Western Cape Government

MOSSEL BAY
Explore Endless Horizons!

SECTION C

ENVIRONMENTAL MANAGEMENT VISION AND DIRECTIVES




MOSSEL BAY MUNICIPALITY

DRAFT SPATIAL DEVELOPMENT FRAMEWORK / ENVIRONMENTAL MANAGEMENT FRAMEWORK

SECTION C – ENVIRONMENTAL VISION, OBJECTIVES, POLICY AND STRATEGIES

2023

Contents

1. INTRODUCTION

Section C, titled "*Environmental Vision, Objectives, Policy and Strategies – 2023*" is a continuation of the integrated Mossel Bay Municipality Spatial Development Framework / Environmental Management Framework (SDF/EMF), adopted by Mossel Bay Municipality as an SDF in May 2022. The addition of Section C is to provide more detailed guidance in terms of environmental management and to ensure that the requirements set in the EMF Regulations, 2010, are met. This is necessary in order for the SDF/EMF to be adopted by the Western Cape Member of the Executive Council responsible for environmental affairs, with concurrence of the National Minister responsible for environmental affairs. Section C must be read together with Sections A and B to constitute an EMF.

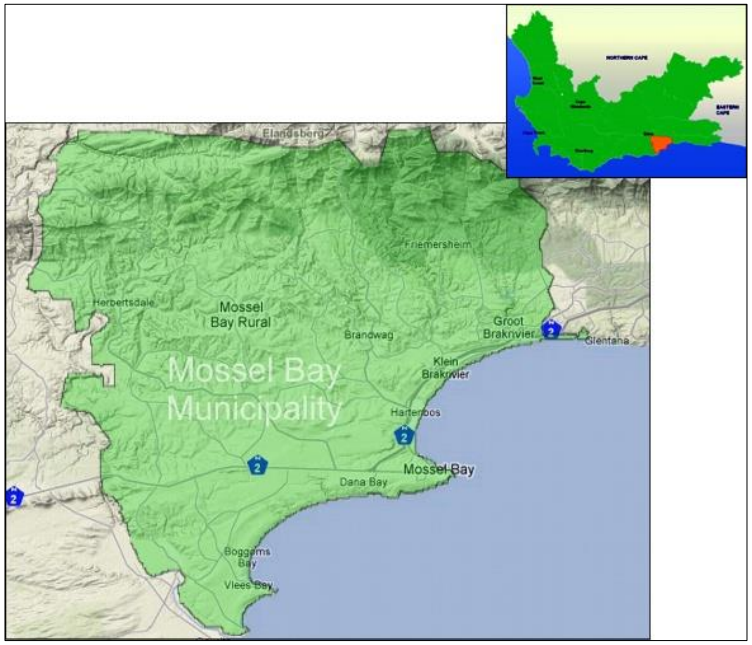


Figure 1 Mossel Bay Municipality Geographical Area

An integrated SDF/EMF must ensure that a unified vision of sustainable development is achieved between the EMF and the SDF. This is critical in the development of exclusions in terms of NEMA.

Participation in the review and updating of the EMF: The SDF/EMF would require revision on a regular basis. The municipality may initiate the revision of the SDF/EMF and/or participate in this process and make relevant information available such as the SoER / Environmental Outlook Report, IWMP and the AQMP to ensure that there is consistency and synergies between these different environmental management tools.

2. PURPOSE AND OBJECTIVES

2.1. Purpose

The purpose of the Mossel Bay Municipality SDF/EMF is to guide the spatial distribution of current and future land uses, infrastructure investment, sustainable development, and protection of the natural environment, considering financial realities by providing a greater level of detail than is provided in the SDF or EMF alone, whilst giving effect to the vision, goals and objectives of a municipal Integrated Development Plan (IDP). It also strives to provide a greater focus on ways to enhance implementation and is a guiding tool for decision-making.

Figure 2 Mossel Bay Town – Photo Credit: John Wilson

Therefore, the SDF/ EMF will assist in ensuring that the preservation of areas with environmental significance is achieved and that development occurs in a sustainable, developmentally oriented manner (i.e. with the end goal of ensuring that development is fast tracked in those areas where it is desirable and environmentally responsible). The SDF/EMF will assist by informing decision-making that will promote the sustainable management (conservation) of the natural resource base of the area and improved spatial planning. This is in line with the National Environmental Management Act, 1998 (Act No. 107 of 1998), EMF Regulations of 2010 and the Spatial Planning and Land Use Management Act (No.16 of 2013) ("SPLUMA") which seeks to promote sustainability, secure environmental protection, and promote cooperative environmental governance.

The SDF/ EMF will also be submitted to be adopted as an EMF in terms of the EMF Regulations. The integrated SDF/ EMF attempts to find innovative ways to deal with historic development challenges while balancing the need to promote amongst others, green infrastructure, environmental sustainability and climate resilience approaches and principles. Therefore, the SDF and EMF are integrated and aims to achieve a single policy document for planning and environmental decision-making.

The EMF will serve to strengthen the SDF process by providing more detailed information on environmental attributes affected by the proposed spatial plan described in the SDF. Section 21 (j) of the Spatial Planning and Land Use Management Act, 2013 (No. Act 16 of 2013) (SPLUMA) stipulates, amongst others, that a municipal SDF must include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable.

Figure 3 Mossel Bay Vegetation - Photo Credit: Liza Petersen

SPLUMA ascribes to the principle of spatial sustainability, whereby spatial planning and land use management systems must uphold consistency of land use measures, in accordance with environmental management instruments (such as EMFs). In addition, SPLUMA encourages environmentally sustainable land development practices and processes (Section 3(1)(c)(iii) of the Act), requires sustainable land development at the required scale by encouraging the sustained

protection of the environment (section 3(1)(h)(iii) of the Act) and states that in setting land development objectives, the "sustained utilization of the environment" must be taken into account (Section 28(b) (ii) of the Act).

The purpose of Section C is to provide more detailed context and guidance to the overall SDF/EMF, in terms of environmental management and in order to ensure that requirement of the EMF Regulations, 2010, are met.

*** Section C must be read together with Sections A and B of the Mossel Bay Municipality SDF/EMF.**

2.2. Strategic objectives

The Mossel Bay Municipality integrated the SDF and EMF in order to ensure that the EMF effectively informs and responds to the planning context and that the SDF effectively informs and responds to the environmental context. The broad objectives of the EMF/SDF are:

- To inform and guide spatial planning in the geographical area;
- To function as a support mechanism in the environmental impact assessment process in the evaluation and review of development applications;
- To assist in making strategic informed decisions regarding land use planning applications;
- To assist in improving investment certainty regarding environmental and land use decision-making;
- To guide sustainable development in the area and determine the environmental management priorities; and

Figure 4 - Friemersheim Photo Credit: John Wilson

- To provide support to the process of delineating geographical areas within which specified activities are to be identified or excluded from those listed in terms of NEMA based on sensitivity of the environment to the potential impacts.

The intention is for the SDF/EMF to communicate clearly the limits of acceptable change relating to the environment for consideration in decision-making by all authorities. The proponent/applicant is responsible for demonstrating that proposed development would not infringe on or cross those limits of acceptable change.

The SDF/EMF aims to create a predictable development environment, providing an early warning system for developers of the levels of likely risk in submitting development proposals in different areas and the associated need to consider alternatives to minimise unacceptable impacts on the environment. Proponents / Applicants need to apply the mitigation hierarchy (see Table 1 below), namely first striving to avoid and then minimise and remedy negative impacts, as a requirement of the national environmental management principles (Section 2 of NEMA). Where permissible, offsetting may be considered as a last resort.

Table 1 - Mitigation Hierarchy

Avoid	**Minimise**	**Restore**	**Offset**
• Anticipating and preventing adverse impacts on biodiversity	• Reducing the duration, intensity, and significance of impacts	• Repairing environmental degradation or damage	• Compensating for residual impacts
Preventative		**Remediative**	

The SDF/EMF intends to guide land use, including the location of development in such a way that it:

- ensures that the integrity of ecosystems, on which human wellbeing depends, is not undermined;
- conserves systems that regulate and provide reliable supply of clean water;
- avoids, and where not possible fully to avoid, minimizes pollution of land, air, surface water and groundwater;
- facilitates the efficient and effective use of resources;
- conserves landcover to prevent erosion;
- conserves heritage and cultural resources;
- conserves landscape character and aesthetic qualities;
- avoids exposure to natural hazards; and
- protects community health and avoids human health risks.

The SDF/ EMF will address the need to integrate strategic environmental information with project level and strategic decision-making in the municipality, to ensure adequate protection of the natural resource base in line with the principles of the NEMA, as well as that the concepts of development and environmental management are reconciled. The SDF/EMF will therefore inform project level authorisation / decision-making (i.e. EIA and land use management), as well as strategic spatial planning.

3. STRATEGIC ENVIRONMENTAL MANAGEMENT PLAN (SEMP)

3.1 Overview of the SEMP

The SEMP provides guidance to support environmental decision-making that will benefit the management of important resources in the Mossel Bay Municipality.

The purpose of the SEMP is as follows:

- To identify Environmental Management Zones (EMZs) / Spatial Planning Categories (SPCs) based on the environmental attributes of the area;
- To provide management guidance for the EMZs/SPCs in respect of the environmental attributes that fall within that EMZ/SPCs;
- To establish a framework to check the 'on the ground' effectiveness of the EMF;
- To set out a mechanism to facilitate updating of the EMF and its linkages to the municipal IDP/SDF review process and to other relevant tools such as the Air Quality Management Plan (AQMP), Integrated Waste Management Plan (IWMP), catchment management and agricultural resources plans/strategies;
- To identify and recommend an "urban area" in terms of the EIA Regulations, 2014, that can be adopted by the environmental competent authority; and
- To ensure sustainable land use and protection of the environment.

Figure 5 - Mossel Bay - Photo Credit: John Wilson

The SEMP therefore comprises the following:

- EMZs/SPCs with management recommendations;
- Roles and responsibilities in respect of these management recommendations;
- Decision-making framework;
- Monitoring and evaluation framework;
- Revision/updating of the EMF; and
- Proposed Urban Areas

3.2 Environmental Management Zones/ Spatial Planning Categories (EMZs/SPCs)

Different types of resource use have different impacts on the environment. The significance of these impacts depends in part on the type of resource use proposed, and in part on the nature and attributes of the receiving environment. The EMF provides relevant information that will determine the significance of impacts, the acceptable level of change and the level of mitigation that would be required of development that affects a group of attributes, with similar degrees of sensitivity, in the defined area.

Figure 6 - Mossel Bay - Photo Credit: John Wilson

The contextualisation of the rural landscape, and an analysis and interpretation of the elements of the rural spatial structure should inform the Integrated Development Plan's (IDP) and, in

turn, the Spatial Development Framework's (SDF) proposals. A SDF's proposals should clearly reflect where in the landscape development should and should not take place. Desired land use patterns are reflected in the delineation of landscape-wide Environmental Management Zones / Spatial Planning Categories (EMZs/SPCs).

The Western Cape Provincial SDF (PSDF) calls for SDFs to delineate SPCs that cover the entire municipal domain, using the latest available Western Cape Biodiversity Spatial Plan (WCBSP) mapping. SPCs are not development proposals and do not confer development rights. They are rather the tools through which the SDF clarifies the inherent land use suitability of different landscapes.

According to the PSDF, 2017 and the Western Cape Land Use Planning Guidelines Rural Areas, 2019, SDFs should divide the entire landscape into spatial planning categories (SPCs) "*to reflect a vision of how the area should develop spatially, so as to ensure sustainability*". The SDF also provides policies, management objectives and guidance for appropriate land use within each SPC. From a biodiversity perspective, SPCs indicate areas where limitations on land use need to be applied in order to protect biodiversity. An SDF by its very nature makes proposals based on biodiversity consideration amongst other things, these includes the proper management of all natural vegetation as a priority to prevent any degradation in the future. It must therefore be noted that these EMZs/SPCs with related guidelines and are in line with what EMFs in general seek to achieve, which is to inform planning, promote sustainability and environmentally responsible decision-making.

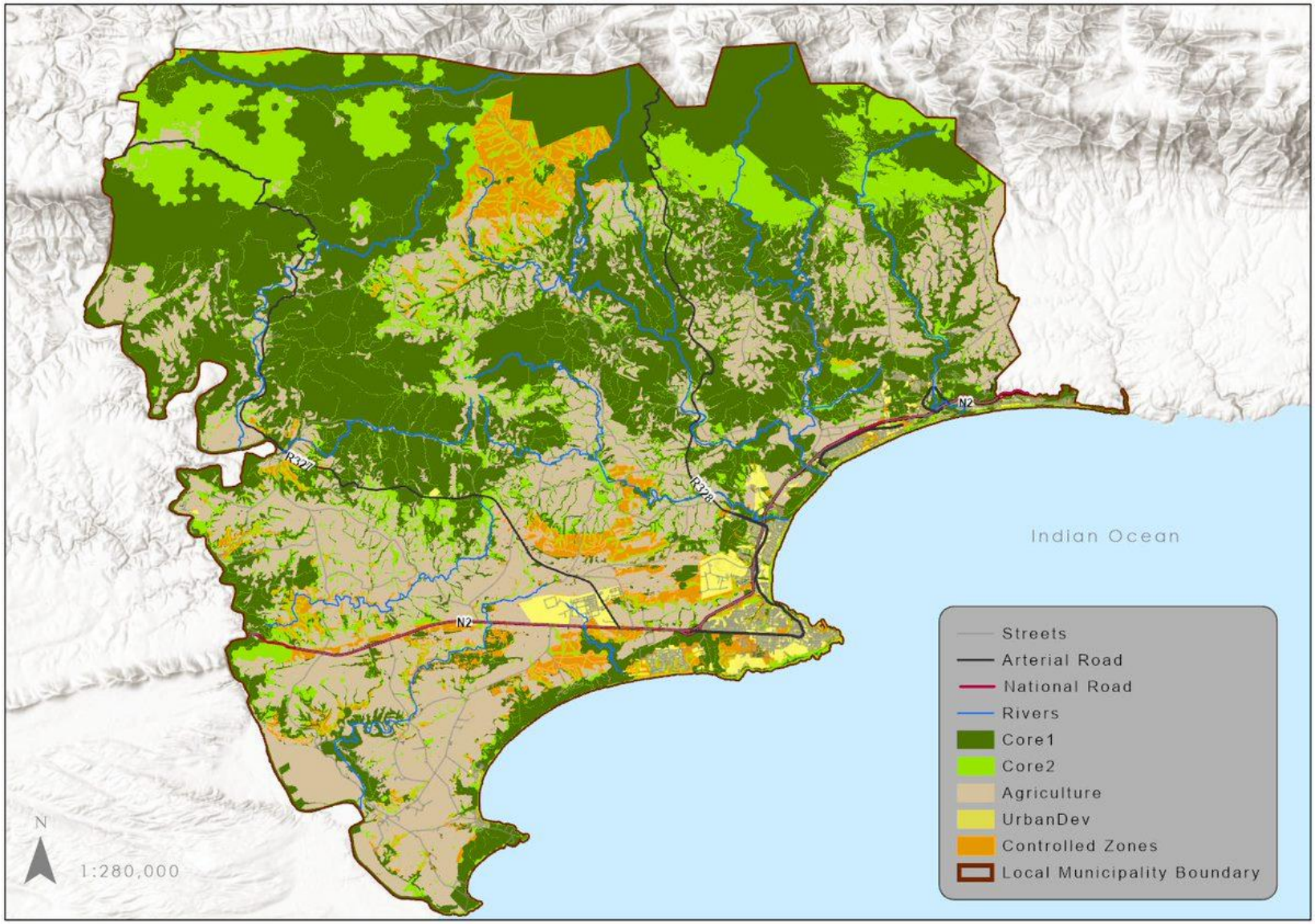
The EMZs/SPCs are identified and described in this section. There are five EMZs/SPCs, which have been identified based on a combination of the biophysical and socioeconomic attributes and the potential for significant impacts in relation to the activities listed in the EIA Regulations, 2014. I.e. Core 1; Core 2; Intensive Agriculture; Urban Development; and Controlled Zone; reflected on the map below.

To aid strategic environmental management in the area, environmental management zones were delineated by grouping areas which share the same characteristics together. Areas were grouped based on their current use (e.g. Natural, Agriculture, Residential, etc.) and their sensitivity to different types of activities. Using this approach, the study area was divided into the following five EMZs/SPCs: Core 1, Core 2, Intensive Agriculture, Urban Development and Controlled areas.

The point of departure that has been applied in determining the EMZs/SPCs is that natural resources and human endeavours are not separate from each other. Natural attributes and human activities need to be seen in the context of the landscape in which they are located. Thus human activities and natural attributes need to be viewed holistically – as different aspects of one system or landscape. Human wellbeing is related to various benefits that nature provides to humankind (referred to as ecosystem services) such as soil for growing of food crops; clean water for drinking; pollination of food crops and features that fulfil recreational, cultural or spiritual needs, to name a few. Maintaining the natural resource base is central to ensuring the wellbeing of humans and meeting their developmental needs.

In determining the EMZs/SPCs, the key driver must be the objectives of an SDF/EMF. Regulation 2(3) of the 2010 EMF Regulations state that EMFs must be aimed at "promoting sustainability" and "securing environmental protection." As has been noted elsewhere in this document South Africa's NFSD recognises that South Africa's natural systems and biodiversity provide a basis for economic growth and development. This reality is recognised on an international and national level and has been highlighted through initiatives such as the Millennium Ecosystem Assessment.

Figure 7: Environmental Management Zones / Spatial Planning Categories



EMZs/SPCs	Environmental features and attributes

Core 1	• Western Cape Biodiversity Spatial Plan Category:
	  • Protected areas
	  • Critical Biodiversity Area 1 (Terrestrial/ Aquatic)

Core 2	• Western Cape Biodiversity Spatial Plan Category:
	  • Critical Biodiversity Area 2 (Degraded)
	  • Ecological Support Areas 1 (Terrestrial/Aquatic)

Agriculture	• Agricultural Layer • Soil depth • Soil potential • Distance to river • Land cover
Urban Development	• Urban Edges • Urban Areas • Human Settlement • Urban cadastral information • Built-up areas • Densification • Land cover
Controlled Development	• Buffer 1 • Buffer 2

	• Ecological Support Area 2 • Other Natural Areas (Natural to near-natural/degraded)

Table 2: Environmental attributes considered for EMZs/SPCs

The SDF / EMF is a tool to support the change that is being sought in the way the environment is valued. Transformation of land on which natural systems exist is the leading cause of environmental degradation (Balmford, 2012) and the EMF is concerned with issues related to land use and development. In particular, the fact that it is a spatial tool that is concerned with environmental attributes, means that it has a potentially significant role to play in avoiding or at least reducing the transformation of natural areas that are important assets for long-term wellbeing.

The concept of "significant impact" has been applied in determining the EMZs/SPCs. A significant impact is any impact that would threaten the health of either the environment and/or people in the area covered by the EMF. That is, it is an impact that would:

- Threaten the integrity and resilience of ecosystems which sustain development, human wellbeing and livelihoods by degrading or causing deterioration or loss of:
  - important biodiversity;
  - ecosystems that regulate and provide reliable supply of clean water (i.e. that meets relevant water quality standards), either groundwater and/or surface water;
  - air quality (i.e. air that meets relevant air quality standards);
  - soils having high agricultural productivity that contribute to food security in the long term; and
  - natural areas known to support livelihoods of vulnerable communities.
- Threaten the physical health or increase the vulnerability of women, men and children to:
  - natural hazards and/or unstable areas;

- the spread of disease; and
- pollution with known adverse health effects.

Any activity that would be likely to cause one or more significant impacts, as defined above, would be considered to be 'undesirable'. Those impacts that are significant and also irreversible, or could result in irreplaceable loss of unique resources, should be considered as a "fatal flaw". Developments involving transformation of land, particularly on an extensive scale would typically be of particular concern in this regard.

The approach described above is in line with the principles and goals of the PSDF and other strategic frameworks/policies developed for the Western Cape. It also reflects municipal priorities and those of stakeholders. In all of these instances, protection of agricultural, biodiversity and cultural assets or resources is regarded as an imperative.

Figure 8 - Friemersheim - Photo Credit: Liza Petersen

3.3 Description of EMZs/SPCs

Spatial data has been mapped for attributes in the study area. These attributes cover resources and restrictions (constraints) or risks. The status, irreplaceability and vulnerabilities associated with the attributes have been central to determining the conservation EMZs/SPCs, while potential sustainable development in areas with less biophysically sensitive receiving environment was central in determining the development EMZs/SPCs (including the proximity of these areas to built/cultivated environments).

The EMZs/SPCs provide a means for achieving the following requirements as set out in the 2010 EMF Regulations, in that they serve to:

- Specify the attributes of the environment in the area, including the sensitivity, extent, interrelationship and significance of those attributes.
- Identify any parts in the area to which those attributes relate.
- Show the environmental management priorities of the area.
- Indicate those areas with specific environmental values and the nature of those values.

These EMZs/SPCs could be regarded as a tool to assist applicants or developers in identifying appropriate locations for development proposals and for providing a "first scan" of the issues that may need to be addressed in the application process (e.g. through specialist studies). The more responsive the application is to the EMZ/SPC information the lower the risk of conflict with stakeholders / I&APs and of authorisation being refused. The converse also applies. The EMF is not concerned with providing detailed guidance on the conducting of the EIA process. Guidelines in this regard are available as noted later in this document.

3.4 Management guidelines for the EMZs/SPCs

Since the purpose of the EMZs/SPCs is to consider the environmental attributes of an area and to use this information to provide guidance with respect to appropriate/inappropriate development, the following has been developed for each EMZ/SPC:

A management framework which can be used as a basis for testing development proposals or for developing objectives/goals for a development proposal (i.e. objectives-led planning) and design of a development proposal. The management framework comprises the following:

- **Zone aim:** The overarching vision of what the zone intends to achieve.
- **Management objectives:** These are the objectives that should be borne in mind in the planning of land use and development and in related decision-making processes.
- **Desired outcomes:** These are the effects that one would want to see "on the ground", namely the results of giving effect to the objectives.
- **Limits of Acceptable Change:** These are thresholds that need to be considered in the planning of land use and development and in related decision-making processes. They represent a limit beyond which change in the current status of that particular EMZ would be regarded as undesirable because of the potential for loss or degradation of an irreplaceable resource. These limits are based on the best available scientific information.
- **Opportunities for benefit:** These represent areas where social and/or economic and/or biophysical benefits could be realised.
- **Mitigation options:** These show the level of mitigation in the mitigation hierarchy that could be used to address impacts on particular EMZs/SPCs. Where the attributes/resources are irreplaceable, avoidance (rather than minimising, mitigation or offsetting) is likely to be the sole option.

A matrix linking EMZs/SPCs and activities/types of development that may be considered inappropriate or appropriate, is included below. The activities in this matrix are based on the Listed Activities in the 2014 EIA Regulations. This matrix should only be used as being indicative of developments that may or may not be appropriate – it is not to be taken as being definitive, as each application must be evaluated on its own merits. Each EMZ/SPC will outline the above framework in the form of a descriptive table.

All proposed developments in each EMZs/SPCs should be evaluated to ensure that:

- It would meet the management objectives for this zone and preferably result in net benefit both for the ecological and social environment; and
- Changes induced by proposals would not exceed limits of acceptable change.

The management objectives, desired outcomes and limits of acceptable change that have been provided for each EMZ have been formulated on the basis of the NEMA principles. It is necessary for the EMF to be framed within these principles in order for it to guide the formulation of appropriate development proposals and environmental decision-making effectively, within its scope. This means that it must be borne in mind that the EMF is a tool that is aimed at, *inter alia*, supporting and streamlining the implementation of the EIA Regulations. It cannot be seen as the sole mechanism whereby sustainability objectives would be achieved.

From the perspective of proponents, the information in respect of each EMZs/SPCs can be used to guide the formulation of project proposal. The objective is to achieve development proposals that are aligned with, and hence do not undermine, sustainability objectives. Similarly, the management objectives, desired outcomes and limits of acceptable change ought to be considered in decision-making. This issue is covered in more detail in the SEMP.

The information on environmental attributes that has been used in the EMF is the most recent available from the various organisations or institutions that house these data. Applicants and their consultants must ensure that the latest GIS database is consulted and not rely solely on the maps published (i.e. hard copy) in the EMF. The GIS information is available from the DEA&DP as well as the municipalities GIS sites. Where an attribute intersects a particular location or property, this points to the need to investigate this issue as part of the EIA process. This would normally involve consulting a relevant specialist to assist in undertaking a more detailed investigation of the issue. Typically, this would involve 'groundtruthing' to verify the presence of the attribute at the specific location as well as its surroundings, since environmental impacts may extend beyond the boundaries of a site. In cases where scientific (specialist) studies are at variance with the EMF (e.g. area identified as being sensitive in the EMF is not found to be sensitive in a specialist study), the onus is on the applicant and the Environmental Assessment Practitioner (EAP) to ensure that the scientific analysis is rigorous, that findings have been discussed with relevant authorities and, if required by the competent authority, that the study concerned has been subject to peer review. The burden of proof to demonstrate that a development proposal is aligned to the EMF lies with the project proponent/applicant.

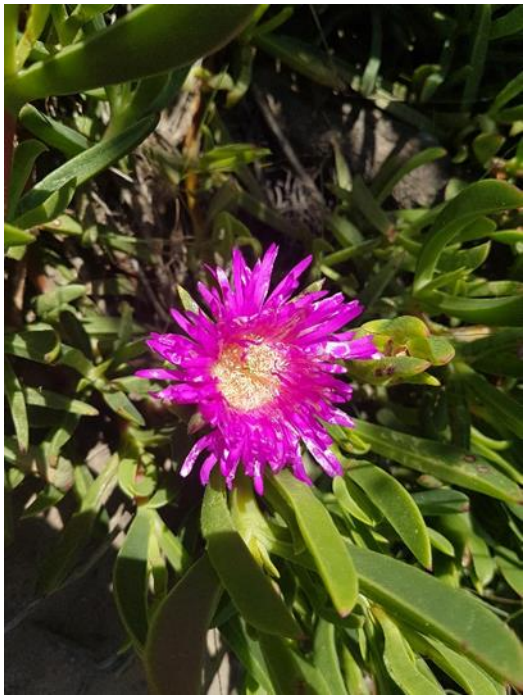


Table 3: Road map for using the EMZ/SPC information as summary of how to use or apply the EMZ/ SPC information is provided in the flow diagram below.

STEP 1: **Screen project location (refer to EMZ/SPC maps):**	•Where is project located relative to the respective EMZs/SPCs? •Does the project location fall in only one or more than one EMZ/SPC?
STEP 2: **Establish attributes that occur at the project location and its surroundings (Refer to EMZ/ SPC maps, maps for each individual attribute (Part 1: Current Situation) and GIS database:**	•Which EMZs/SPCs intersect the project location? •Which attributes from each EMZ/SPC intersect the proposed project location? •Which attributes occur in the areas surrounding the project location?
STEP 3: **Consider the appropriateness of the type of development being considered in light of the relevant EMZ/SPC and its associated attributes.:**	•Development that is likely to be considered undesirable; •Development that could be considered and which have the potential for significant adverse impacts. Careful attention to mitigation and management of impacts is required for such projects / developments. •Development which would be regarded as appropriate and is unlikely to have significant adverse impacts.
STEP 4: **Refer to EMZ/SPC maps and individual attribute maps (Part 1: Current Situation) to establish the factors that should be taken into account in formulating and assessing a development proposal:**	•Establish the issues / factors to which the development proposal should respond in order to formulate the most appropriate development proposal. Formulation of alternatives as envisaged in the EIA Regulations could be of assistance in this regard. •Revise a development proposal that could be inappropriate within a particular EMZ/SPC and/or to improve the sustainability performance of a development proposal. •Assess a development proposal (and its alternatives) using the information in the management framework tables for each EMZ/SPC, namely management objectives, desired outcomes, limits of acceptable change, opportunities for improvement and mitigation / management approach. These can be used to address the following questions: •What objectives / desired outcomes / limits of acceptable change and opportunities for benefit apply to each attribute? •To what extent does the project meet the objectives / desired outcomes and does it pose any threats in terms of exceeding the limits of acceptable change? •How should the project planning and design respond to the objectives/ desired outcomes and limits of acceptable change information? •What opportunities for benefit does the project offer? •What mitigation approach is proposed? •Describe how the development proposal is aligned to the SDF/EMF and where there are conflicts with the SDF/EMF. This will assist in evaluating the development proposal against sustainability criteria such as those encompassed in the NEMA principles (Section 2 of NEMA).

3.5 Environmental Management Zones/Spatial Planning Categories – Attributes and Actions

3.5.1. **Conservation EMZs/SPCs: Core 1 and Core 2**



The Conservation EMZs / SPCs is intended to map irreplaceable biodiversity and resources that are under significant pressure. In urban areas, the aim of the Conservation EMZs/SPCs is to promote the protection and conservation of irreplaceable and valuable resources that are currently, and will be in the future, under severe threat by development. The Conservation EMZs/SPCs in urban areas also intends to encourage sustainable land and resource use. In the rural areas, the Conservation EMZs/SPCs are intended to map irreplaceable biodiversity that are equally important but are not under as significant pressure as biodiversity in urban areas. The development of an urban edge and the more refined urban area will assist in controlling development and urban sprawl, thus protecting rural environments and resources.

Restoration areas were included in this Conservation EMZs/SPCs, in which transformed areas which are of importance in terms of a functional landscape perspective were identified for rehabilitation. Development proposals in the vicinity of these areas must incorporate mitigation measures that ensure the improvement of their ecological status to improve overall landscape ecological functioning. Efforts to rehabilitate these areas can also be seen as a means of mitigation for similar impacts, or even as an offset for the unavoidable disruption of landscape functionality elsewhere. Offsetting is a last resort that can only take place once every measure has been exacerbated to reduce the negative impact and is only permissible at the discretion of the Competent Authority.

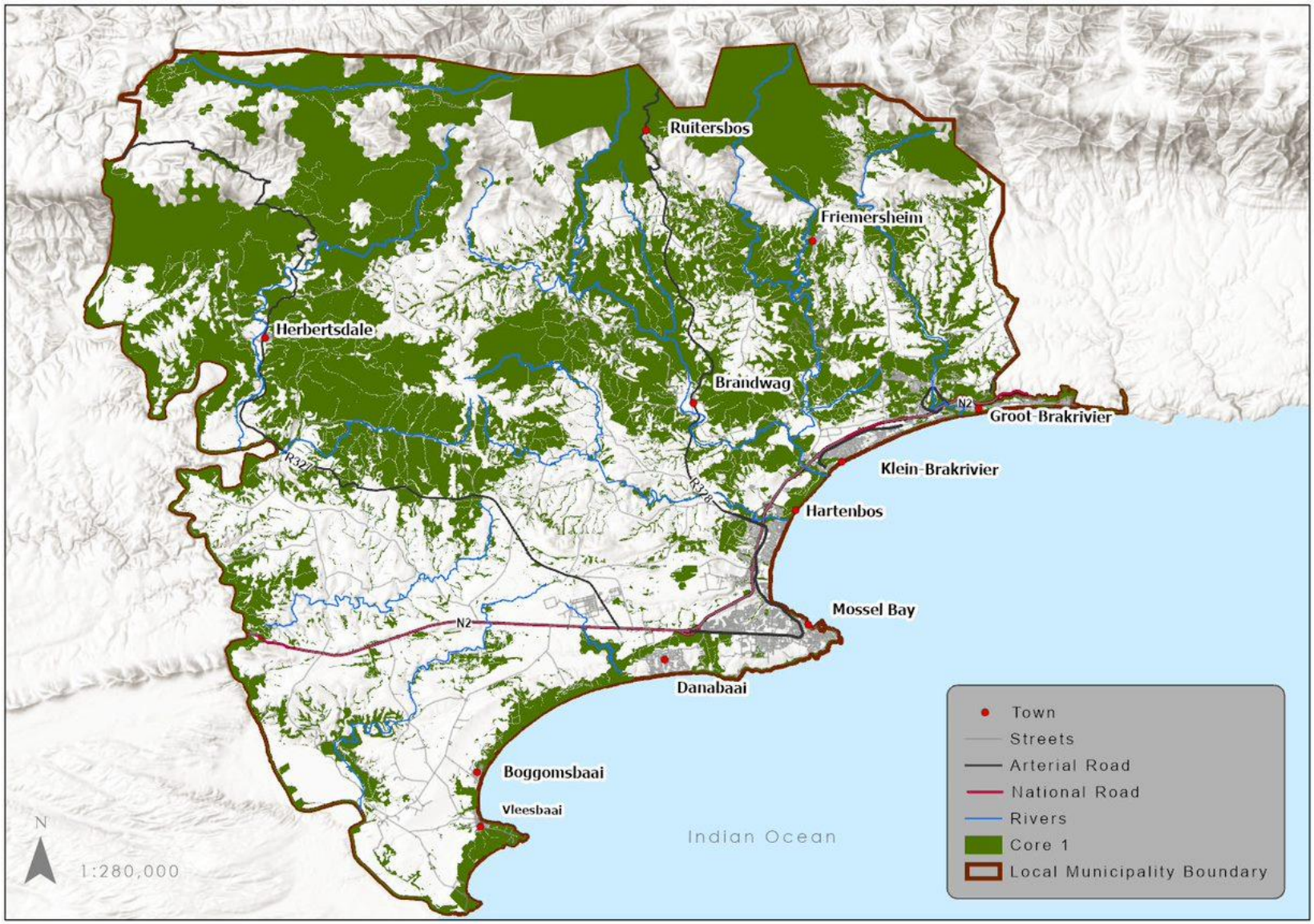


Figure 9 - Core 1

3.5.2. **Core 1 EMZ/SPC**

EMZ/SPC	Description and Objective	Guidelines on Land Use and Activities
Core 1	**Core 1:** These zones were established with the intention of comprising areas of high conservation importance that must be protected from change and only non-consumptive land-uses may be allowed conditionally. These zones contain the following: Core 1 Areas are those parts of the rural landscape required to meet targets/ thresholds for biodiversity patterns or ecological processes (i.e., Protected Areas and Critical Biodiversity Areas). These include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land), aquatic (rivers,	o Restriction of development where it may cause further degradation to ecosystems. Development should be sensitive to biodiversity considerations affecting Core areas by enforcing environmental management programmes in relation to development or prohibiting development when appropriate. o To maintain ecological functioning of the ecosystem. o To protect the goods and services, the ecological infrastructure provides (e.g. flood attenuation). o The restoration of ecosystems and habitats in order to achieve conservation targets. Increased conservation and protected biodiversity through establishment of Protected Areas for top priority sites. o Increase of restored habitats through conservation initiatives. o Avoid. Limited development should be undertaken in these areas. If development is unavoidable, biodiversity offsets may be considered in order to meet conservation targets.

	wetlands, and estuaries) and marine habitats. These also include areas currently not yet exhibiting high levels of biodiversity loss, but which should be protected and restored, to ensure biodiversity pattern and ecological process targets/thresholds can be met, in the most efficient way possible. It also includes essential biological corridors vital to sustain their functionality.	o (i) offsets may only be considered as a last resort; (ii) it is not possible to offset impacts on irreplaceable biodiversity, and (iii) when specialist studies recommend mitigation measures, they should also provide an evidence-based assessment of these measures' likelihood of success. Establish partnerships with NGOs and other stakeholders to develop tools and projects to manage the social ecological systems within urban areas.
	Protected Areas	o To be informed by detailed site-level mapping of habitat conditions, transformation thresholds and cumulative impacts. o Provision for biodiversity offsets in exchange for biodiversity loss should only be considered as a last resort and at a ratio consistent with national policy and Provincial guidelines. o No further extensions of intensive or extensive agriculture is promoted.

		○ Non-consumptive low impact eco-tourism activities such as recreation and tourism (e.g. hiking trails, bird and game watching, and visitor overnight accommodation). ○ Linear infrastructure installations such as roads, rail, pipelines, canals and powerlines. Other utilities may also be permissible in certain situations and should be approved subject to restrictive conditions or parameters. ○ Non-place bound industry with low-moderate impact and rural businesses such as small-scale value adding enterprises for tourism or consumptive uses (e.g. hunting). ○ Detailed site-level mapping of habitat conditions should inform the placement of essential buildings or structures in Core Areas.
	Critical Biodiversity Area 1: Terrestrial	○ Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. ○ Rehabilitate and maintain areas of sensitive natural vegetation and high biodiversity value. Where biodiversity remnants conflict with areas earmarked for development, ensure adequate botanical and faunal impact assessments are undertaken timeously. ○ Keep natural, with no further loss of habitat. ○ Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate

		o Support operational requirements of Biodiversity areas o to ensure their ongoing utility in green infrastructure networks. o Protect Critical Biodiversity Areas (CBAs) and Ecosystem Support Areas and incorporate CBAs into Protected Areas network. o To protect natural buffers such as dunes and other ecological features from urban development. o CBA areas should be kept natural and should not allow for further loss of habitat. These areas should only support land use that has a low impact. o Ecological support areas should be maintained in a near-natural state allowing some habitat loss on condition that the ecosystem is not compromised in any way. o Sand dunes contain a diversity of fauna and flora which are vital in ensuring the proper functioning of dune systems. o Dune systems provide coastal stability by preventing coastal erosion as part of dynamic sand budgets. Sand dunes form an important ecological structure, acting as a buffer to developed areas, from hazards such as storms and flooding. Given the dynamic nature of dune systems and the vital roles they play, disturbance of these systems must be avoided as far as possible. Thus, the protection

		of this ecological structure is important and development near dune fields should be controlled. o Where possible, all new utility infrastructure, services and structures should be located outside of these areas.
	Ecological Support Area 1 ESA 1 areas focus on restoration and managing the impacts on ecosystem functioning.	o Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. o To maintain the land in a near-natural and ecologically functional state, even if some loss of ecosystem composition or structure takes place. o Promote quality multi-use open space areas – reclaim and repurpose open spaces. o Connectivity of green corridors and integration of natural areas with urban green areas. o Conserve existing ecological corridors and consolidate and rehabilitate any remnants of corridors that link ecosystems. Monitor the efficiency of such actions. o The ecological functionality for the area must be maintained or enhanced. Low impact development that does not undermine function can be considered. These areas could be used as positive interfaces with abutting land uses.

		o These areas can allow for a degree of habitat loss for restoration purposes provided that the ecological functioning of the ecosystem is not disrupted.
	Private Reserves (within Urban and Industrial Areas)	o Maintains healthy ecosystems and prevent disturbance by human activities in the long term. Meet national targets through informal conservation areas. Provides a wilderness experience for people. o The restoration of ecosystems and habitats to achieve conservation targets. Increased conservation and protected biodiversity through establishment of Protected Areas. Increase of restored habitats through conservation initiatives. o Much land in South Africa is privately owned and contains an array of biodiversity. Consequently, it is important to conserve these areas to maintain biodiversity and ecosystem functioning. Private landowners have the potential to play an important role in conservation of biodiversity through the controlled public access and sustainable use of the land.
	Critical Biodiversity Area 2 CBA2 areas that are degraded, should be rehabilitated, and allow for low-impact land use to occur.	o Maintain and enhance linkages between these areas. o Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate. o Implementation of habitat restoration measures to restore the habitat to a better condition.

	Protected Area Expansion Strategy These are areas identified as important in meeting international commitments associated with the expansion of protected areas.	o With the intention of ensuring that South Africa meet commitments set in terms of the Convention of Biological Diversity, national targets are set for the expansion of protected areas. o Maintain the existing conservation areas under the National Protected Area Expansion Strategy.
	Steep slopes (greater than 1 in 5)	o To ensure development-induced erosion, slippage or slope instability is prevented. o No activity that would result in erosion or destabilize slopes, including cultivation of land erection of structures or building. o Avoid development on steep slopes and/ or ensure design addresses risks. o Positive contribution to restore and re-vegetate steep slopes.
o The attributes set out above were used as an informant for the development of the Core zone which encompasses the following spatial planning categories Core 1, which is shown spatially on Figure 2 below. Conservation Zone includes rural areas, urban area and also areas that require restoration. Applicants and EAPs are advised to consult the GIS database that forms part of this EMF to ensure that all the relevant environmental attributes are identified for the project location and that the most accurate and up-to-date information is being consulted. Ground truthing would always be required in respect of Core 1. Such ground truthing would also be valuable in determining the extent of the impact assessment required.		

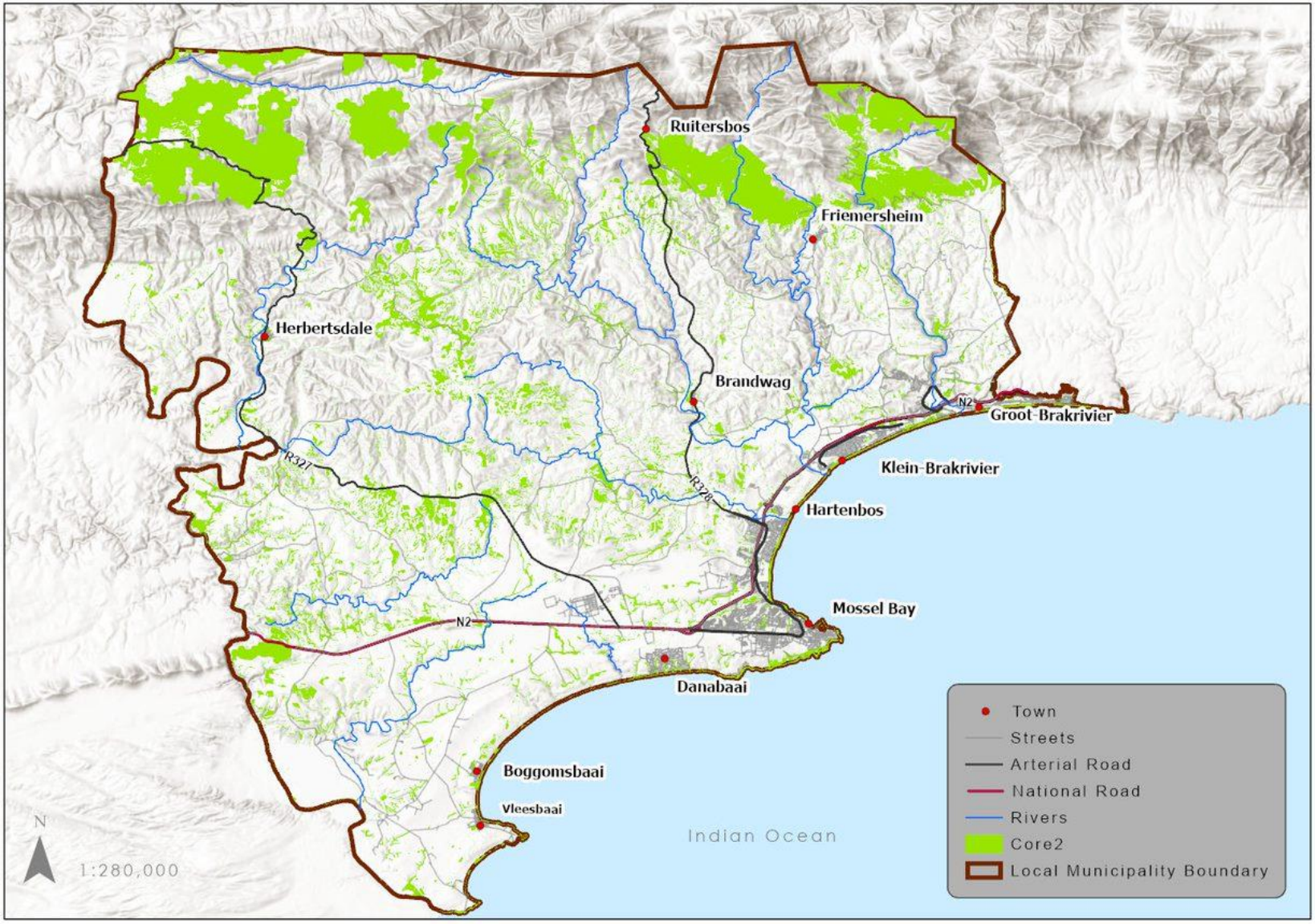


Figure 10 - Core 2

EMZ/SPC	Description and Objective	Guidelines on Land Use and Activities
Core 2	**Core:** Then Core 2 comprised areas in a degraded condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. These areas should be rehabilitated and only low-impact, biodiversity-sensitive land-uses are appropriate. Core 2 also includes Ecological Support Areas (ESA), that are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of CBAs and deliver important ecosystem services. They facilitate landscape connectivity, promote resilience to climate change, and buffer elements of the landscape including Protected Areas and	

	sites that are important for the survival of individual species **Rivers, River Corridors and Wetlands** o Areas below the 1: 50 year flood line and 1 in 100 year flood line.	o Wetlands and rivers serve as an important ecosystem, producing a diversity of ecosystem services. Many species depend on wetlands for their sustenance. o Rivers are also of importance to the agricultural sector, providing a source of irrigation for agriculture, whilst wetlands can also assist in flood control due to the absorption of water during periods of heavy rain. o Wetlands act as a sponge, reducing the rate at which the water is released, prolonging the supply of water during the dry summer season. o Rivers that have wetlands still intact have a better flow of water than rivers whose wetlands have been cleared. o Clearing of alien invasive plants from watercourse to avoid flood aggravation. o Wetlands and rivers are both highly susceptible to degradation and are considered as highly sensitive. o To avoid placing people and infrastructure at risk from floods to alert developers to risk of dam failure. o No settlement or infrastructure development below the 1:50-year flood line. Only appropriate settlement or infrastructure development within the 1:100-year flood line.

		○ To minimise the loss of intact habitat which play an important role in the conservation of threatened species. ○ Development of vacant land within existing approved townships may be considered if the floor levels are raised above the 1:100 year flood line. ○ Measures to mitigate the risk of flooding should be implemented where practicable including: - Prohibiting urban development or ploughing within a 32m boundary from the banks of a watercourse. - No development must take place within 32m form a watercourse. - Preventing excessive hardening of surface areas in urban development, and, implementing a sustainable urban drainage strategy (SUDS) to storm-water management. ○ The banks of the rivers within the area of the Police Station are to be protected. ○ Riverbank development must be behind the ecological setback lines including flood and storm surge lines (1:50 year flood line for property boundaries and 1:100 years flood line for building footprint). ○ No development is permitted on riverbanks that are susceptible to flooding, and below the 1:100 year flood line. ○ To ensure that development within high-risk areas (such as flood lines) are controlled.

		○ Implement a water quality monitoring programme and consider relevant water quality variables. ○ Restrict building setback lines and maximise on-site water infiltration and permeability in relation to redevelopment initiatives in flood prone areas. ○ To prevent fragmentation by maintaining ecological corridors and by acting as a buffer for areas of high biodiversity importance. ○ Avoid hard development and structures below the 1 :50-year flood line and allow only development that could withstand / accommodate floods below the 1:100-year flood line (e.g. sport fields, parkland / open space). ○ All wetlands (including delineated boundary and additional 32m buffer zone) should be regarded as sensitive until proven otherwise by a suitably qualified specialist. ○ Implement a water quality monitoring programme and consider relevant water quality variables that pose a threat to the functionality of wetlands. ○ Strict protection of sensitive alluvial vegetation with significant ecosystem status. Rehabilitation of degraded alluvial vegetation.
	Critical Biodiversity Area 2 (Degraded)	○ Maintain in a natural or near natural state with no further loss of natural habitat. These areas should be rehabilitated. ○ Large-scale cultivation, mining and urban or industrial development are not appropriate.

		○ Acceptable land uses are those that are least harmful to biodiversity, such as conservation management, or extensive livestock or game farming. ○ Implementation of habitat restoration measures to restore the habitat to a better condition.
	Ecological Support Area 1: Aquatic	○ Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. ○ Aquatic ecosystems in this area are vital for the sustenance of daily livelihoods and provide valuable ecosystem goods and services and form a fundamental aspect of the ecological infrastructure of the region. ○ The conservation and protection of these ecosystems is essential to ensure water purification, and increased quality, provision of habitat for variety of wildlife species and ecological connectivity. ○ Low impact activities may be considered.
	Coastal Resource Protection	○ Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. ○ Prevent development transgressing the development boundary

	Area seaward of the CML and around development islands	o No urban development seaward of the coastal edge line unless it enhances public amenity and recreational value and that such development is consistent with the principles and objectives contained in the Integrated Coastal Management Act. o General development parameters to avoid insensitive development. o The construction of amenities that facilitate access to the beach, such as parking lots, must be supplemented by ancillary infrastructure (such as raised boardwalks) to prevent damage by pedestrians to sensitive dune and beach systems . o Access to the coast must be maintained and improved and that such access does not impact the functional integrity of natural coastal systems. o In areas of intense coastal recreational focus e.g. Coastal nodes, those natural and heritage related elements that contribute to the attraction and success of the coastal node, must not be impacted on. o Any future development of coastal infrastructure must be situated or developed in such a way that does not compromise the functional integrity of the coastal environment and that such infrastructure is not exposed to risk from coastal processes.

		○ Areas falling partially or totally seaward of the coastal edge line including remnants of natural systems, must be protected. ○ Where possible, protect, rehabilitate and maintain remaining natural coastal 'green' infrastructure (i.e. dunes, estuaries etc.) as the most effective means to mitigate the impact of climate change-induced pressures such as sea-level rise and storm surges.
○ The attributes set out above were used as an informant for the development of the Core zone which encompasses the following spatial planning categories Core 2, which is shown spatially on Figure 2 below. Conservation Zone includes rural areas, urban area and also areas that require restoration. Applicants and EAPs are advised to consult the GIS database that forms part of this EMF to ensure that all the relevant environmental attributes are identified for the project location and that the most accurate and up-to-date information is being consulted. Ground truthing would always be required in respect of Core 2. Such ground truthing would also be valuable in determining the extent of the impact assessment required.		

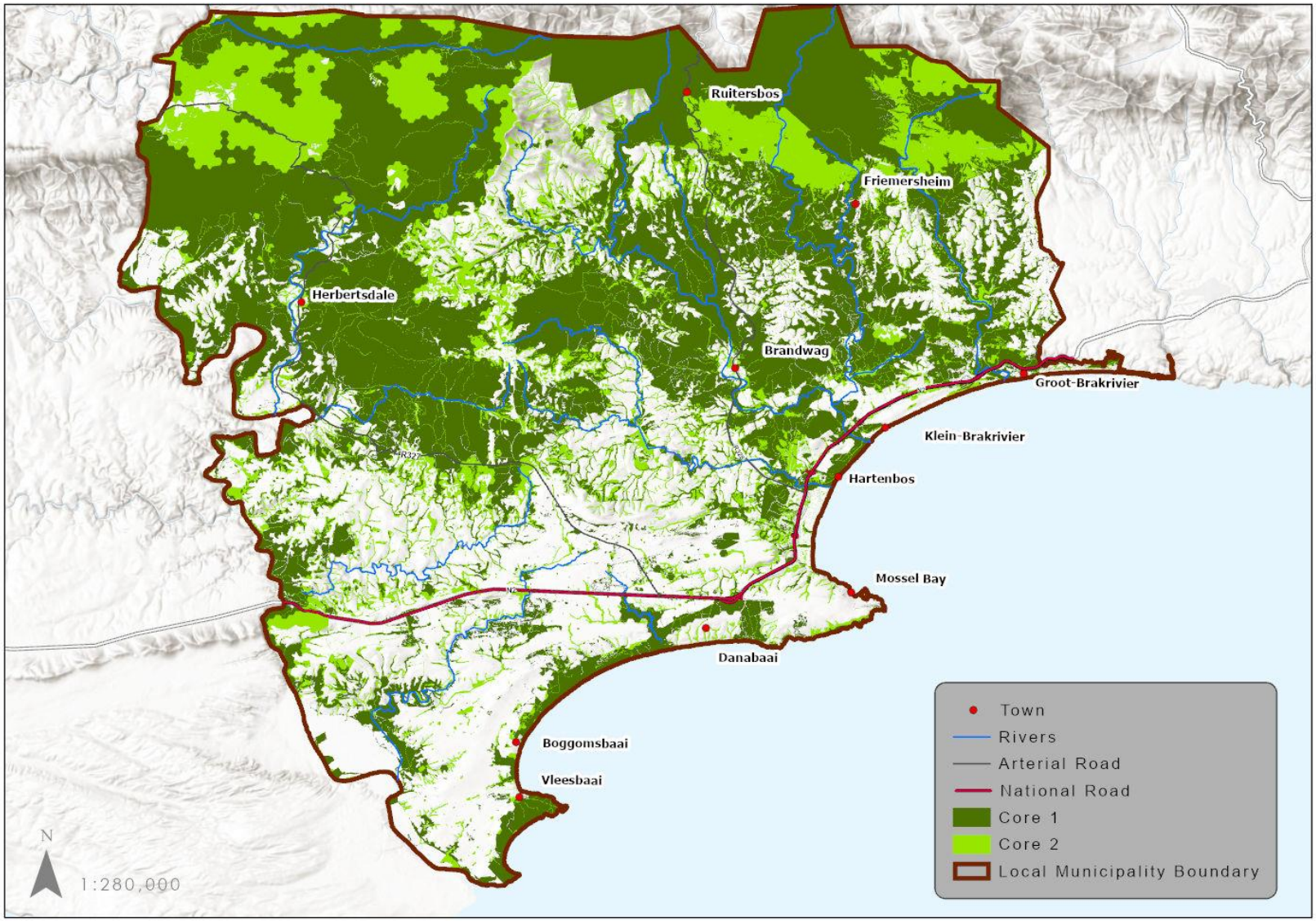


Figure 11: Core 1 & Core 2 EMZ/SPC combined

3.5.3. **Agriculture EMZ/SPC**

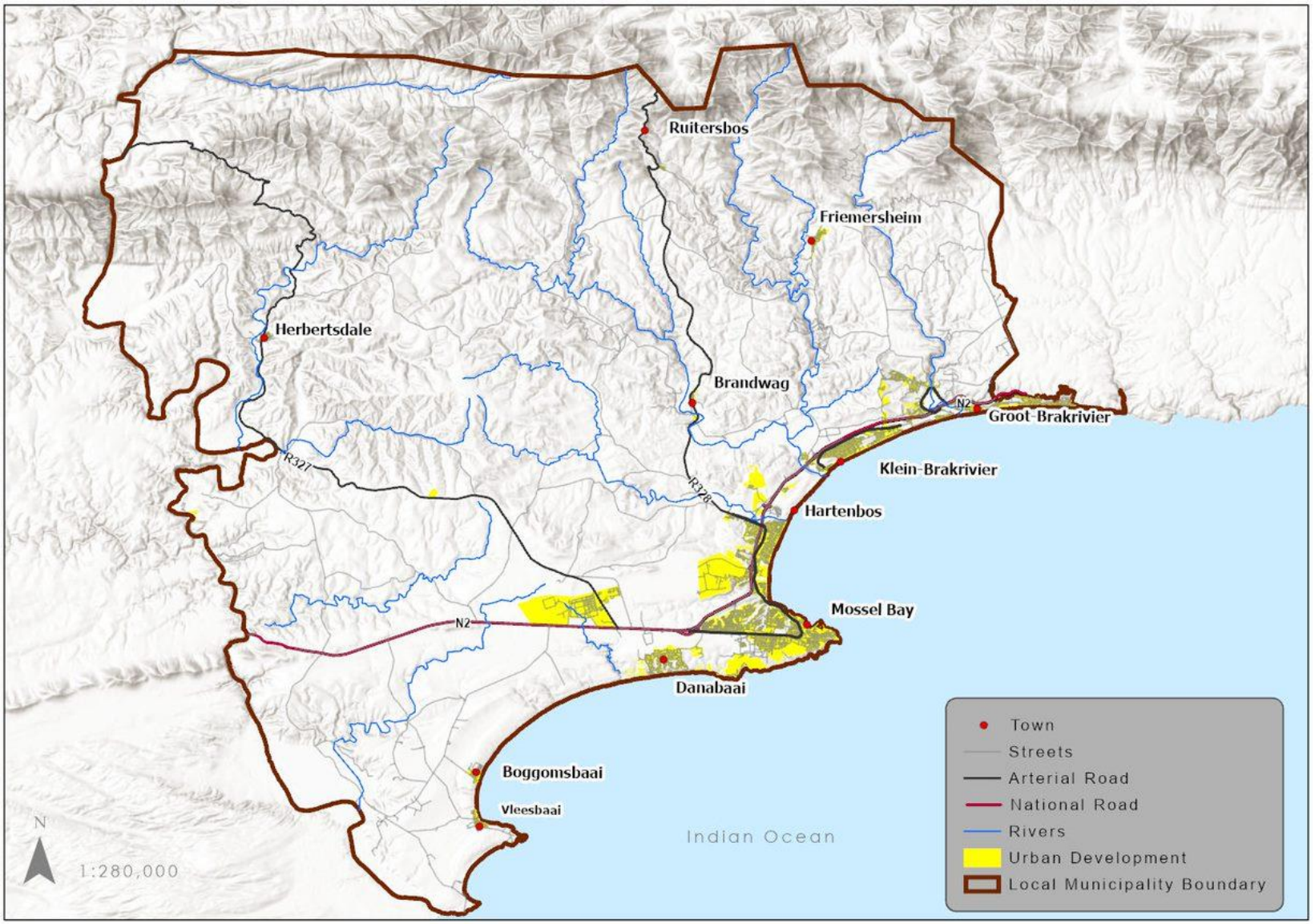
EMZ/SPC	Description and Objective	Guidelines on Land Use and Activities
Agriculture	**Agriculture:** The purpose of establishing the agricultural zone was to promote sustainable agricultural development with the intention of boosting the economy while conserving natural resources. The agricultural sector is important to the local economy and job creation in the area. Therefore, sustainable agricultural development is critical for resources that are important for food security, livelihoods, economic activity and job creation.	o Adhere to identified urban development edges around the periphery of high-value agricultural areas to prevent urban intrusion o Discourage the sub-division of agricultural land. o Areas with no natural habitat remaining are preferred sites for higher-impact land uses, and new projects should be located in these areas before modifying any remaining natural habitat. o For individual parcels of land identified as having specific actual or potential biodiversity values, develop incentives to restore lost biodiversity and connectivity. o Restoration and re-vegetation should be prioritised where heavily modified areas occur close to land of high biodiversity value, or are located such that they could potentially serve useful ecological connectivity functions (such as in ecological corridors).
	Intensive agriculture (High Value Agricultural Land / High Land Capability)/ (high potential and unique agricultural land)	o Preserve and utilise high potential agricultural land. o Protect high potential agricultural land and that measures be instituted to create and maintain circumstances conducive to sustainable agriculture. o Retain and protect high-value and unique agricultural land. o Protect agricultural land from ad hoc transformation.

		○ Promote conservation agriculture. ○ Prevent urban encroachment into high-potential agricultural areas. ○ Prevent agricultural encroachment into floodplains and riparian areas. ○ Prevent further loss of high-potential agricultural land. ○ To ensure that high value agricultural land, pending availability, are preserved for continued agricultural production, thereby ensuring long-term national food security. ○ Prevent further loss of high-potential agricultural land. ○ To ensure that high value agricultural land, pending availability, are preserved for continued agricultural production, thereby ensuring long-term national food security ○ Protect high potential agricultural land from non-agricultural development. ○ Facilitate sustainable abstraction and use of irrigation water in riparian zones of main rivers to ensure efficient food production. ○ In areas outside of the EMZs/SPCs, where potential competition exists between areas of high agricultural potential and other favourable land use, the relevant specialist studies will need to be conducted to allow for informed and balanced decision-making.

	Dryland agriculture (Includes tillage of non-irrigated crops (annual and perennial).	o These areas are important for grain crop production and food security. Crops produced in this region are produced through dryland agriculture and are dependent on rain. o Dryland agriculture is a dominant agricultural activity in this region. Suitable areas for dryland agriculture should be established to ensure maximum crop outputs in a sustainable manner. o The expansion of dryland agriculture areas into critical biodiversity areas is not supported. o Nonviable dry-land cultivated areas must be rehabilitated where possible. o The impact of climate change in these areas should be pro-actively managed and mitigated. o The carbon footprint of agriculture in these areas should be reduced to mitigate against the mentioned impacts.
	Irrigated agriculture	o Compile an integrated agricultural development plan to give effect to transformation of the commonage (i.e. irrigated land and grazing). o Protect the irrigated agricultural footprint. o Mossel Bay contains a number of irrigated areas that are vital for agricultural activity. o These areas are important for grain crop production and food security.

	o The attributes set out above were used as an informant for the development of the Agricultural Development Zone, which is shown spatially on Figure 3 below . Applicants and EAPs are advised to consult the GIS database that forms part of this EMF to ensure that all the relevant environmental attributes are identified for the project location and that the most accurate and up to-date information is being consulted. Ground truthing will always be required with any identified activities. Such ground truthing would also be valuable in determining the extent of the impact assessment required.

3.5.4. **Urban Development EMZ/SPC**



EMZ/SPC	Description and Objective	Guidelines on Land Use and Activities
Urban Development (and Settlement)	**Settlement:** This category includes the city and all existing towns, villages and hamlets. Settlements are delineated by municipalities in terms of an urban edge or by the Department of Environmental Affairs and Development Planning in terms of the 2014 NEMA Listing Notices as urban areas. The purpose is to develop and manage settlements on a sustainable basis. Wherever possible existing settlements should be used to accommodate non-agricultural activities and facilities. This is for reasons of: Local economic development; Consolidating, integrating and reinforcing	○ Areas with no natural habitat remaining are preferred sites for higher-impact land uses, and new projects should be located in these areas before modifying any remaining natural habitat. ○ For individual parcels of land identified as having specific actual or potential biodiversity values, develop incentives to restore lost biodiversity and connectivity. ○ Restoration and re-vegetation should be prioritised where heavily modified areas occur close to land of high biodiversity value, or are located such that they could potentially serve useful ecological connectivity functions (such as in ecological corridors). ○ Development should be confined to urban areas (areas situated within the urban node/edge/fringe, or where no such node/edge/fringe has been defined or adopted, areas situated within the edge of built-up areas) to minimise the effects of urban sprawl in the area. ○ Developments that might put stress on the protected environments should be avoided within the buffer area.

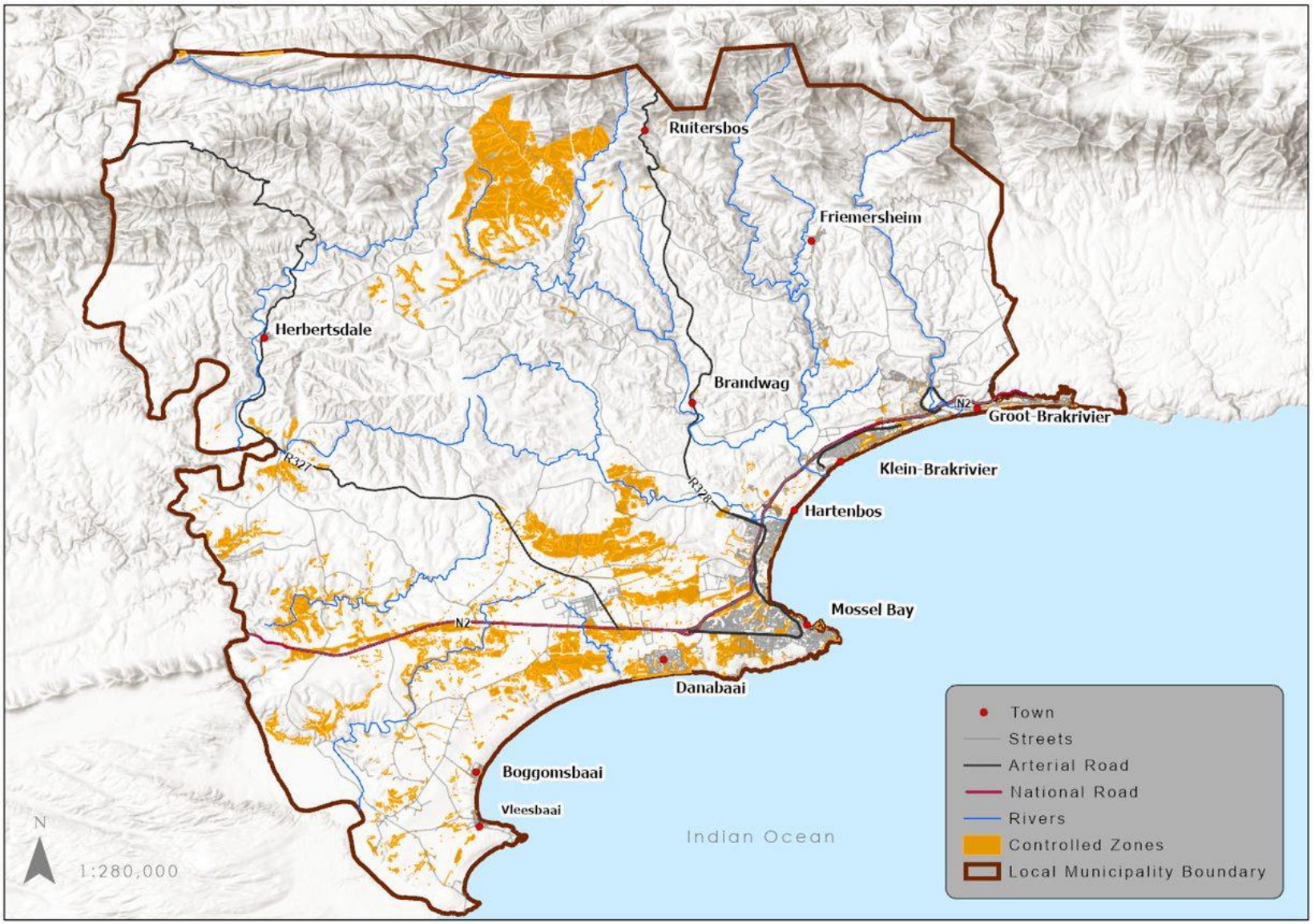
	settlement structure; Improving service delivery; Strengthening rural-urban linkages; Promoting socio-economic development; and Increasing thresholds for service delivery and social facilities.	
	Existing settlements and urban expansion (Include larger towns, small towns, villages, and hamlets)	o Support the incremental upgrading and formalisation of areas where informal units are widely prevalent. Encourage the provision of adequate service ratios needed to support incremental densification. The zone should be used for the expansion of urban areas and the integration of existing settlements.
	Community Facilities and Institutions (Includes Hospitals, clinics, schools, churches, police stations, fire stations, community halls or other gathering place)	o These areas should be considered for a wide variety of urban uses such as housing development, public open spaces, community facilities, mixed use / business development (where appropriate), but should not include noxious industrial uses.
	Urban Areas (as derived from the Local SDFs)	o Urban areas that have been identified in the local SDFs provide opportunity for sustainable urban development. o Contain the footprint of the town within the current urban edge. o The establishment of an urban edge will promote the use of vacant land within the urban edge over that of land outside of the urban edge.

		○ The consolidation of urban development in a sustainable manner. ○ The regulation of various land uses within an urban area. ○ Reducing the demand for urban development in areas of greater ecological importance or areas that are more vulnerable to urban development. ○ Urban development in vulnerable areas outside the urban edge should be avoided. ○ The impact of development on important urban ecology should be avoided and minimised. Where the important urban ecology cannot be avoided and the impact is significant after minimisation and mitigation, offsetting the impact may be acceptable to the Competent Authority.
	Urban infill /Densification Zone	○ Promote infill development and densification on undeveloped and underutilised land within the urban edge. ○ Support infill development on privately-owned land, which will enhance compaction and densification. ○ Densification should be promoted at appropriate locations within the urban edge. ○ The promotion of urban development in areas of less sensitivity. ○ The development of an urban edge.

		○ Provide alternative housing options that are sustainable and eco-friendly. Promote infill development strategies and green architecture. Promote better housing typologies and layouts that provide quality spaces for social integration and economic opportunities. Management measures that maintain or enhance the sense of place must be implemented. ○ The use of open space, green infrastructure and for amelioration of extreme urban weather conditions (e.g. flash floods and heatwaves) must be considered to avoid wall-to-wall development. ○ Development proposals must incorporate measures to adapt to climate change pressures for the region. Energy efficiency and water wise designs must also be taken into consideration. ○ Ensure that all new developments include a 'range of elements' that contribute to a more sustainable and legible urban environment.
	Settlement (type of settlements are as follows: Regional Service Centre, Specialised Coastal Centres, Villages and Rural hamlets and Coastal resorts)	○ The municipal SDF and its associated urban edge should define areas suitable for the expansion of existing settlements. ○ Municipal SDFs should divert urban growth pressures away from CBAs. ○ Use CBA, ESA and high potential and unique agricultural land mapping to inform delineation.

		○ Prevent settlement encroachment into agricultural areas, scenic landscapes and biodiversity- and ecological system service priority areas, especially between settlements, and along coastal edges and river corridors. ○ Urban "fringe areas" earmarked for urban development or expansion should be included in the Settlement SPC. ○ Higher densities and appropriate development typologies. Urban edge to protect agricultural land of high potential and contain settlement footprints.
	○ The attributes set out above were used as an informant for the development of the Urban Development Zone, which is shown spatially on Figure 4 below. The dataset used as an informant for the development of this EMZ was derived from the latest municipal SDF for current and future urban development planning. Applicants and EAPs are advised to consult the GIS database that forms part of this EMF to ensure that all the relevant environmental attributes are identified for the project location and that the most accurate and up-to-date information is being consulted. Ground truthing will always be required in respect of any identified activities. Such ground truthing would also be valuable in determining the extent of the impact assessment required.	

3.5.5. **Controlled EMZ /SPC**



EMZ/SPC	Description and Objective	Guidelines on Land Use and Activities
Controlled areas	The controlled zone was established with the intention of ensuring sustainable development on landscapes that can withstand marginal impacts. Development activity is allowed if controlled and monitored in a sustainable manner. This zone contains heritage and scenic resources that are important to society for sense of place and an element of wilderness.	o Restrict up-slope development. o Rehabilitation of rivers, streams, and buffer areas, to create natural corridors. o Apply buffer areas around wetlands and core areas. o Rehabilitate and protect riverine corridors. o Extend the river setback, to retain an agricultural buffer. o Contain the urban footprint within the urban edge. o Prevent ad-hoc outward expansion of urban settlements by maintaining tight urban edges. o Contain future proposed development within the urban edge and maintain a tight urban edge. o Development within Other Natural Areas (ONAs) may be permitted and controlled. o To retain aesthetic appeal of the landscape. o To reduce the development within areas vulnerable to change. o Protection of irreplaceable resources (conservation zones). o No settlement or infrastructure development below the 1:50-year flood line. Only appropriate settlement or infrastructure development within the 1:100-year flood line.

		○ No activity that would result in erosion or destabilize slopes, including cultivation of land erection of structures or building ○ ONAs consist of land that is of less biodiversity importance. Unlike the CBAs, the ONAs do not need to be protected in order to meet biodiversity thresholds, therefore allowing for controlled development to occur. ○ Conservation and tourism orientated developments should be promoted within the buffer area. ○ High density developments, industrial developments, mining activities and other high-impact developments should be avoided in the buffer area.
	Buffer 1 Other Natural Areas (Natural to Near natural/ Degraded)	○ These areas may be natural or they may be degraded but still play an important role in supporting the functioning of PAs or CBAs, and are essential for delivering ecosystem services. ○ These areas should be restored and/or managed to minimize impact on ecological infrastructure functioning; especially soil and water-related services. ○ Conservation activities as per Core 1 and 2 Areas, including sustainable consumptive or non-consumptive uses. ○ Forestry or timber plantations may be included in this category.

		○ Biodiversity compatible land uses, as informed by transformation thresholds, including rural accommodation. ○ Development (e.g. structures) in support of both tourism and biodiversity conservation in Core Areas, preferably located in Buffer 1 and 2, if logistically feasible. ○ Buffer areas be protected from over-grazing and trampling, in order to avoid wetland shoreline and river bank erosion and destabilization. ○ Other Natural Areas: Minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for certain land-uses. ○ To minimise the loss of intact habitat which play an important role in the conservation of threatened species. ○ To ensure that development within high-risk areas (such as flood lines) are controlled. ○ Protection of irreplaceable resources (conservation zones). ○ No settlement or infrastructure development below the 1:50-year flood line. Only appropriate settlement or infrastructure development within the 1:100-year flood line.

		○ No activity that would result in erosion or destabilize slopes, including cultivation of land erection of structures or building. ○ Limit the type of development - only low impact development should be acceptable (such as certain linear service infrastructure). ○ • Where higher impact development cannot be avoided, development should be compatible with the zone aim to enhance biodiversity protection (e.g. ecotourism). ○ Avoid hard development and structures below the 1:50-year flood line and allow only development that could withstand / accommodate floods below the 1:100-year flood line (e.g. sport fields, parkland / open space). ○ Avoid development on steep slopes and/ or ensure design addresses risks. Where development is proposed, relevant specialist input to be attained to generate mitigation strategies that may offset the negative impacts of the proposed development.
	Buffer 2 Ecological Support Area 2/ Other Natural Areas (Natural to Near natural/ Degraded)	○ Buffer 2 includes areas designated as Other Natural Areas, located in an extensive and/or intensive agriculture matrix (i.e. livestock production) as the dominant land use. ○ To minimize habitat and species loss and ensure ecosystem functionality through strategic landscape

		planning. The areas offer flexibility in permissible land-uses, but some authorisation may still be required for certain land-uses. o Potential for controlled low impact development, thereby allowing for protection of more sensitive resources.
	o The attributes set out above were used as an informant for the development of the Controlled Zone, which is shown spatially on Figure 5 below. Applicants and EAPs are advised to consult the GIS database that forms part of this EMF to ensure that all the relevant environmental attributes are identified for the project location and that the most accurate and up-to-date information is being consulted. Specialist studies would always be required for "ground truthing" purposes in respect of any identified activities. Such ground truthing would also be valuable in determining the extent of the impact assessment required.	

4. Urban Areas / Urban Edges

One of the objectives of this SDF/EMF is to identify and establish an "Urban Area" for Mossel Bay which could be used in the identification of listed activities and evaluation of environmental applications. The EIA Regulations 2014 define "urban areas" as "areas situated within the urban edge (as defined or adopted by the competent authority), or in instances where no urban edge or boundary has been defined or adopted, it refers to areas situated within the edge of built-up areas". There is a difference between "urban areas" in terms of the EIA Regulations, 2014 and "urban edges" in terms of the MSA.

In terms of the EIA Regulations, "urban areas" are defined and adopted by the environmental authorities, while "urban edges" in terms of the Municipal Systems Act is defined by Municipalities. In 2012, the Department issued a NEMA EIA Circular 1 of 2012 that defined an "interim urban edge", which means "the current extent of urban development including serviced erven and erven for which rezoning approvals have been granted". This means that erven that were either already lawfully developed as urban development or were already rezoned or lawfully serviced prior to 5 March 2012, are regarded as being within urban areas. The exception is if this Department has adopted different urban areas through the use of, for example, EMFs or as part of an EIA process. In the identification of the urban areas in this SDF/EMF, the "5 March 2012" date of determining urban areas has been shifted to the current status quo.

There are places where the urban edge and urban area includes Critical Biodiversity Areas (CBAs). The purpose of the urban edge (to direct future development) and the management priorities of CBAs are often in conflict with each other. For this reason, where CBAs are on the periphery of urban areas, these have in most part been excluded from the urban area. Where these are inside the town, these areas have been included in one of the conservation EMZs (Core 1 or Core 2).

Neither the urban edge nor the urban areas guarantee development rights. The urban edge and urban areas indicate a desired urban form for a sustainable urban environment and through the compilation of this document all high-level information is considered. Where required to do so, development located inside the urban edges or urban areas will still go through planning and environmental administrative process before development can commence. It is therefore not correct to assume that if an area has been identified as an urban area that it can or will be developed.

Some conflicts and pressures that may arise are those pertaining to development clustered around existing infrastructure and natural features. If not effectively managed this type of clustering may contribute to the existing cumulative impacts and cause a number of environmental problems, ranging from water pollution to land degradation. Further conflicting land uses include any land use that will deprive landowners and communities of their existing rights relating to the lawful use of the land or negatively affect the safe, undisturbed and quiet enjoyment of their properties. Conflicts and pressures can, however, be managed if recognised and planned for in a pro-active manner, as this framework and other parallel tools set out to do.

Comparison between the urban edge and urban areas of towns in the Mossel Bay Municipality can be seen below. There are differences between the urban edge and urban area of Mossel Bay town. The areas that are inside the urban edge but outside the urban area are indicated as one of the other EMZs/SPCs. In a revision of the SDF/EMF, the aim is to ensure that the urban edge and urban area are better aligned. The alignment of the urban edge and urban area will create better certainty for development planning within these areas.

Figure 12: Mossel Bay Town Urban Edge / Area

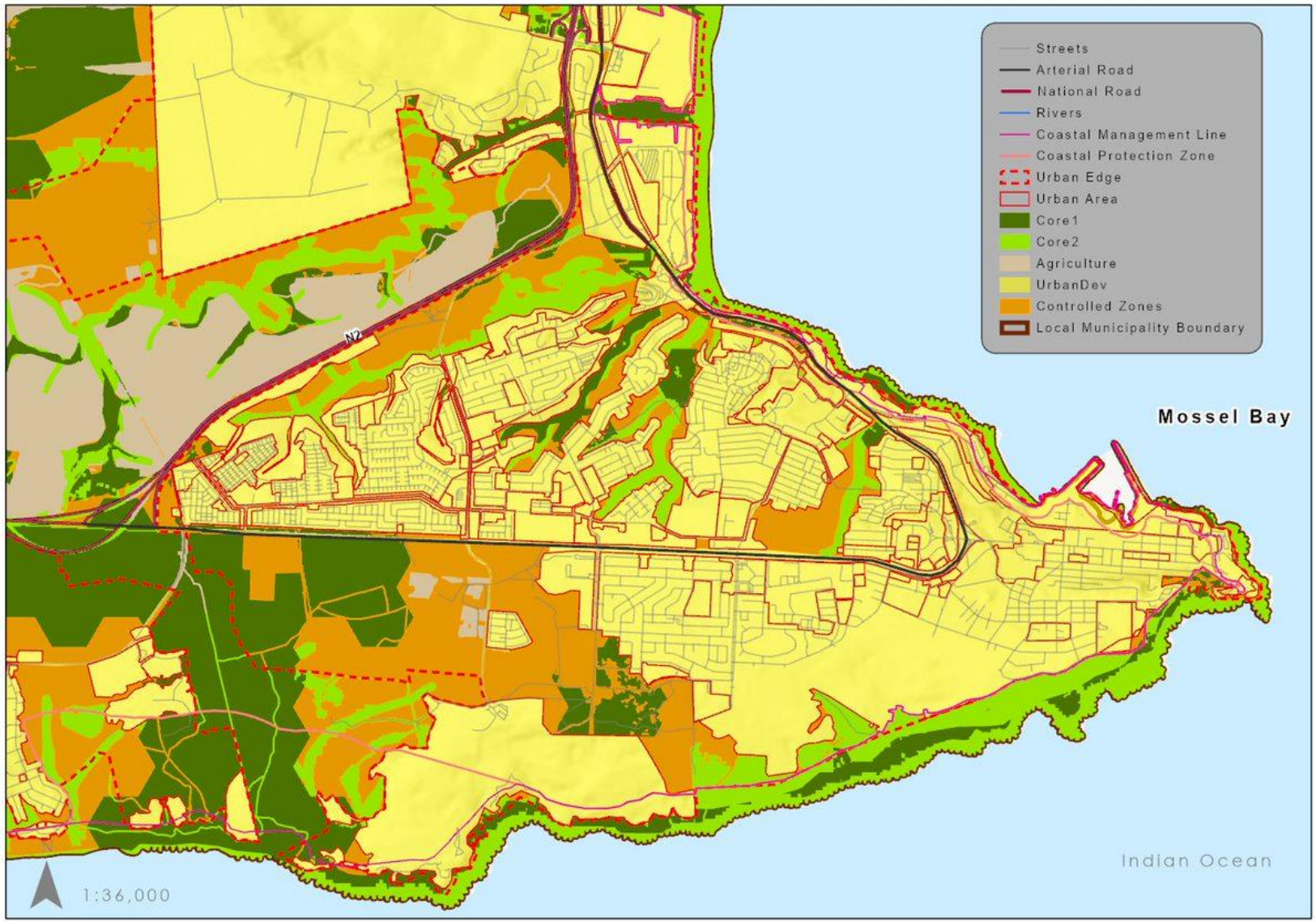


Figure 13: Danabaai Urban Edge / Area

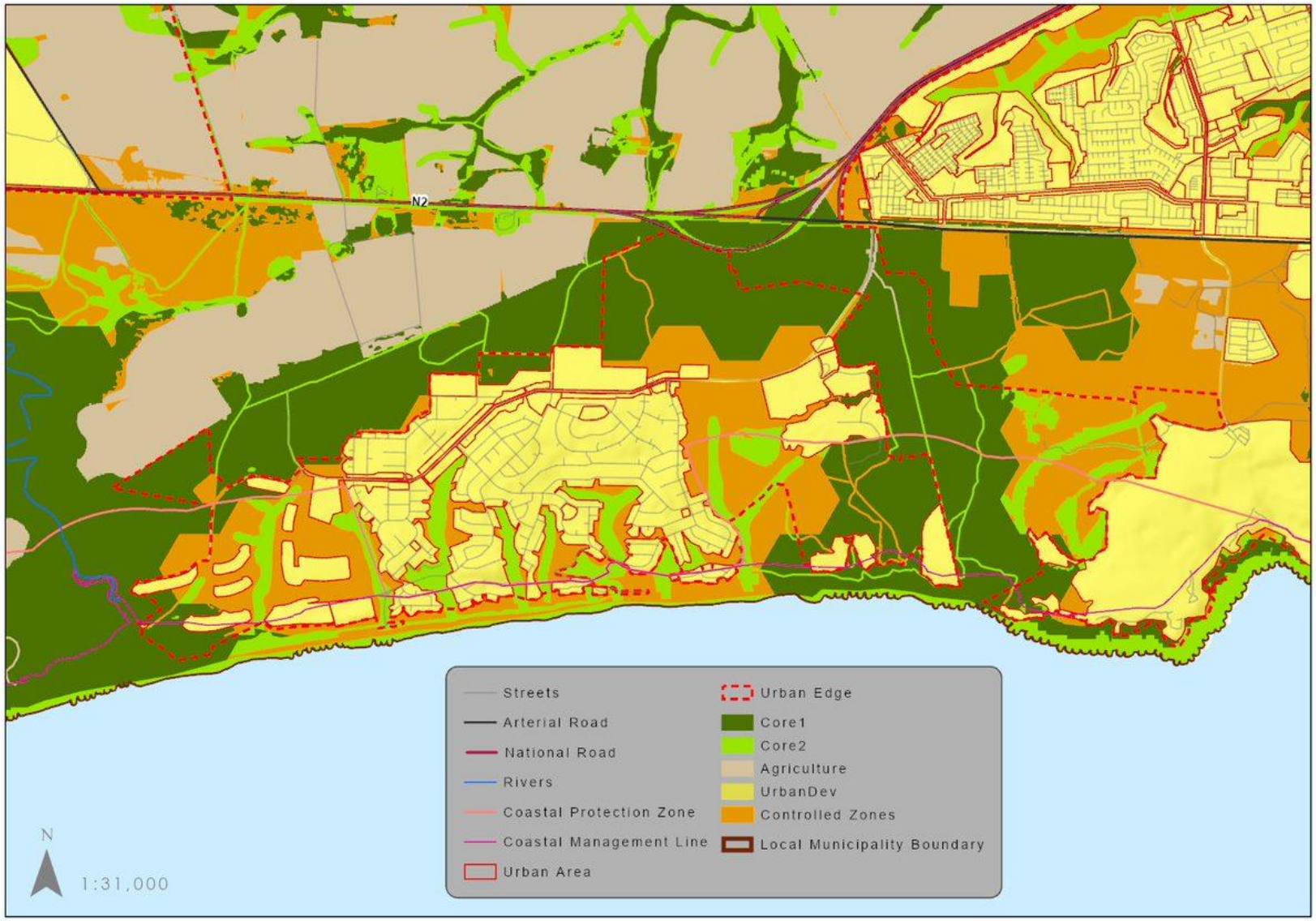


Figure 14: Hartenbos Urban Edge / Area

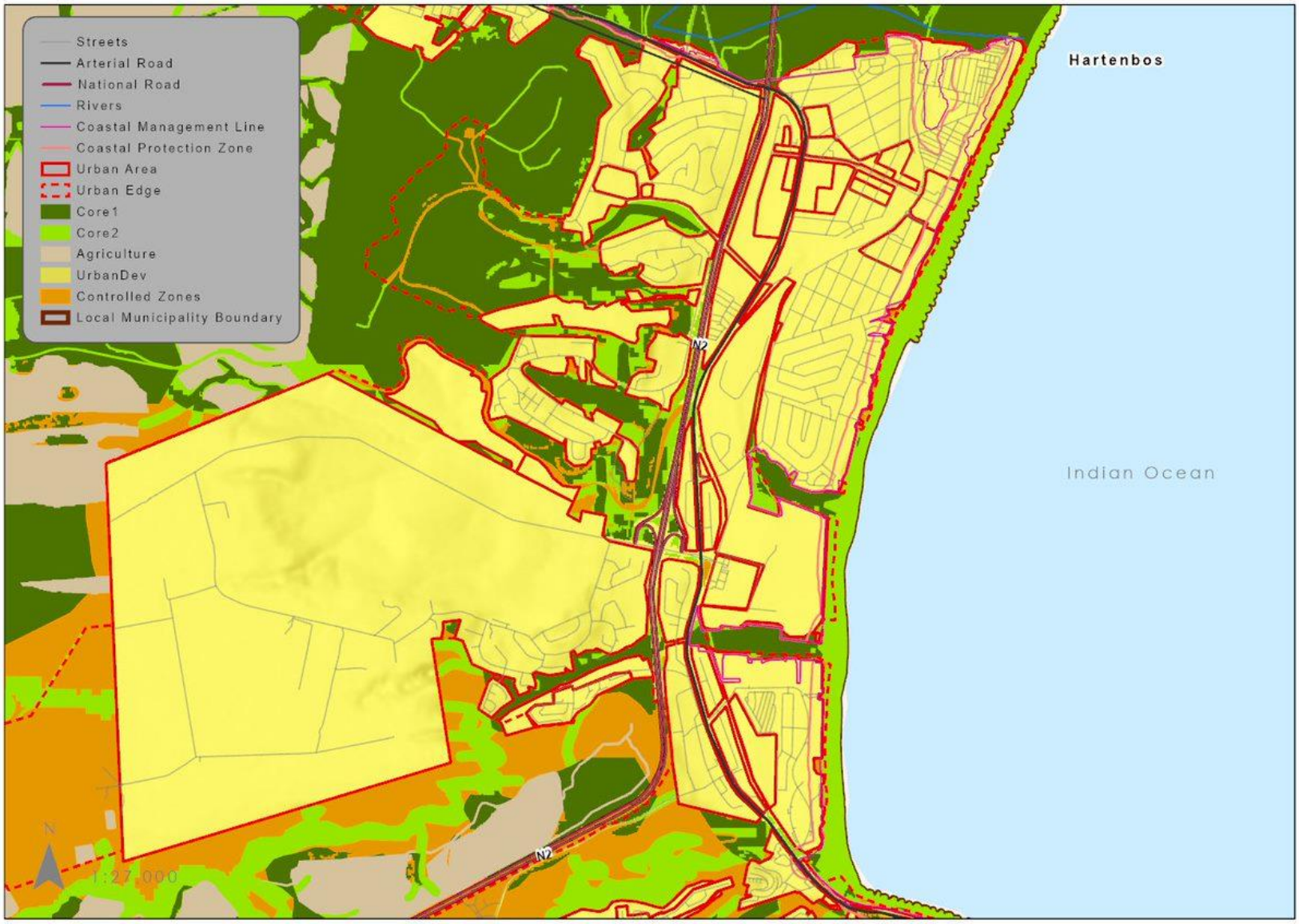


Figure 15: Hartenbos North

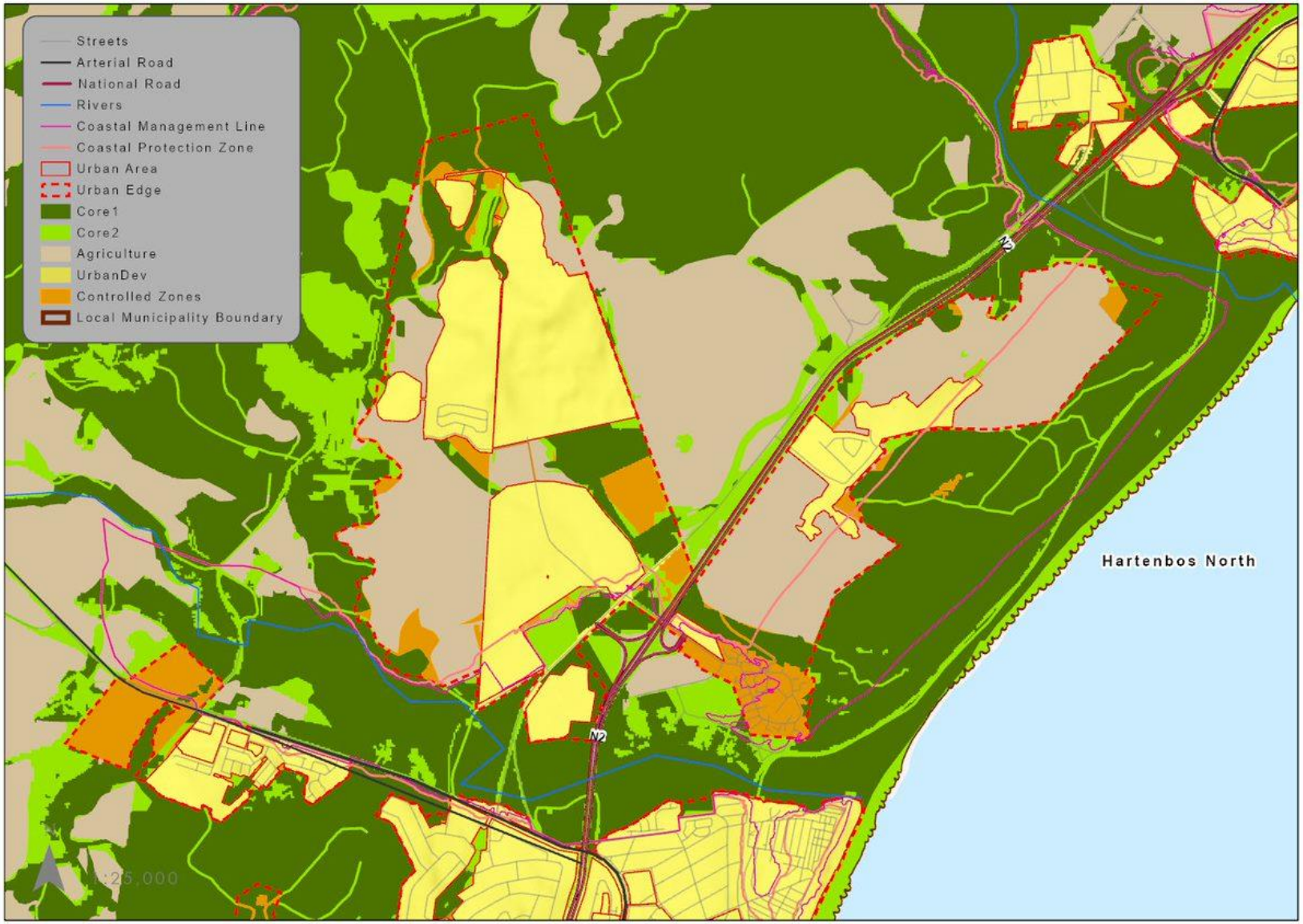


Figure 16: Kleinbrak Area

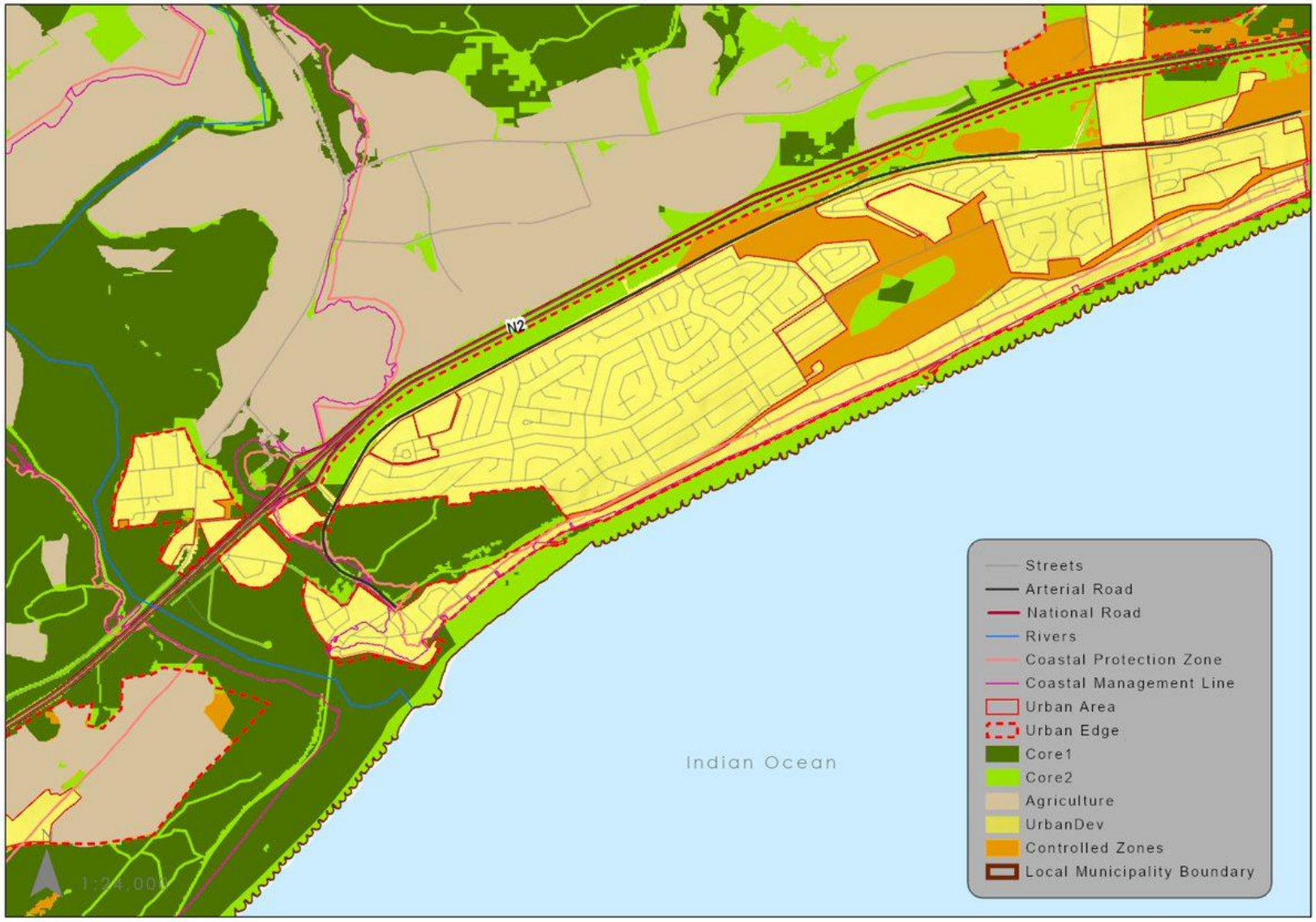


Figure 17: Groot-brakriver Urban Edge / Area

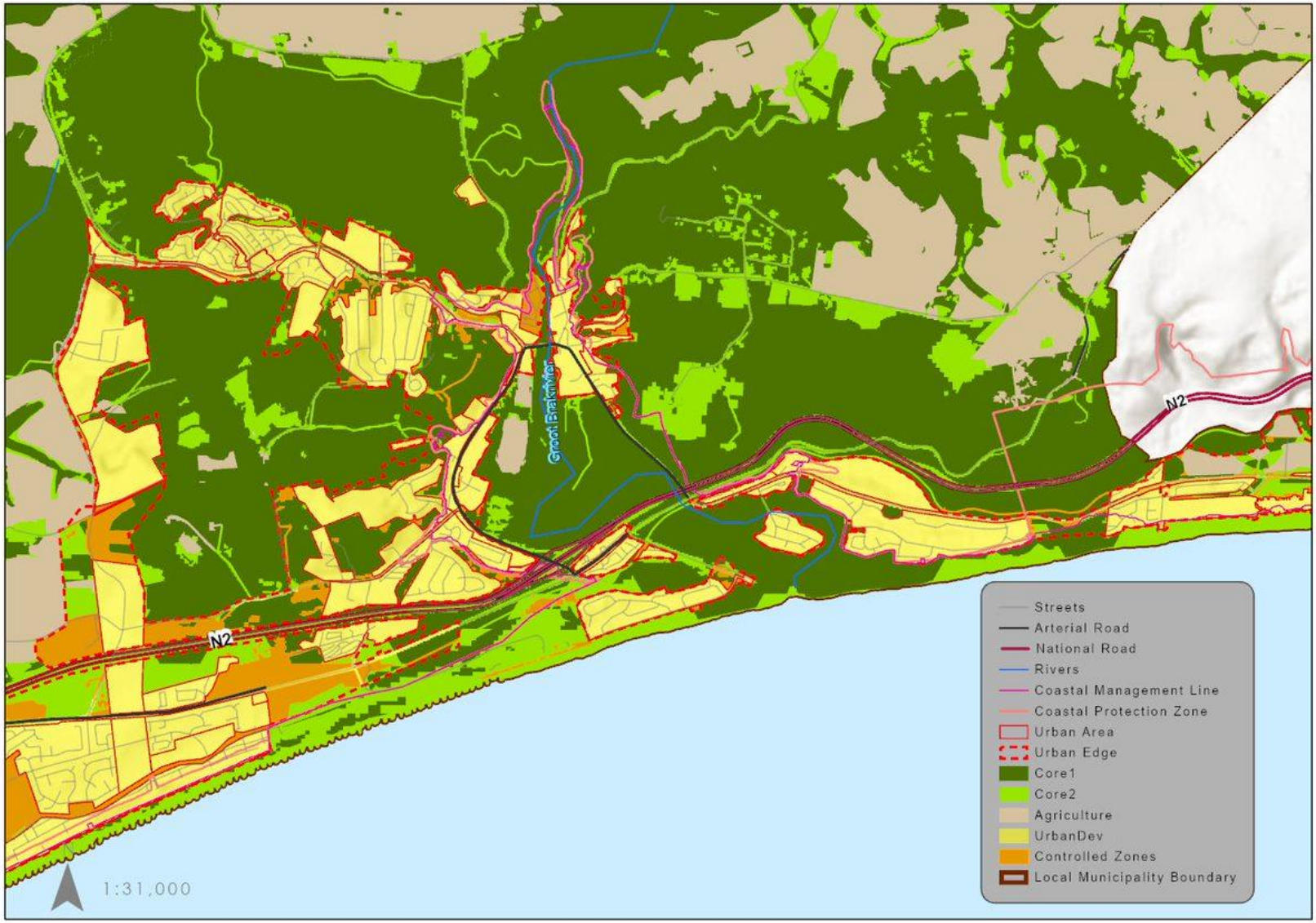


Figure 18: Glentana Urban Edge / Area

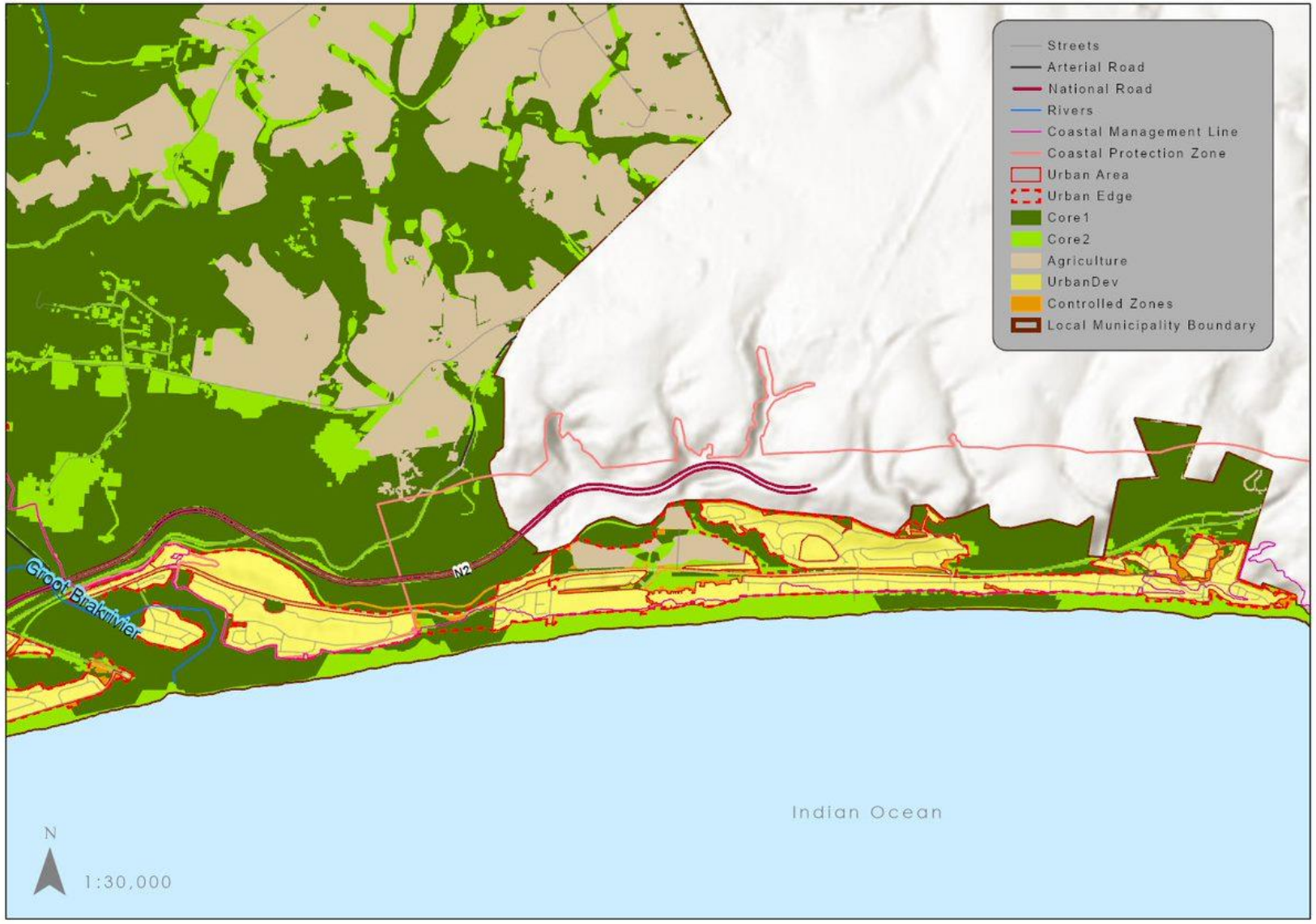


Figure 19: Vleesbaai Urban Edge / Area

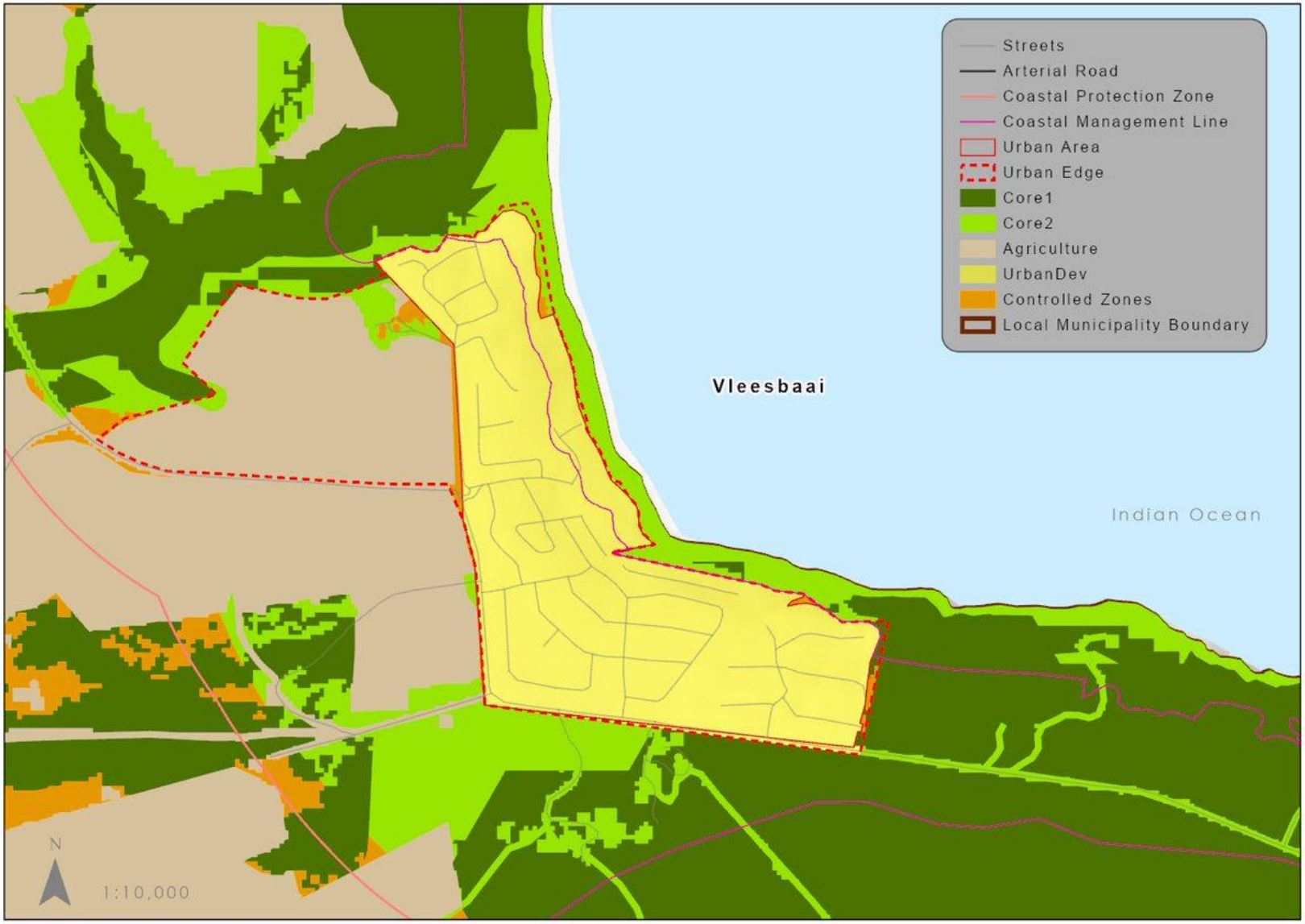


Figure 20: Boggomsbaai Urban Edge/ Area

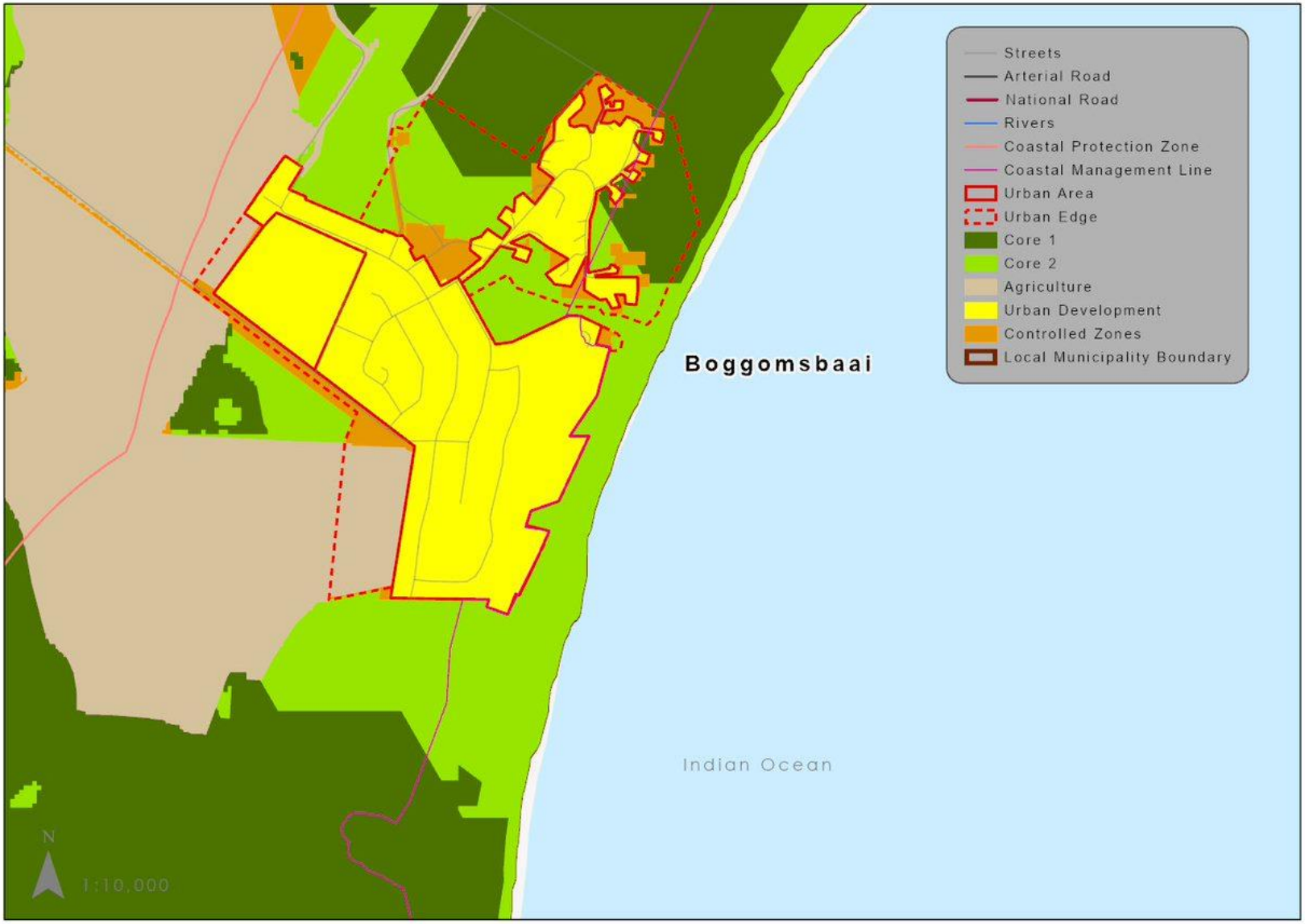


Figure 21: Herbertsdale Urban Edge / Area

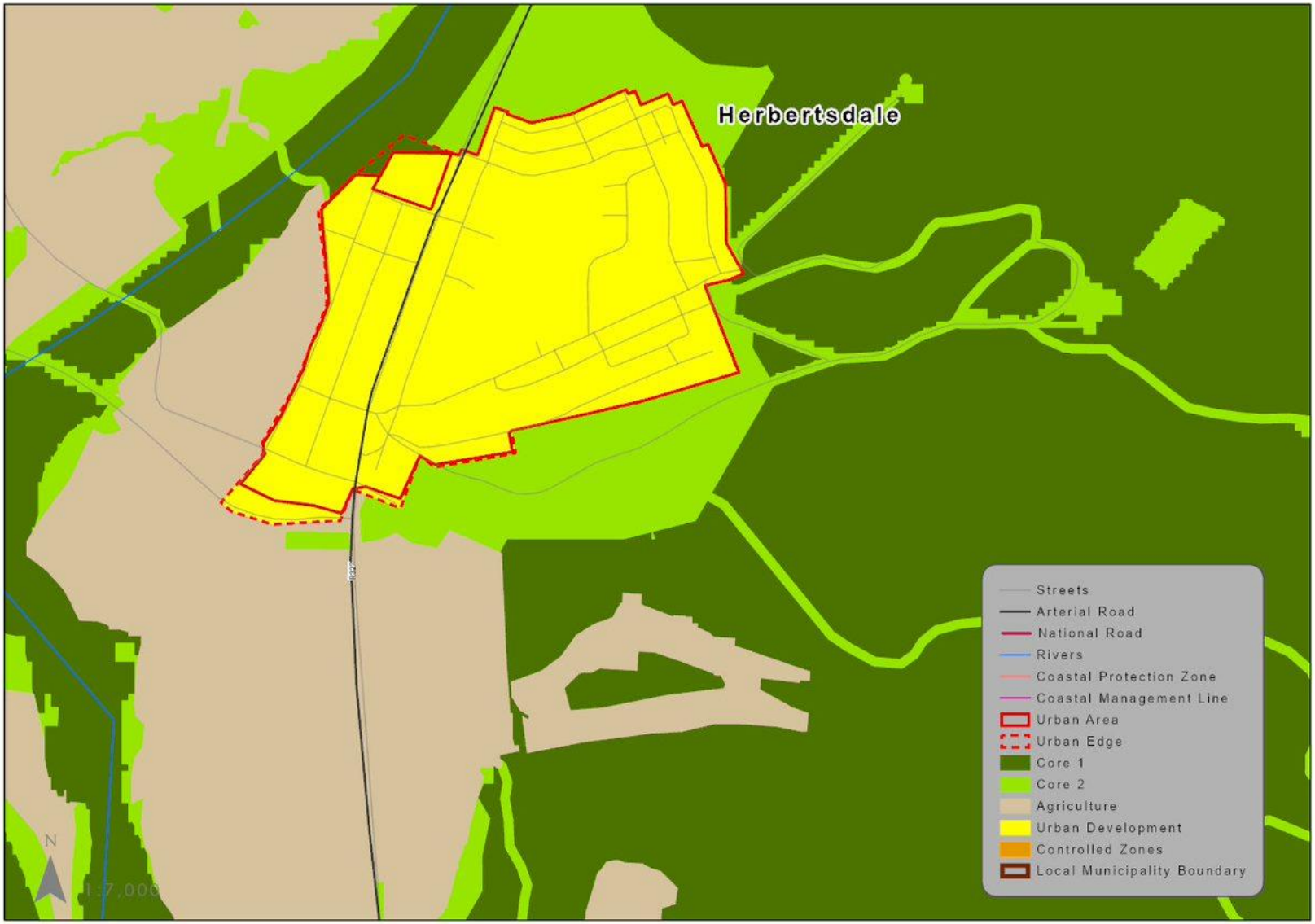


Figure 22: Friemersheim Urban Edge / Area

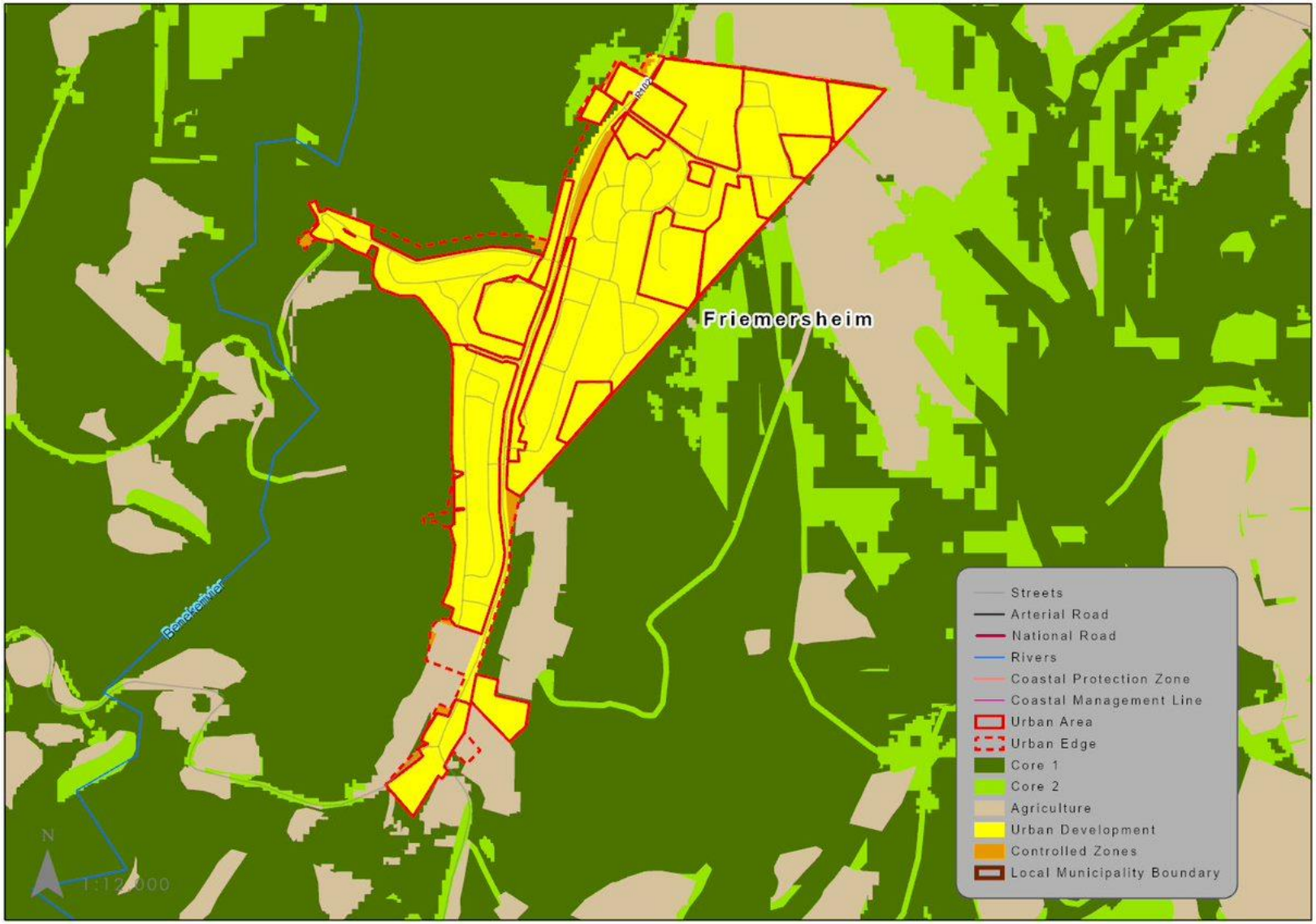


Figure 23: Ruitersbos Urban Edge / Area

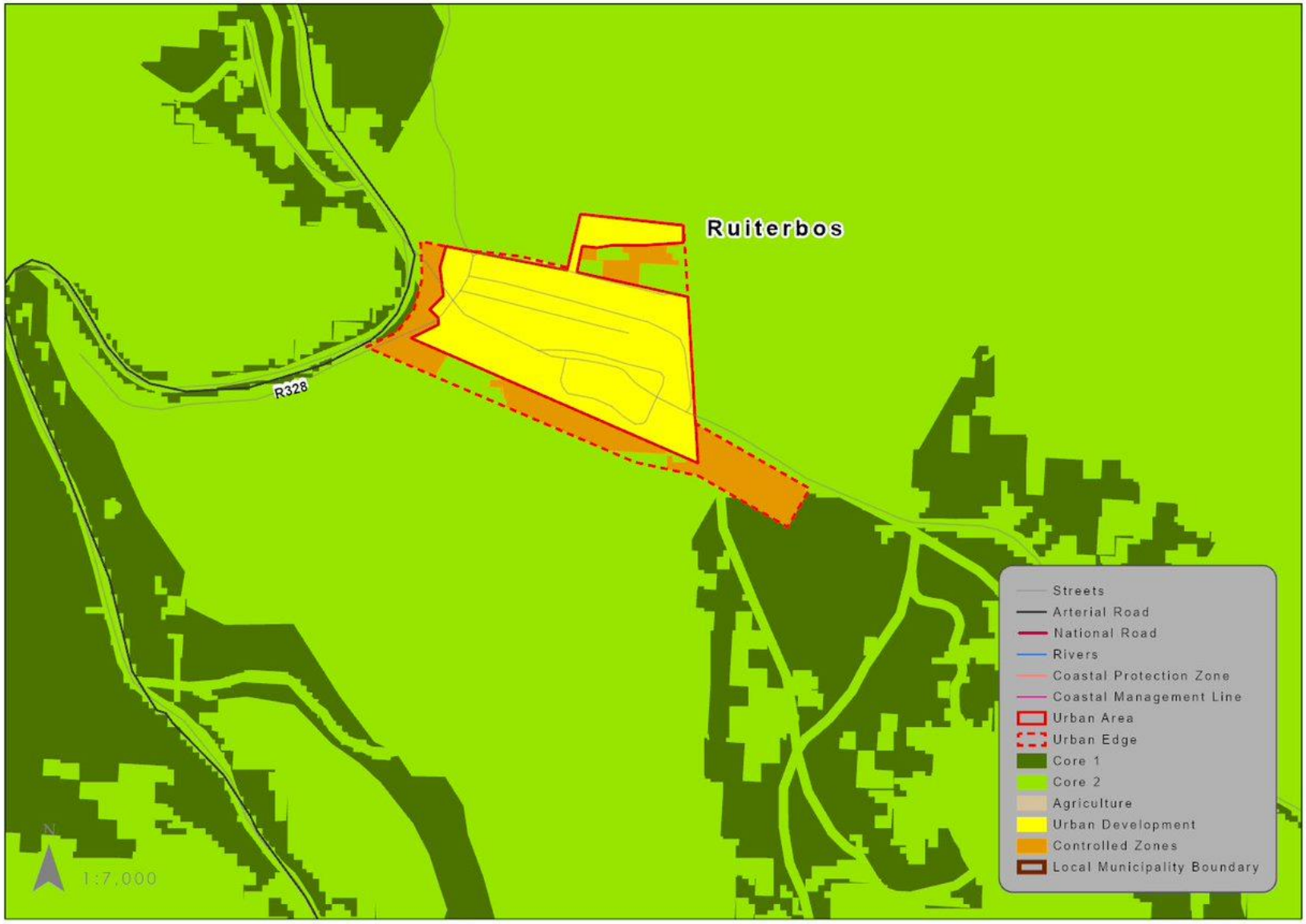
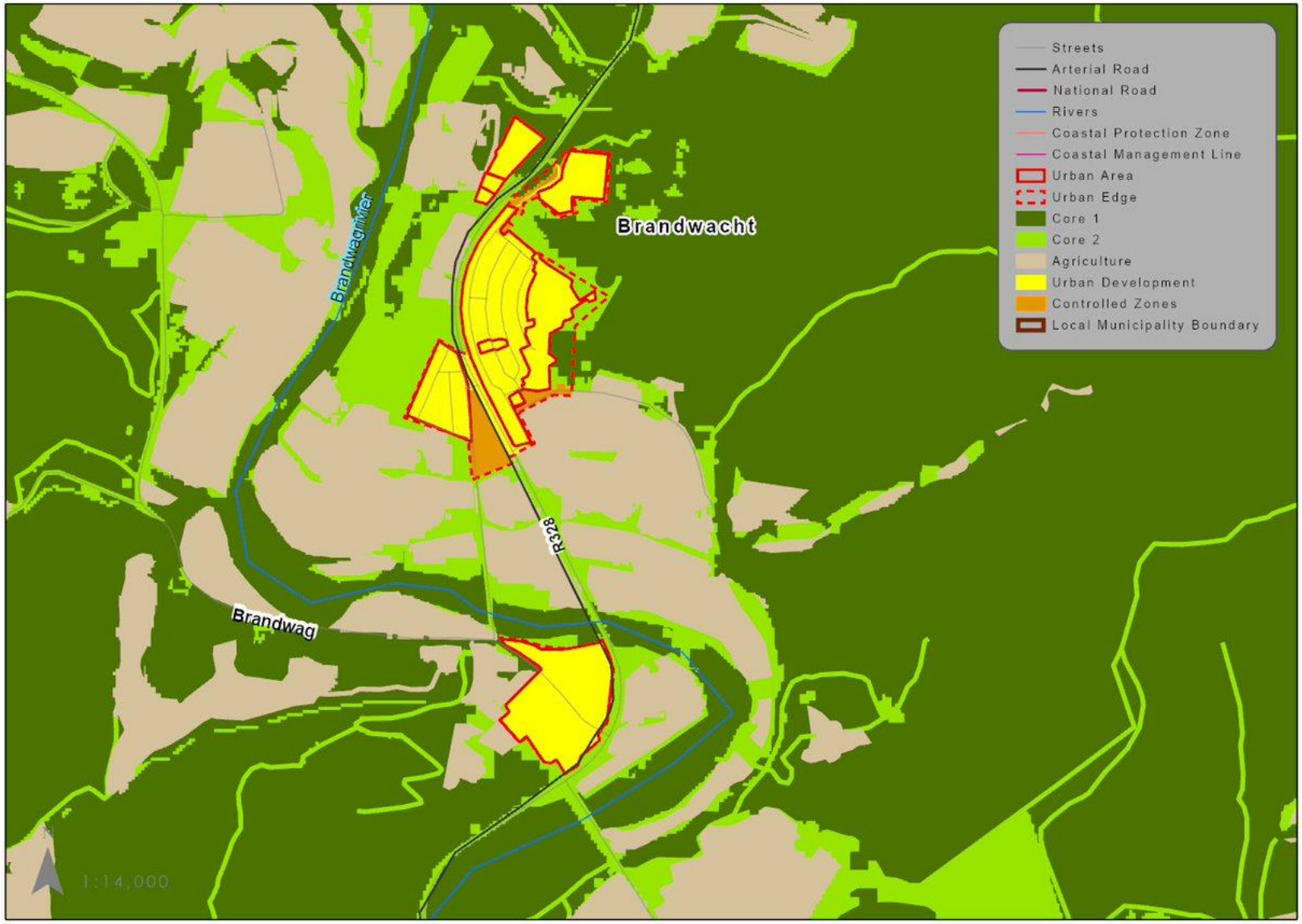


Figure 24: Brandwacht Urban Edge/ Area



5. General Guidance for EIA Process

This section provides guidance on the use of the EMF in respect of the EIA Regulations (2014) and for the use of the EMF when undertaking an application for environmental authorisation. This section provides strategic guidance and deals with the manner in which the EMF should be used in the EIA process.

5.1. Use of the EMF

The SDF/EMF should be used as follows:

- As a **screening tool** to evaluate whether the proposed location for a project is appropriate or not. This should be done through consulting both the SDF/EMF document and the associated GIS database. "Groundtruthing" would be of assistance in this regard. Where more than one location is under consideration, the SDF/ EMF could be used to establish which option would be the most suitable. Furthermore, the SDF/EMF could be consulted prior to acquiring land (e.g. prior to purchase), as part of the process of assessing its suitability for a particular use, purpose or project.

- As a **scoping tool** to identify the issues that require investigation as part of the EIA process. Each attribute that is indicated as being present at a particular location and its surroundings would need to be considered and relevant specialist input obtained where relevant. Note that a site should not be viewed in isolation since impacts can extend beyond cadastral or property boundaries. Thus, attributes within close proximity to the proposed development location must also be considered. This would be particularly relevant where a proposed development will rely on resources outside of its boundaries or where it would result in the discharge of emissions, effluent or wastes. The use of the SDF/EMF to assist scoping should involve reference to both the SDF/EMF document and the associated GIS database. "Groundtruthing" would be of assistance in this regard.

- As an **impact assessment tool**, particularly in respect of determination of the acceptability of impacts. The tables that provide the management framework for each EMZ/SPC are applicable in this regard. Acceptability of impacts should be tested against the objectives, desired outcomes and limits of acceptable change described in these tables.

- The earlier the SDF/EMF is consulted in the project planning and design process, the greater the potential for formulating a development proposal that is appropriate and that meets important sustainability criteria. Identifying issues that may be 'showstoppers' at an early stage is invaluable. These would be those issues that have significant potential for the rejection of the proposed development by I&APs and/or that have a high risk of having environmental authorisation refused. The SDF/EMF would also serve to identify issues that represent 'red flags'. These would be those issues that need to be addressed to ensure the proposed development is appropriate. Such issues require investigation and the development would need to be responsive to the findings of the resultant studies. The more the development proposal responds to the sensitivity of environmental attributes (e.g. through avoiding adverse impacts), the greater the potential for it to be accepted and to make a positive environmental and social contribution.

5.2. Roles and responsibilities

The roles and responsibilities in respect of the SDF/EMF are concerned with its implementation. There are various parties that have a role to play in giving effect to the SDF/EMF. These are:

- The environmental decision-making authorities (competent authority in respect of environmental authorisations under section 24 of NEMA).
- Commenting authorities
- Authorities responsible for natural resources management
- Environmental Assessment Practitioners / Specialists
- Applicants

- Interested and Affected Parties

Table 4: Roles and responsibility in respect of the SDF/EMF

ROLE	RESPONSIBILITY
DEA&DP, DFFE, and the Department of Mineral Resources – competent authority for issuing environmental authorisation[1]	• **Take the SDF/EMF into account:** Cognisance must be taken of the SDF/EMF when considering environmental applications in the area covered by the EMF. This is a requirement of regulation 2(1)(c) of the 2010 EMF Regulations and of section 24(3) of NEMA. • **Measure performance:** The competent authorities should include performance indicators in their Annual Performance Plans to track the extent to which environmental decision are aligned / not aligned with the EMF. • **Maintain the SDF/EMF:** Ensure that the SDF/EMF is kept up-to-date in accordance with an appropriate review period schedule. In doing so, cognisance must be taken of policy and legal developments as well as information pertinent to environmental trends including (but not limited to) the provincial and municipal SoER / Environmental Outlook Report, water resource management plans, biodiversity plans, waste management plans and AQMPs.
DEA&DP (sections responsible for Climate Change; Biodiversity and Coastal Management; Sustainability, Waste Management, Air Quality	• **Keep track of transformation of biodiversity:** This applies in general and in particular to CBAs/CESAs/FEPAs and listed threatened ecosystems. Monitoring of levels of illegal conversion of natural areas also needs to be undertaken.

[1] "environmental authorisation", when used in Chapter 5 of NEMA, means the authorisation by a competent authority of a listed activity or specified activity in terms of this Act, and includes a similar authorisation contemplated in any Specific Environmental Management Acts (NEM Protected Areas Act, NEM Biodiversity Act, NEM Air Quality Act, NEM Integrated Coastal Management Act, NEM Waste Act and National Water Act). That is, 'environmental authorisations' include emissions and waste licenses/permits, in addition to EIA authorizations.

Management, Pollution and Chemicals Management) **CapeNature** **SANBI**	• **Monitor remaining areas of natural, indigenous vegetation:** It is essential that remaining areas of natural vegetation are monitored in relation to conservation targets and that a reliable record of areas formally protected for conservation is maintained. • **Revise biodiversity plans:** It is important that any loss of CBAs/CESAs/FEPAs triggers a revision of associated biodiversity plans and re-assessment of areas needed to meet conservation targets, when and where practicable. • **Coastal Management:** Keep track of the transformation of coastal areas and availability of coastal access to the public. • **Environmental Quality:** Keep track of the state of air quality, water quality and waste management in the municipal area.
DEA&DP (sections responsible for spatial and development planning)	• **Take the SDF/EMF into account:** Although there is no specific regulatory obligation placed on this Directorate to consider the EMF in decision-making, it must be borne in mind that an obligation is placed on all organs of state to consider the NEMA principles in respect of any activity for which they are responsible, where the activity could have significant environmental consequences. Decisions that involve land use and spatial planning would fall into this category. The EMF has taken cognisance of the NEMA principles and thus provides a mechanism for the Directorate to meet this legal obligation. Similarly, the EMF offers support to the Directorate in giving effect to the Environmental Right in the Constitution. It also supports the realisation of the Provincial Government of the Western Cape's strategic objective relating to the mainstreaming of sustainability into its activities.
Municipalities	• **Take the SDF/EMF into account:** Although there is no specific regulatory obligation placed on the municipality to consider the EMF in decision-making, it must be borne in mind that an obligation is placed on the municipality to consider the NEMA principles in any activity that could have significant environmental consequences. Decisions that

	involve land use and spatial planning would fall into this category. The EMF has taken cognisance of the NEMA principles and thus provides a mechanism for the municipality to meet this legal obligation. Similarly, the EMF offers support to the municipality in giving effect to the Environmental Right in the Constitution. Furthermore, the EMF would be of assistance to the municipality in drawing up comments on environmental applications in its role as a commenting authority.
Other authorities	• **Take the SDF/EMF into account:** Consider the SDF/EMF in decision-making as it is a requirement to consider the NEMA principles in any activity that could have significant environmental consequences. The EMF has taken cognisance of these principles and thus provides a mechanism for the authority concerned to meet this legal obligation. • **Use the SDF/EMF for commenting purposes:** The SDF/EMF would be of assistance in drawing up comments on environmental applications.
Environmental Assessment Practitioners and specialists	• **Take the SDF/EMF into account:** Consider the EMF when conducting Basic Assessments or Scoping and Environmental Impact Reporting processes. The SDF/EMF serves as a guide for the location of development proposals. It also provides assistance in identifying potentially significant impacts and risks upfront. In this regard, impacts should be evaluated within the context of the management objectives and the limits of acceptable change detailed in the SDF/ EMF. The objective of this approach would be to determine whether impacts are within acceptable levels or not. Finally, the EMF provides an early indication of specialist studies that may be required. EAPs should bear in mind that the competent authority is obliged to consider the SDF/EMF in its decision-making process. Thus, if the SDF/EMF is not considered in the impact assessment process, there is a high probability that these reports will be rejected.

To ensure efficient implementation, the Mossel Bay Municipality needs to provide appropriate SDF/ EMF training to the relevant officials who are involved in administering the SDF/EMF, commenting on proposed developments in the Municipal Area and making decisions on land-use applications. Whilst training should focus on the use of the SDF/ EMF as a decision support tool, the SDF/ EMF should also be used as a mechanism to build the capacity of officials responsible for natural resource management and land-use decision-making.

New staff should be trained in the use of the SDF/EMF as part of their induction, and it is recommended that all staff making use of the EMF receive a "refresher" training session annually. This should also assist in identifying any shortcomings of, or difficulties experienced in implementing the SDF/ EMF, which will serve to inform future updates thereof.

5.3. Decision-making framework

Concern regarding the mainstreaming of environmental considerations into development and investment decisions has been debated and expressed at an international level. Among others, this is evidenced by the nature of international discussions associated with climate change and biodiversity conventions. This is despite the commitment made by governments, including South Africa, to promote the integration of the principle of environmental protection into development decision-making, as set out in the Rio Declaration. In an analysis by the United Nations Development Programme, United Nations Environment Programme, World Bank and the World Resources Institute [2]it is concluded that development decisions are being made without local information, consultation, or support. Accordingly the contribution of ecosystem goods and services to human welfare is not being adequately recognised, which leads to erosion of civil and economic rights, as well as natural heritage.

[2] United Nations Development Programme, United Nations Environment Programme, World Bank, World Resources Institute, (2003): World Resources 2002 – 2004: Decisions for the Earth, Balance, Voice and Power.

One of the reasons that this situation exists is that there is a "disconnect" between different levels of decision-making. There are basically two types or levels of decision-making: namely strategic decisions and implementation decisions, which are interdependent. Progress with mainstreaming environmental considerations into development decisions has improved in the last decade in South Africa through the development of tools such as biodiversity plans and the prioritization of freshwater resources.

In the context of determining how land should be used (i.e. development planning) strategic decisions, are primarily concerned with defining the direction over the long-term. Thus, a strategy would reflect the "desired future state" of an area or region, for example. Strategic decisions range from the adoption of international agreements, the formulation of national policies and plans (which become gazette as White Papers) and the preparation of Spatial Planning Frameworks, as the PSDF and Municipal SDFs. Similarly, an EMF can be regarded as a strategic-level document and its endorsement or adoption by the Minister or MEC responsible for environmental matters amounts to a strategic-level decision.

Implementation decisions relate specifically to the management or control of development on a particular site or area. Decisions at this level (site specific) ought to be aligned with the strategy for the area. If they are not, they have the potential to undermine the strategy and its vision and goals. This in turn means that it would be highly unlikely that the "desired future state" put forward in the strategy would be achieved. Thus, given that a sustainable future is generally acknowledged to be desirable, decisions about development and economic growth must be taken with sustainability principles in mind.

5.4. Using the EMF to inform environmental decision-making

The significance of impacts caused by development depends on:

- The nature of the proposed development (e.g., heavy industry is generally associated with high pollution potential and health hazard) and the extent to which potential impacts can be effectively mitigated; and
- The attributes of the receiving environment (e.g., scarce water resources, sensitive, vulnerable, or threatened ecosystems, fertile soil / productive agricultural area, sensitive cultural resources).
- Where the characteristics and value of the receiving environment are unique or considered to be irreplaceable, almost any type of development would cause significant impacts. This situation is represented by Core 1 and 2 EMZs/SPCs. Where the receiving environment is less sensitive in that there are important attributes, but these are not irreplaceable, the nature of the development would determine the significance of impacts.
- Development proposals that would lead to environmental impacts inconsistent with the recommendations of the control zones and associated limits of acceptable change should not be authorised unless there are unique and/or exceptional circumstances. These 'exceptional circumstances' would be associated with over-riding public good issues such as meeting basic needs and the equitable distribution of resources. Projects involving public infrastructure developments where it can be demonstrated conclusively that there are no alternative locations for these projects, and no options exist for delivering the intended benefits to the public would fall into this category. Where at all possible, development should strive to exploit opportunities to make a net positive contribution to the health of the environment and wellbeing of people in the Mossel Bay municipal area as well as avoiding negative impacts.

6. Mossel Bay Human Settlements Instrument

Intrinsic to this planning is the need to rationalise settlement patterns to promote more effective use of existing opportunities for all sectors of society. Mossel Bay Municipality has ear-marked 44 sites within its urban edge which will consolidate and rationalise existing low-income human settlement patterns and seek to improve gross settlement density for Mossel Bay, in line with national and provincial planning legislation and policy such as the Spatial Planning and Land Use Management Act, 2013 (Act No.16 of 2013) ("SPLUMA") and Western Cape Land Use Planning Act, 2014 (Act No. 3 of 2014) ("LUPA") development principles, as well as the Provincial Spatial Development Framework, 2014 ("PSDF").

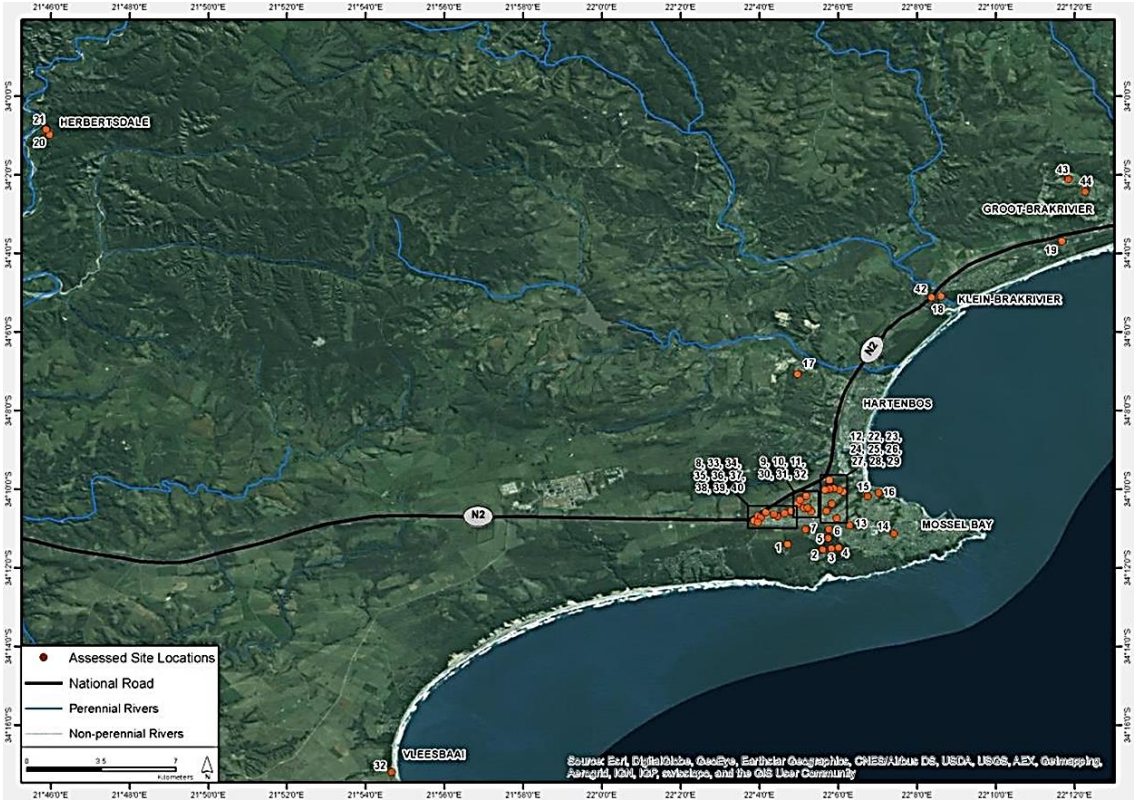


Figure 25 Sites identified (44) for human settlements

Section 24(2)(e) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (the Act) allows for the MEC with concurrence from the Minister to exclude activities identified in terms of sections 24(2)(a) and (b) of the Act from the need to obtain environmental authorisation based on an environmental management instrument adopted in the prescribed manner.

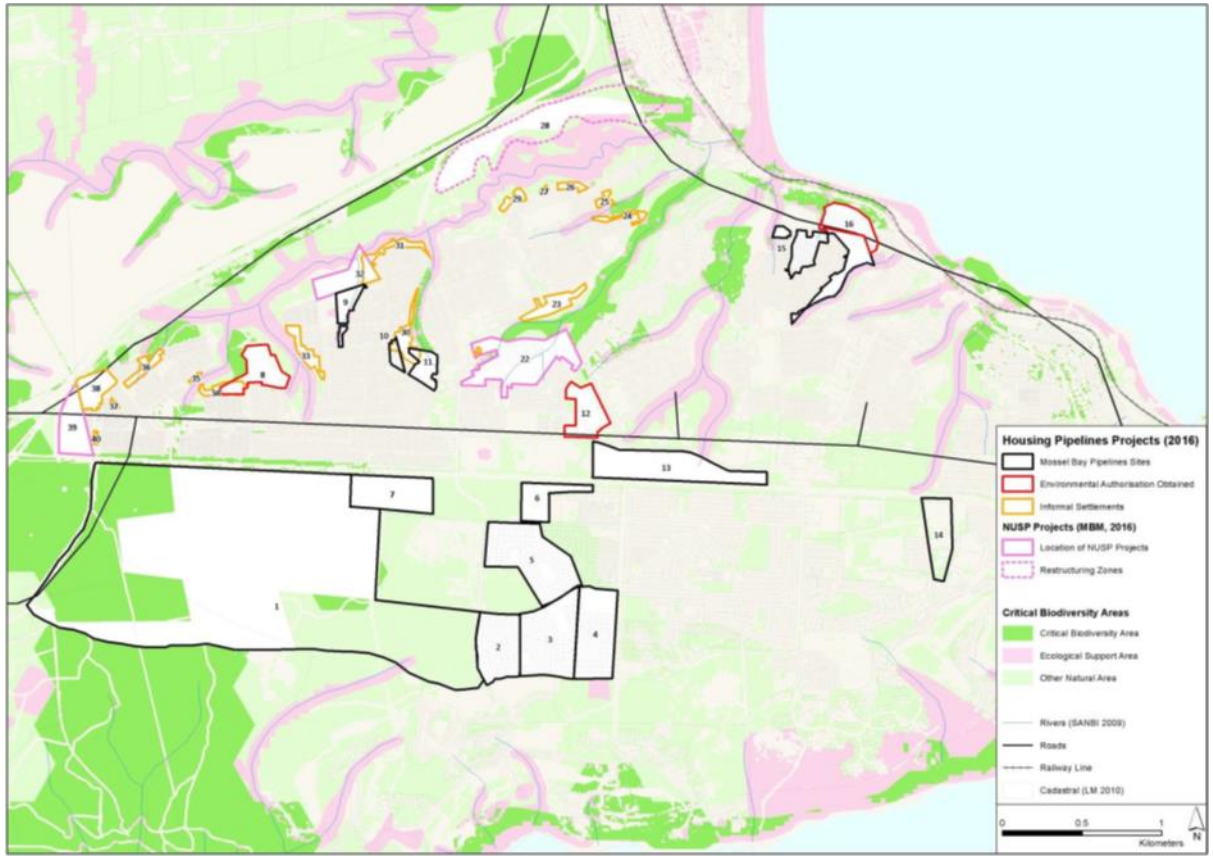


Figure 26 - Sites in Mossel Bay ear-marked for housing development

The Department of Environmental Affairs and Development Planning are in the process of preparing the *Mossel Bay Human Settlements Environmental Management Programme* ("*EMPr*"), to avoid, manage and mitigate the environmental impacts and risks associated with the activities of the proposed human settlements, which are identified in section 24(2)(a) and (b) of the Act. The instrument is being developed based on the Mossel Bay Spatial Development Framework (2018 and 2022), a Supplementary Environmental Impact Report, the Botanical Impact Assessment for proposed future and current development within the Mossel Bay Municipality (2016) undertaken, existing Environmental Authorisations and EMPr's of existing human settlement in the Mossel Bay Municipality. Should the EMPr meet the requirements and principles contained in section 2, 24(1) and 24N of the Act, it will be adopted as an environmental management instrument in terms of section 24(2)(e) of the Act.

Many of the areas ear-marked for subsidised human settlement are, however, currently categorised in the latest Western Cape Biodiversity Spatial Plan (2017) compiled by CapeNature as either Critical Biodiversity Areas ("CBAs") or Ecological Support Areas ("ESAs") which triggers the need for caution before development is initiated. These classifications suggest a potential incongruence between conservation and land development goals for the areas in question, which usually requires an environmental impact assessment to ensure that conservation targets are not compromised in meeting development demands. In addition, other activities detailed in listing notices 1, 2 and 3 of the 2014 Environmental Impact Assessment Regulations (as amended) ("the 2014 EIA Regulations") promulgated in terms of NEMA may be triggered which would require individual Environmental Authorisation before development can commence.

A Biodiversity specialist (Jan Vlok) conducted detailed site inspections of 44 such sites and provided opinions on the biodiversity status and conservation value of each site. Based on their recommendations, some sites were found to be suitable for development and others not.

Sites with existing EA	Sites which require individual consideration to obtain EA	Sites that could be considered for exclusion
15, 16, 17, 19, 20, 21	1, 2, 18, 28, 42, 44	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 43
6 already have EAs and consequently do not warrant further investigation and should not form part of the submission for exclusion to the Minister	**6** trigger the need for an EA as a result of existing conditions or as a consequence of insufficient information being available to make	**32** were found to be suitable from a biodiversity and spatial planning perspective for consideration for exclusion from the need for

	an informed decision and should therefore be excluded from the submission to the Minister for exclusion	environmental authorisation, even though they may have triggered listing notices. In view of existing information, they are regarded as suitable for inclusion in the submission to the Minister for exclusion.

Table 5: Key findings pertaining to the 44 sites where subsidised housing is planned.

Although a total of 44 sites have been identified, only 14 sites will be included for exclusion. The 44 sites were identified as part of previous planning work undertaken within the Mossel Bay Municipal area, including but not limited to, the Mossel Bay Growth Options Study and the Mossel Bay Municipal Spatial Development Framework development process. These sites are all situated within the Council approved Urban Edge boundaries.

The Instrument aims to unlock these portions of land within the Mossel Bay Municipality that can be used for human settlements, whilst preventing unacceptable environmental impact from occurring. The Instrument will aid the Mossel Bay Municipality, specifically to make available areas for human settlement developments. Should the Instrument meet the requirements and principles contained in section 2, 24(1) and 24N of the Act, the intention is to adopt it as an environmental management instrument for the purposes of section 24(2)(e) of the Act. Based on compliance with the Instrument the following identified activities will be excluded from the need to obtain environmental authorisation in terms of the section 24(2)(e) of the Act:

Listing Reference	***Activity description***	***The sites that are included for exclusion in the Instrument***
Listing Notice 1: Activity 9	*The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or stormwater-* *(i) with an internal diameter of 0,36 metres or more; or* *(ii) with a peak throughput of 120 litres per second or more;* *excluding where-* *(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve; or* *(b) where such development will occur within an urban area.*	*3, 4, 5, 6, 7, 13, 14, 22, 37, 38, 39, 40, 41, 43*
Listing Notice 1: Activity 10	*The development and related operation of infrastructure exceeding 1000* *metres in length for the bulk transportation of sewage, effluent, process* *water, waste water, return water, industrial discharge or slimes:* *(i) with an internal diameter of 0,36 metres or more; or* *(ii) with a peak throughput of 120 litres per second or more;* *excluding where-* *(a) such infrastructure is for bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve; or* *(b) where such development will occur within an urban area.*	

Listing Notice 1: Activity 24	*The development of-* *(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice387 of 2006 or activity 18 in Government Notice 545 of 2010; or* *(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;* *but excluding-* *(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014; or* *(b) roads where the entire road falls within an urban area.*	
Listing Notice 1: Activity 27	*The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation,* *except where such clearance of indigenous vegetation is required for* *(i) the undertaking of a linear activity; or* *(ii) maintenance purposes undertaken in accordance with a maintenance management plan.*	
Listing Notice 1: Activity 28	*Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development:* *(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or* *(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;*	

	excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	
Listing Notice 2: Activity 15	*The clearance of an area of 20 hectares or more of indigenous vegetation,* *excluding where such clearance of indigenous vegetation is required for-* *(i) the undertaking of a linear activity; or* *(ii) maintenance purposes undertaken in accordance with a maintenance management plan.*	
Listing Notice 3: Activity 4	*The development of a road wider than 4 metres with a reserve less than 13,5m* *In Western Cape:* *i. Areas outside urban areas:* *(aa) Areas containing indigenous vegetation;* *(bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or* *ii. In urban areas:* *(cc) Areas zoned for conservation use; or* *(dd) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.*	
Listing Notice 3: Activity 12	*The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance*	

	purposes undertaken in accordance with a maintenance management plan. *In the Western Cape* *i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;* *ii. Within critical biodiversity areas identified in bioregional plans;* *iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or* *iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.*	
Listing Notice 3: Activity 15	*The trans formation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use,* *where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.* *In the Western Cape* *i. Outside urban areas, or* *ii. Inside urban areas in:* *(aa) Areas zoned for conservation use or equivalent zoning, on or after 02 August 2010;*	

	(bb) A protected area identified in terms of NEMPAA, excluding conservancies; or *(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority.*	

Table 6: Identified EIA listed activities that will be excluded from the need to obtain environmental authorisation.

***Note: The Instrument will follow a separate process to the EMF and will be made available to the public to comment on in more detail.**

7. Sustainability Indicators:

7.1 Purpose

The purpose of the indicators is to provide a basis for measuring performance. In the case of the EMF, the indicators are focused on primarily on the EIA Regulations, with a view to assessing the performance of this system against policy goals and priorities and in relation to objectives and desired outcomes described in this EMF. Indicators are provided for:

- Environmental authorisation compliance
- Green economy
- Biodiversity and ecological integrity
- Agricultural resources
- Water resources and water quality
- Heritage resources

- Environmental quality and risk

It is envisaged that these indicators would be incorporated into the performance management system of the competent authority (environmental) in respect of its environmental impact management role. Other decision-making authorities could also utilise these indicators (e.g., land use and planning decision-makers). It is not the intention that all the indicators be applied as this would result in a potentially cumbersome performance monitoring system. Rather, a wide range and number of indicators are provided from which the most meaningful, useful, and appropriate would be selected.

7.2 Indicators

7.2.1. Environmental authorisation compliance

- Number of incidents of non-compliance with conditions of environmental authorisation.
- Number of incidents of non-compliance with conditions of authorisation that have resulted in environmental pollution or degradation.
- Number of incidents of non-compliance with conditions of authorisation that have resulted in the reduction of or loss in extent of environmental resources.

7.2.2. Green economy

- The number and type of projects authorised which have resulted in job creation through community-based natural resource management and the number of jobs created.

- The number and type of projects authorised where green technology has been applied to reduce water use and the extent of water savings achieved.
- The number and type of projects authorised where green technology has been applied to reduce energy use and the extent of energy savings achieved.
- The number and type of projects authorised where green technology has been applied to reduce waste production and the extent of waste reduction achieved.
- The number and type of projects authorised where green technology has been applied to reduce pollution to air, water, or land.

Figure 27 - Illegal Dumping - Photo Credit: Liza Petersen

7.2.3. Biodiversity and ecological integrity

- The number and type of projects that have been authorised which have resulted in loss or reduction in the area (ha) of CBAs, CESAs, FEPAs and important ecological corridors.
- The number and type of projects that have been authorised which have resulted in a reduction in the area of unique or special habitats.
- The number and type of projects that have been authorised which have resulted in a decline in the number of threatened or local endemic plant or animal populations.
- The number and type of projects authorised that have resulted in the loss or infilling of wetlands and the number of wetlands affected.

- The number and type of projects authorised that have resulted in land conversion (ha) within the prescribed buffer zones of river corridors and wetlands.
- The number and type of projects authorised where an area of land has been committed to formal conservation in terms of NEMPAA and/or set aside as a biodiversity offset.
- The number and type of projects authorised which have resulted in a reduction of the area (ha) of invasive alien plant cover (e.g., through clearing) and where this area is undergoing an ecological restoration process.
- The number and type of projects approved in which wetlands have been restored or created and the extent thereof (ha).
- The number and type of projects authorised which include riverine corridor restoration and the extent thereof (ha).

Figure 28 - Open Space inside Urban Area - Mossel Bay - Photo Credit: Liza Petersen

7.2.4. Agricultural resources

- The number and type of projects authorised which have resulted in the loss of irrigated agricultural land (ha).
- The number and type of projects authorised which have resulted in the loss of dryland agricultural land (ha).

7.2.5. Water quality and flow

- Number and type of projects authorised that require water abstraction from rivers or water bodies.
- Number and type of projects approved that require water abstraction to the extent that could threaten the maintenance of the ecological reserve or in-stream flow requirements in rivers.
- Number and type of projects authorised that will result in the release of effluent into rivers or water bodies.
- The number and type of projects authorised that result in changes to the floodlines, such that flooding risk has changed and whether this risk has increased or decreased.

7.2.6. Heritage resources

- Number and type of projects authorised which have resulted in the damaging or destruction of heritage resources.
- Number and type of projects authorised which have resulted in restoration and/or given formal protection.

7.2.7. Hazards

- Number and type of projects authorised which have a known nuisance or pose a hazard and are located next to sensitive land uses.

7.2.8. Environmental quality and risk

- Number and type of projects authorised which have a known nuisance or pose a hazard and are located next to sensitive land uses.
- Number and type of projects authorised that are located in risk areas such as flood prone areas.
- Number of inhabitants within the Mossel Bay area.
- Number of households with access to toilets.
- Number of households with access to potable water.

- Type of dwelling occupied by inhabitants.
- Number of inhabitants per dwelling.
- Average household income.
- Number of household members employed including their gender and age.
- Number of household members at school, including an indication of the highest level of education for each household member.
- Average income per capita in the study domain Gini Coefficient for the study domain.
- Descriptive statistics of the economy of the Mossel Bay area, including:
  - The areas GDP
  - The sectoral composition of the GDP
  - Trends within the economy.

7.2.9. Indicators – adherence to the EMF

- Number of applications authorised that meet the EMF management objectives relevant to the application.
- Type/nature of EMF objectives where difficulty is being experienced in meeting these.
- The number of applications where trade-offs have been applied in decision-making where the outcomes/objectives of the EMF are being met.
- The number of applications where trade-offs have been applied in decision-making where the outcomes/objectives of the EMF are being undermined.
- The nature of trade-offs that are being applied in decision-making – what is being traded off and why?

8. UPDATING OF THE SDF/EMF

This SDF/ EMF is to remain a live document that will need to be updated on a regular basis to ensure that it remains relevant given the changing environmental and socio-economic conditions and availability of new information in the Municipal Area. Changes to the SDF/ EMF must be subject to a public participation process as determined by the EMF Regulations of 2010 and other relevant policies.

8.1 Review Cycle

It is recommended that the SDF/ EMF be formally reviewed and updated in alignment with the review cycle of the Municipal SDF (i.e. every 5 years). Additional reviews should be undertaken during scheduled reviewing of the SDF document, which this SDF/EMF informs and is appended to. The revision process should involve the following:

- The revision cycle would be initiated by the Mossel Bay Municipality and DEA&DP in consultation with the relevant authorities.
- The DEA&DP should inform the national Department of Forestry, Fisheries and the Environment of the SDF/ EMF revision process.
- The DEA&DP should inform other relevant national, provincial, and local authorities that the EMF is entering a revision cycle. These authorities can be requested to advise as to whether they have useful information to contribute.
- Establish whether new or revised data with respect to environmental attributes are available. The GIS database and Situation Assessment must be updated accordingly.
- Management guidelines should be updated to incorporate any new relevant guidelines and eliminate any guidelines that have become redundant.
- The desirability of land-uses in areas characterised by the individual environmental attributes should be reviewed in line with possible policy changes or as a result of difficulties encountered in the application of the SDF/ EMF.
- Determine whether new or revised policies and/or guidelines relating to sustainability, heritage resources, biodiversity, water and other resource management have been published that are of relevance to the SDF/ EMF area. Review the criteria on management objectives, desired outcomes and limits of acceptable change in light of new or revised policies/guidelines.
- Land-use definitions and associated activities listed in the EIA Regulations should be reviewed, to reflect any changes to the EIA Regulations.

- Evaluate whether the attribute criteria for the EMZs/SPCs are still relevant and revise as necessary. Update the SPC/ EMZ maps and the associated tables as relevant.
- Determine whether trends and pressures identified in the SDF/ EMF are still relevant, whether negative trends have worsened, stabilised or reversed, and if there are any new trends emerging that pose challenges for environmental management, drawing in particular on SoER and/or Environmental Outlook reports. Review the categories of SPC/ EMZ, and the criteria relating to management objectives, desired outcomes and limits of acceptable change, as appropriate, to address these trends. Integration with spatial plans.

The information base used to determine EMZs/SPCs in this SDF/ EMF comprises the best available up to date data on a wide range of attributes. These EMZs/SPCs should therefore inform the pattern and direction of future development and thus the decision-making process. Furthermore, they should be used by the municipality to assist in defining an urban edge and giving environmental input into the spatial planning documents and zoning schemes.

Assess the performance of the SDF/ EMF against the relevant indicators and determine where performance has been weak and where it has been satisfactory. In particular, ascertain whether the EMF has contributed to the reversal of negative trends and if so, how this was achieved. If the SDF/ EMF is deemed to have resulted in a worsening of negative trends, then the reasons need to be established so that these weaknesses can be addressed in the revision process. The results of this performance assessment process should be used to inform the Scope of Work for the SDF/ EMF revision/updating. It is preferable to involve other relevant authorities in the evaluation of performance of the SDF/ EMF.

This SDF/ EMF, once adopted, must be considered in all future reviews of the IDP and other planning documents. Specifically, any changes in land-use proposed in the SDF/ EMF, e.g. location of new developments or protected / open space areas, must be checked for compatibility to avoid placing proposed developments in areas identified as unsuitable in the SDF/EMF. This should increase the efficiency with which the Mossel Bay Municipality will be able to execute their spatial planning, as projects are less likely to be held up by lengthy approval processes or to require costly engineering solutions, should the planning of such development have taken the recommendations of the SDF/ EMF into account.

9. REFERENCES

DEA&DP. 2019. Western Cape Land Use Planning Guidelines Rural Areas (March 2019)

DEA&DP. 2020.Western Cape Government Department of Environment and Development Planning. Strategic Plan 2020-2025. Available from www.westerncape.gov.za/eadp.

DEA. 2010. Environmental Management Frameworks in terms of the EMF Regulations 2010, Integrated Environmental Management Guideline Series 6, Department of Environmental Affairs (DEA), Pretoria

DEA.2012. Environmental Management Framework Guideline for Implementation.

Department of Environmental Affairs and Development Planning (DEA&DP), 2019 Western Cape Land Use Planning Guidelines Rural Areas, 2019.

Department of Rural Development and Land Reform (DRDLR), 2017. Guidelines for the Development of Provincial, Regional and Municipal Spatial Development Frameworks and Precinct Plans, 2017.

Errol Cerff, Erik Botha, Ingrid Eggert and Grant Benn. 2017. Mossel Bay SDF/EMF Supplementary Environmental Information Document. Department of Environmental Affairs and Development Planning (DEA&DP).

Mossel Bay Municipality. 2018. Spatial Development Framework (SDF) Final Report.

Royal HaskoningDHV. 2018. Coastal Management Lines for Eden District: Project Report. Department of Environmental Affairs and Development Planning (DEA&DP).

SANBI, 2017. Western Cape Biodiversity Spatial Plan Handbook, 2017.