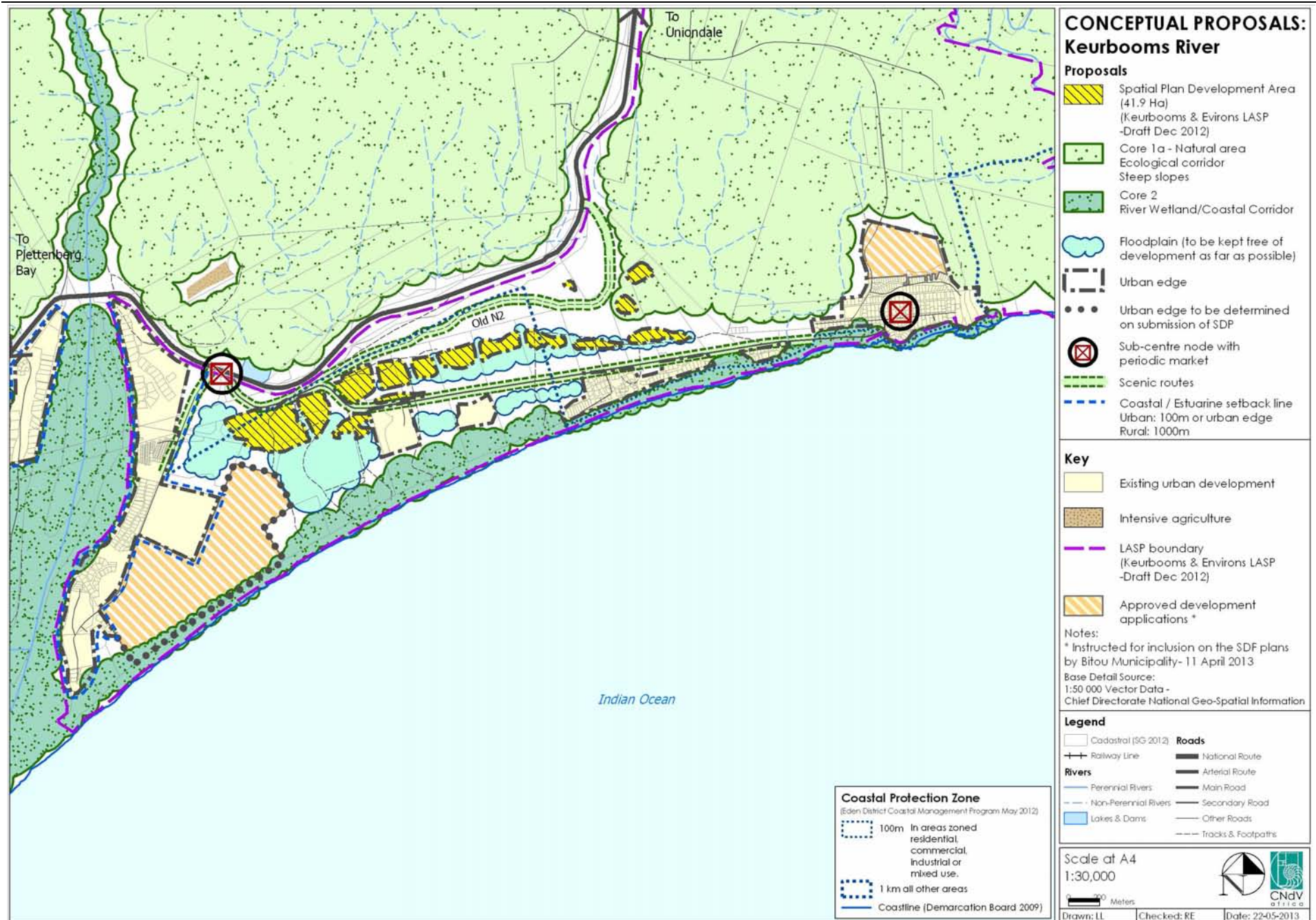


View over Keurbooms from old N2 (scenic road)

5.12.2.4 Urban Restructuring

Notes

- A low key node around the farm stall is proposed where the Keurbooms River access road intersects with the N2.
- This could be a good site for a periodic farmers market
- This node location could be reinforced by closing the current Keurbooms Strand road intersection with the N2 linking it across to the Keurbooms River access road intersection.
- This would also have the advantage of reducing the number of intersection with very short spacing between them on the N2 in this vicinity.
- This will also reinforce access to Thyme and Again "padstal".



5.13 KURLAND ($\pm 5\ 000$)

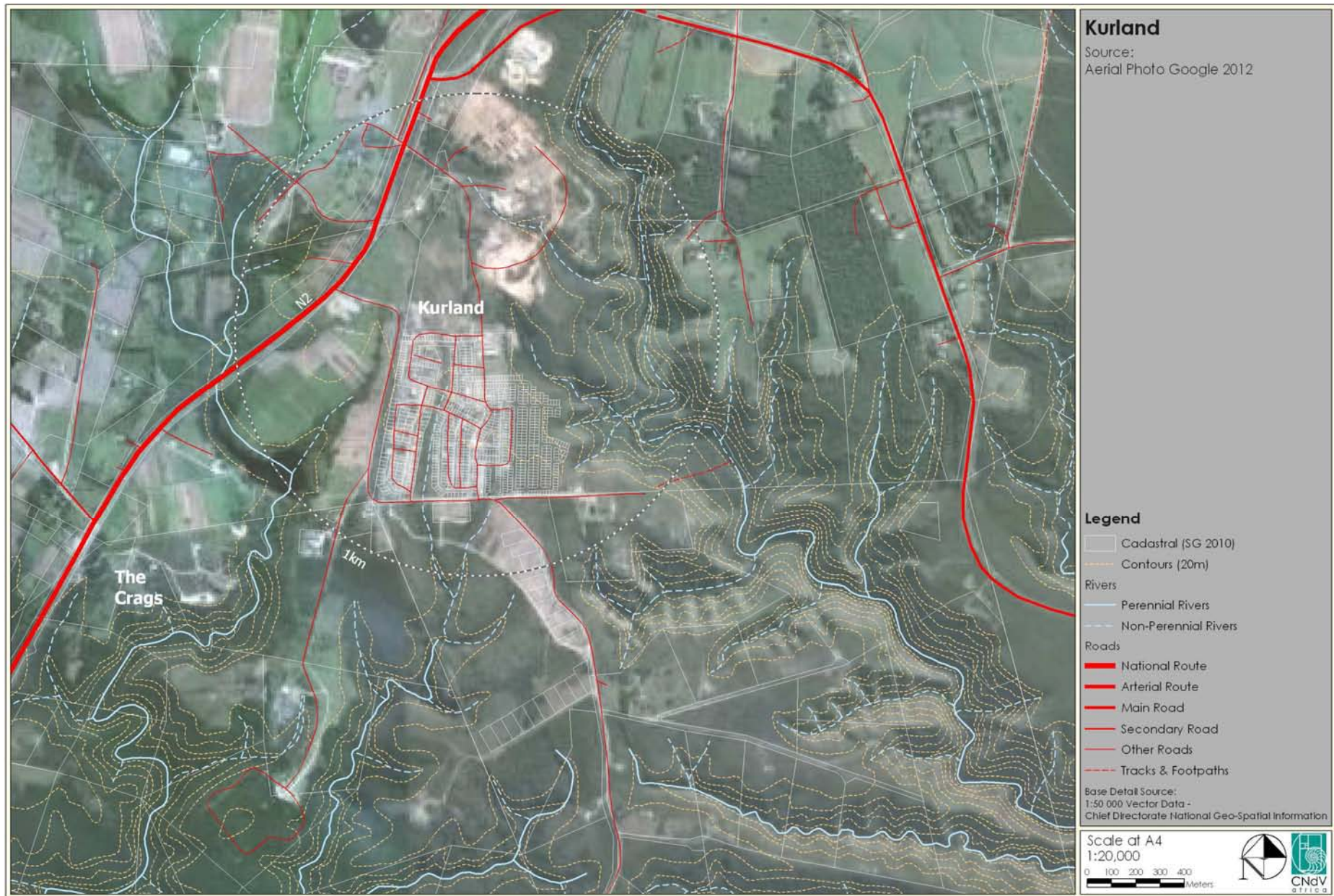


Figure 5.13.1 Kurland Aerial photograph

5.13.1 SPATIAL ANALYSIS, see Figure 5.10.2

- Although Kurland is a well known name in this vicinity of the N2 it doesn't have a clearly defined "place" or heart in the way that a much smaller settlement like Wittedrift does.
- Kurland comprises a number of disparate components including:
 - Kurland hotel and polo estate to the west and north across the N2;
 - Kurland garage and post office, the closest there is to a commercial node in the area;
 - Kurland Bricks and Timber which provides most of the employment that is available in the area;
 - Kurland village, a number of loosely linked township extensions with no real core;
 - The Crags, also a well known name but whose main focus appears to comprise a filling station and shop further south along the N2 and does not appear to be functionally part of the Kurland settlement components;
- These settlement components are located on relatively flat land along the N2.
- To the north and east are Intensive Agricultural areas which mainly comprise of dry land pastures for horses, cattle and dairy farms, with some horticulture.
- To the east, across the Salt River gorge, there is more pastures and Intensive Agriculture;
- The country to the south and east of Kurland village comprises a complex series of dramatic deep gorges and V-shaped river valleys.
- Most of the vegetation in this area is Sandstone Fynbos with indigenous as well plantation forests in the valleys;
- Some of this country side is protected in private nature reserves and conservancies;
- There are a number of tourist facilities and resorts in this area indicating its appeal to this sector;
- There is a large piece of land formerly owned by the Department of Land Affairs proposed to be consolidated with Kurland village abutting its southern boundary.
- It mainly comprises deep river valleys containing forests and Sandstone Fynbos with some Intensive Agriculture on a belt of small holdings along the flat ridges in its centre;
- This land is not considered ideal for urban development purposes as it will spread the lateral growth of Kurland further south away from the incipient commercial opportunities that could emerge along the N2 if the correct access configurations were created.
- This land is considered better used if it builds on the tourist and agricultural activities already occurring in this area and could be a candidate for a multipronged land reform and local economic development program in these two sectors.



Potential Kurland village node on N2



Kurland Village Housing



Church proposed to close axis on upgraded main route to Kurland Village as core of southernmost node

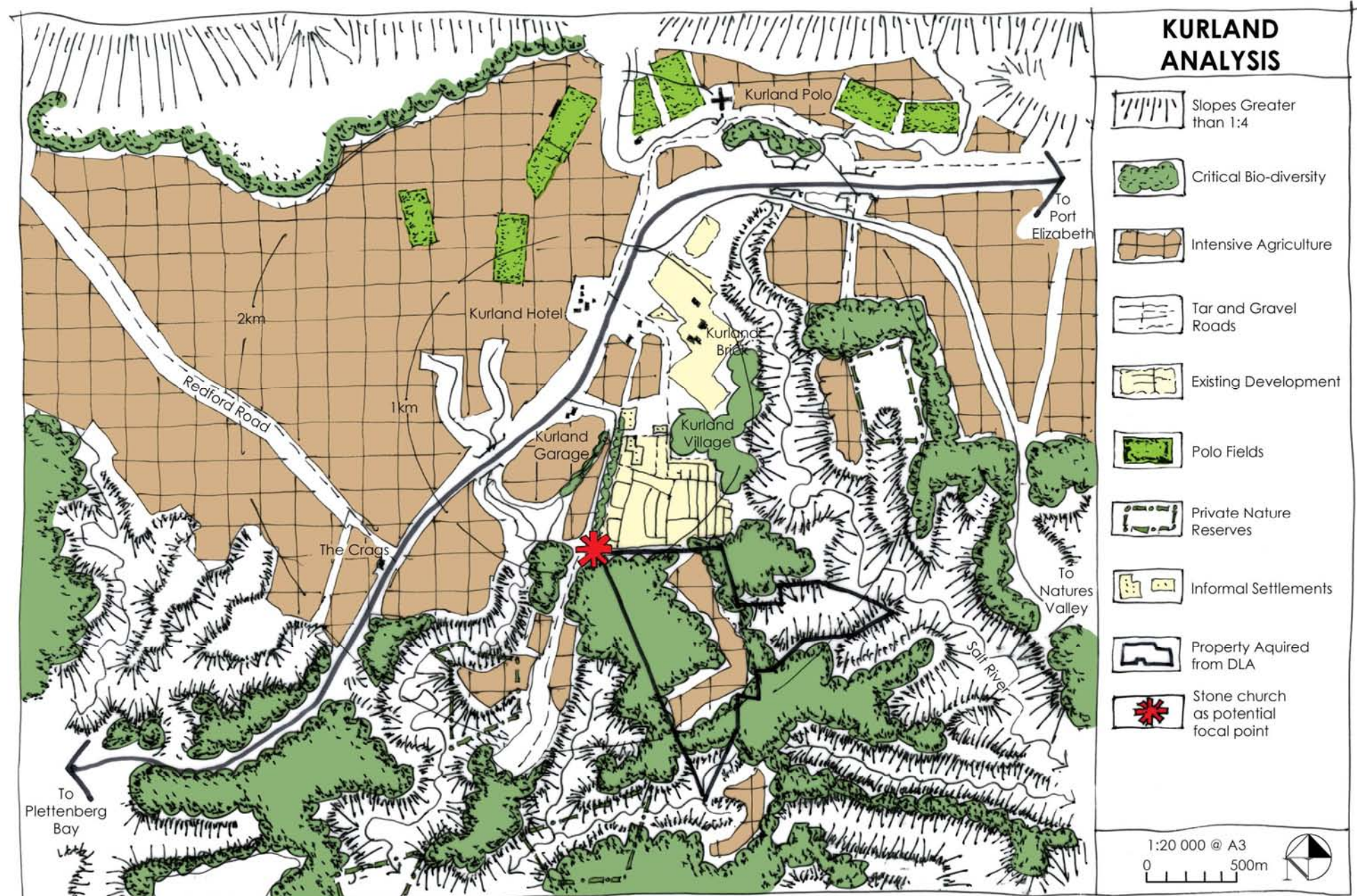


Figure 5.13.2 Kurland Analysis

5.13.2 KURLAND: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.13.3

5.13.2.1 Core landscape areas

Notes:

- The river corridors should be designated as a Core 2 SPC and urban development and plowing prohibited within 32 metres of their banks unless other set back lines are determined by a fresh water ecologist.
- The Intensive Agricultural land in these areas should be protected and their more productive use encouraged with the exception of that land which could contribute to the creation of a balanced settlement node around Kurland Hotel;
- The CBAs should be designated as Buffer 1 SPCs in which tourism and accommodation facilities are permitted in order to fund the creation of more private nature reserves and conservancies to enhance bio-diversity protection in this area;
- The public land south of Kurland village could also become a community conservancy and a resort, see Section 5.3.7.



Proposed southern boundary of Kurland village

5.13.2.2 Urban Development

Notes:

- Kurland should be promoted as a functionally and socio-economically integrated urban settlement whose form, structure and layout is determined by the settlement planning principles in section 5.4;
- Kurland has an audited housing demand for approximately 670 units;
- There is currently sufficient land for this demand if the DLA land to the south is used;
- However, in the interests of promoting a more economically viable and integrated settlement it is proposed that land to the north of Kurland be acquired so as to achieve a better linkage to with a proposed node at the intersection of the access road between Kurland Bricks and the Kurland hotel;
- Upmarket urban development can be considered on that part of the Kurland polo estate abutting the N2;
- This land should be bounded by the river watercourses to the west which should form the western Urban Edge of the settlement.
- High income/market housing to be promoted.
- The Urban Edge has been delineated to give effect to the above.



The Craggs node - some distance away from Kurland village



Tourism and crafting near Kurland village

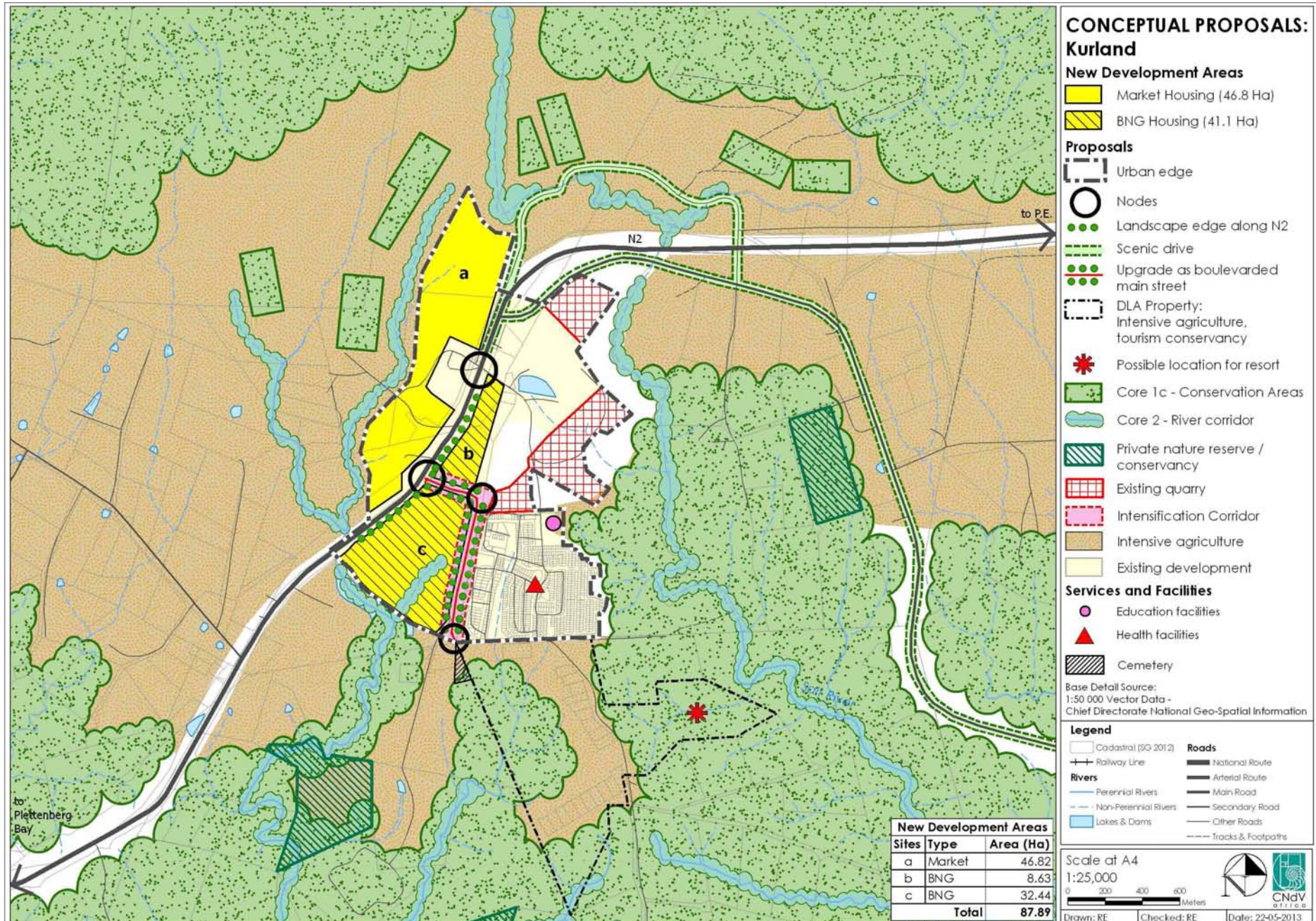


Figure 5.13.3 Kurland SDF

5.13.2.4 Urban Restructuring

Notes

- In order to create a legible and economically viable framework on which a future integrated Kurland village can logically develop the following is proposed:
 - Two nodes are created linking Kurland estate to the west with Kurland village to the east at the existing intersections on the N2 with Kurland garage and Kurland hotel;
 - The Kurland hotel intersection can be reinforced by closing the current Nature's valley road intersection on the inside of a long curve on the N2 and linking it to this intersection. This would have the advantage of reducing the number of intersections onto the N2 in this vicinity;
 - To build on the visual exposure from the N2 of the section between the two proposed nodes without compromising its road access management regime and mobility requirements two service roads are proposed on either side. Low key commercial and light industrial development with a strong retail flavor can develop along these service roads;
 - These service roads should be properly landscaped, treed and lit so as to present a positive urban experience to passing traffic on the N2;
- To better link the existing Kurland village into this system it is proposed that the current access road be improved as follows:
 - It is landscaped, treed and lit and provided with pedestrian and cycling facilities;
 - It is landscaped from Kurland Garage southwards to visually terminate at the stone church before turning off to the various attractions and resorts in the area;
 - The land on both sides; the buffer strip to the east and land to be acquired to the west, are acquired for development purposes which should be orientated onto this route so that it can perform as a mixed use Intensification Corridor.

5.14 COVIE AND NATURE'S VALLEY (± 250)

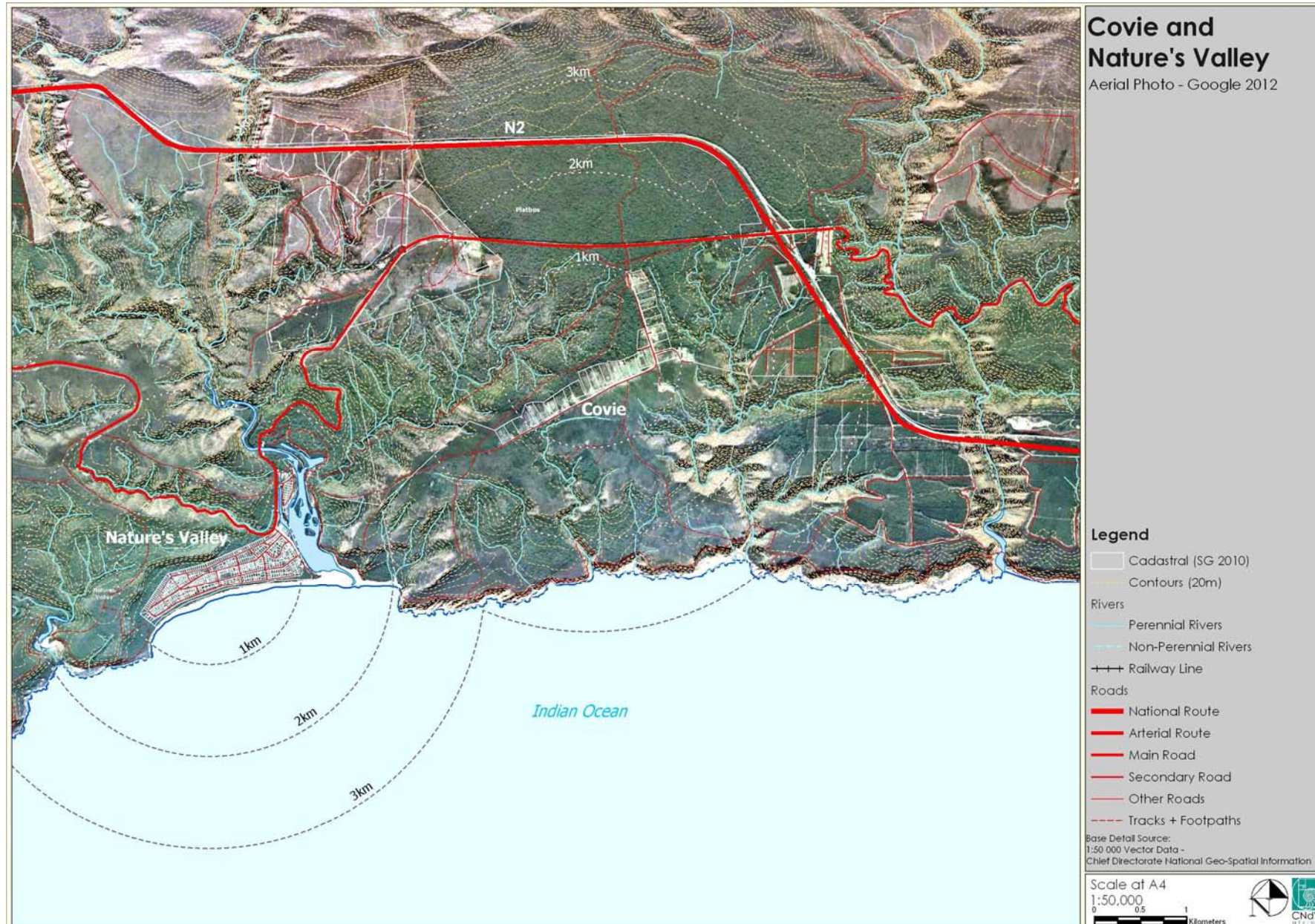


Figure 5.14.1 Covie / Nature's Valley Aerial photograph

5.14.1 SPATIAL ANALYSIS, see Figure 5.14.2

- Nature's Valley comprises a holiday housing township that began in the 1930s as a result of farmers taking their annual holidays on the banks of the Groot River estuary;
- It is partially serviced with water, electricity and gravel roads;
- The township is located on an estuarine flood plain surrounded by steep hill slopes to the north, west and east;
- From the east the scenic Nature's valley road, the R102, winds its way down off the inland plateau to cross the Groot river before winding its way up again to rejoin the N2 near Kurland;
- Covie is situated on the small inland plateau to the east of Nature's Valley;
- It comprises two strips of approximately 2 hectare smallholdings on the plateau whose northern, western and eastern boundaries abut the Tsitsikamma section of the Garden Route National Park.
- A few of the smallholdings are occupied and there is a small church;
- This plateau drops off to the west and east through a complex of steep V-shaped gorges into the Groot and Klip River estuaries;
- The plateau continues northwards to the Tsitsikamma mountains which are accessed along a track through the N2 underpass approximately 1 km to the north;
- In addition to the smallholdings Covie comprises a large commonage which includes pastures to the south before descending towards the coastal cliffs;
- These largely fall into the coastal section of the National Park;
- The Otter trail passes along the cliff tops through this section and Andre's hut, the last overnight stay, is located near the Klip River estuary;
- To the east are the blocks of the Bloukranz timber plantations accessed across a deep river valley through a narrow corridor between two sections of the National Park;
- Covie previously comprised a woodcutter community who came out of the forests in the 1930s when the Department of Forestry decided there should be no more logging of indigenous timber until 2130 (200 years)
- The community subsisted with livestock and crop farming on the commonage, fishing and working for the Department of Forestry and surrounding farmers until the 1960s;
- At this point the government of the time classified members of the community as either white or coloured declared the area a coloured group area and cut off most of their livelihood options;
- The coastal strip was removed from the commonage and incorporated into the National Park and efforts were made to prevent farming on the commonage;
- Except for a narrow access road Covie was cut off from the Nature's Valley road by about 200 metres of land which was incorporated in the National Park;
- Most of the community dispersed except for a small core who eventually lodged a land claim currently in process;
- Part of the settlement agreement requires that a site development plan be prepared for the commonage but this process appears to have stalled.
- There is little in the way of services although electricity transmission lines supply Nature's Valley and settlements to the west pass right along the front boundaries of the smallholdings.
- Nature's Valley falls within the Outiniqua Sensitive Coastal Area (OSCA) and is bound by these regulations.



Homestead at Covie



Covie Church



Electrical infrastructure

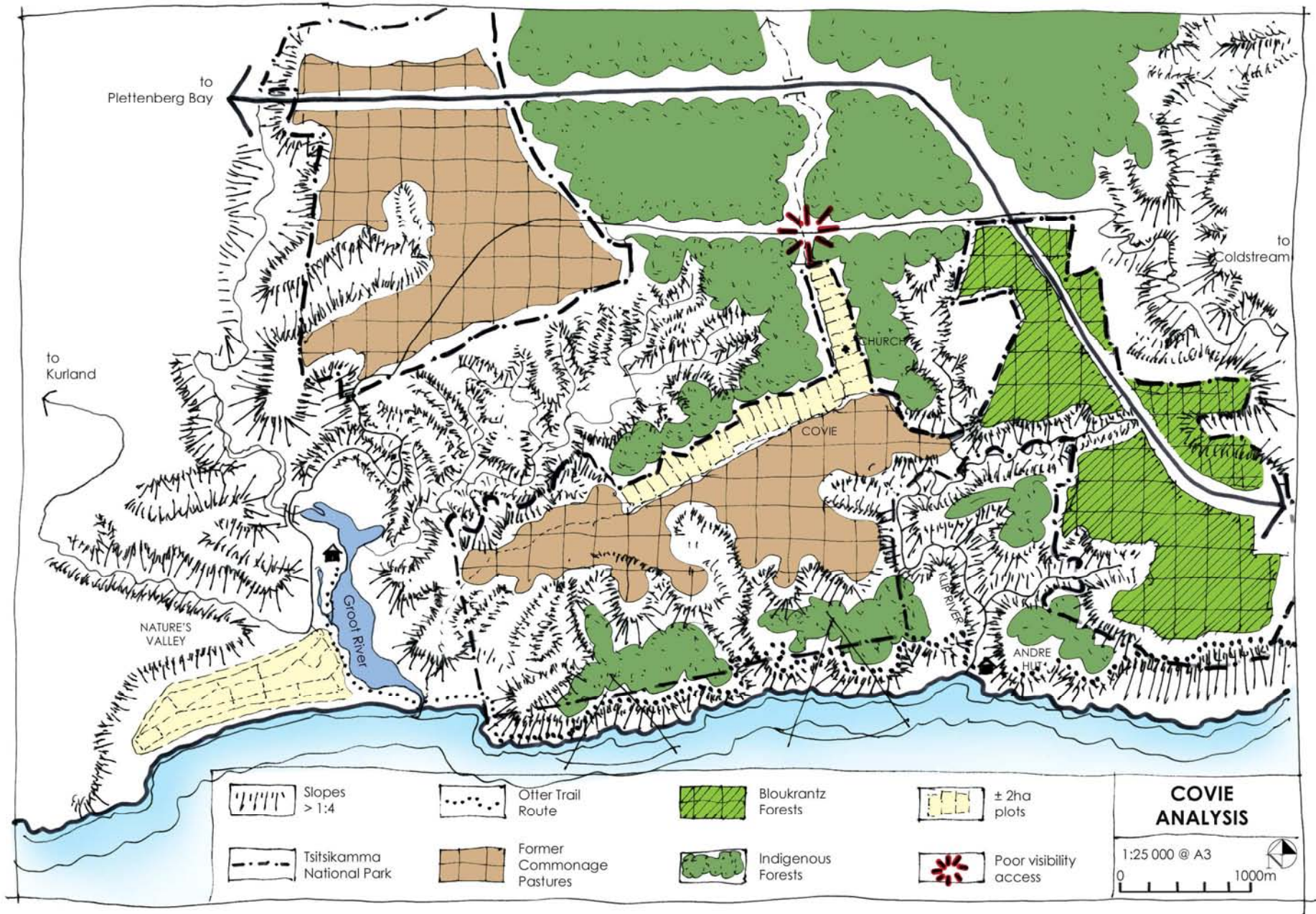


Figure 5.14.2 Covie / Nature's Valley Analysis

5.14.2 COVIE: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.14.3

5.14.2.1 Core landscape areas

Notes:

- The National Park land comprises Core 1 SPCs in which no development is permitted;
- Those parts of the commonage used for or with potential for farming should be retained and designated with the Intensive Agriculture SPC;
- If the community is to be given access to the plantations to the east access should be provided;
- The balance of the commonage should be designated Buffer 1 in which tourism accommodation can be permitted;
- Consideration should be given to these parts of the commonage being declared a community conservancy similar to those at Leliesfontein and Riemvasmaak in the Northern Cape



Cattle on pastures near Kurland with view over Outeniqua mountains to the north

5.14.2.2 Urban Development

Notes:

- A demand for approximately 100 dwellings has been identified;
- These should not be developed as standard BNG housing but the opportunity should be taken to build sustainable housing using local found building materials such as timber, stone and lime;
- It will not be viable for the municipality to fund conventional services on such a small scale in such an isolated location and off grid, renewable technologies should be incorporated into the buildings;
- Further land for housing should be provided through subdivision of the existing smallholdings, similar to the process undergone in many historic rural towns and villages which saw large farming plots subdivided over time;
- The smallholdings are wide enough to permit road reserves through the middle;
- The opportunity for a resort should be considered. This can be developed in partnership between an operator and the community, similar to the process that has been implemented at Mier in the Kgalagadi national park, also part of a land restitution process, see section 53.7;
- This resort could also stimulate the development of a mountain bike and trail system to the north through to the Tsitsikammas.
- Care should be taken not to interfere with the wilderness environment of the iconic Otter Trail to the south.
- Permissible and in-character (i.e. forestry style) housing typologies are to be promoted in this settlement, which is in line with the "peoples housing process (PHP)".
- The urban edge has been delineated to give effect to the above.



View over Natures Valley from Groot River Pass on R 102



R102 near Covie entrance

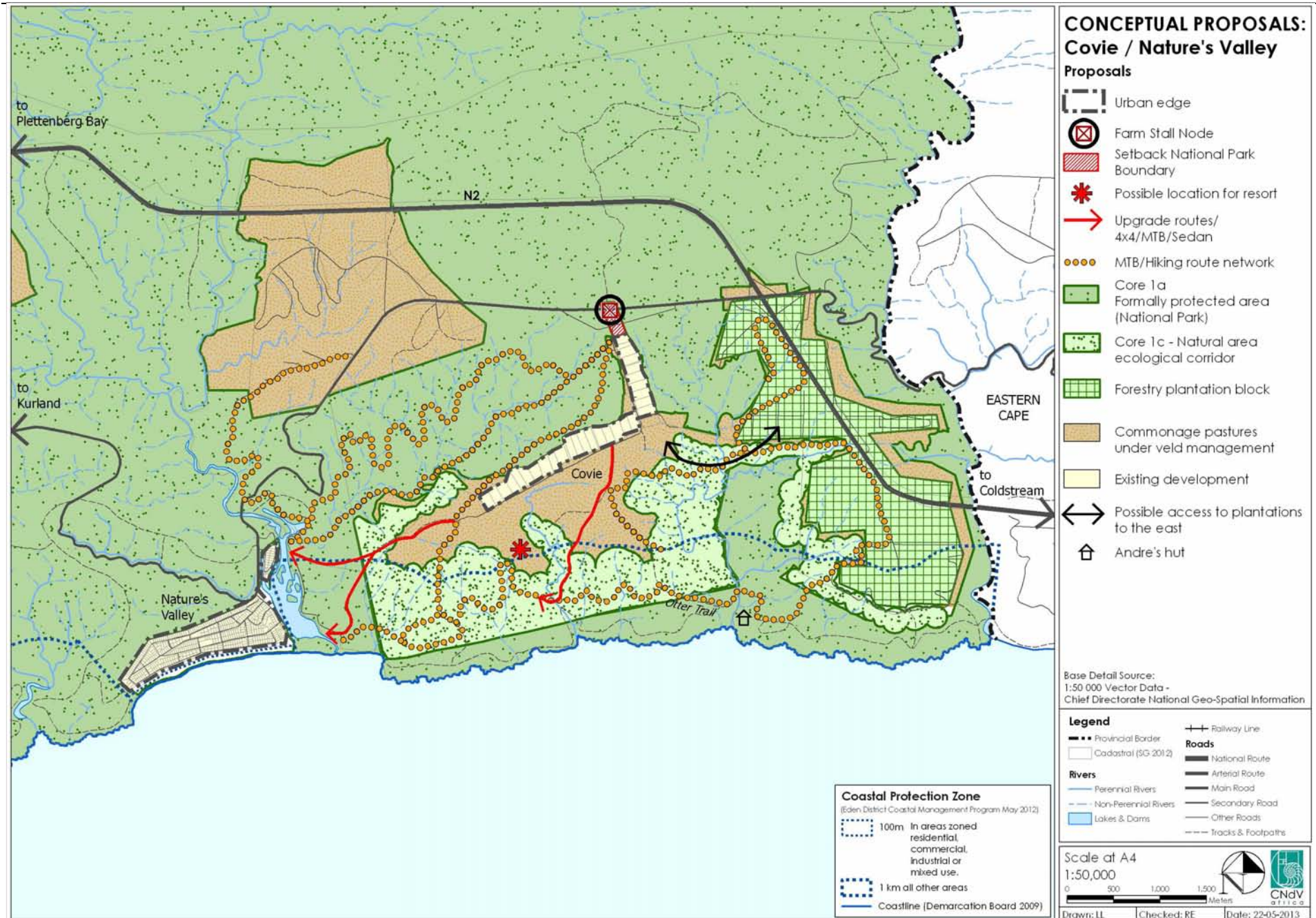


Figure 5.14.3 Covie / Nature's Valley SDF

5.14.2.4 Urban Restructuring

Notes

- Consideration should be given to establishing a small node at the intersection of the core access road and the R102;
- This could include a small heritage centre/room possibly funded as part of a concession to operate a resort on the commonage, a farm stall and/or a market, both of which could be operated on a periodic basis, e.g. during the peak tourist season.
- It is important that the sense of place created by the first section of the access road through the forest be retained;

5.15 GOOSE VALLEY (± 500)

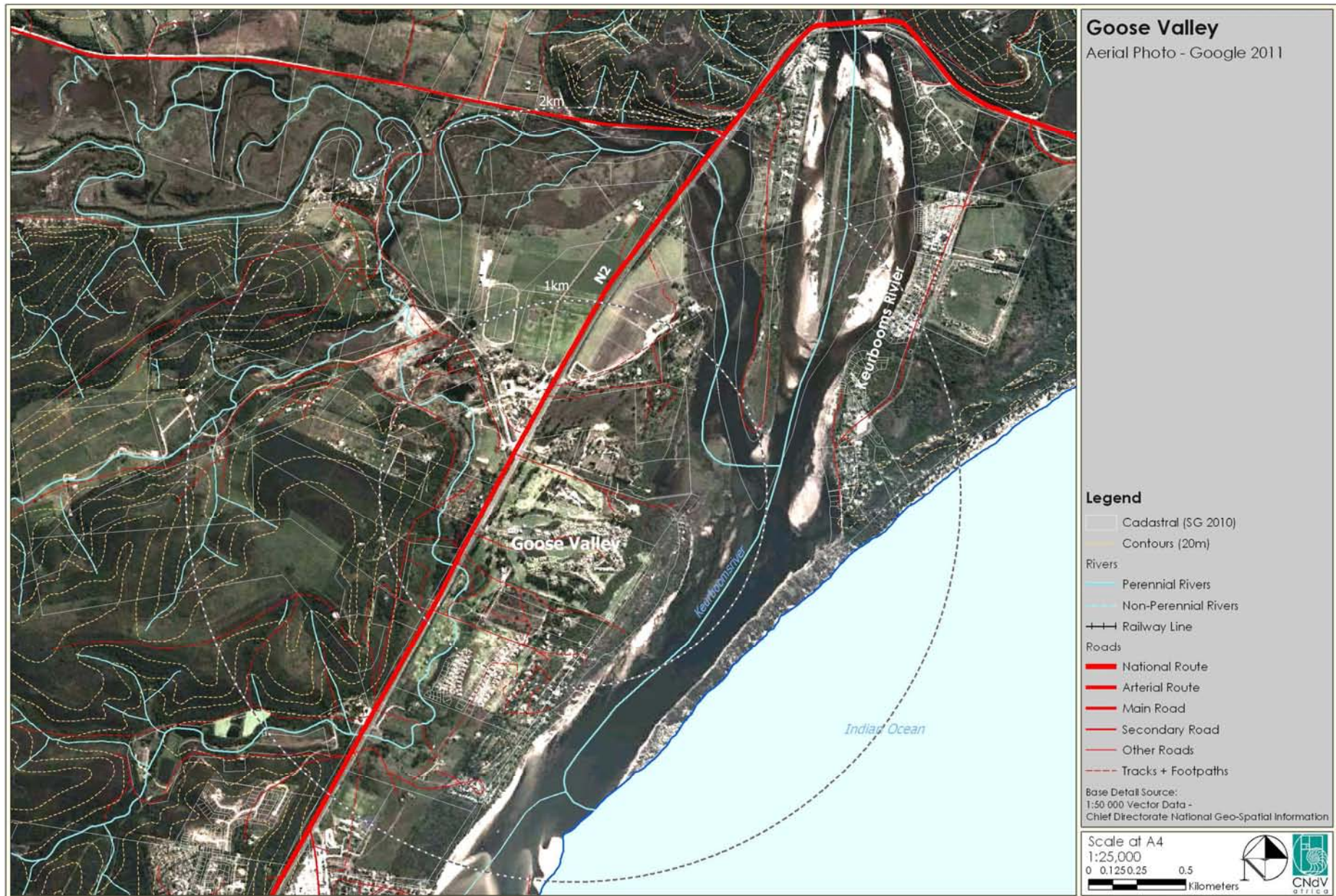


Figure 5.15.1 Goose Valley Aerial photograph

5.15.1 SPATIAL ANALYSIS, see Figure 5.15.2

- Goose valley comprises the land between Plettenberg Bay Primary School and the Keurbooms River bridge including:
 - the Keurbooms River lagoon and its flood plain
 - the Bitou and Keurbooms River estuaries;
 - the N2 which crosses the rivers and their various tributaries
 - Keurbooms lagoon caravan park, Turtle Creek and Goose Valley golf estates; and Penny Pinchers industrial area located on the flood plain;
 - some active and fallow agricultural fields.
- There are a number of approved and, in some cases, serviced residential plots in the Ferdinand Street area in northern Plettenberg Bay, in and around Keurboomstrand and near the marina (Twin Rivers Estate) Agricultural land is scarce in Bitou municipality and production should be encouraged wherever possible so as to encourage as much self-sufficiency in local food resources as possible;
- Much of this area is low lying and flood prone;
- Travelling from the west this sub-region provides an important visual introduction into a continuation of the Garden route after the N2 passes through the urban concentration of Plettenberg bay;
- The Penny Pinchers industrial area and the walled railings of Goose Valley golf estate diminish the Garden Route feeling to some extent, particularly if travelling westwards towards Plettenberg bay where the urban appearance of the southern road verge coupled with the urban development on the approaching hillsides gives little evidence of the Garden Route;
- The Goose Valley polo fields have now been mostly converted to vineyards;
- The area is enclosed to the west by a number of steep (>1:4) headlands and spurs incised by deep valleys;
- The coastal set back lines are also applied to estuaries and therefore it is necessary to define how much of a river's course is defined as estuary;
- In this case, drawing on research by Enviro-fish Africa (Pty) Ltd, the estuary has been defined as reaching as far upstream on the Bitou river just past the Wittedrift bridge and the Keurbooms River past the N2 bridge;
- There are extensive areas of Critical Biodiversity (CBAs) mainly on the headlands overlooking the river systems and estuary; and,
- There are also important CBAs in the flood plain where these haven't been disturbed by intensive agriculture.

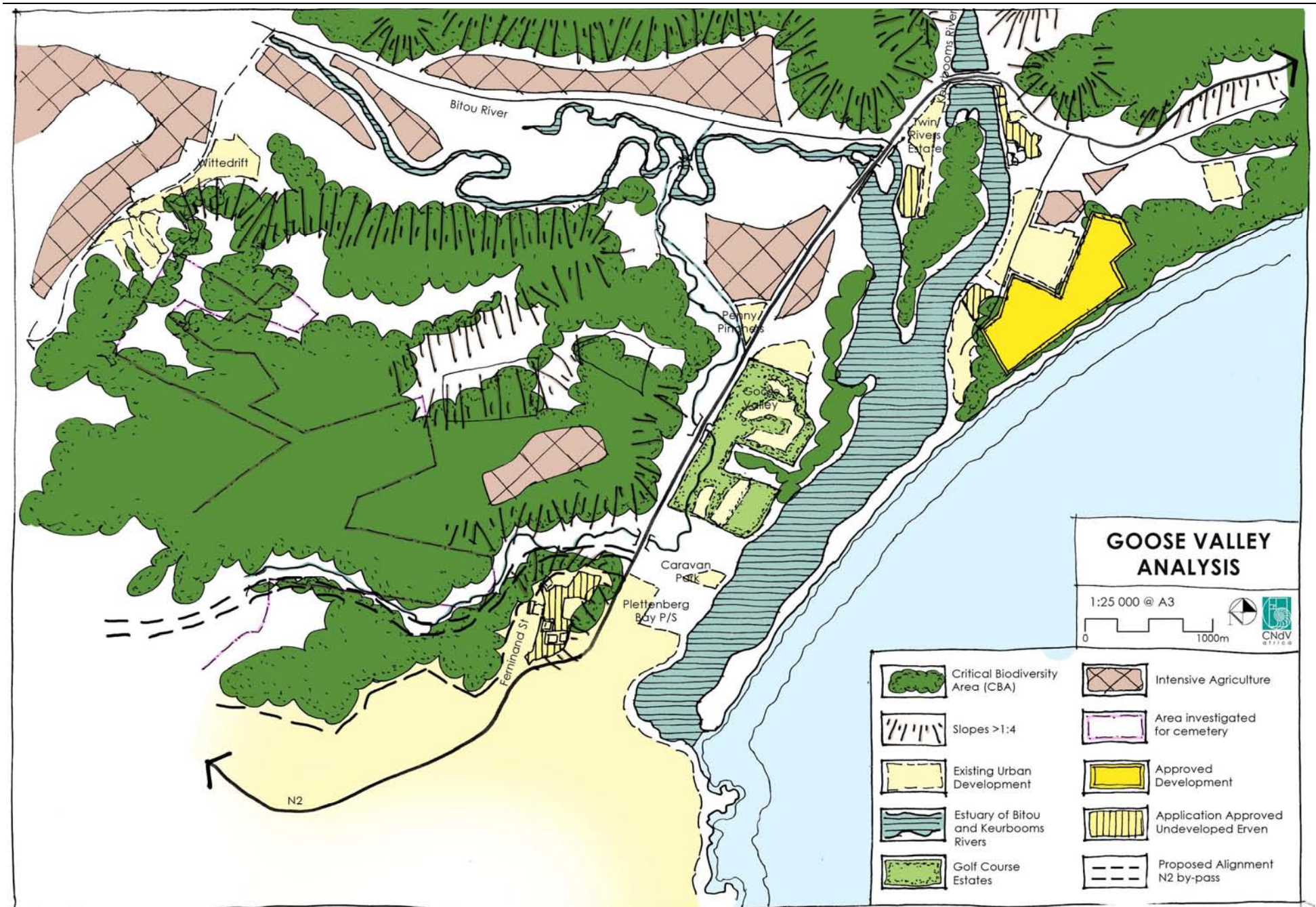


Figure 5.15.2 Goose Valley Analysis

5.15.2 GOOSE VALLY: DRAFT SPATIAL DEVELOPMENT FRAMEWORK, see Figure 5.15.3

Notes:

- The estuarine and coastal set back line has been based on the Coastal Management Guidelines stating that these should be 100 metres back from the high water mark (HWM) in urban areas and 1000 metres back in rural areas (EDM CMP, 2012);
- In order to retain the scenic Garden Route character and minimize flood risks there should be no further urban development westwards of Plettenberg bay except for the land between Turtle Creek and Goose Valley estates, other than that recommended in the Rural Land Use Planning and Management Guidelines (PGWC, 2009) namely that Holiday Accommodation, Low Density Rural Housing (only permitted in Core 2 areas, and Low Impact Tourist and Recreational Facilities can be considered on a restricted basis, see Tables 2 and 3 and Annexure 1 of this document; and,
- Buildings should preferably be located in existing buildings or on disturbed footprints.

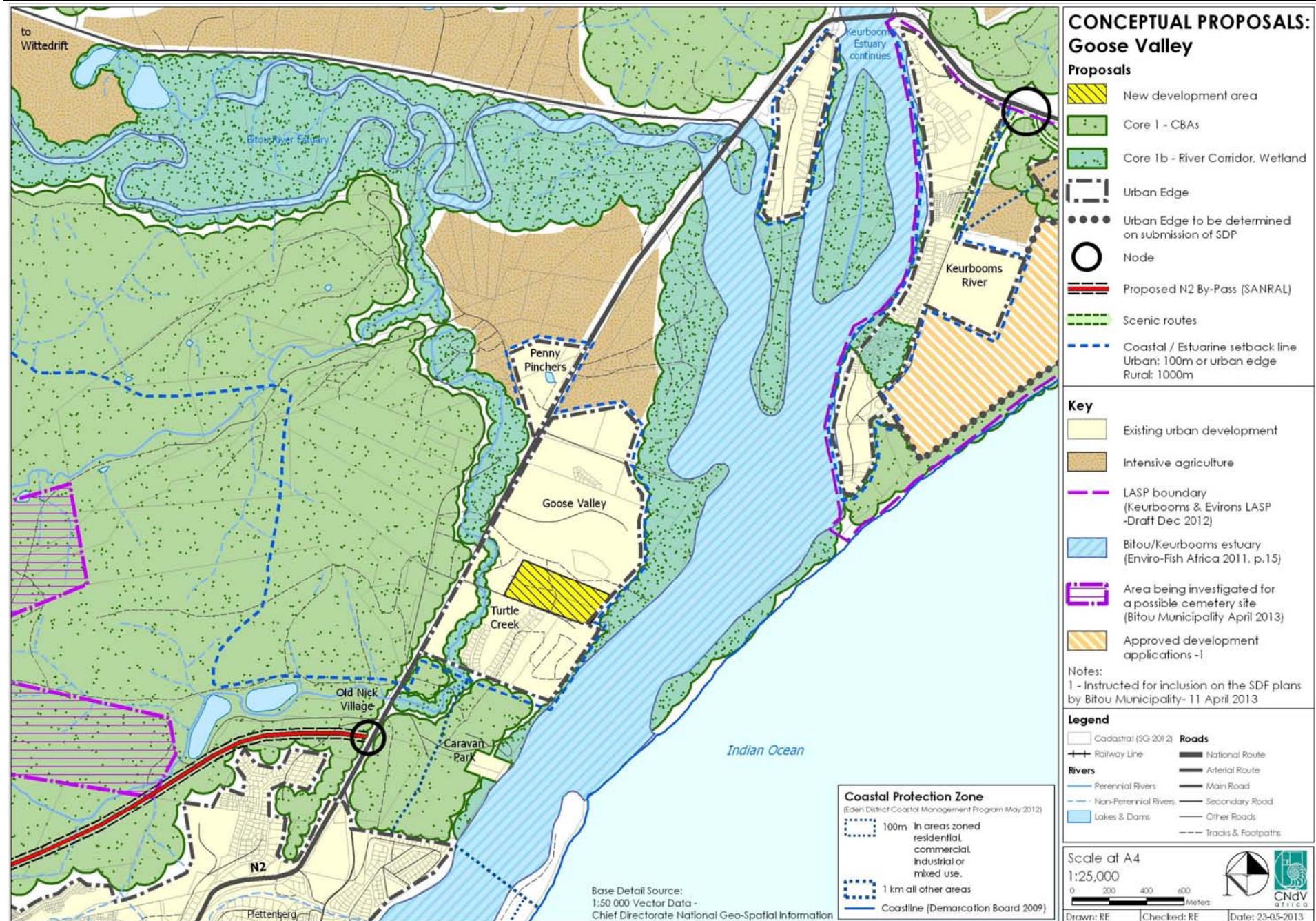


Figure 5.15.3 Goose Valley Draft SDF



6. GENERAL PROJECTS

The following additional projects are proposed to facilitate the effective implementation of the SDF:

- | | |
|---|--|
| <p>6.1 Prepare and implement urban design and landscape guidelines for all settlements or at least the main streets of all settlements and its associated gateways.</p> <p>6.2 Prepare a municipal wide rural development strategy that would investigate ways to stimulate the rural economy, central to which should be the feasibility of the development of potential rural nodes and rural periodic markets</p> <p>6.3 Prepare detailed precinct plans / development frameworks for:</p> <ul style="list-style-type: none"> • All proposed urban nodes. These nodes could accommodate facilities such as schools, clinics, libraries, police stations, business, etc. based on the locational principles discussed under section 5.4 above; • all new development areas bigger than 5ha; and, • any future rural nodes. <p>6.4 Investigate the feasibility of establishing local and regional conservancies and the preparation of detailed management plans for the conservation and tourism use of the area.</p> <p>6.5 Prepare a regional tourism strategy to capitalise on the tourism potential of the Municipality. To ensure its chances of success, this strategy should be completed and implemented in conjunction with at least the abutting municipalities.</p> <p>6.6 Investigate the initiation of at least one land reform project in the municipality per annum.</p> <p>6.7 Prepare open space utilisation and densification framework for each settlement. This framework should identify the areas that should retain its use as public open space and areas that could be made available for infill development. In addition, the densification component of the framework should identify the areas that could be densified through infill, redevelopment or subdivision mechanisms to help achieve viable urban densities.</p> | <p>6.7 Prepare a policy to manage street traders in the municipality. This should help to protect the CBD's from crime and grime.</p> <p>6.8 Prepare a renewable technology strategy to help reduce the impact of climate change on the municipality as a whole, i.e. including all its households and individuals, into an environmental sustainability lifestyle.</p> <p>6.9 Prepare a policy for the sighting and approval of renewable energy projects (wind and solar). Also identify desirable locations for these projects within the municipality.</p> |
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7. IMPLEMENTATION FRAMEWORK

7.1 MUNICIPAL SDF POLICY / PROJECT LIST

The following table of projects is compiled from the various projects from the SDF proposals.

No.	Policy /Projects Name/ Ref	Project / Policy Description	Cost Estimate (Rs)	Implementing Agent
SDF 1	Urban Design and Landscaping Frameworks	Prepare detailed urban design and landscaping frameworks for settlements	R 400 000	Bitou Municipality and Consultants
SDF 2	Tourism Plan	Investigate adventure, eco- and agri- tourism opportunities and the development of existing tourism opportunities/facilities	R 400 000	Bitou Municipality, Department of Economic Development and Tourism and Consultants
SDF 3	Precinct Plans	Prepare precinct plans for all proposed urban nodes, new development areas larger than 5ha and future rural nodes.	R 300 000	Bitou Municipality
SDF 4	Land Reform: Development plans for commonages	Development plans to indicate which commonage land should be conserved and where agriculture can occur.	R 200 000	Bitou Municipality, Department of Rural Development and Land Reform
SDF 5	Renewable Technologies Strategy	Prepare a municipal renewable technology strategy focusing on implementation options for water management and energy generation in projects and developments.	R 250 000	Bitou Municipality
SDF 6	Renewable energy sighting and approval policy	Policy for the sighting and approval of renewable energy projects also identifying desirable locations for these facilities.	R 300 000	Bitou Municipality
SDF 7	Scenic Tourism Routes Study	Study to be prepared for the management and promotion of Scenic Tourism Routes	R 300 000	Bitou Municipality

Table 7.1.1Municipal SDF Policy / Project List

7.2 MUNICIPAL IDP POLICY / PROJECT LIST

The following table of projects is compiled from the various projects from the IDP projects.

No.	Policy /Projects Name/ Ref	Project / Policy Description	Cost Estimate (Rs)	Implementing Agent
IDP 1	Electrical Infrastructure	Kurland – provision of electrical supply to households	R 2,000,000	Bitou Municipality
IDP 2	Electrical Infrastructure	Municipal wide – Installation of energy efficient street-lights	R 4,000,000	Bitou Municipality
IDP 3	Electrical Infrastructure	Municipal wide – Increase electrical supply	R 1,000,000	Bitou Municipality
IDP 4	Electrical Infrastructure	New Horizons – Replacement of electrical kiosks	R 160,000	Bitou Municipality
IDP 5	Waste Management	Ward 6 – establish a waste transfer station	R 8,000,000	Bitou Municipality
IDP 6	Waste Management	Municipal wide – Construction of drop off facilities	R 500,000	Bitou Municipality
IDP 7	Housing	Municipal – Housing provision to reduce the backlog	R 2,000,000	Bitou Municipality
IDP 8	Roads	Municipal – Eliminate dusty streets and potholes	R 1,500,000	Bitou Municipality
IDP 9	Roads	Ward 3 – Landscaping and pedestrian/NMT facilities	R 14,000,000	Bitou Municipality

Table 7.2.1Municipal IDP Policy / Project List

7.3 MUNICIPAL POLICY / PROJECT PRIORITISATION

The SDF and IDP projects as per section 6.1 and 6.2 are to be prioritized by the relevant Council Officials and Ward Committees as part of the IDP process.

Project Priority No.	Proposal No.	Policy /Projects Name/ Ref	Project / Policy Description	Cost Est. (Rs)	Rating Matrix (5: most important; 1: least important)														Total
					Alignment			Sustainability					Project Implementation				Improves Settlement Restructuring		
					NSDP	FS-PSDF	District SDF	Improves Employment	Improves Economic Empowerment	Improves Economic Diversification	Improves Empowerment	Positive Environmental Impact	Critical Path for other projects	Cost of Impl.	Ease of Impl.	Improves Access to Infrastructure			
1	SDF 15																		
2	SDF 7																		
3	SDF 16																		
4	SDF 3																		
5	SDF 6																		
6	SDF 2																		
7	SDF 5																		
8	IDP 2																		
9	IDP 14																		
10	SDF 18																		

Table 7.3.1 Municipal Policy / Project Prioritisation

7.4 MONITORING AND REVISION FRAMEWORK

Phase 7 of reviewing the SDF, Monitoring and Evaluation, will only occur after the SDF is approved. It should occur as follows:

7.4.1 REVIEW PROGRESS IN IDP

The annual review of the IDP should include a review of progress on the policy amendments and project implementation of the SDF according to the priority listings and expenditure programs of the various sector departments' budgets.

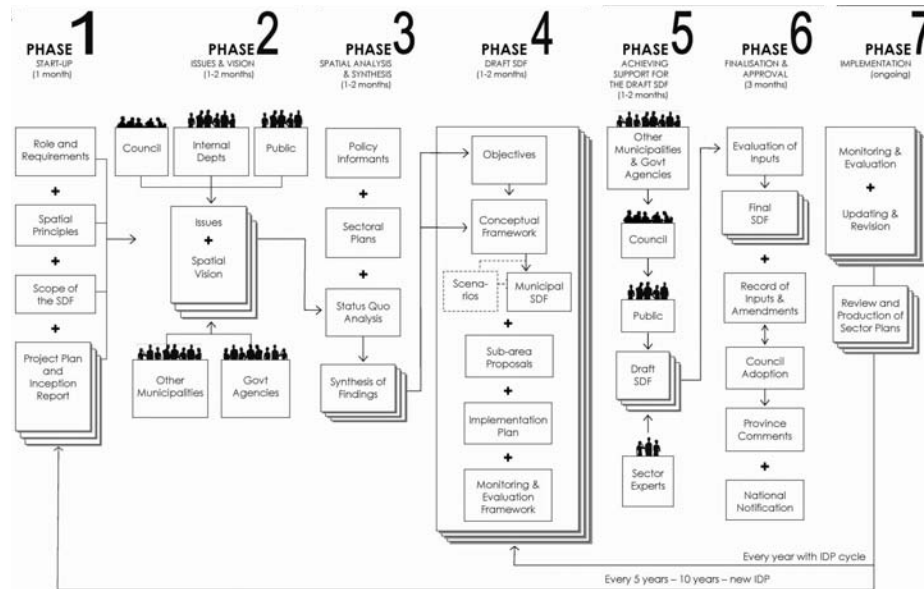


Figure 7.4.1 Phases in the process of completing and SDF (source: CNDV, 2010)

Figure 7.4.1 above shows that after the completion of the SDF in Phase 6, the SDF will be implemented through the various sectoral plans during Phase 7, see Figure 7.4.2. During this phase the implementation of the SDF should be monitored on at least a 2 month basis by the IDP's annual reporting on the progress of the various implementation/ sectoral plans. This review should also comment on the SDF. This is shown in Figure 7.4.1.

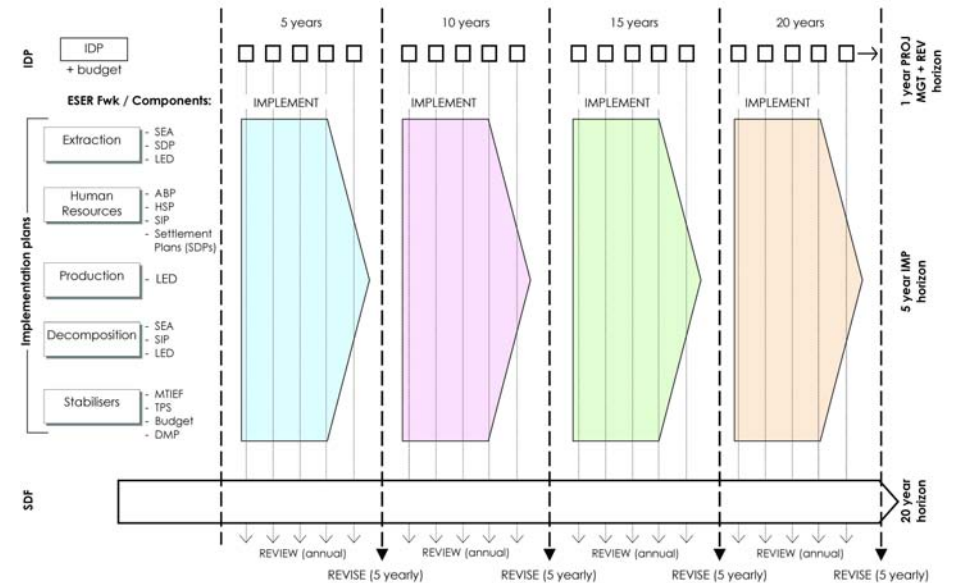


Figure 7.4.2 Proposed Relationship between IDPs, Implementation Plans, including HSPs and SDFs (source: CNDV, 2010)

Figure 7.4.2 further shows that the SDF is the common spatial base on which all the implementation plans should be executed.

Figure 7.4.2 also shows that the SDF should be reviewed and updated at least every 5 years in parallel with the IDP and Implementation Plans. Ideally, the Sector Implementation Plans and the IDP should start and end on the same 5 year cycle.

Although the SDF is reviewed every year in the IDP and is revised every 5 years it needs to take a longer term view. The SDF should take a 20 to 30 year perspective on the growth direction of a municipality and settlements. It will be the only plan in the municipality taking such a long term view.

7.4.2 PROJECTS/ POLICIES TO BE REPORTED IN THE IDP

The following table of projects is an example of a monitoring / progress report through which the projects can be monitored. The cells in this table should be completed indicating each policy or project and reported in each year's IDP.

Project / Policy		Progress	Quality	Econ	Eng	B...	Comments						
							Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
SDF3	Enlarged Conservation Areas												
SDF2	Tourism Plan												
SDF 5	Renewable Technologies Strategy												
SDF 4	Mining Rehabilitation												
SDF1	Urban Design and Landscaping Frameworks												
SDF 13	Upgrade WWTW												
SDF 14	Upgrade WWTW												
SDF 18	Provide for cycling and animal drawn vehicles												
SDF3	Enlarged Conservation Areas												
SDF2	Tourism Plan												
SDF 5	Renewable Technologies Strategy												
SDF 4	Mining Rehabilitation												
SDF1	Urban Design and Landscaping Frameworks												
SDF 13	Upgrade WWTW												
SDF 14	Upgrade WWTW												
SDF 18	Provide for cycling and animal drawn vehicles												

Table 7.4.2.1 Projects Evaluation and Report Framework

7.5 CONFIGURE SECTOR PLANS

The sector plans should contain the SDF plans for the municipality and two urban centres as their primary spatial informant.

They should take the SDF proposals into account as follows (see facing page as well):

MUNICIPAL SDF	WASTE MANAGEMENT (DWA)	WATER SERVICES (DWA)	HOUSING SECTOR (Human Settlements)	SERVICES AND INFRASTRUCTURE
SPCs				
Core: <ul style="list-style-type: none"> Wetlands Rivers systems 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Ensure protection of ecological corridors around wetlands and rivers 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Minimize disturbance of protected areas by infrastructure crossings and alignments and efficient quality.
Buffer: (Extensive Agriculture)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
Intensive agriculture: 1. Irrigation Scheme	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Encourage water demand management and enhanced irrigation efficiencies Monitor water quality Promote bio-farming and other techniques to reduce nutrient loads in hydrological systems Supply water rights for land reform projects 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Ensure balance between water supply infrastructure for agriculture and urban development
2. Dryland and Borehole Crop Farming	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Monitor borehole abstraction water and ground water levels and recharge rates 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
3. Commonage	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Provide irrigation for small scale crop farming on commonage 	<ul style="list-style-type: none"> No residential accommodation to be provided on commonage 	<ul style="list-style-type: none"> Supply irrigation infrastructure to crop farming on commonage
Urban development:				

Table 7.5.1 SDF Relationship with Sector Plans

PUBLIC TRANSPORT AND NMT (Dept of Transport)	ENVIRONMENTAL MANAGEMENT (Dept of Environment) Dept of Agriculture	LAND REFORM (Dept Rural Development & Land Reform)	DISASTER MANAGEMENT
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Ensure protection of ecological corridors around wetlands and rivers 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Promote veld rehabilitation and rotational grazing to enhance bio-diversity 	<ul style="list-style-type: none"> Ensure livestock farming does not damage bio-diversity through poor grazing methods 	<ul style="list-style-type: none"> Ensure adequate fire protection and burn management
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Monitor water quality Promote bio-farming Ensure water 	<ul style="list-style-type: none"> Ensure water rights for land reform projects 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Monitor borehole abstraction water and ground water levels and recharge rates Provide extension services to emerging farmers 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Promote bio-farming on commonage Provide extension services to emerging farmers 	<ul style="list-style-type: none"> Promote bio-farming on commonage Draw up commonage development plan 	<ul style="list-style-type: none"> N/A

PROPOSALS	WASTE MANAGEMENT (DWA)	WATER SERVICES (DWA)	HOUSING SECTOR (Human Settlements)	SERVICES AND INFRASTRUCTURE
<ul style="list-style-type: none"> Intensification Areas 	<ul style="list-style-type: none"> Ensure sufficient supply Transfer stations to be accessibly located in corridors 	<ul style="list-style-type: none"> Ensure sufficient supply 	<ul style="list-style-type: none"> Promote higher density mixed use housing within the intensification area boundaries 	<ul style="list-style-type: none"> Ensure sufficient infrastructure to support higher levels of development
<ul style="list-style-type: none"> General 	<ul style="list-style-type: none"> Promote waste separation at source throughout urban settlements 	<ul style="list-style-type: none"> Promote rainwater harvesting and grey water recycling 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> Residential 	<ul style="list-style-type: none"> Promote waste separation at source throughout urban settlements 	<ul style="list-style-type: none"> Ensure access to basic water and sanitation Allow for communal service centres to address health issues for non-qualifiers 	<ul style="list-style-type: none"> All projects to include range of housing, laid out according to socio-economic gradient 	<ul style="list-style-type: none"> Provide minimum basic services to proposed new housing areas
<ul style="list-style-type: none"> Industrial 	<ul style="list-style-type: none"> Industrial and toxic waste to be properly managed and disposed of 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Ensure infrastructure in serviced but undeveloped residential areas properly maintained
<ul style="list-style-type: none"> Community facilities 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Include proposals for necessary community facilities into Human Settlement Plans (HSP) 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> Recreational areas 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Include proposals for recreational areas into HSP Housing layouts to face onto recreational areas and not turn their back 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> Ecological corridors 	<ul style="list-style-type: none"> Landfill sites can be located in ecological corridors providing they are managed to best practice standards 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Include proposals for recreational areas into HSP Housing layouts to face onto recreational areas and not turn their back 	<ul style="list-style-type: none"> Where possible services and infrastructure alignments should not disrupt river channels and wetlands

Table 76.5.1 SDF Relationship with Sector Plans cont.

PUBLIC TRANSPORT AND NMT (Dept of Transport)	ENVIRONMENTAL MANAGEMENT (Dept of Environment) Dept of Agriculture	LAND REFORM (Dept Rural Development & Land Reform)	DISASTER MANAGEMENT
Provide road network to <ul style="list-style-type: none"> • commonage farms and promote • animal traction, cycling and • walking Main routes / spines through <ul style="list-style-type: none"> • development corridors to be • designed with cycle lanes and • pedestrian footways Should be declared public <ul style="list-style-type: none"> • transport routes (with embayments etc.) 	<ul style="list-style-type: none"> • Promote indigenous or fruit trees for use in the landscaping of development corridors 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Urban settlements should be <ul style="list-style-type: none"> • designed to minimize the need to • travel and avoid costs of public • transport 	<ul style="list-style-type: none"> • Promote integrated stormwater design including the use of permeable paving and swales in urban development areas 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Ensure residential development not located below 1:50 floodlines
Ensure high densities of urban <ul style="list-style-type: none"> • development coincide with main • non-motorised routes 	<ul style="list-style-type: none"> • Promote off-grid sustainable technologies and passive building design 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Ensure adequate fire protection: • Building setbacks • Electrical compliance • Careful use of combustible materials
Ensure industrial areas provided with <ul style="list-style-type: none"> • cycle and pedestrian routes 	<ul style="list-style-type: none"> • Industrial and toxic waste to property managed and disposed of 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Community facilities should be <ul style="list-style-type: none"> • located on public transport and • NMT routes to promote • convenience and security 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Non-motorised transport networks <ul style="list-style-type: none"> • should pass through recreational • areas 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Non-motorised transport networks <ul style="list-style-type: none"> • should pass through ecological • corridor areas 	<ul style="list-style-type: none"> • Ensure continuity between connected rural and urban ecological corridor areas • Provide highest level of protection in ecological corridor areas 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

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ANNEXURE A

HOUSING TOOLKIT

- A. Site and Service
- B. BNG: B1 Double Storey: Cloetesville Steps, Stellenbosch
B2 Single Storey: Klapmuts
B3 Double Subsidy Ownership and Rental: London Road, Alexandra
- C. GAP: C1 Townhouses; Middleburg, Mpumalanga
C2 Algoa Park, Port Elizabeth
C3 Klein Drakenstein, Paarl
C4 Erf 48076, Mitchells Plain
C5 Erf 36151, Mitchells Plain
C6 Brickfields, New town Johannesburg (70% GAP, 30% BNG)
C7 Amalinda, East London
- D. Market: D1 Market: townhouses, Paradyskloof
D2 Apartments: Moquet Farm Diep River
D3 Apartments: Somerset Links, Somerset West
- F. Development Corridors
F1 Masiphumelele
F2 Wynberg

A. Site and Service (S&S)

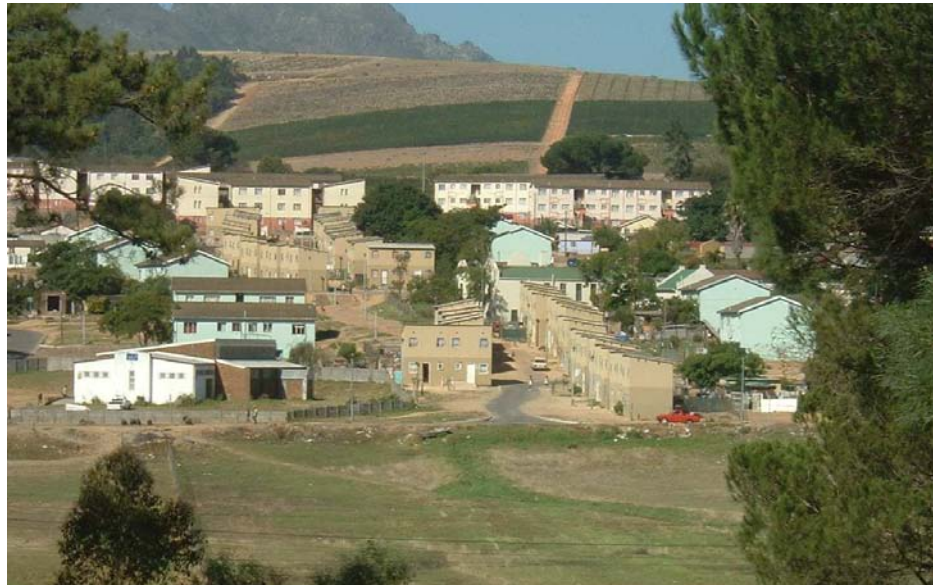


B. BNG

B1 Cloetesville, Stellenbosch



- 93 units
- Units comprise a top structure of approximately 30m² on a plot of between 60.5m² and 82.5m
- Units can accommodate an extension of a similar size to the existing unit at the rear of the plot
- Gross Density: 83du/ha
- Plots generally 5.5m wide with a 1.0m building set back to one side to allow access to the rear of the unit. Plot depths vary between 11.0m and 15.0m.

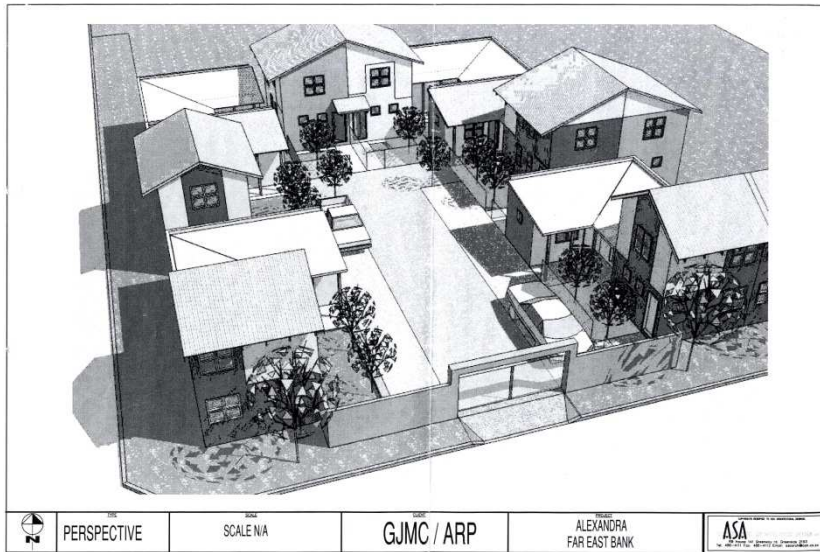


B2 Klapmuts, Stellenbosch

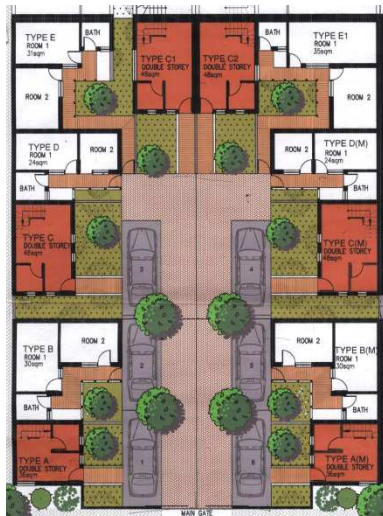
- 540 subsidy residential plots
- Plots designed to accommodate a minimum building footprint of $\pm 40\text{m}^2$
- Nett Density: 82du/ha
- Gross Density: 42du/ha
- Streets generally 10m wide and are designed to permit all forms of vehicular traffic



B3 London Road, Alexandra, Johannesburg



- Site located in Far East Bank Extension
- Low income social housing project
- Aimed at increasing housing densities, combines ownership and rental occupation on same property
- Housing grouped in clusters forming smaller communities around semi-private communal courtyards
- Each unit has 40/50m² double-storey government-subsidised dwelling (eligible ownership) two adjacent independent ground floor rooms (shared ablutions)
- Plot Size: 75m² - 100m²
- Building Footprint: Double storey @ 22m², 2 x bedroom @ 9m², 2nd bathroom @ 4m² = 45m²



C. GAP: Townhouses

C1 Phumulong Street: Middelburg, Mpumalanga



- Municipality made stands available at R30 000 (cash buyers) – to cover cost for services – leads to reasonable market price
- Municipality does not have to sell land to highest bidder
- Stands used for Gap housing – buyers built rapidly
- Appears no loan funding is used. Encourages emergence of small developers



C2 Algoa Park, Port Elizabeth

- Abahlali housing project
- First instalment (Rent to Buy) project in South Africa
- Total number of units: 420
- Single and double-storey units
- Average erf size: 194m²
- Density: 27 units/ha



C3 GAP: Apartments

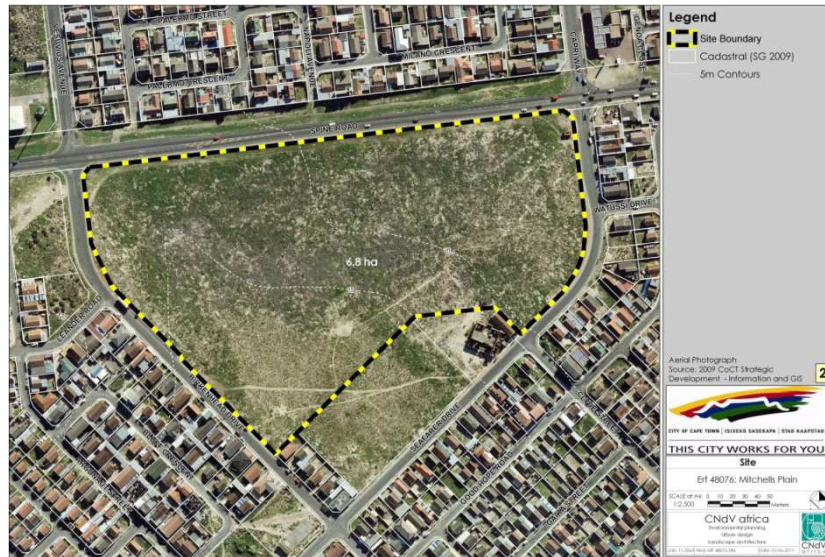
Klein Drakenstein Road, Paarl, Western Cape: 2 – 4 Storey Gap Housing



- Small scale private developer
- Well located land on Klein Drakenstein Road, major arterial through Paarl East
- Market: R250 000 to R500 000
- 1 to 2 bedroom apartment
- Rationalising use of excess and socially vulnerable public open space
- 96 units, 8000m² → 117du/ha



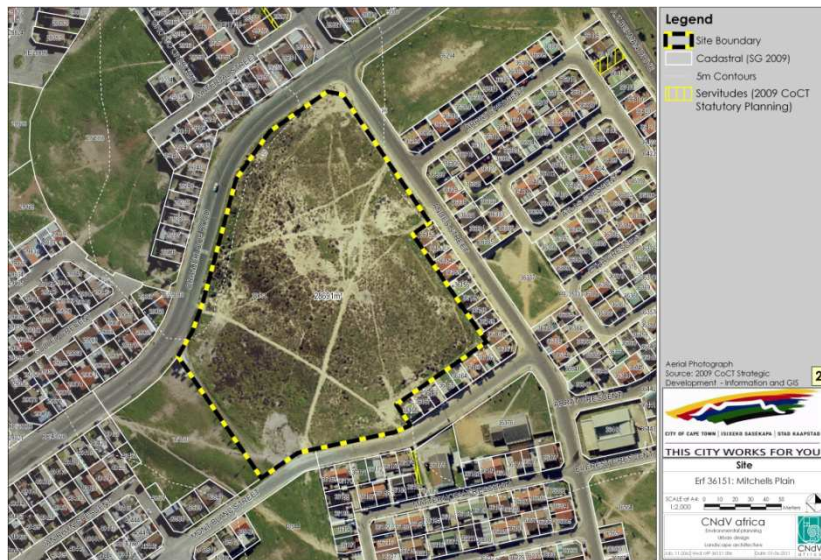
C4 Erf 48076, Mitchells Plain, Western Cape: Redevelopment Axis



- Site located along Spine Road, major arterial in Mitchells Plain
- Surrounded by medium income residential (generally free standing units), mosque and some shops
- No buildings on site, major activity along Spine Road
- Redevelopment potential of the site :
 - Three to four storey buildings;
 - Mixed use along Spine Road precinct;
 - Commercial on ground floor;
 - Approx. 664 apartments, 20 single dwellings ;
 - Size : 68 000m²;
 - Density : 100du/ha.



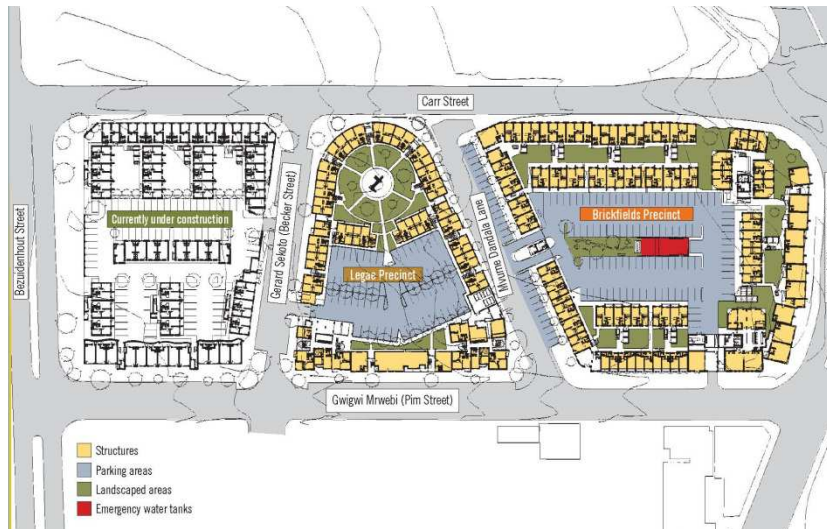
C5 Erf 36151, Mitchells Plain, Western Cape: Redevelopment Axis



- Site located along Andes Street, Mitchells Plain – lower order road
- Surrounded by residential, open spaces and community facilities : schools and places of worship
- No buildings on site, lower income community
- Redevelopment potential of the site :
 - Generally three storey buildings;
 - Mixed use on major intersection, commercial on the ground floor in four storey building;
 - Approx. 414 apartments and 10 single dwellings;
 - Size : 28 700m²;
 - Density : 148du/ha.



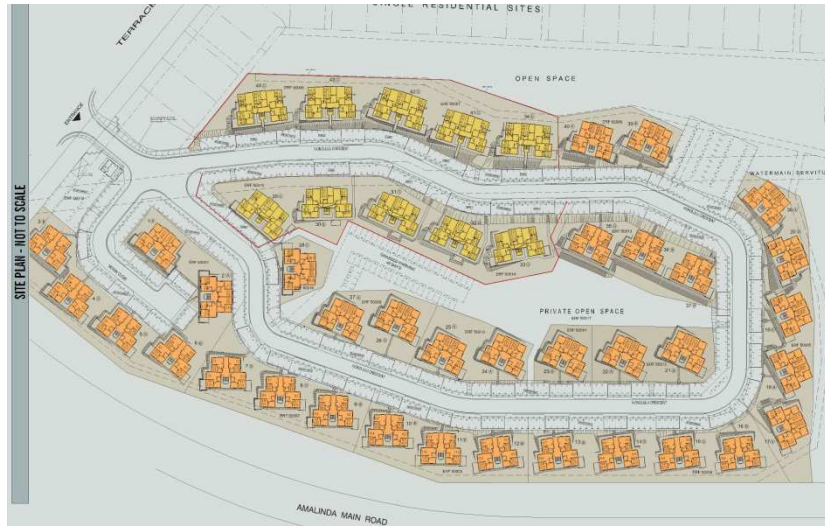
C6 Brickfields, Newtown, Johannesburg



- Project, incorporating Brickfields, Legae and Phumlani, was Johannesburg inner city's first high rise development in 30 years
- Social housing project
- Comprising 742 units in a mix of low rise and high rise buildings
- 345 units in 3 and 4-storey walk-ups



C7 Amalinda, East London



- Located 4km from East London CBD (Amalinda Drive, East London)
- 598 units
- Phase 1: 34 blocks (12 units per 3 storey block, 4 units per floor, total 408 units)
- Phase 2: 10 blocks (8x4 storey blocks, 20 units per 4 storey block, 5 units per floor, total 160 units), 2x3 storey blocks (15 units per 3 storey block, 5 units per floor, total 30 units)
- Medium Density: 127 du/ha
- 50% Rent to buy, 50% rental



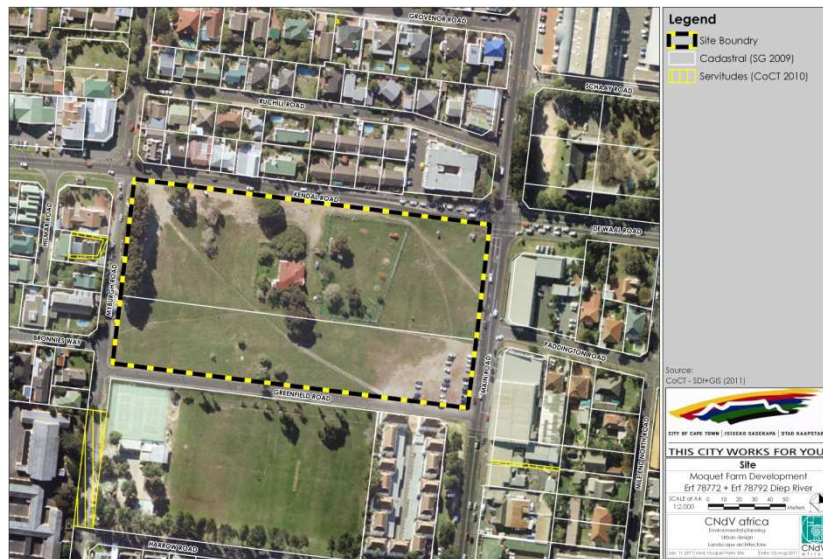
D1 MARKET: Townhouses

Paradyskloof, Stellenbosch

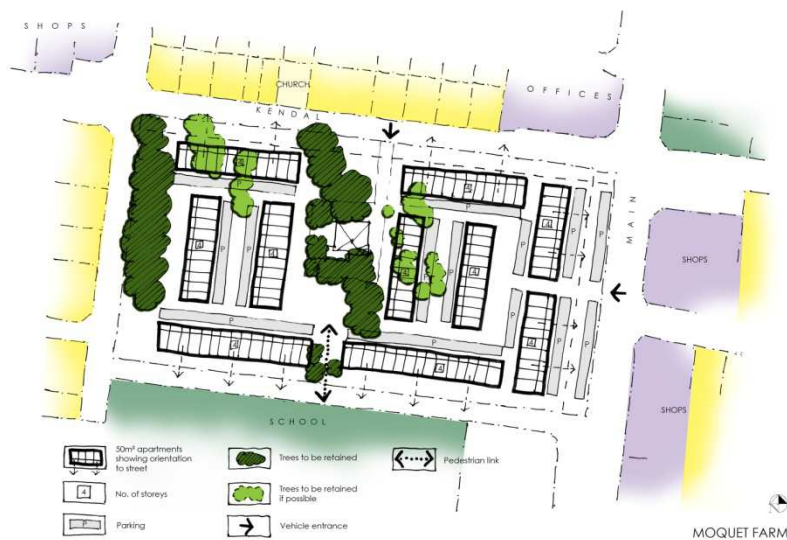


D2 MARKET: Apartments

Erf 78722 and 78792, Diep River, Cape Town, Western Cape



- Site located along Main Road in Diep River
- Surrounded by commercial, residential and school
- Existing building on site
- Redevelopment potential of the site :
 - Four storey buildings;
 - Mixed use along Main Road with commercial on ground floor;
 - Approx. 340 apartments;
 - Size: 27 000m²;
 - Density : 126du/ha.



D3 Somerset Links, Somerset West, Cape Town



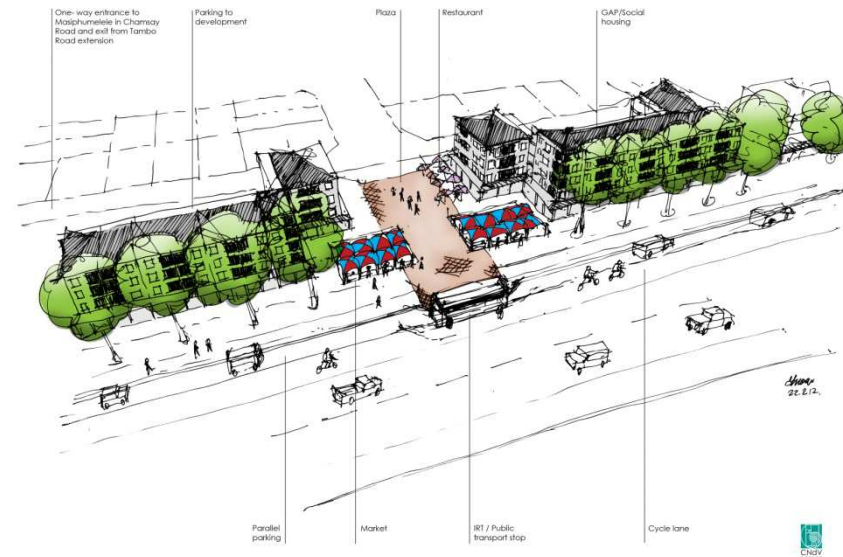
- Located in De Beers Avenue, Somerset West
- Units types: 1, 2 and 3 bedroom units
- 396 units (apartment complex)
- Phase 1: 117 units
- Phase 2: 168 units
- Phase 3: 111 units
- Unit sizes: 70m² - 100m²



F1 Erven 1728 & 1866, Masiphumelele, Western Cape: Redevelopment Axis



- Site located along Kommetjie Main Road,
- Major tourist route in Cape Town
- Surrounded by low income housing (north) and nature reserve (south), gateway to Masiphumelele
- Underutilised site, used informally as taxi rank and for commercial enterprises in containers
- Redevelopment potential of the site :
 - Three storey buildings; parking at rear
 - Residential above ground level commercial
 - Approx. 120 apartments/ units;
 - Size : 7 000m²;
 - Density : 170du/ha.



F2 Grand Central



- Located in Main Road, Wynberg
- Total of 414 apartments
- Retail on the ground floor
- Unit Types: 1 and 2 bedroom
- Unit Size: 36m² - 55m²

