GARDEN ROUTE DISTRICT

COASTAL MANAGEMENT PROGRAMME

2025/2026 – 2030/2031

REVIEWED BY:
Garden Route District Municipality, with support from the Department of Environmental Affairs & Development Planning (DEA&DP)

In collaboration with:

Document Development and Review		
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EXECUTIVE SUMMARY

In accordance with Chapter 6, Part 3 of the National Environmental Management: Integrated Coastal Management Act (NEM: ICMA), Act 24 of 2008, Section 48 states that a coastal Municipality must review its adopted Coastal Management Programme (CMP) at least once every five years, and may, when necessary, amend the Programme. Any amendments that are made to the existing CMP must be subject to the public participation requirements in accordance with Chapter 4 of the Local Government Municipal Systems Act (LGMSA), Act 32 of 2000, prior to being Gazetted.

As part of the latest review and update of the Garden Route District Coastal Management Programme, various new sections, information and emerging issues were added, old information was amended, and the lessons learnt or inadequacies identified during the previous five-year period were included.

The review of the Garden Route District Coastal Management Programme was done in accordance with Chapter 6, Part 6 (Section 55) of the NEM: ICMA, which states as follows (RSA, 2008):

1. *The MEC may at any time review a municipal coastal management programme;*

2. *The MEC must, in reviewing the municipal coastal management programme, determine whether or not it —*

   (a) meets the requirements specified in section 49 (contents of Municipal Coastal Management Programmes (MCMPs));

   (b) is consistent with the National and the Provincial Coastal Management Programmes;

   (c) gives adequate protection to coastal public property, and;

   (d) was prepared in a manner that allowed for effective participation by interested and affected parties.

3. *If, after considering the advice of the Provincial Coastal Committee (PCC), the MEC believes that a Municipal Coastal Management Programme does not meet all the criteria referred to in subsection (2), the MEC must, by notice to the municipality concerned, require the municipality to amend or replace the municipal coastal management programme within a reasonable period, which must be specified in the notice.*

4. *A municipality that receives a notice in terms of subsection (3), must amend or replace the Municipal Coastal Management Programme by following the same procedure used to prepare and adopt it in terms of this Act, except that the new or amended Coastal Management Programme may not be finally adopted without the consent of the MEC.*

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LIST OF ACRONYMS

AQMP	Air Quality Management Plan
BSP	Biodiversity Sector Plan
C.A.P.E.	Cape Action for People and the Environment
CapeNature	Western Cape Nature Conservation Board
CARA	Conservation of Agricultural resources Act (Act 43 of 1983)
CBA	Critical Biodiversity Area
CMO	Coastal Management Objective
CMP	Coastal Management Programme
CP Act	Criminal Procedures Act (Act 51 of 1977)
cpue	catch-per-unit-effort
CPZ	Coastal Protection Zone
CSIR	Council for Scientific and Industrial Research
CZMU	Coastal Zone Management Unit
DCF	District Coordinating Forum
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DEAT	Department of Environmental Affairs and Tourism
DEM	Digital Elevation Model
DFFE	Department of Forestry, Fisheries and the Environment
DM	District Municipality
DM Act	Disaster Management Act (Act 57 of 2002)
DMP	Disaster Management Plan
DoA	Department of Agriculture
DOT	Department of Transport
DWS	Department of Water and Sanitation
DWEA	Department of Water and Environmental Affairs
ECA	Environment Conservation Act (Act 73 of 1998)

EFA	Enviro-Fish Africa (Rhodes University)
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMP	Estuary Management Plan
ESA	Ecological Support Areas
GDP	Gross Domestic Product
GIS	Geographical Information Systems
GRD CMP	Garden Route District Coastal Management Programme
GRDM	Garden Route District Municipality
GRD MCC	Garden Route District Municipal Coastal Committee
GRNP	Garden Route National Park
HFA	Hyogo Framework for Action
HWM	High Water Mark
ICMA	Integrated Coastal Management Act (Act 24 of 2008)
ICZM	Integrated Coastal Zone Management
IDP	Integrated Development Plan
IMP	Integrated Management Plan
LED	Local Economic Development
LM	Local Municipality
LGMSA	Local Government: Municipal Systems Act (Act 32 of 2000)
LUMS	Land Use Management System
LUPO	Land Use and Planning Ordinance (15 of 1985)
m	meters
mamsl	meters above mean sea level
MCC	Municipal Coastal Committee
MEC	Member of the Executive Council
MLRA	Marine Living Resources Act (Act 18 of 1998)
MPA	Marine Protected Area
MCMP	Municipal Coastal Management Programme

NCC	National Coastal Committee
NAQA	National Environmental Management: Air Quality Act (Act 39 of 2004)
NBSAP	National Biodiversity Strategy and Action Plan
NCMP	National Coastal Management Programme
NEMA	National Environmental Management Act (Act 107 of 1998)
NEM: BA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
NEM: ICMA	National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)
NEM: PAA	National Environmental Management: Protected Areas Act (Act 57 of 2003)
NEMP	National Estuarine Management Protocol
NGO	Non-Governmental Organization
NHRA	National Heritage Resources Act (Act 25 of 1999)
nm	nautical mile (= 1.852 kilometers)
NPAES	National Protected Area Expansion Strategy
NSBA	National Spatial Biodiversity Assessment
NWA	National Water Act (Act 36 of 1998)
ORV	Off-Road Vehicle
OSCAE	Outeniqua Sensitive Coastal Areas Extension
PA	Protected Area
PCMP	Provincial Coastal Management Programme
PGDS	Provincial Growth and Development Strategy
POPIA	Protection of Personal Information Act
PSDF	Western Cape Provincial Spatial Development Framework
ROD	Record of Decision
SAAF	South African Air Force
SAHRA	South African Heritage Resources Agency
SAMSA	South African Maritime Safety Authority
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks

SDF	Spatial Development Framework
SLA	Service Level Agreement
SPLUMA	Spatial Planning and Land Use Management Act (Act 16 of 2013)
TNP	Tsitsikamma National Park
WC NCLA	Western Cape Nature Conservation Laws Amendment Act (Act 3 of 2000)
WESSA	Wildlife and Environmental Society of South Africa
WWF-SA	Worldwide Fund for Nature - South Africa

1. INTRODUCTION

This Garden Route district Coastal Management Programme (CMP) was developed in accordance with the requirements of Chapter 6 (Section 48, 49 and 50) of the National Environmental Management: Integrated Coastal Management Act (NEM: ICMA), Act 24 of 2008, which was promulgated to establish the statutory requirements for integrated coastal and estuarine management in South Africa. The purpose of the ICMA is the need to ensure that the development and use of natural resources in the coastal zone is socially and economically justifiable, as well as being ecologically sustainable. The ICMA is meant to guide and control our behaviour and actions in the coastal zone and to ensure that its benefits can be sustainably and equitably distributed. It is also intended to raise public awareness of the complexities of the coastal area, thereby promoting active participation in the management of the coast (DEA, 2012). The ICMA places great emphasis on the benefit of cooperation and shared management responsibilities.

Coastal Management Programmes are one of the tools the ICMA uses to achieve its aims and are viewed as policy directives that will enable a coordinated strategic approach to coastal management within a 5-year timeframe. According to the Department of Environmental Affairs (DEA) (currently known as the Department of Forestry, Fisheries and the Environment (DFFE)) guideline document, the main objective of a CMP is to collect and combine environmental, economic and political factors that influence the sustainable utilization of coastal resources into plans of action that provide for a coordinated approach for coastal managers and practitioners (DEA, 2012; RSA, 2008).

1.1 Municipal Coastal Management Programmes

The legislative requirements for Municipal CMPs are contained in Chapter 6, Part 3 (Sections 48 to 50) of the NEM: ICMA, and are as follows (RSA, 2008):

Section 48: Preparation and adoption of Municipal Coastal Management Programmes.

"(1) A coastal municipality—

(a) must, within four years of the commencement of this Act, prepare and adopt a Municipal Coastal Management Programme for managing the coastal zone or specific parts of the coastal zone in the municipality;
(b) must review any programme adopted by it at least once every five years; and
(c) may, when necessary, amend the Programme.

(2) Before adopting a Programme contemplated in subsection (1)(a), a municipality must by notice in the Gazette invite members of the public to submit written

representations on or objections to the Programme in accordance with the procedure contemplated in Chapter 4 of the Municipal Systems Act.

(3) A municipality must, within 60 days of the adoption of the Municipal Coastal Management Programme or of any substantial amendment to it —

(a) give notice to the public —

(i) of the adoption of the Programme; and
(ii) that copies of, or extracts from the Programme are available for public inspection at specified places; and
(b) publicise a summary of the Programme.

(4) A municipality may prepare and adopt a Coastal Management Programme as part of an Integrated Development Plan (IDP) and Spatial Development Framework (SDF), adopted in accordance with the Municipal Systems Act, and if it does so, compliance with the public participation requirements prescribed in terms of the Municipal Systems Act for the preparation and adoption of Integrated Development Plans will be regarded as compliance with public participation requirements in terms of this Act."

Section 49: Contents of Municipal Coastal Management Programmes (RSA, 2008)

"(1) A Municipal Coastal Management Programme must —

(a) be a coherent municipal policy directive for the management of the coastal zone within the jurisdiction of the municipality; and

(b) be consistent with —

(i) the National and Provincial Coastal Management Programmes; and
(ii) the National Estuarine Management Protocol.

(2) A Municipal Coastal Management Programme must include —

(a) a vision for the management of the coastal zone within the jurisdiction of the municipality, including the sustainable use of coastal resources;

(b) the coastal management objectives for the coastal zone within the jurisdiction of the municipality;

(c) priorities and strategies —

(i) to achieve the coastal management objectives of the municipality; and
(ii) to assist in the achievement of the national and provincial coastal management objectives as may be applicable in the municipality;
(iii) to address the high percentage of vacant plots and the low occupancy levels of residential dwellings;

(iv) to equitably designate zones as contemplated in section 56(l)(a)(i) for the purposes of mixed cost housing and taking into account the needs of previously disadvantaged individuals;
(v) to address coastal erosion and accretion; and
(vi) to deal with access issues.

(d) performance indicators to measure progress with the achievement of those objectives.

(3) A Municipal Coastal Management Programme may include —

(a) a Programme of projected expenditure and investment by the municipality in coastal management infrastructure in order to implement any coastal management Programme;
(b) a description of specific areas within the coastal zone that require special coastal management, and management strategies for those areas;
(c) estuarine management plans; and
(d) any other matter that may be prescribed."

Section 50: By-laws (RSA, 2008)

"*A municipality may administer its Coastal Management Programme, and may make By-laws to provide for the implementation, administration and enforcement of the Coastal Management Programme*."

The ICMA prescribes three levels of CMPs, namely National (NCMP), Provincial (PCMP) and Municipal (MCMP), which differ fundamentally in terms of mandated functions and spatial coverage (DEA, 2012). At each level, the primary objective is to provide action plans or strategies that facilitate a coordinated and integrated approach to coastal management. All tiers of CMPs will comprise strategic (broad themed and long-term) and operational (specific to an area's biophysical and socio-economic features) programmes. With MCMPs at the bottom of the tier, they are more concerned with site-specific goals that have immediate to short-term effects on the environment and people's livelihoods. According to DEA (2012), MCMPs generally comprise 75% operational and 25% strategic focus.

By virtue of their definition, Municipal CMPs are not designed to address issues that are the mandate of Provincial or National Government (or para-statals for that matter). However, because Provincial and National legislation and the activities of the mandated organs of state often occur within the site-specific municipal context (with mandates sometimes being devolved to Municipal level), there is a direct impact on municipal activities and local livelihoods.

Many of the issues raised by stakeholders should be dealt with at the Provincial, and sometimes National level. In such instances the mandate will be made clear and the recommended way forward will be for these issues to be addressed in either the PCMP

or NCMP when they are developed. However, when a Provincial or National mandate has the potential to impact immediately and directly at the Municipal level, it will be addressed in more detail in this CMP (Appendix 7 outlines the National, Provincial and Local Governments' roles and responsibilities).

1.2 Regulatory Context of Coastal Management Programmes

The following legislation, strategies and Council policies are relevant to the Garden Route district Coastal Management Programme:

Table 1: Relevant coastal management legislation, strategies and Council policies.

National legislation	Provincial legislation	Municipal legislation
The Constitution of the Republic of South Africa: Sections 151(3), 152(1)(d) and156(5)	Western Cape Nature Conservation Laws Amendment Act (Act 3 of 2000)	Garden Route Growth and Development Strategy
National Environmental Management Act (107 of 1998) (NEMA)	Western Cape Government: Garden Route (Southern Cape) Regional Spatial Implementation Framework, 2019	Local Government: Municipal Structures Act (117 of 1998);
National Environmental Management: Integrated Coastal Management Act (24 of 2008) (NEM: ICMA)	Western Cape Government: Agriculture. 2019. The Impact of Climate Change on Agriculture in the Southern Cape	Local Government: Municipal Systems Act (32 of 2000);
National Estuarine Management Protocol (No. 533 of June 2021 as amended)	Western Cape Government: Environmental Affairs and Development Planning. 2020. Informing Coastal Erosion Decision-making: User-friendly Guideline.	Garden Route District Spatial Development Framework, 2017
Marine Living Resources Act (Act 18 of 1998; MLRA)	Western Cape Government: Provincial Coastal Management Programme, 2022 - 2027	Local Government: Demarcation Act (Act 27 OF 1998)
Maritime Zone Act (15 of 1994)	Western Cape Climate Change Response Strategy: Vision 2050, 2021	Garden Route District Municipality Integrated Development Plan, 2022 – 2027
Disaster Management Act (57 of 2002)	Western Cape Disaster Management Framework (provincial framework under the Disaster Management Act, 2002, as amended)	Garden Route District Municipality: Corporate Disaster Management Plan. 2018
Disaster Management Amendment Act (No. 16 of 2015).	Western Cape Biodiversity Spatial Plan (WC BSP), 2023, and associated biodiversity planning guidelines	Garden Route District Municipality Updated Disaster Risk Assessment, 2020/2021

National Disaster Management Framework of 2005		Garden Route District Municipality Climate Change Response Implementation Plan, 2024
National Environmental Management Act: Air Quality Act, 2004 (Act 39 of 2004) (AQA)		Garden Route District Municipality Air Quality Management Plan, 2019
Environment Conservation Act (73 of 1989)		Garden Route District Municipality Municipal Health Services By-Law, 2018
National Environmental Management: Waste Act (Act 59 of 2008)		GRDM 3rd Generation Integrated Waste Management Plan, 2020 - 2025
Spatial Planning and Land Use Management Act (Act 16 of 2013) (SPLUMA) and applicable Western Cape land-use planning legislation		Garden Route District Waste Management By-Law, 2017
National Coastal Management Programme, 2022		
National Environmental Management: Biodiversity Act (Act 10 of 2004; NEM: BA)		
National Environmental Management: Protected Areas Act (Act 57 of 2003; NEM: PAA)		
Environment Conservation Act (Act 73 of 1989; ECA)		
Conservation of Agricultural Resources Act (Act 43 of 1983; CARA)		
National Building Standards and Building Regulations Act (103 of 1977)		
Western Cape Land Use Planning Act (Act 3 of 2014) (LUPA)		
National Heritage Resources Act (Act 25 of 1999) (NHRA)		
National Water Act (36 of 1998) (NWA)		
National Heritage Resources Act (Act 25 of 1999) (NHRA)		
Ship Stranding Protocol;		
South Africa's Oil Spill Contingency Plan;		

National Veld and Forest Fire Act (Act 101 of 1998)		
Spatial Planning and Land Use Management Act (Act 16 of 2013)		
National Health Act, 2003		
Sea Shore Act (21 of 1935)		
National Climate Change Adaptation Strategy (NCCAS)		
Climate Change Act (Act 22 of 2024) (commenced 17 March 2025)		
Draft National Coastal Climate Change Adaptation Response Plan		
National White Paper for Sustainable Coastal Development, 2000		
National Coastal Access Strategy, 2014		
Policy for the Small-Scale Fisheries Sector in South Africa, 2012		
Draft Climate Change Coastal Vulnerability Assessment Tool (CoVu)		

The National Environmental Management: Integrated Coastal Management Act (24 of 2008) (NEM: ICMA) is informed by the NEMA principles, which includes the maintenance and rehabilitation of the coastal ecosystems' "*diversity, health and productivity"*, by following a "*risk averse and precautionary approach*" to coastal management and planning "*under conditions of uncertainty*" (RSA, 1998). The NEMA Sections 48-50 also deal with Municipal Coastal Management Programmes and By-laws, whereas Section 62 deals with the implementation of land use legislation in the coastal protection zone (RSA, 1998).

1.3 The Coastal Area Explained

The coastal zone is the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore, and coastal waters and includes the environment on, in or under these areas. The GRDM coastal zone includes the inshore, offshore and estuarine ecosystems alongside the coastline, all of which is continually changing where land and ocean meet. In measurement terms, the district coastal zone extends out to sea (roughly 370 km), up to the boundary of the

exclusive economic zone, and inland up to one kilometer beyond the high-water mark (WCG: PDMC, 2021).

The NEM: ICMA and Maritime Zone Act 15 of 1994 refers to many different zones or demarcations within the coastal zone (Figure 1), which need to be explained in order to understand the context and responsibility (mandate) of specific coastal management issues and organs of state.

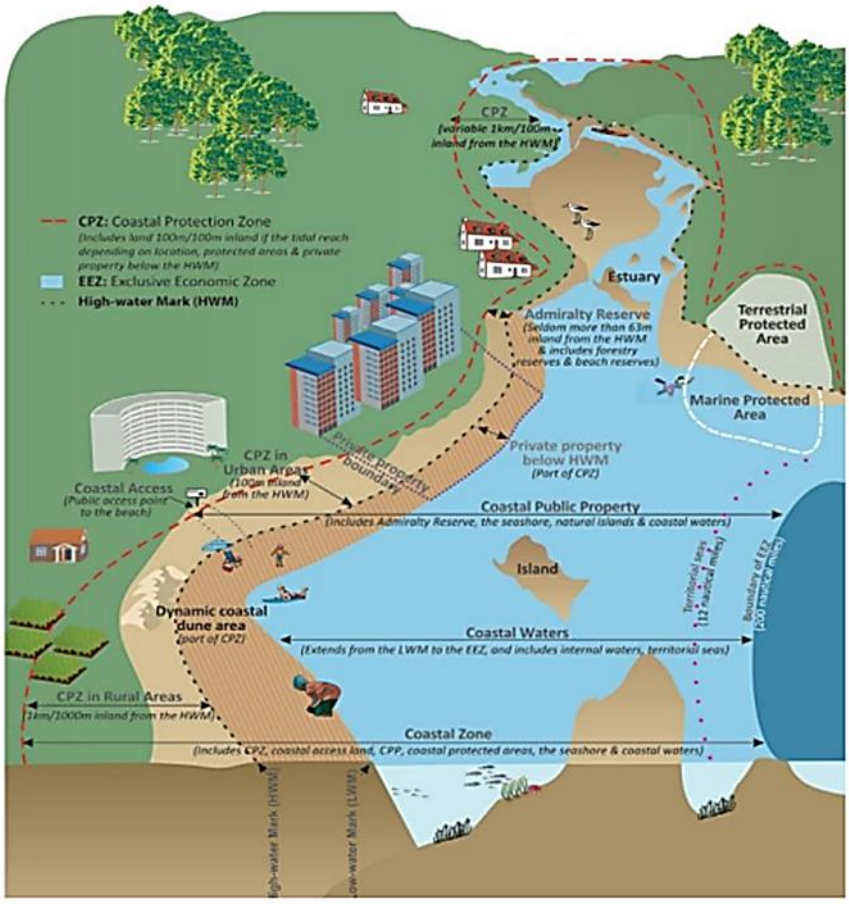


Figure 1: A detailed schematic of the coastal zones (DFFE, 2017; EDTEA, 2019).

An explanation of the different coastal zones is as follows (Celliers et al., 2009; RSA, 2008):

The coastal zone

The area comprising coastal public property, the coastal protection zone, coastal access land and coastal protected areas, the seashore, coastal waters and the exclusive economic zone (200 nautical miles (nm) offshore) and includes any aspect of the environment on, in, under and above such area.

Coastal waters

Marine waters that form part of the internal waters or territorial waters (12 nm offshore) of the Republic and any estuary.

Admiralty Reserve
An Admiralty Reserve refers any strip of state-owned land adjoining the inland side of the high-water mark (HWM) and includes land designated, on official plans, deed of grant or title deed, or other document that demonstrates title or land use rights as “government reserve”, “beach reserve”, “coastal forest reserve” or other similar reserve owned by the State.

Coastal public property
Includes a number of components such as coastal waters, the land below that water, islands, the seashore (including the seashore of privately owned islands), and other state land such as Admiralty Reserves. Coastal public property also includes natural resources found in any of the areas mentioned above. It excludes any portion of the seashore below the high-water mark, which was lawfully alienated before the Sea-Shore Act (Act 21 of 1935) took effect, or which was lawfully alienated in terms of that Act and which has not subsequently been re-incorporated into the seashore, and any portion of a coastal cliff that was lawfully alienated before this Act took effect and is not owned by the State. The intention of coastal public property is to prevent exclusive use of the coast by facilitating access to, and sustainable use of the productive coastal resources for the benefit of all South Africans.

Coastal access land
Strips of land designed to secure public access to the coastal public property, and which are subject to public access servitudes in favour of the local municipality within whose area of jurisdiction it is situated, and in terms of which members of the public may use that land to gain access to coastal public property. No land within a harbor, defense or other strategic facility may be designated as coastal access land without the consent of the Minister responsible for that facility. A municipality may, on its own initiative or in response to a request from an organ of state or any other interested and affected party, withdraw the designation of any land as coastal access land.

Coastal protection zone
A continuous strip of land, starting from the HWM and extending 100 meters inland in developed urban areas zoned as residential, commercial, or public open space, or 1000 meters inland in areas that remain undeveloped or that are commonly referred to as rural areas (including coastal wetlands, lakes, lagoons or dams situated wholly or partially in these land units). It further includes sensitive coastal areas declared in terms of the Environment Conservation Act (Act 73 of 1989) such as the Outeniqua Sensitive Coastal Areas Extension, coastal protected areas, the littoral active zone, parts of the seashore and Admiralty Reserves that are not coastal public property and any land inundated by a 1:50-year storm or flood (RSA, 1989). There are, however, some provisions to justify certain adjustments to this zone.

The coastal protection zone is established to manage, regulate and restrict the use of land that is adjacent to coastal public property, or that plays a significant role in the coastal ecosystem. It is also designed to protect people, property and economic activities from risks arising from dynamic coastal processes, including the risk of sea-level rise.

Coastal protected area
A protected area (as defined in Section 9 of the NEM: PAA), is an area that is situated wholly or partially within the coastal zone and that is managed by, or on behalf of an organ of state, but excludes any part of such a protected area that has been excised from the coastal zone (RSA, 2003). (Please refer to Appendix 3 and 4 for all the marine and other protected areas in the Garden Route District Municipal area).

The seashore
The area between the low-water mark and the high-water mark.

The high-water mark
The highest line reached by coastal waters, but excluding any line reached as a result of exceptional or abnormal floods or storms that occur no more than once in ten years, or an estuary being closed to the sea.

The low-water mark
The lowest line to which coastal waters recede during spring tides.

The littoral active zone
Any land forming part of, or adjacent to, the seashore that is unstable and dynamic as a result of natural processes, and characterized by dunes, beaches, sand bars and other landforms composed of unconsolidated sand, pebbles or other such material which is either un-vegetated or only partially vegetated.

An estuary
A body of surface water that is part of a water course that is permanently or periodically open to the sea in which a rise and fall of the water level as a result of the tides is measurable at spring tides when the water course is open to the sea or in respect of which the salinity is measurably higher as a result of the influence of the sea. Furthermore, the Estuarine Functional Zone (EFZ) has been defined and delineated through the National Biodiversity Assessment (NBA) project (SANBI, 2019).

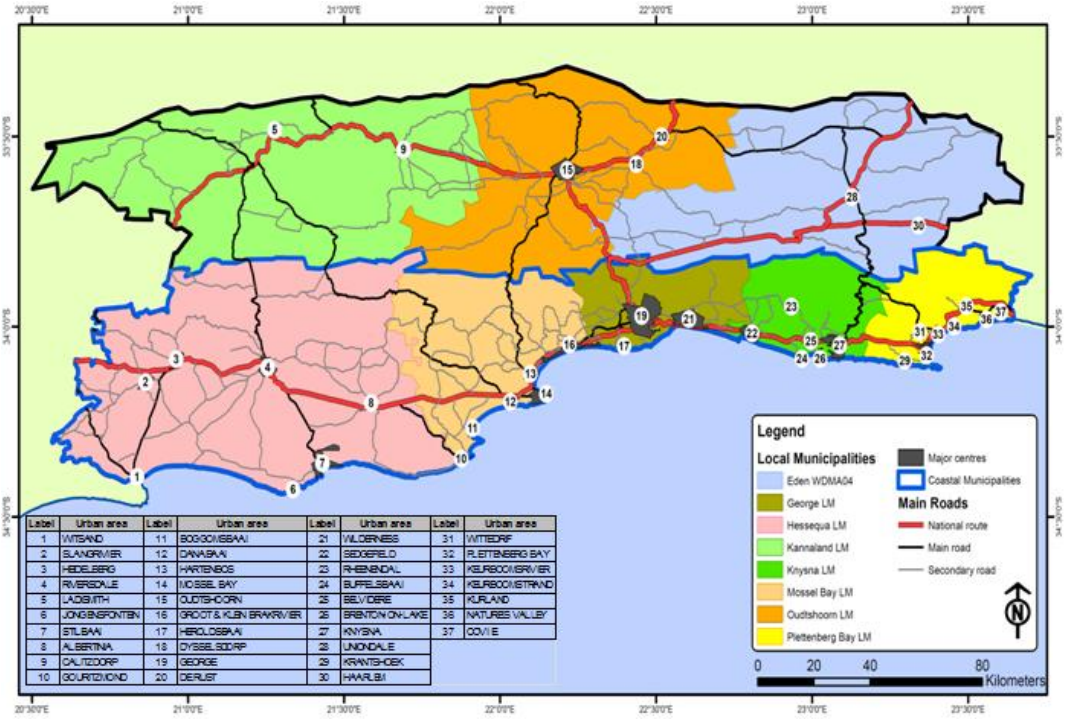
Special management areas
May be wholly or partially within the coastal zone, and may be declared only if environmental, cultural or socio-economic conditions in that area require the

introduction of measures which are necessary in order to more effectively attain the objectives of the CMP, facilitate the management of coastal resources by a local community, promote sustainable livelihoods for a local community or conserve, protect or enhance coastal ecosystems and biodiversity in the area.

2. GARDEN ROUTE DISTRICT COASTAL MANAGEMENT PROGRAMME

2.1 The Garden Route District Coastline

The coastline of the Garden Route district stretches from the Bloukrans River in the east to the Breede Estuary (Witsand) in the west and comprises five local, Category-B Municipalities, namely the (from east to west) Bitou, Knysna, George, Mossel Bay and Hessequa Municipalities (Figure 2). The area under immediate consideration will extend inland of the high-water mark (HWM) to the extent of the coastal protection zone and seawards to the extent of Municipal jurisdiction or responsibility (i.e. a few hundred meters in most instances). Coastal management issues that are relevant to areas further offshore will fall under the jurisdiction of Provincial or National CMPs, and either SANParks or CapeNature in the case of Marine Protected Areas (MPAs), and will be denoted as such. However, instances where Municipal cooperation and capacity can assist in the implementation of management actions beyond their jurisdiction will be included in this CMP.



Label	Urban area	Label	Urban area	Label	Urban area	Label	Urban area
1	WITSAND	11	BOSKOMSBAAI	21	WILDERNESS	31	WITTEDRIF
2	SLANGRIVIER	12	DANABAAI	22	SEDGEFIELD	32	PLETTENBERG BAY
3	HEIDELBERG	13	HARTENBOS	23	RHEENENDAL	33	KEURBOOMSRIVIER
4	RIVERSDALE	14	MOSSEL BAY	24	BUFFELSBAAI	34	KEURBOOMSTRAND
5	LADISMITH	15	OUDTSHOORN	25	BELVIDERE	35	KURLAND
6	JONGENSFONTEIN	16	GROOT & KLEIN BRAKRIVIER	26	BRENTON ON LAKE	36	NATURES VALLEY
7	STILBAAI	17	HERCLOSBAAI	27	KNYSNA	37	COVIE
8	ALBERTINA	18	DYSSELSDORP	28	UNIONDALE		
9	CALITZDORP	19	GEORGE	29	KRANTSHOEK		
10	GOURITZMOND	20	DERUST	30	HAARLEM		

Figure 2: A detailed map of the Garden Route district, showing the coastal municipal areas.

2.2 Structure of the Coastal Management Programme

The main report for the Garden Route District CMP has been kept as concise as possible. As part of the review of the document, more detailed information has been

added to inform some of the strategies described in Chapter 4. The contact details for organs of state, key role players and organizations were removed due to the implications of the Protection of Personal Information Act (POPIA) that came into effect on 01 July 2021. All outdated GIS generated maps have been removed as part of the review process, and the updated maps are included separately as part of the Appendixes at the end of this document.

Chapter one provides a brief introduction to CMPs in general and places the Municipal CMP in context; it also provides a description of the many zones or management areas that are relevant to CMPs as defined in the ICMA. Chapter 2 outlines the Vision for the Garden Route CMP and describes the Coastal Management Objectives, which need to be achieved in order to realize the Vision. Chapter 3 outlines the alignment of this CMP with the Provincial and National strategies, programmes and initiatives. The core of the CMP is Chapter 4, where priority coastal management action plans are identified, and strategies are described that will guide and facilitate their implementation.

2.3 The Coastal Management Programme Vision

The Vision for the Garden Route District CMP should be inspirational, representing a higher-level statement of strategic intent. A Vision has been developed for this CMP based on previous stakeholder inputs during a series of workshops that were held across the Garden Route district from 10 to 17 April 2012 and 30 July to 10 August 2012. However, considering the impacts of climate change and related variability, the review revised the Vision a bit to include the concepts of "*adaptive coastal management*" and "*sustainability*", as can be seen in the revised Vision below:

> ***The Garden Route District Coastal Vision***
> ***Adaptive coastal management for a future of sustainability, prosperity, awareness, responsibility, equality, natural beauty and abundance.***

We strive to pursue and attain this Vision through:

- Innovative and adaptive management;
- Integrated and cooperative governance;
- Interventions that ensure the sustainable functioning and enhancement of natural systems (e.g. nature-based solution);
- Ventures that optimize economic and social benefits;
- Ensuring reasonable and equitable access to the coastal zone for all citizens;
- Programmes which protect our diverse cultural heritage and sense of place;
- Initiatives aimed at increasing awareness through education, and;
- Nurturing an environment that promotes the spiritual well-being of all.

2.4 The Coastal Management Objectives

According to Section 49 (2b) of the NEM: ICMA, a Municipal CMP must include coastal management objectives for the coast within the jurisdiction of the municipality. These objectives stem from the ideals stated in the Vision and in turn will comprise the priority issues that will be addressed via the implementation of strategies. The successful implementation of strategies will help achieve the objectives and ultimately make the Vision a reality.

The coastal management objectives (CMOs) were developed during the series of workshops across Garden Route from 10 to 17 April 2012. The initial list of nine CMOs was expanded to a total of 14 (see Sections 2.4.1 to 2.4.14)**,** after stakeholders agreed that previously listed priority issues were significantly important to warrant being categorized as CMOs in their own right. The CMOs align with the Provincial Coastal Management Programme (2022-2027) priority areas. The fourteen identified coastal management objectives are each discussed below:

2.4.1 Public Coastal Access (CMO 1)

Equitable access to coastal public property and heritage resources is an inalienable right for all, and this CMP aims to address a situation that is becoming all too common, namely exclusion of the many for the select enjoyment of the few. The term “equitable” can be defined as fair and reasonable in a way that gives equal treatment to everyone. Equitable coastal access must, however, be achieved without being to the detriment of the environment, especially high value conservation areas, or infringing on the individual rights of people. Illegal access sites most often lead to erosion and damage to sensitive habitats and should not be tolerated.

The Department of Environmental Affairs and Development Planning (WCG: DEA&DP) have provided the District Municipality and Local Municipalities with draft Standard Coastal Access By-laws for the facilitation of Coastal Access in terms of Section 18 of the NEM: ICMA. A Service Level Agreement (SLA) between the Garden Route District Municipality and all the coastal Category-B Local Municipalities will be entered into to confirm responsibilities for the provision of reasonable and feasible coastal access.

Public Access is seen as the highest priority issue in this CMP. All stakeholder workshops, without exception, highlighted this as their main concern. It is for this reason that all the coastal access sites (excluding slipways), as well as the restricted coastal access spots, must be assessed as part of the activities of the Coastal Access Task Teams, as well as the Western Cape Provincial DEA&DP’s review of their Coastal Access Audit of the Garden Route district area. Detailed maps will therefore have to be updated with the new information when it becomes available. It is for this reason that the old and outdated maps contained in this document have been removed as part of the review process.

A few of the coastal access land "hotspots" highlighted by stakeholders that should receive special attention include the George, Mossel Bay and Hessequa seashore areas in general, including hotspots such as Gouritsmond to Stilbaai, Keurboomstrand, Nautilus Bay, Pinnacle Point, Pacaltsdorp, Mossel Bay Golf Course and Dana Bay.

The DEA&DP has also gazetted the official Public Launch Sites, listing dated 26 June 2015, and this is currently being updated. The list of official sites is included in Appendix 5.

2.4.2 Infrastructure, Spatial Planning and Development (CMO 2)

Existing infrastructure and developments within the coastal zone must be maintained or upgraded (rehabilitated) to prevent degradation of the environment, and all existing spatial planning strategies must be strictly enforced.

All future infrastructure and developments should consider nature-based design and solutions, and should be restricted to land already zoned for that purpose. No new zoning should be considered within the coastal protection zone. Future spatial planning strategies must consider the coastal protection zone as a no-go area for infrastructure or developments and coastal management lines must be formally established by the MEC as a matter of priority.

Off-road vehicles are regulated through the ORV Regulations which include the need for a permit for the use of the coastal zone (driving). These Regulations are administered by the DFFE, and applications can be made to the DFFE using the forms at the following website:

https://www.dffe.gov.za/sites/default/files/docs/forms/permitapplication_coastalzone_mlra.docx

2.4.3 Biodiversity Protection, Conservation and Enhancement (CMO 3)

Biodiversity must, as a minimum, be protected and conserved through innovative spatial planning strategies, a network of protected and conservation areas (including conservancies), proactive management, the prevention of over exploitation and pollution. Ultimately, biodiversity protection should be enhanced through alien eradication, the reintroduction and nurturing of indigenous fauna and flora, the protection, management and restoration of salt marshes and peatlands, addressing known pollution sources (e.g. air pollution, oil pollution), as well as rehabilitation programmes. Integrated fire management should receive special priority as fires have the potential to threaten critically endangered habitats and species, increase erosion and siltation in and around estuaries and river systems, and also has the potential to destroy coastal vegetation, put people at risk and affect tourism economies.

There are four Marine Protected Areas (MPAs) within the Garden Route district, three of which are managed by CapeNature and one by SANParks (see Appendix 3 for Marine Protected Areas and Appendix 4 for the other inland Protected Areas such as Nature Reserves, Biosphere Reserves, amongst others).

The 2023 Western Cape Biodiversity Spatial Plan (WC BSP) and its associated biodiversity planning guidelines must be used as a primary spatial informant for biodiversity protection and coastal land-use decision-making. Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), including relevant freshwater and estuarine ecological corridors, must be considered when identifying sensitive coastal habitats, prioritising conservation actions, assessing development proposals and preparing coastal planning schemes.

2.4.4 Heritage and Cultural Heritage Resources (CMO 4)

Heritage and cultural heritage resources refer to any place or object of cultural significance to present communities and for future generations and are considered to be a part of the National Estate (NHR Act – Chapter 1, Section 3). The diverse heritage resources of the Garden Route Municipal area therefore need to be recognized, protected and shared with all its people and visitors.

The Garden Route coastline has a rich Indigenous cultural history extending back thousands of years, with archaeological evidence demonstrating the longstanding dependence of early human communities on marine and coastal resources. The region was historically occupied by San hunter-gatherer communities and Khoekhoe pastoralist groups, including the Hessequa, Gouriqua, Attaqua and Outeniqua, whose territories and seasonal movements extended across different parts of the Southern Cape. These communities used coastal, riverine and estuarine resources, including fish, shellfish, freshwater, indigenous plants and wildlife, for food, livelihoods and cultural practices. Archaeological evidence, including shell middens, stone tools, rock shelters and traditional stone-walled fish traps, illustrates the longstanding relationship between people and the coastal environment. Their cultural heritage, traditional resource-use practices and historical connections to coastal places should be recognised in coastal management. The much earlier prehistoric inhabitants of the region should, however, not automatically be attributed to historically named San or Khoekhoe groups without supporting evidence.

The Garden Route district contains archaeological and cultural heritage resources of national, provincial and local significance, including prehistoric caves, coastal shell middens, stone-walled fish traps and places associated with Indigenous settlement, fishing and cultural practices. These resources contribute to understanding early human behaviour, marine-resource harvesting, traditional ecological knowledge and the relationship between communities and their natural environment. The identification, documentation, conservation and appropriate interpretation of these resources should therefore inform coastal spatial planning, coastal access

designation, development assessment and management measures, in accordance with the National Heritage Resources Act, 1999 (Act No. 25 of 1999), and other applicable legislation. Involving Indigenous descendants, local communities and traditional and small-scale fishing communities can assist in recognising both tangible archaeological sites and associated living heritage. Sensitive site information and public access must be managed in accordance with applicable heritage protections and landowner permissions.

Please refer to Appendix 8 for a list of the heritage resources which can be found in the Garden Route district.

THE NATIONAL ESTATE (NHR Act; Chapter 1, Section 3)

"*3 (1)…those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.*
(2) Without limiting the generality of subsection (1), the national estate may include—

- *Places, buildings, structures and equipment of cultural significance;*
- *places to which oral traditions are attached or which are associated with living heritage;*
- *historical settlements and townscapes;*
- *landscapes and natural features of cultural significance;*
- *geological sites of scientific or cultural importance;*
- *archaeological and palaeontological sites;*
- *graves and burial grounds, including ancestral graves, royal graves and graves of traditional leaders, graves of victims of conflict, graves of individuals designated by the Minister by notice in the Gazette, historical graves and cemeteries and other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);*
- *sites of significance relating to the history of slavery in South Africa;*
- *movable objects, including objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens, objects to which oral traditions are attached or which are associated with living heritage, ethnographic art and objects, military objects, objects of decorative or fine art, objects of scientific or technological interest; and books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).*

Without limiting the generality of the subsections above, a place or object is to be considered part of the National Estate if it has cultural significance or other special value because of —

- *Its importance in the community, or pattern of South Africa's history;*
- *its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;*
- *its importance in demonstrating a high degree of creative or technical achievement at a particular period;*
- *its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;*
- its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa; and
- sites of significance relating to the history of slavery in South Africa.

2.4.5 Disaster Management (CMO 5)

The Garden Route District Municipal coastline is at medium to high risk of erosion, inundation, groundwater contamination (increased salinity) and extreme events (WCG: PDMC, 2021). As global warming due to climate change continues to increase, so will the prevalence of natural disasters such as flooding, droughts and wildfires. It will be the poor living in under-serviced areas that will be the most affected. Greater consideration will need to be given to disaster management in the district. Alignment of disaster risk management areas in the Garden Route district with the Western Cape Government's coastal management lines must be encouraged through the Municipal Spatial Development Frameworks (SDFs). Disaster management must be implemented in a coordinated manner that involves all role players to ensure the health and safety of people, the integrity of property and infrastructure, and the maintenance of ecosystem functioning.

2.4.6 Water Quality and Quantity (CMO 6)

Organs of state must cooperate to ensure that water resources are managed in such a way as to ensure a clean and healthy environment that supports ecosystem functioning and the safety and well-being of all users. The Garden Route District CMP aligns with the Goals of the Western Cape Sustainable Water Resource Management Plan (SWMP) (2018), with special reference to Goal 3: "*Enable the Integrity and Sustainability of Socio-Ecological Systems for Climate Change Resilience*". Climate change is anticipated to affect GRDM's water accessibility, quantity, and quality, with drought, reduced runoff, increased evaporation, and an increase in flood events expected to impact on both water quality and quantity (WCG: PDMC, 2021).

In an already water scarce region, drought is exacerbated by the impact of climatic changes on water supply, which can result in the deterioration of water quality. Drought conditions result in less water available to dilute wastewater discharges and irrigation return flows to rivers, thus resulting in increased effluent and salt concentrations in water sources, especially within the sensitive estuarine systems within the Garden Route District Municipality.

2.4.7 Institutional Arrangements (CMO 7)

The Garden Route District Coastal Management Programme (CMP) must be implemented cooperatively and effectively by all spheres of government and civil society, through cooperation, increased capacity (personnel and awareness) and the prioritization of funds for coastal management.

2.4.8 Compliance and Enforcement (CMO 8)

Compliance with all legislation must be ensured through visible enforcement, which is made more effective via increased capacity, awareness and proactive interaction with stakeholders.

Compliance with, and enforcement of, legislation is key to achieving the coastal management objectives and therefore, ultimately, the Vision for the Garden Route CMP.

The focus of this CMP will be the legislation for which Municipal entities have a mandate, i.e. predominantly by-laws, but with selected National and Provincial legislation (e.g. water quality under the NWA).

For the remaining legislation, it will be the mandate of National and Provincial organs of state and para-statals, and this will be addressed in the respective National and Provincial CMPs.

2.4.9 Education and Awareness (CMO 9)

The value of the Garden Route district environment and its people must be communicated at all levels of basic education and within communities, and a culture of learning, cooperation and sense of ownership fostered between organs of state and civil society.

2.4.10 Economic Development (Job Creation) (CMO 10)

Confidence and an enabling environment must be created in the Garden Route district in order to attract private investors and government programmes to boost the economy, create jobs and raise the profile of the area; all within a framework that preserves the integrity of Garden Route's environment and its people. Furthermore, the Garden Route district should support economic development opportunities that target the most vulnerable in society such as women, youth and the disabled. It is for this reason that the development of a gender, youth and disability gap analysis should be prioritized for the Garden Route District Municipal area.

2.4.11 Tourism and Recreation (CMO 11)

The Garden Route District Municipal area should be recognized as the jewel of the Western Cape, and all the tourism and recreational opportunities should be pursued in a way that contributes to the enjoyment of all its users, a culture of environmental awareness, and a responsibility to promote the benefit of the local economy. This

should include opportunities that target the most vulnerable in society such as women, youth and the disabled.

2.4.12 Sustainable Livelihoods (CMO 12)

Manage existing subsistence activities and promote additional opportunities in a way that ensures compliance with legislation and responsible utilization of resources, as well as opportunities that target the most vulnerable in society such as women, youth and the disabled.

2.4.13 Research and Monitoring (CMO 13)

All management interventions need to be informed through scientific research and indigenous knowledge. The Garden Route District Municipality and local Municipalities within its borders should form partnerships with relevant institutions to conduct research and monitoring that informs coastal management decisions. Tertiary-based research should be encouraged to provide a better understanding of the Garden Route district environment, its people and their interaction. The Garden Route District Municipality and coastal management authorities and stakeholders should share information through platforms such as the Garden Route District Municipal Coastal Committee (MCC), the Garden Route Estuary Task Team, Estuary Advisory Forums (EAF's), the Garden Route Environmental Forum (GREF), as well as other available platforms.

2.4.14 Coastal Erosion (CMO 14)

It is essential to reduce the direct and indirect impact of coastal erosion, and coastal erosion related emergencies and disasters in the Garden Route District Municipal area. According to the Garden Route District Municipality's Disaster Risk Assessment of 2021-2022, coastal erosion has been identified as a high-priority geological risk for the GRDM (WCG: PDMC, 2021).

3 PROVINCIAL AND NATIONAL IMPLEMENTATION ALIGNMENT

3.1 Climate Change and Coastal Management

Climate change threatens coastal areas, which are already stressed by human activity, pollution, invasive species, and storms. Sea level rise could erode and inundate coastal ecosystems and eliminate, or greatly degrade, estuarine systems. Warmer and more acidic oceans are likely to disrupt coastal and marine ecosystems. Climate change and sea-level rise due to human emissions of greenhouse gases is expected to accelerate through the 21st Century. Even given substantial reductions in these emissions, sea-level rise will probably be significant throughout the 21st Century and beyond. This poses a major challenge to long-term coastal management. Climate change will produce problems that have not been faced previously, and solutions need to be reconciled with the wider goals of coastal management. An adaptive coastal management strategy which includes proactive planning is necessary.

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation. According to the IPCC (2021), human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate (IPCC, 2021). The latest World Meteorological Organisation's (WMO) report also indicates that the year 2024 was likely the first year to surpass 1.5°C above pre-industrial levels, with a global mean near-surface temperature of 1.55 ± 0.13°C above the 1850-1900 average.

This Garden Route District Coastal Management Programme is aligned with the Western Cape Climate Change Response Strategy: Vision 2050, the National Climate Change Response Policy of 2011, the Disaster Management Act, 57 of 2002 (as amended), as well as the South African Climate Change Act, 22 of 2024.

This Garden Route District Coastal Management Programme supports the Western Cape Climate Change Response Strategy: Vision 2050, and promotes active retreat mechanisms to protect life and property against climate change impacts relating to storm surges or mean sea level rise. The Western Cape Climate Change Response Strategy: Vision 2050 places a lot of emphasis on adaptation to allow for developmental priorities. It also responds to the global climate change emergency amidst the dramatic global events since 2020-22 (WCG: DEA&DP, 2021). The updated strategy aims to address an urgent 2030 deadline, ultimately planning a trajectory for strategic outcomes in 2050. The Strategy itself was finalised in March

2022, but underwent minor edits in March 2023 to bring the Strategy and its Implementation Plan into alignment.

During September 2023, the National stakeholder engagements were held on the development of the National Coastal Adaptation Response Plan (CARP). The Department of Forestry, Fisheries and the Environment (DFFE) has initiated the development of the CARP as a strategic framework to enable decision makers to effectively develop responses to climate change hazards in coastal areas in line with the requirements of the Integrated Coastal Management Act (ICMA), and the National Climate Change Adaptation Strategy (NCCAS). The reviewed Garden Route District Coastal Management Programme is aligned with the draft coastal adaptation responses identified during the public participation period of the CARP - and as highlighted within the CARP.

To ensure the transition to a climate resilient district, the Garden Route District Municipality has developed a Garden Route District Climate Change Strategy, which has recently been reviewed and updated. The reviewed Strategy was split into two documents in compliance with the new Climate Change Act (Act 22 of 2024), namely the draft Garden Route District Climate Change Adaptation Needs and Response Assessment, as well as the draft Garden Route District Climate Change Adaptation Response Implementation Plan.

3.1.1 The Coastal Impacts of Climate Change

The Western Cape province experiences drought and flood events with significant adverse impacts (Pasquini, Cowling, and Ziervogel, 2013). According to the Western Cape Climate Change Strategy, historically, the province has been the most disaster prone in the country, and increased temperatures in the future are certain for the Western Cape (WCG: DEA&DP, 2014). Rainfall projections are less certain, some projections reveal increased, while others reveal decreased, rainfall in the future - decreased rainfall has the most adverse impacts in comparison to increased rainfall (WCG: DEA&DP, 2014).

Whilst overall Western Cape conditions will heat up and dry out, sudden, extreme climatic events will result in natural disasters that take a toll in terms of lives, livelihoods, infrastructure, ecosystems and the viability of certain economic activities. According to the IPCC's Sixth Assessment Report (AR6) (Chapter 4, AR6), some of the extensive findings of the Panel includes (IPCC, 2021):

- Global mean sea level (GMSL) is rising (virtually certain) and accelerating (high confidence);
- Sea level rise scenarios are predicted / estimated of between 20cm to 1.0m by the year 2100;
- Risk related to Sea Level Rise (SLR) (including erosion, flooding and salinisation) is expected to significantly increase by the end of this century along all low-lying coasts in the absence of major additional adaptation efforts;

- Choosing and implementing responses to SLR presents society with profound governance challenges and difficult social choices, which are inherently political and value laden (high confidence), and;
- Local impacts of GMSL on local coastlines are varied and somewhat uncertain.

The impact of these changes identified by the IPCC, and others, are not negligible, and will result in the following, with varying risk levels (IPCC, 2021):

- Potential rotation of beaches;
- Potential for horizontal relocations of high and low water marks, landwards in some instances, and seawards in others (combinations of beach rotation and erosion);
- The High-Water Mark (HWM) and Low Water Mark (LWM) would move into the infrastructural buffer and ecologically sensitive areas such as Coastal Protection Zones, where more extensive and diverse infrastructure types are located;
- Coastal Protected areas may, or may not, lose biodiversity and / or habitat under the coastal changes due to climate change;
- Risk on homeowners in terms of damaged personal property and infrastructure;
- Potential legal aspects with regards to the potential landwards relocation of the seashore (which is, as per South Africa's Seashore Act, owned by the Governor General, or Government, or the Republic of RSA), and the impact of it overlying properties owned by individual members of the public (individual coastal property homeowners).

Municipalities are bound to know what these impacts and changes on local beaches and coastlines are so that they can adapt to them - knowledge and understanding is key.

Table 2 below is a summary of the key climate change impacts as reported in the Western Cape Provincial Climate Change Response Strategy for the Western Cape (WCG: DEA&DP, (2014):

Table 2: Climate change impacts for the Western Cape Province (WCG: DEA&DP, 2014).

Change to climate variable	Vulnerability Details
Higher mean temperatures	• Increased evaporation and decreased water balance; • Increase danger (frequency and intensity).
Higher maximum temperatures, more hot days and more heat waves	• Heat stress on humans and livestock; • Increased incidence of heat-related illnesses; • Increased incidence of death and serious illness, particularly in older age groups; • Increased heat stress in livestock and wildlife; • Decreased crop yields and rangeland productivity; • Extended range and activity of some pests and disease vectors; • Increased threat to infrastructure exceeding design specifications relating to temperature (traffic lights, road surfaces, electrical equipment, etc.);

	• Increased electric cooling demand increasing pressure on already stretched energy supply reliability; • Exacerbation of urban heat island effect.
Higher minimum temperatures, fewer cold days and frost days	• Decreased risk of damage to some crops and increased risk to others such as deciduous fruits that rely on cooling period in autumn; • Reduced heating energy demand; • Extended range and activity of some pests and disease vectors; • Reduced risk of cold-related deaths and illnesses.
General drying trend in western part of the country	• Decreased average runoff, stream flow; • Decreased water resources and potential increases in cost of water resources; • Decreased water quality; • Decrease in season length threatening the Western Cape fruit crops; • Increased fire danger (drying factor); • Impacts on rivers and wetland ecosystems.
Intensification of rainfall events	• Increased flooding; • Increased challenge to stormwater systems in urban settlements; • Increased soil erosion; • Increased erosion and demands for protection structures; • Increased pressure of disaster relief systems; • Increased risk to human lives and health; • Negative on agriculture such as lower productivity levels and loss of harvest. • Increased pressure to artificially manipulate estuary mouths.
Increased mean sea level and associated storm surges	• Intrusion into ground water and coastal wetlands; • Increased storm surges leading to coastal flooding, coastal erosion and damage to coastal infrastructure; • Increased impact on estuaries and associated impacts on fish and other marine species.

The Provincial Climate Change Response Strategy also lists a number of priority responses in each of the sectors, of which coastal and estuary management was identified as a key sector. Figure 3 is an excerpt taken from their strategy.

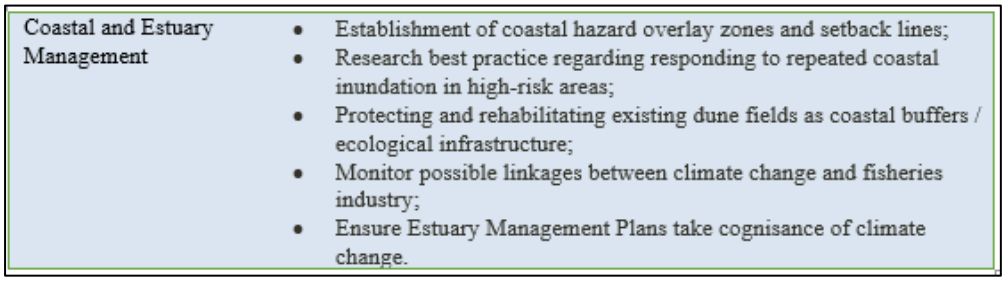


Figure 3: An excerpt of the Provincial Climate Change Response Strategy, indicating coastal and estuary management as a key sector (WCG: DEA&DP, 2014).

There is an unequivocal scientific consensus that increases in greenhouse gases in the atmosphere drive warming temperatures of air and sea, and acidification of the world's oceans from carbon dioxide absorbed by the oceans (Tobey, *et al*., 2010). The changes in turn induce shifts in precipitation patterns, sea level rise, and more frequent and severe extreme weather events (e.g., storms and sea surge). All these impacts are already being witnessed in the world's coastal regions and are projected to intensify in years to come. Taken together, these impacts are likely to result in significant alteration of natural habitats and coastal ecosystems and increased coastal hazards in low-lying areas. They affect fishers, coastal communities and resource users, recreation and tourism, and coastal infrastructure (Tobey, *et al*., 2010).

There is a need to engage with potential partners to develop proposals that support carbon sequestration related projects such as the rehabilitation and protection of salt marshes and seagrass beds, existing dune fields as coastal buffers / ecological support areas, etc. that will promote the protection and rehabilitation of ecological infrastructure through approved maintenance management plans.

3.1.2 Implementing Actions Towards Coastal Climate Change Adaptation

The Garden Route District Municipality was guided by the IPCC's AR6, Provincial and National Strategies and Plans to inform the implementation actions and coastal management responses of this Garden Route District Coastal Management Programme. This will be supplemented with a linkage to the IPCC's Global Warming of 1.5°C 62 report, which is referenced earlier in this Strategy. An additional reference that was consulted is the high-resolution downscaled climate change projections produced by the Centre for Scientific and Industrial Research (CSIR) under the auspices of their Green Book project (www.greenbook.co.za).

As the coast changes and options are considered in response to the cross-cutting pressures caused by these changes, which are also expected to be exacerbated by climate change, the Garden Route district needs to apply a multi-disciplinary approach in resolving and adapting to such challenges. Wind, wave action, long-shore sand transport, erosion and accretion, and storm action are powerful drivers of coastal systems, which are considered during maintenance management plan development, and will inform and guide coastal development and ancillary opportunities. The determination of the most appropriate and sustainable course of action for addressing coastal erosion and storm surges requires sensitive navigation through the multiple and often conflicting interests of the various stakeholders, including private developers, property owners, government officials (across all three spheres), beach users, civil society and environmental pressure groups.

The climate change impacts and risks indicated above are caused by anthropogenic drivers (human induced). Thus, they are not expected to go away in the short, or perhaps even long term. The Garden Route District Municipality is committed to making decisions and taking actions around the protection of coastal, marine and

estuarine resources, as well as essential dynamic coastal processes, by taking consideration of the impacts of climate change and the consequent need for adaptive and sustainable solutions.

The following implementation actions are proposed:

- Coastal monitoring through regular surveys, patrols, inspections, and other information gathering technologies;
- A means to publicise this information for benefit of all public beneficiaries, users, and property owners need to be designed and implemented. This could be done through some type of ICT portal, or a dedicated section on the GRDM website;
- Dedicated staff experienced, trained, and well versed in the technical aspects of coastal management, coastal science and coastal engineering, and who can manage, run and analyse the outputs of these coastal monitoring programs and turn them into information for the purposes of decision making, is essential;
- The inclusion of adaptive, nature-based solutions, working with nature concepts, and / or ecosystems services, is a requirement for effective coastal infrastructural management;
- Annual condition assessments monitoring infrastructure in the coastal zone should adopt appropriate asset management plans as per ISO55000;
- More adaptive coastal management lines, that change according to changes in the coastal profile and associated high and low water marks, should be considered;
- Ensuring the healthy functioning of coastal ecosystems by strengthening the natural defenses that protect people and coastal systems, such as the protection of sand dunes, sea grass, estuaries and beaches are physical buffers;
- Ensuring that the extraction and use of natural resources does not compromise the sustainability of vital coastal ecosystems. Reducing or eliminating non-climate stresses and unfavorable trends helps to achieve functional ecosystems that are more resilient to climate change and variability;
- Ensuring that illegal sand and gravel mining in coastal riverbeds, estuaries and beaches is stopped;
- Ensuring that marine fisheries are healthy and resilient to climate change, by reducing overfishing and destructive fishing thereby strengthening fish populations and restoring fish habitats;
- Restricting and/or eliminating industrial fishing vessels from operating within 15 km of the coast;
- Ensuring that coastal, marine and estuarine ecosystems are functioning and healthy. Functional ecosystems provide goods and services that are important to human society in the face of climate change (storm protection, flood mitigation, shoreline stabilization, erosion control, water storage, groundwater recharge, and retention of nutrients, sediments and pollutants);
- Reducing estuarine pollution and securing a safe breeding habitat for marine and estuarine species;
- The identification of coastal locations that are more stable during periods of global climate change can serve as Marine Protected Areas, thereby offering a refuge for stressed species coming from the neighbouring vulnerable areas;
- Ensuring that the required estuarine freshwater inflows for estuaries are upheld in order to maintain the environmental flow requirements;
- That coastal development strictly complies with the defined coastal management lines as developed by DEA&DP for the Garden Route district;
- Implementing integrated disaster risk management and preparedness actions to reduce the risks to human health and safety as well as coastal ecosystem degradation from natural hazards such as storm surges, flooding, gale force wind, amongst others;
- Apply a consistent, cautious and risk averse approach in responding to the pressures caused by coastal erosion and storm surges;

- Require all new coastal developments and changes to existing developments to incorporate mitigation of and/or adaptation to coastal climate change impacts as part of their approval process;
- Ensure that coastal defenses to protect private property from the threat of coastal erosion are compliant with the relevant legislation;
- To not approve coastal defense structures if such structures will compound risk to the coastal environment or its residents in the future;
- To retain the option of managed retreat over defense;
- Requiring that coastal defenses be proven to reduce risk prior to being approved;
- Favouring coastal defenses which are reversible, flexible, do not negatively impact on sense of place or aesthetics, and have other positive knock-on effects;
- Favour soft engineering approaches over hard engineering solutions as recommended by the Estuarine Management Framework and Implementation Strategy and Coastal Erosion Policy Document;
- Establishment of coastal hazard overlay zones and coastal management lines;
- Research best practice regarding responding to repeated coastal inundation in high-risk areas;
- Protecting and rehabilitating existing dune fields as coastal buffers / ecological infrastructure;
- Monitor possible linkages between climate change and fisheries industry;
- Ensure Estuary Management Plans take cognizance of climate change;
- Undertaking a broadly consultative process with the public when deciding on coastal, marine or estuarine defense interventions, and;
- Support the Responsible Management Authorities (RMA) to establish and implement appropriate Mouth Management Plans.

A key challenge that emerges is the need for improved impact and vulnerability assessments that are relevant to coastal management needs. This should include the consequences of sea-level rise and the impact of climate change on coastal areas. This will require continued development of broad-scale assessment methods for coastal management. It is also important to assess coastal adaptation and management as a process rather than just focus on the implementation of technical measures. The uncertainties of climate change suggest that coastal management should have explicit goals, so that its success or failure should be regularly monitored, and the management approach adjusted as appropriate.

Integrated coastal management needs to be practiced as an inclusive, strategic and adaptive process for assessment of climate change risks, planning, securing commitment and funding, implementation, and evaluation. Systematic knowledge gathering, continued learning and understanding plays a major role in guiding the wise use of coastal resources, resolving human-induced problems, and improving governance systems. Adaptive coastal management for future of sustainability, prosperity, awareness, responsibility, equality, natural beauty, and abundance is important.

Monitoring programs can provide extensive information to understand both what is changing, and the extent to which it is changing. Monitoring programs should therefore form an integral part of the Garden Route District Coastal Management Programme, in so far as the information gathered can be used to understand what is changing, and the extent of the changes, so that the district can in fact adapt to it. In this way, the

district's Municipalities can not only adapt to the current coastal changes, but adapt to it before it is too late (Johnson, 2023).

3.2 Disaster Management Risks in Coastal and Marine Environments

The Garden Route District Coastal Management Programme is also aligned with the Disaster Management Act (Act 57 of 2002), which is a comprehensive piece of legislation that provides a framework for disaster management in the country, including environmental and climate change considerations. Extreme coastal processes such as tidal extremes, wave and wind erosion, coastal storm surges, wave overtopping and flooding inherently put people, property and economic activities at risk. The situation is, however, compounded by the multi-dimensional nature of human-induced climate change that will affect local extreme weather conditions and long-term climatic patterns. Increased sea surface temperatures could mean increased storm activity and slightly stronger winds, whilst thermal expansion of the oceans will result in rising sea levels and associated coastal erosion. Recent studies indicate that climate change will result in 0.25m – 0.75m of eustatic sea level rise by 2040-2060 around the Western Cape, with associated swash run up of roughly 3.0m – 3.5m above the mean sea level (excluding tidal influence) (WCG: PDMC, 2021).

It is expected that extreme climate change will lead to the crossing of biophysical thresholds, triggering extreme disaster events. One of these is abrupt and dramatic seal level rise that would result from the destabilisation and melting of ice sheets in Antarctica and Greenland. The melting of the Antarctic's vulnerable Thwaites Glacier is already responsible for 4 % of global sea level rise, and scientific assessments of newly detected fissures on the surface of this glacier expect the ice sheet to break apart further within the next 5+years. This could raise global sea level rise by 65 centimetres (Voosen, 2021), which can lead to major coastal disaster risks within the Garden Route District Municipality, such as:

- Doubling of coastal flooding under SLR changes off 'only' 10-20cm increases in GMSL;
- Changes in direction waves leading to increased beach erosion rates;
- Changes in wave heights and wave periods, resulting in more severe storm activity, and possible increased erosion of beaches.

Further scientific investigation and research are needed before a full understanding of the risk impacts on coastal and marine environments is achieved. Predicted changes and impacts should be combined with monitoring and in-situ measurement techniques.

It is essential for the Garden Route District Municipal Coastal Programme to include proactive coastal risk adaptation strategies as opposed to a reactive 'sit back and wait' response. The latter will involve significant costs of responding to disasters rather than a disaster risk reduction approach. The impacts of the increased frequency and magnitude of storm surges have already resulted in reactive measures in some areas.

This is evidenced by the requirements to replace damaged infrastructure or restoring degraded ecosystems where such are failing to keep up with the changes taking place, both in terms of the scale of change and the cost of responses required (DEA&DP, 2018).

In response to the disaster risks associated with the climatic changes within the GRDM, the Municipal Disaster Management Departments within the district should:

- Initiate a broader public participatory engagement platform to ensure that the voice of the citizenry is heard, the immediate needs of communities are responded to within the context of climate resilient development, and that government is held to its climate action commitments.
- Bolster its disaster management responses by:
  - Ensuring that early warning systems and effective communication systems are in place;
  - Ensuring spatial planning and development planning reduces risks to people, infrastructure and assets;
  - Increasing awareness of the climate emergency amongst the citizens and the civil service of the province.
- Reduce coastal risks and public liability through the:
  - Implementation of coastal management lines in spatial planning;
  - Management of coastal retreat, where necessary.
- Access international climate finance to stimulate and support climate responsible economic and social development or investment;
- Support Fire Protection Associations and mitigate the risk of wildland-urban and wildland-agriculture interface fires through appropriate ecosystem management.

The main powers and duties of Municipal DMC is defined and listed in the Disaster Management Act, Act 57 of 2002, as amended.

Disaster Management Act (Act 57 of 2002), as amended:

Excerpts from Sections 52 and 53 – Disaster Management Plans

''Each municipal entity indicated in the national or the relevant provincial or municipal disaster management framework must -

(a) prepare a disaster management plan setting out -
(i) the way in which the concept and principles of disaster management are to be applied in its functional area;
(ii) its role and responsibilities in terms of the national provincial or municipal disaster management frameworks;
(iii) its role and responsibilities regarding emergency response and post disaster recovery and rehabilitation;
(iv) its capacity to fulfill its role and responsibilities;
(v) particulars of its disaster management strategies; and
(vi) contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies;
(b) co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players; and
(c) regularly review and update its plan.

A disaster management plan for a municipal area must –

a. form an integral part of the municipality's integrated development plan;
b. anticipate the types of disaster that are likely to occur in the municipal area and their possible effects;
c. place emphasis on measures that reduce the vulnerability of disaster-prone areas, communities and households;
d. seek to develop a system of incentives that will promote disaster management in the municipality;
e. identify the areas, communities or households at risk;
f. take into account indigenous knowledge relating to disaster management;
g. promote disaster management research;
h. identify and address weaknesses in capacity to deal with possible disasters;
i. provide for appropriate prevention and mitigation strategies;
j. facilitate maximum emergency preparedness; and
k. contain contingency plans and emergency procedures in the event of a disaster, providing for –
(i) the allocation of responsibilities to the various role-players and co-ordination in the carrying out of those responsibilities;
(ii) prompt disaster response and relief;
(iii) the procurement of essential goods and services;
(iv) the establishment of strategic communication links;
(V) the dissemination of information, and;
(vi) other matters that may be prescribed."

Disaster management strategies should consequently form a key part in coastal management implementation actions and responses. The Disaster Management Act (Act 57 of 2002) includes the requirement for climate change adaptation to be part of all Disaster Management Plans at all levels of government, and this includes Ecosystem based Adaptation (EbA) responses. As a key focus, the Garden Route District CMP must contribute to the overall objectives of the Disaster Management Act (Act 57 of 2002) in order to ensure the continued social and economic resilience of communities.

3.2.1 The Garden Route District Disaster Management Centre

The Garden Route Disaster Management Centre, which forms part of the Garden Route District Municipality's Department Community Services, is equipped with joint operational command and tactical decision areas. Currently, the GRDM is one of only two district municipalities in the Western Cape who has a fully integrated digital two-way radio system, which has 40 antennas linking to different organisations/stakeholders.

A 30m mast is currently erected at the GRDM, and it provides signals to more than 40 organisations. The mast is the centre point of communications to 6 towers in the district. All the technology that GRDM and the Western Cape Government has invested in makes GRDM the best equipped Joint Operation Centre (JOC) in the Garden Route District.

In order to stay abreast with regional emergency-related activities, a 24/7 call centre has been established adjacent to the Disaster Management Centre (DMC). The 24/7

call centre renders an emergency call taking and dispatch platform servicing the district as a whole. The details of the centre are:

Emergency Communications – GRDM Disaster Management Centre

- **Contact Details:** 044 805 5071 / 081 709 5193
- **Responsibilities:** An environmental crisis, including wildfires, chemical fires, oil spills and flooding, etc.
- **Call Centre Operators:** Five full-time staff, including a supervisor.

3.3 Coastal Access

With increasing climatic changes and variability, unprecedented population growth and development, and tourist numbers within coastal cities, it is vital that coastal access is sufficient and easily available to all who wish to enjoy this natural public resource. There is however still a wide tendency of private residents, communities (gated villages), golf courses, and tourism facilities such as hotels, etc., to inhibit or deny equitable access for all to some coastal areas along the coastline.

In the case of coastal access routes of a historic nature and with cultural links, the provision of coastal access is especially important as these routes usually provides a means of food security for subsistence fishermen, allowing them to put food on the table for their families. These access routes must therefore be protected and maintained as high-priority areas.

The Garden Route District Municipality confirms that reasonable and equitable access to the coastal public property for all must be recognized as a basic human right, and must be achieved without being to the detriment of the environment or infringing on the individual rights of people. Public coastal access is also seen as the highest priority issue in the Garden Route District Coastal Management Programme, and access to the coastal public property is considered as an inalienable right for all.

The Garden Route District Municipality reiterates that the National Environmental Management: Integrated Coastal Management Act (NEM: ICMA), 24 of 2008 entrenches the right of reasonable access to coastal property. All access points should be maintained in perpetuity, in contrast to situations where coastal access areas are closed off, or where access is denied, or only for limited people. The right to coastal public property, however, refers only to pedestrian access, as vehicular access is prohibited in terms of the ICMA: ORV Regulations.

Coastal access development along the Garden Route District Municipality's coastline can result in valuable spaces which should serve as central points of economic, social, cultural, spiritual, educational and recreational experience, instead of becoming informally privatized space which is limited to a few. Conversely, uncontrolled or informal access to the coast is one of the primary contributors to dune erosion and disturbances of sensitive ecosystems, ultimately compounding risk from coastal

processes. A core focus of the Garden Route district is therefore to ensure equitable access for all by ensuring ease of access to its coastline, whilst also ensuring that this access is regulated, organized and controlled in a manner that does not detract from; or negatively impact on; the coastal environment.

3.3.1 Responsible Management Authority for Coastal Access

According to the responsible authority for the Designation of Coastal Access Land function, reference is made within the applicable Legislation (National Environmental Management Act: Integrated Coastal Management Act (NEM: ICMA), 24 of 2008, to "*a municipality*", which, according to the Definitions Section within the Act, is a District Municipality, or a Category-B Municipality (local municipality (LM)) within the District's borders, where there is a written agreement between the two that the local municipality will take on this function.

For the Garden Route District Municipality (GRDM) to take on this function, it would require additional budget, as well as additional human and operational/implementation capacity, such as the appointment of Law Enforcement Officers to enforce coastal access, establish a municipal spatial planning function, as well as employ additional maintenance personnel to construct and maintain coastal access facilities such as boardwalks, etc. as per the terms of the Legislation. Being a non-revenue generating Municipality, and therefore lacking the appropriate capacity / resources (financial, human and operational), the GRDM has expressed the need to enter into written Agreements with the Local Category-B Municipalities to take on this function, as provided for in the terms of the NEM: ICMA legislation.

The Garden Route District Municipality has drawn up a draft Service Level Agreement (SLA) which can be entered into between the GRDM and the Category-B Municipalities in the district, and is currently being assisted by the Western Cape Provincial Department of Environmental Affairs and Development Planning's (DEA&DP's) Legal section, who is vetting the document for Legal correctness. In the interim period, the GRDM is however committed to coordinating efforts to address the coastal access function within the district, and to assist with the coastal access challenges being experienced within the district to the level that its available capacity will allow.

The Department of Environmental Affairs and Development Planning (DEA&DP) has provided the Garden Route District Municipality and all the Category-B Local Municipalities with draft Standard Coastal Access By-laws for the facilitation of reasonable and feasible Coastal Access in terms of Section 18 of the NEM: ICMA. Once the draft Agreement between the Garden Route District Municipality and the Local Municipalities has been finalized by DEA&DP, the institutional arrangements regarding the implementation of the Coastal Access By-laws will be entered into, as per the Terms of the Agreement.

The National Department of Forestry, Fisheries and the Environment (DFFE) has established a Coastal Access Task Team for the Garden Route district. All the key stakeholders should form part of the Task Team, and will be included in the discussions of the Task Team. The Coastal Access Task Team should investigate all the aspects and challenges experienced at the hot spots where coastal access is prohibited or challenges are being experienced along the Garden Route district coastline. The Task Team should also conduct an investigation on any historical coastal access routes, and obtain data such as original/historical maps, title deeds, photos or video footage, or any other data which would assist with the assessment of coastal access hot-spots along the coast.

The Coastal Access Task Team should also assist with the way forward for the coastal access issues identified in the Western Cape Provincial Department of Environmental Affairs and Development Planning (DEA&DP) Coastal Access Audit for the Garden Route district. Broad areas of concern / hot spots are included in the Coastal Access Audit for the Garden Route district, which is currently being reviewed by DEA&DP to include any new and emerging information, as well as information lacking during the original development of the Coastal Access Audit.

3.3.2 Legislative Context of Coastal Access

South Africa's approach to coastal management and access has undergone a significant transformation, moving from a historically restrictive system to a more equitable and integrated approach. This shift is driven by factors like the transition to democracy, the National Coastal Management Programme (NCMP), and the Integrated Coastal Management Act (NEM: ICMA) 24 of 2008, which aim to balance protection and progress while ensuring access for all South Africans, especially historically marginalized communities. Transformation should therefore involve a shift towards a more collaborative and deliberate approach to policymaking, involving government, civil society, and other stakeholders. Excerpts from the relevant Legislation that apply to coastal access regulations are as below (not comprehensive):

- **Section 24** of the Constitution of the Republic of South Africa, 1996:

  The Constitution speaks strongly to the public's right of access to environmental resources: - "*Everyone has the right to an environment that is not harmful to their well-being, and to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures".*

- **Section 31 of the Constitution of the Republic of South Africa, 1996:**

  This section states that: - "*Everyone has the right, with other members of their community, to enjoy their culture, practice their religion and use their language, and to form, enjoy and maintain cultural, religious and linguistic associations and other organs of civil society*".

- **National Environmental Management Act, 1998 (NEMA) ensures that:**

    - Environmental management must serve people's physical, psychological, cultural and social needs.
    - Sustainable development requires (among others) that the disturbance of landscape and sites that constitute the nation's cultural heritage be avoided, or where this is not possible, minimised and remediated.
    - The environment is held in public trust for the people and must be protected as the people's common heritage.

- **The National Environmental Management: Integrated Coastal Management Act (NEM: ICMA), 24 of 2008:**

Access to the coast is regulated primarily through the National Environmental Management: Integrated Coastal Management Act (24 of 2008) (ICMA). The NEM: ICMA entrenches the right of any natural person in the Republic to reasonably access coastal public property and to use and enjoy coastal public property provided that use does not adversely affect the rights of other people to use and enjoy coastal public property, hinder the State in performance of its duties or cause an adverse effect. Section 13 of the ICMA further states that no person may prevent access to coastal public property. This is further entrenched in Section 59 that provides for both the National Minister or the Provincial MEC to issue a Coastal Access Notice to any person who is suspected of having an adverse effect on the rights of natural persons to gain access to, use and enjoy coastal public property.

The NEM: ICMA requires that coastal Municipalities designate strips of land as coastal access land (CAL), and also sets out the responsibilities of Municipalities with regard to CAL. These responsibilities include the following (RSA, 2008:38):

1) "*Signpost entry points to that coastal access land;*
2) *control of the use, and activities on that land;*
3) *protect and enforce the rights of the public to use that land (to gain easy and equitable access to coastal public Property);*
4) *maintain that land so as to ensure that the public has access to the relevant coastal public property, including parking areas, toilets, boardwalks and other amenities, taking into account the needs of physically disabled persons;*
5) *ensure that the provision and use of coastal access land, and associated infrastructure, do not cause adverse effects on the environment;*
6) *remove any public access servitude that is causing or contributing to adverse effects that the municipality is unable to prevent, or to mitigate, adequately;*
7) *describe, or otherwise indicate, all coastal access land in any municipal coastal management programme and in any municipal spatial development framework prepared in terms of the Municipal Systems Act;*
8) *perform any other actions that may be prescribed, and;*

9) *report to the MEC within two years of the Act coming into force on the measures taken to implement this section*".

Amendments to the NEM: ICMA in 2014, while not reflected in the National Policy documents, are included and reflected on in the final Western Cape Provincial Coastal Access Strategy and Plan, 2017, (WCG: DEA&DP, 2017). The 2014 amendments to the NEM: ICMA now affords the Member of the Executive Council (MEC), followed by the Minister, the authority to intervene and designate coastal access land should a municipality fail to do so. It also amends certain provisions clarifying the nature of the public servitude and the matter of access fees. Most importantly is the inclusion of a clause stating that "*no person may prevent access to or use of coastal public property subject to certain prohibitions or restrictions*". The restrictions cover issues such as access to protected areas, protecting the environment or when in the interests of the whole community, or in cases of national security or in the national interest.

- **The National Coastal Access Strategy** of the Department of Forestry, Fisheries and the Environment (DEA, 2014) also mentions:
-
    - "*Improve pedestrian access above the high-water mark;*
    - *Improve infrastructure for access;*
    - *Prevent exclusive use;*
    - *Address conflicting rights between public interest, private property owners and communal and traditional users; and*
    - *Minimize adverse impact on the environment*".

- **The National White Paper for Sustainable Coastal Development** (DEAT, 2000), details:

  The national intent to address the challenge of the inhibiting or denial of equitable access for public to some coastal areas along the coastline, and details specific management goals as follows:

    - "*to ensure that the public has the right of physical access to the sea, and along the seashore, on a managed basis;*
    - *to ensure that the public has the right to equitable access to the opportunities and benefits of the coast, on a managed basis;*
    - *to preserve, protect or promote historical and cultural resources and • to ensure that the State fulfils its duties as the legal custodian off all coastal State assets on behalf of the people of South Africa".*

- **The Spatial Planning and Land Use Management Act 16 of 2013** (SPLUMA):

  The SPLUMA provides a uniform, effective and comprehensive system for spatial planning and land use management, which, among others, promotes

social and economic inclusion and aims to redress the imbalances of the past. – Formulates principles for spatial justice, spatial equality, efficiency, spatial resilience and good administration.

The SPLUMA intends to:

- Provide a framework for spatial planning and land use management in the Republic;
- Specify the relationship between the spatial planning and the land use management system and other kinds of planning;
- Provide for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government;
- Provide a framework for the monitoring, coordination and review of the spatial planning and land use management system;
- Provide a framework for policies, principles, norms and standards for spatial development planning and land use management;
- Address past spatial and regulatory imbalances;
- Promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications;
- Provide for the establishment, functions and operations of Municipal Planning Tribunals;
- Provide for the facilitation and enforcement of land use and development measures; and
- Provide for matters connected therewith.

Section 21. "*A municipal spatial development framework must- (j) include a strategy assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural and coastal access strips, where applicable*"

Section 12. (1) "*The national and provincial spheres of government and each municipality must prepare spatial development frameworks that- (i) address historical spatial imbalances in development*".

- **The United Nations Declaration on the Rights of Peasants and other People Working in Rural Areas** (UNDROP), 2018:

South Africa is signatory to this agreement. The UNDROP explains the international community's commitment to protect, fulfil, and respect peasants' human rights, including the recognition of:

- The rights of peasant women and other working in rural areas;
- The right to seek, receive, develop and impart information, among others, about processing, marketing and distribution of their peasants' products;
- The right to access to justice;

- The rights to land, seeds, biodiversity, water, and other natural resources;
- The right to food and the right to be free from hunger;
- The right to food sovereignty and the collective right to a healthy environment;
- The right to an adequate standard of living;
- The right to social security, the right to health and the right to housing;
- The right to enjoy culture and pursue cultural development freely.

Relevant excerpts also includes: Page 17, "*to defend their human rights and tenure rights, and to secure the sustainable use of the natural resources on which they depend, recognizing that access to land, water, seeds and other natural resources is an increasing challenge for rural people, and stressing the importance of improving access to productive resources and investment in appropriate rural development*";

Article 5 1. "*Peasants and other people working in rural areas have the right to have access to, and to use in a sustainable manner, the natural resources present in their communities that are required to enjoy adequate living conditions, in accordance with article 28 of the present Declaration*";

(c) "*Modalities for the fair and equitable sharing of the benefits of such exploitation …….*";

Article 6 1. "*Peasants and other people working in rural areas have the right to life, physical and mental integrity, liberty and security of person.*

2. Peasants and other people working in rural areas shall not be subjected to arbitrary arrest or detention, torture or other cruel, inhuman or degrading treatment or punishment……."

- **Policy for the Small-Scale Fisheries Sector in South Africa**, 2012, aims to:

Provide redress and recognition to the rights of Small-Scale fisher communities in South Africa previously marginalised and discriminated against in terms of racially exclusionary laws and policies, individualised permit-based systems of resource allocation and insensitive impositions of conservation-driven regulation. In line with the broader agenda of the transformation of the fishing sector, this policy provides the framework for the promotion of the rights of these fishers in order to fulfil the constitutional promise of substantive equality. Indeed, in terms of our Constitution, the State is committed to 1 respecting, protecting, promoting and fulfilling the rights of Small-Scale fishers in South Africa.

- This policy gives effect to the protection of peoples' rights to "*pursue their economic and social development according to 3 the policy they Garden Route District Coastal Management Programme 45 have freely chosen*" and to "*freely dispose of their wealth and natural resources*",

  - Section 2.2 (d) d) to "*accommodate traditional/subsistence fishers effectively, secure the socio-economic rights of traditional/subsistence fishers as well as provide equitable access to marine living resources*".

- **National Heritage Resources Act, 1999 (NHRA):**
  - Empowers civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations.
  - Provides for the protection and management of conservation-worthy places and areas by local authorities.

The tendency that the presence of historic coastal access routes are not communicated to the new landowners upon the sale of property has also been identified, and mechanisms should be put in place to avoid this problem going forward.

The above legislative goals were later enacted via the ICMA, with Municipalities being assigned the responsibility of designating coastal access land and managing coastal access. Since then, the National Department of Environmental Affairs have prepared both "A National Strategy for the Facilitation of Coastal Access in South Africa" (DEA, 2014a) and "A Step–by–Step Guide for the Designation and Management of Coastal Access in South Africa" (DEA, 2014b). As per the National Strategy for the Facilitation of Coastal Access (DEA, 2014a), there are two management objectives for the provision of coastal access and the designation of coastal access land, which are as follows:

- Objective 1: Opportunities for public access must be provided at appropriate coastal locations in context of the environment and social opportunities and constraints, and;
- Objective 2: Public access must be maintained and monitored to minimize adverse impacts on the environment and public safety and to resolve incompatible uses.

Part of the strategic planning also involves the inclusion of these objectives relating to coastal access in the district, within this Garden Route District Coastal Management Programme (CMP). The Garden Route District Municipality is committed to facilitating the inclusion of the provision of public coastal access in all gated communities uniformly. As per the Legislative regulations mentioned above, the Garden Route District Municipality would therefore like to implore all affected landowners to please make provision to allow access for the subsistence fishermen to use the historic agreed upon coastal access route through their properties.

3.3.3 Heritage Resources

The term "heritage resources" can be defined as a legacy from the past, including that which defines cultural identity, which we need to value and protect today in order to conserve it for future generations. A cultural heritage is unique, valuable and non-renewable, and can be any place, space or object that has cultural significance or

special value to present communities and should be protected for the benefit of future generations.

As per the Constitution of the Republic of South Africa, 1996:

"*Everyone has the right, with other members of their community, to enjoy their culture, practise their religion and use their language, and to form, enjoy and maintain cultural, religious and linguistic associations and other organs of civil society*" (section 31).

Marine living resources have been harvested for consumptive use, livelihoods, medicinal purposes and as part of cultural and spiritual practices for centuries along our coastline and evidence of marine resource use by indigenous {and local) coastal communities exists along the west coast. From archaeological evidence and oral history, it is clear that Small Scale fishers have a very long history of harvesting marine living resources (RSA, 2012).

As per the NEM: ICMA, "*no person may prevent access to or use of coastal public property subject to certain prohibitions or restrictions*". In the case of coastal access routes of a historic nature and with cultural and heritage links, the provision of coastal access is especially important as these routes usually provides a means of food security for subsistence fishermen, allowing them to put food on the table for their families. These access routes must therefore be protected and maintained as high-priority areas.

3.3.4 Conservation Areas and Coastal Access Land

Conservation designations along the Garden Route district coastline must be differentiated according to their statutory status, land ownership, responsible management authority and applicable legal restrictions. Formally declared protected areas under the National Environmental Management: Protected Areas Act, 2003 must be distinguished from voluntary conservancies, contractual biodiversity stewardship arrangements and privately managed properties that have not been formally declared as protected areas.

Although conservation status is an important consideration in coastal access planning, it does not independently determine whether land may be designated as coastal access land. Decisions must account for applicable legislation, existing access and property rights, protected-area management plans, biodiversity sensitivity, equitable public access requirements and the likely environmental consequences of providing access.

Where access through formally protected land is proposed, the relevant management authority and other affected parties must be consulted to identify lawful arrangements compatible with the protected area's conservation objectives. Where an area is not formally protected, conservation claims should be assessed on their merits and not treated as automatic grounds for denying coastal access. The objective is to secure

reasonable, equitable and environmentally sustainable access to coastal public property without compromising legally protected conservation values.

Not every property referred to as a “nature reserve”, “conservancy” or “conservation area” has the same statutory protection. A property’s conservation designation does not, by itself, establish whether members of the public may lawfully cross it to reach the coastline.

Two principal national statutes must be read together: the National Environmental Management: Protected Areas Act, 2003 (NEM: PAA), governing formally declared protected areas and their management; and NEM: ICMA, especially sections 13 and 18–20, governing reasonable public access to coastal public property and the legal designation of coastal access land.

Key principle: protected-area status regulates conservation obligations and access restrictions; coastal access designation establishes a lawful public access route to coastal public property. These mechanisms are distinct but must be reconciled.

Table 3: Comparison of conservation categories.

Category	**Legal status**	**Implications for coastal access**
CapeNature-managed, formally declared nature reserve	Statutorily protected under NEM:PAA or qualifying declaration legislation. CapeNature ordinarily serves as a management authority, rather than itself being the declaring authority.	Entry and activities are regulated by applicable statutory provisions, permission requirements and the approved management plan. No automatic unrestricted access.
Formally declared private nature reserve	Statutory protected area where a valid declaration is in force. The land may remain privately owned.	Check the declaration, boundaries, management authority, management plan and existing public or vested rights before considering any new route.
“Private nature reserve” with no verified declaration	A private property may be marketed as a nature reserve without having formal protected-area status.	The name alone does not create a statutory coastal access exemption. Ordinary property rights and environmental duties remain relevant.
Conservancy	Usually a voluntary conservation initiative; conservancy registration does not itself make the area a NEM: PAA protected area.	No automatic bar to designation, but landowner rights, agreed conservation commitments and environmental sensitivity require assessment.
Protected environment	Formally declared protected area under section 28 of NEM: PAA.	Land-use and management restrictions may apply; any route must be consistent with statutory protection and applicable plans.
Biodiversity stewardship agreement	Status depends on its type: a contract nature reserve or protected environment may carry formal protected-area status;	Review the precise agreement and any Gazette declaration. The stewardship label alone does not establish a public right of passage.

	other agreements may be contractual only.	
Critical Biodiversity Area / Ecological Support Area	Biodiversity-planning spatial designations are not automatically formal protected areas.	Strong ecological planning considerations may justify rerouting, managed access or avoidance of sensitive habitats, rather than automatic exclusion.
Marine Protected Area	Declared marine protected area with statutory rules applying to the designated marine space.	Coastal approaches and marine recreation must comply with applicable MPA rules. An MPA is not, by itself, a public land-access servitude.

Table 4: Statutory Provisions Relevant to Coastal Access Land.

Provision	**Practical relevance**
NEM: ICMA s13(1)–(2)	Provides for reasonable access to coastal public property while permitting lawful access/use restrictions, including for protected areas and environmental protection.
NEM: ICMA s18(1)–(3)	Municipal coastal access land must be designated by by-law; designation triggers a public servitude and is subject to coastal programmes and other applicable legislation.
NEM: ICMA s18(9)	Rezoning, subdivision or development of land within or abutting coastal public property must address adequate public coastal access in approval conditions.
NEM: ICMA s19	Requires environmental-impact assessment of designation/withdrawal, consultation with interested and affected parties and notice to the owner.
NEM: ICMA s20	Addresses signage, control, public rights, maintenance, facilities, environmental protection, record-keeping and related municipal responsibilities.
NEM: PAA ss23 and 28	Provide mechanisms for declaration of nature reserves and protected environments respectively.
NEM: PAA ss38–41 and 46	Concern protected-area management authorities/plans and controls on entry into national parks, nature reserves and world heritage sites.
Western Cape Biodiversity Act 6 of 2021, s42	Provides a provincial legal framework for biodiversity stewardship areas and agreements, subject to implementation and applicable regulations.

Section 13 of NEM: ICMA recognises reasonable public access to coastal public property, subject to applicable legislation and lawful restrictions, including restrictions linked to protected areas and environmental protection. Sections 18–20 prescribe how coastal access land is designated and managed.

Conservation status is not an automatic prohibition: assess whether a proposed route can coexist with the conservation objectives and statutory controls of the land. Formally declared reserves require specific legal scrutiny: consider NEM: PAA section 46 alongside NEM: ICMA section 18(3), the declaration instrument, vested rights and the approved management plan.

Conservancy status itself does not exempt a property from consideration for coastal access designation; the ecological and property-rights considerations remain material. Private ownership is not an automatic bar: a designation made lawfully under section 18 establishes a public servitude, but a proposed or mapped route does not of itself authorise trespass.

Sensitive habitats may warrant restriction or an alternative route regardless of formal conservation category: assess dunes, wetlands, estuaries, nesting sites, erosion and cumulative disturbance.

3.3.5 The Development of Coastal Access By-Laws

The Western Cape Department of Environmental Affairs and Development Planning has developed separate draft By-Laws for the procedure for the designation, amendment and withdrawal of coastal access land, and the determination or adjustment of coastal boundaries thereof, which covers:

- The comprehensive procedure for the general designation of coastal access land incorporating inter alia the public participation process and requisite reports (“the procedural By-Law”);
- The designation of specific land as coastal access land (“the designation By-Law”);
- The amendment of the designation of specific coastal access land (“the amendment By-Law”);
- The determination or adjustment of the coastal boundaries of specific coastal access land (“the By-Law to determine or adjust the coastal boundaries of coastal access land”), and;
- The withdrawal of the designation of specific coastal access land (“the withdrawal By-Law”).

The rationale for the development of these five draft By-Laws instead of one all-encompassing By-Law can be attributed to the wording 18(1) as read with section 26(1)(d) of ICMA.

After the Agreements between the Garden Route District Municipality and the Category-B Municipalities to take on the coastal access function have been finalised, the applicable responsible Municipality can adapt the draft By-Laws as it sees fit, and take them through its law-making process, in fulfilment of the obligation in section 18 of ICMA.

3.3.6 The Garden Route District Coastal Access Audit and Report

As part of a project undertaken by the Western Cape Government: Department of Environmental and Development Planning (DEA&DP) to determine coastal management lines (CML's), for the Garden Route district, a coastal audit was done to assess the existing and historic coastal access land, and admiralty reserves, within district. This was in support and collaboration with the Garden Route District Municipality (GRDM), as well as five of its local coastal Municipalities along its coastline, namely the Hessequa, Mossel Bay, George, Knysna and Bitou LM's. All of these Municipalities contributed actively to the audit and facilitated the piloting of the municipal requirement as included in the Western Cape Provincial Coastal Access Strategy and Plan (WCG: DEA&DP, 2017). This audit consisted of two main components, namely the development of an overview document, namely the "Coastal Access Audit Report for the Garden Route District" (2017), as well as a geographic database and GIS shape file identifying current formal and informal coastal access areas. The Audit is currently being reviewed by DEA&DP to include any new and emerging information, as well as information lacking during the original development of the Coastal Access Audit.

The Garden Route district audit report reiterated that the ICMA entrenches the right of reasonable access to coastal property. The report ensures that these access points are maintained in perpetuity, in contrast to situations where coastal access areas are closed off, or where access is denied, or only for limited people. The report made it clear that the right to coastal public property relates only to pedestrian access, as vehicular access is prohibited in terms of the ICMA: ORV Regulations. In general, DEA&DP conducted a careful assessment of suitable coastal access areas and did not condone or permit coastal access areas which will be to the detriment of the environment.

3.3.6.1 Approach of the Coastal Access Audit

The approach taken by the Garden Route district coastal access audit included the following strategies, amongst others (WCG: DEA&DP, 2017):

- Using previous coastal access identification projects as a basis, identify and assess the condition of all existing coastal access points and their typologies;
- Identify the need for any new access points;
- Highlight any points that are subject to conflict for the attention of the municipality;
- Map the access points in Google Earth as drafts for distribution to stakeholders, and transferred to GIS upon finalisation;
- The classification and findings to be verified by stakeholders.

The audit included the categorization of different coastal access zones, which included the: 1) access in conflict zones; 2) restricted access zones; 3) vehicular access zones;

4) pedestrian access zones; 5) access in Proclaimed protected areas; and 6) no formal access zones as can be seen in Table 3, taken from the Garden Route District Coastal Access Audit Report (WCG: DEA&DP, 2017).

Table 3: The categorization of different coastal access zones, as in the Garden Route District Coastal Access Audit Report.

Colour	Characterisation	Action by Municipality
Access in conflict	**Conflict area** (an area of conflict identified in the stakeholder workshops or via written submissions). This can be conflict uses, historic access now denied or other conflict. Private property through which public access is specifically prohibited falls in this category.	Resolve conflict
Restricted Access	**Restricted Access.** These are areas where entrance is restricted. This can include the need to: • Obtain a permit; • Pay and entrance fee; or • Contact the landowner for permission to access the CPP It also includes areas where private residences about the CPP between the shoreline and public road thus preventing access by virtue of their location. This will include private property and private reserves. It will also include private properties where the right of public access could not be determined in the scope of this study, and no signage was in evidence indicating how and where public access was possible. ***This characterisation implies that access is not assured and can be denied/ blocked.***	Ensure that coastal access conditions of approval are upheld, and that public coastal access does not become limited by landowner actions or change of ownership. If this occurs, the characterisation changes to conflict. Ensure that public access is adequately signposted with any associated entrance details
Vehicle access	**Vehicle Access.** Vehicle access is possible to the Coastal Public Property (CPP) but not necessarily to the beach itself. This may or may not include formalised parking areas. Pedestrian access is unrestricted thereafter. The presence of these roads ensures long-term coastal access.	Maintain roads and other infrastructure which permits vehicle coastal access. Ensure there is adequate signage to direct the public to the coastal access.
Pedestrian access	**Pedestrian access only.** Vehicles are prevented from accessing the CPP but there is formal provision for pedestrian access e.g., boardwalks or hiking trails. For the most part walking along the shore is possible. However, the distance that can be walked is dependent on the level of fitness and mobility of the pedestrian and the terrain. For this reason, this	Maintain infrastructure which permits pedestrian coastal access. Ensure there is adequate signage to direct the public to the coastal access.

	was NOT categorised as pedestrian access – only areas where there is specific provision for pedestrians. The presence of the infrastructure ensures long-term coastal access.	
Access in Proclaimed reserves	**Sites in proclaimed reserves.** These are formally proclaimed reserves (in terms of the National Environmental Management: Protected Areas Act No. 57 of 2003 as amended), entry being controlled by booms or gates or requiring an access fee or permit. They do, however, guarantee long-term coastal access rights. Private reserves can be de-proclaimed, but this will involve a transparent process in which the municipality can express the need for coastal access as required.	No action is required if another state department is responsible. If it is a municipal reserve-maintain reserve. A watching brief must be maintained in case any private reserves initiate a process to de-proclaim their status as a reserve.
No formal access	**No formal access**- there are no formal provisions for direct coastal access, this category will frequently be used where there are steep cliffs or dense vegetation making even pedestrian access impossible. This category is commonly found in remote areas between towns.	No action is required as access is impractical.

These zones were identified in collaboration and consultation with the Garden Route District Municipality, as well as the five local coastal Municipalities along its coast. The information was gathered during workshops and consultation and commenting opportunities for all stakeholders within the Garden Route district. A template was also designed by DEA&DP where information regarding each identified zone, as well as its specific characteristics, environmental sensitivity and priority could be captured.

3.3.6.2 Recommended Coastal Access Implementation Actions

Within the Coastal Access Audit Report of 2017 for the Garden Route District, the following recommendations were identified (WCG: DEA&DP, 2017):

- An excessive amount of access paths exist in certain areas and consideration needs to be given to consolidating such accesses;
- All effort should be made to resolve disputes related to historical access;
- Develop coastal access By-law/s;
- Discussions should be held, and an agreement entered into between the Department of Public Works, the Surveyor General and the Western Cape Government in respect to:
    - The alienation / sale of state land / coastal public property including Admiralty Reserve;
    - Support of the alteration of curvilinear boundaries to straight lines and the implications this has in respect to restricting public access;
    - Future control and management of coastal public property and Admiralty Reserve;
    - The potential to enter into agreements with landowners to share responsibility for the management and maintenance of such land.

- Provision should be made to allow access to subsistence fishermen using both registered, as well as agreed upon access routes, however agreements need to be entered into with such fishermen in respect to their actions in respect to private property which should be enforceable;
- Ensure inclusion of provision of public coastal access in all gated communities uniformly;
- Ensure that facilities to access coastal public property for the disabled persons comply with SANS 10400 (Local Municipalities will need to enable this in terms of the facilities and infrastructure development);
- Investigate reported unsafe public access and formalise to ensure public safety, for example, Fisherman's path in Wilderness East which is reportedly dangerous due to its steepness and height above sea level;
- Include that transfer of property includes the existing coastal access in the deed of sale;
- Conduct Estate Agent training to put the mechanisms in place to communicate coastal access rights to any new landowners upon the sale of a property where this is applicable;
- As per the draft Western Cape Coastal Access Strategy minimum requirements for Designated Coastal Access Sites/ Routes in terms of ICMA should be as follows:
  a. signpost entry points to that coastal access land;
  b. control the use of, and activities on, that land;
  c. protect and enforce the rights of the public to use that land to gain access to coastal public property;
  d. maintain that land so as to ensure that the public has access to the relevant coastal public property;
  e. GRDM to engage with banks, property developers and insurance agencies to find available information that translates into sustainable development and, very importantly, protection of public coastal property and access.
  f. where appropriate and within its available resources, provide facilities that promote access to coastal public property, including parking areas, ablutions, boardwalks and other amenities, taking into account the needs of physically disabled persons;
  g. ensure that the provision and use of coastal access land and associated infrastructure do not cause adverse effects on the environment.

The Garden Route District Municipality and local Municipalities within its jurisdiction should undertake a prioritisatoin process to identify matters that require urgent access. The products emanating from the DEA&DP Coastal Access Audit for the Garden Route district comprise both spatial information, as well as guidelines that will assist Municipalities with identifying, categorising and prioritising areas where municipal intervention may be required to facilitate public access to the coast. These reports must therefore be used to inform the development and/or review of Municipal Spatial Development Frameworks, to comply with Section 21(j) of the Spatial Planning and Land Use Management Act, 2013 (Act No 16 of 2013) ("SPLUMA") pertaining to coastal access strips, as well as to inform the development and/or reviews of the Municipal Integrated Development Plans ("IDPs").

To access and download the Garden Route Coastal Access audit reports and GIS maps, please use the following link below:

- Garden Route Coastal Access Audits_Uploaded_2020.zip

The audit reports are also available on the Department's website.

- *www.westerncape.gov.za/eadp*

3.3.7 Public Launch Site and Off-Road Vehicle Regulation

The registered public launch sites in the Garden Route district are gazetted in terms of Public Launch Site (PLS) regulations (Appendix 6). The listed public launch site are currently under review by DEA&DP, and will be available through a formal gazetting process when the review has been finalised. Off-road vehicles are regulated by the National Department of Forestry, Fisheries and the Environment (DFFE). Anyone who has a valid reason to use a vehicle on the beach can use the following DFFE website link where an application for a permit can be made if they have a valid reason to use a vehicle on the beach:

- (https://www.dffe.gov.za/sites/default/files/docs/forms/permitapplication_coastalzone_accessby_physicallydisabled.docx)

3.4 Coastal Erosion

3.4.1 Overview

The coastal zone of the Garden Route District Municipal area includes inshore, offshore, and estuarine ecosystems, and is a continually changing area where land and ocean meet, including beaches, rocky shores, estuaries, wetlands, and the ocean near the coast. Many river outlets intersect the GRDM coastline, ranging from small water bodies that are only occasionally connected to the ocean, to large, permanently open systems and coastal lakes connected to the sea via a narrow channel.

Land below 5.5 m above sea level could be significantly impacted during a storm surge, tidal fluctuations and sea level rise. Predicted increases in the severity and frequency of storms and sea level rise due to climate change may increase the risk of coastal erosion, causing damage to shore-based infrastructure (e.g. harbours and launch sites) and impacting on important ecosystem features such as estuaries (WCG: PDMC, 2021).

The frequency of coastal erosion is dependent on coinciding phenomena such as storm events, equinoxes, spring high-tides and long-term sea-level rise. This is further accelerated by human activities that affect coastal areas. Coastal erosion is anticipated to increase in frequency and severity as a result of the following aspects (WCG: PDMC, 2021):

- Projected increase in the severity and frequency of storms associated with climate change in the GRDM;
- Projected sea-level rise associated with climate change in the district;
- Ongoing urbanisation and development along coastal areas of the district, and;
- Increased tourist-related activities along coastal areas of the district.

Climate change is projected to increase coastal erosion due to sea level rise, which will increase the level of coastal erosion risk within the GRDM in the longer term. The projected increase in severity and frequency of severe wind associated with storm events will result in stronger wave action and storm surges which results in coastal erosion.

Anthropogenic modifications which contribute to coastal erosion include the rapid urbanisation and population growth in existing bays and in poorer urban coastal areas, industrial and commercial activities, unchecked human settlement and development, and agricultural practices taking place right up to the coastal waters edge. Any development seaward of any Coastal Management Lines (CML's) is considered to be at high risk to coastal erosion and any other coastal process, which may result in loss of recreation and amenity value of the coast.

The coastal areas of Mossel Bay, Knysna, Plettenberg Bay and Nature's Valley have been identified by the Western Cape Government's Disaster Risk Assessment Report for the Garden Route District Municipality of 2021 as areas significantly vulnerable to the impact of coastal erosion (WCG: PDMC, 2021). According to the Assessment Report, the following coastal erosion impacts increase risk within the Garden Route District Municipality (WCG: PDMC, 2021):

The economic implication of Coastal Erosion includes the: -

- Loss of income for fisherman;
- Costs associated with damage to private and public property, assets and infrastructure (due to under-scouring of foundations, direct wave impacts and coastal flood inundation);
- Costs associated with disruption of services associated with damaged infrastructure (i.e. roads, railways, electrical cables, stormwater, sewage and water pipelines, and landfill sites);
- Loss of tourism in the area as a result of the loss of beach space in popular tourist destinations, due to erosion and lowering of the beach profile;
- Re-allocation of municipal budgets to cater for relief, rehabilitation and reconstruction activities associated with the impacts of coastal erosion; and
- Higher insurance premiums for coastal properties.

The environmental implications of coastal erosion include:

- Threats to estuaries and aquatic life resulting in damage to ecosystems and loss of biodiversity;
- Rapid shoreline degradation;
- Erosion of dunes, thus reducing their ability as natural sea defense mechanisms; and
- Increased saltwater intrusion, leading to loss of freshwater vegetation and reduced storage of freshwater in aquifers.

The social implications of coastal erosion include:

- Displacement of coastal communities;
- Public safety along pedestrian access routes; and
- Loss of livelihoods, particularly due to impacts on the coastal tourism industry.

The Garden Route District Municipality Disaster Risk Assessment Report of 2021 has identified the following recommended implementation actions to combat coastal erosion and its impacts within the Garden Route district (WCG: PDMC, 2021):

3.4.2 Recommended Implementation Actions

The following implementation actions are recommended by the Garden Route District Municipality Disaster Risk Assessment Report (WCG: PDMC, 2021):

- Integrated surveillance programme to monitor physical and man-made processes and energy inputs that drive coastal systems to identify early signals associated with coastal erosion;
- Increase law enforcement with regards to development seawards of coastal management lines;
- Integrated coastal erosion education and awareness programmes for areas located within or adjacent to the coastal protection zone;
- Integration of climate change projections in coastal erosion risk management plans for GRDM;
- Ensure coastal management lines are considered as part of EIA processes required for development planned in the coastal environment;
- Development of an integrated coastal erosion mitigation guide, and;
- Coordinated dune management and rehabilitation programmes in high-risk areas.

3.5 Coastal Management Lines

The predicted impacts of climate change, and the associated intensification of risk, requires that there is a fundamental shift in the manner in which decisions are made in relation to the coast. Decision making needs to adopt a more risk averse approach, where the complex relations between coastal processes, infrastructure and risk management are taken into account. There are multiple approaches that can be used to manage the coast as a dynamic and risk space. A key approach, however, is the development of coastal management, or development setback, lines.

The Climate Change Act, 2024 (Act 22 of 2024), which commenced on 17 March 2025 subject to the commencement proclamation, provides the current national statutory framework for climate-change response and the transition to a climate-resilient society. Coastal adaptation, risk reduction and municipal planning actions in this CMP should be implemented consistently with the applicable provisions of that Act as they come into operation.

The purpose of the development of coastal management lines is to demarcate a zone along the shore seawards of which intensification of development should not be allowed. Within this restricted development area, a range of development controls may be imposed as relevant to the nature of the risks or sensitivities present. For example, where a site is exposed to erosion risk, development should either not be allowed, or

alternatively allowed only in a form that will accommodate the possibility of wave impact, undermining etc. and not pose secondary risks to adjacent development (WCG: DEA&DP, 2018).

In general terms, coastal management lines are used as a planning mechanism to guide decision makers to more effectively regulate coastal development and to avoid risk from coastal hazards into the future. The focus of this regulation centres on the need to minimize the impact of development on sensitive coastal ecosystems, to retain and promote access to the coast, to prevent exposure of coastal property to risk from coastal processes, such as storm surges, coastal erosion, beach regression, migrating dune systems, and to retain the aesthetics and sense of place of the coastal space (WCG: DEA&DP, 2018).

Implementation of the Coastal Management Line (CML) must take account of the applicable DEA&DP Regulatory Impact Assessment and any subsequently approved implementation instrument, policy or regulatory mechanism. The status and operative implications of that process should be confirmed with DEA&DP when the CML is applied in municipal planning and decision-making.

A clear distinction must be maintained between the statutory Coastal Management Line (CML) established under section 25 of the NEM: ICMA and an ad hoc development set-back line or threshold used for purposes of the NEMA Environmental Impact Assessment regulatory framework. The CML is a coastal planning and risk-management instrument and is not implemented simply by treating it as the EIA development set-back line. Applicable EIA controls and municipal land-use controls must therefore be applied through their respective legal mechanisms, while taking the CML into account as a spatial planning and coastal risk informant.

The establishment of coastal management (or set-back) lines for coastal Municipalities is a legal requirement in terms of the National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008) (ICMA). As per Section 25 of the ICMA, coastal management lines must be established (RSA, 2008: 42):

- "*to protect coastal public property, private property and private safety;*
- *to protect the coastal protection zone;*
- *to preserve the aesthetic values of the coastal zone;*
- *for any other reason consistent with the objectives of this Act; and*
- *prohibit or restrict the building, erection, alteration or extension of structures that are wholly or partially seaward of that coastal set-back line*"

The Western Cape Government's Department of Environmental and Development Planning (DEA&DP) is under obligation to protect and preserve the inherent value of the Western Cape's coastal zone. This implies that it has the responsibility to arrest on-going degradation driven by uninformed decision-making or irresponsible development, whilst promoting development that is responsive to the dynamic nature and risks associated with the coastal zone. One of the key mechanisms through which this task is to be performed is the delineation of coastal management lines, also known

as setback lines. The Department therefore delineated the coastal management lines for the Garden Route District, as per their Coastal Management Lines for Garden Route District: Project Report of 2018. These lines demarcate areas along the shoreline that are considered either too risky for development (i.e., coastal processes pose a risk to properties or people) or considered sensitive from a social or biophysical point of view and therefore worthy of conservation and preservation.

The DEA&DP conducted a delineation process to determine a coastal management line for the Garden Route district, as per the provisions of the ICMA. The following aspects were taken into consideration as part of the process (WCG: DEA&DP, 2018):

- Coastal risks such as long-term erosion trends;
- Sensitive coastal vegetation;
- Protected areas, and;
- Flood risks in estuaries

3.5.1 Use of the Coastal Management Lines

The use of coastal management lines is a particularly important response to the effects of climate change, as it involves both a quantification of risks and proactive planning for future development. Although it cannot address historical decisions that have locked in development investment along potentially at-risk coastal areas, coastal management (setback) lines can influence how existing development is maintained over time and how new development will be allowed to proceed. Furthermore, coastal management lines are a means to facilitate improved planning and management of sensitive and often vulnerable coastal areas.

The coastal management lines are an effective means to demarcate areas where authorities can prohibit or restrict the building, alteration or extension of structures that are either wholly or partly seaward of the CML. The main uses of coastal management lines are to (WCG: DEA&DP, 2018):

- Protect coastal public property, private property and public safety;
- Determine features that should be protected under the coastal protection zone;
- Preserve the aesthetic values of the coastal zone;
- To contribute towards a proposed management scheme for the Garden Route district;
- To ensure connectivity along the coastline;
- To protect the aesthetic value;
- As a natural means of erosion protection;
- To serve as social buffers required along the coast, for example, allowance for public beach access through and along the coastal frontage, areas which have cultural significance and that will need to be preserved from development, or heritage resources and historically sensitive locations that require specific management;

- To allow for economic requirements for the coast, for example, allowance for new beach facilities that will need to be placed closer than normal development to serve the public. Economic demands often require a trade-off against environmental aspects at a particular site.

3.5.2 Legislative Context of Coastal Management Line Development

The delineation of the Garden Route district coastal management lines was undertaken by DEA&DP in alignment with several legislative tools, which included the National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008), National Environmental Management: Integrated Coastal Management Amendment Act (Act No. 36 of 2014)(together referred to as the 'ICMA'), the National Environmental Management Act (Act No. 107 of 1998) (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations, 2014, the Western Cape Provincial Coastal Management Programme, as well as the Western Cape Provincial Spatial Development Framework (PSDF). The process outcomes will also need to filter into municipal planning through Integrated Development Plans (IDP), Spatial Development Frameworks (SDF) and Land Use Management Schemes (LUMS). Amendments to the ICMA now refer to '*coastal management lines'* (CML) and not '*coastal set-back lines'* to avoid continued confusion with the EIA regulatory scheme that refers to "*development setback lines*" (DSL).

3.5.3 Coastal Management Line Development Methodology

The Department of Environmental Affairs and Development Planning's Coastal Management Lines delineation project differentiated between a coastal 'erosion' set-back and a development set-back and described a methodology for the determination of a coastal processes/hazard line and a management line that combined the erosion and development setbacks. Two coastal set-back lines were therefore developed (WCG: DEA&DP, 2018):

- A physical process / hazard line to define the limit of the coastal area seaward of which any development is likely to experience unacceptable risk of erosion, flooding by wave action and/or unacceptable maintenance of wind-blown sand accumulations
- A management (limited/controlled development) setback' line. This line is to define areas where some limited and/or controlled development could occur that accommodates requirements of biodiversity, heritage and other aspects not related directly to coastal processes. This line was situated on or landward of the hazard/coastal processes line

As detailed in the project terms of reference (TOR), the DEA&DP coastal management line development process for the Garden Route district included (DEA&DP, 2018:

- Developing an understanding of coastal risks and sensitivities present in the Garden Route District;
- Delineating:
  - A 1:10 yr High-water Mark (HWM);
  - Coastal risk zones for 20-, 50- and 100-year horizons;
  - A CML;
  - An Environmental Impact Assessment **(**EIA) Development Set-back Line (DSL);
  - The Coastal Protection Zone (CPZ);
- Defining coastal overlay zones with associated development parameters;
- Undertaking a defined stakeholder engagement process related to the above; and
- Conducting a Coastal Access Audit, with recommendations on where to improve coastal access.
- Next, the physical process and geomorphological change parameters were matched to hydro-dynamic coastal modelling that determined the wave run-up characteristics component of the overall coastal risk zone.

3.5.3.1 Development of Coastal Management Lines for GRDM

The Coastal Management Line (CML) was informed by the risk lines, but incorporate social, economic and administrative considerations in order to determine a realistic planning boundary. It also addresses the need to protect conservation areas and biodiversity hotspots, areas of heritage significance, current public access and amenity and landscape value / sense of place. The CML therefore demarcates the area seaward of current developments, the area below the projected hazard zone where no development has taken place, undeveloped littoral active zones and undeveloped areas below the 5m amsl / Estuarine Functional Zone boundary (WCG: DEA&DP, 2018).

3.5.3.2 Environmental Impact Assessment - Development Setback Line

For Environmental Impact Assessment (EIA) purposes, any applicable development setback requirement must be applied in accordance with NEMA, the EIA Regulations and the relevant Listing Notices. Such an EIA setback mechanism must not be conflated with the Coastal Management Line (CML) established under the NEM: ICMA. The CML remains a distinct coastal planning and risk-management instrument that must also inform municipal spatial planning and land-use decision-making.

3.5.3.3 Coastal Overlay Zones and Development Parameters

The different risk zones identified previously were used to designate general or specific coastal overlay zones, as was compatible with the Land Use Management Schemes

of the affected LM. An overlay zone is a regulatory land use management mechanism, designed to define and implement specific land use and development requirements to be applied over, or in addition to, the requirements of an existing base zoning applicable to land, without removing or modifying the underlying zone. Typically, these guidelines could (WCG: DEA&DP, 2018):

- Promote a form of appropriate development;
- Require a limitation to or define additional land use types;
- Stipulate more or less restrictive development rules; or
- Identify specific development rules.

3.5.3.4 Coastal Protection Zone

In addition to the above, the combination of the risk zones, CML, DSL, the littoral active zone and other social, economic, environmental and heritage factors were used to define the Coastal Protection Zone (CPZ) as required by the Integrated Coastal Management Act, to "manage, regulate and restrict the use of land that is adjacent to coastal public property, or that plays a significant role in the coastal ecosystem". This will serve as a refinement of the course "100m from the high-water mark of the sea" threshold currently applied in the NEMA EIA Regulations.

Municipal Spatial Development Frameworks (SDFs) and land-use schemes should explicitly recognise and spatially reflect the coastal protection zone, where applicable, as a mechanism to protect sensitive coastal habitat and to give effect to the purposes of the coastal protection zone under the NEM: ICMA.

This zone was determined based on local sensitivities identified during the preceding steps such as long-term coastal processes risks, coastal vegetation, wetlands, estuaries and socio-cultural features. It includes developed areas where the projected erosion risk extends over existing developed areas, but where realistic planning horizons mean that development approvals are unlikely to be refused (DEA&DP, 2018).

The different lines, and the relevant risks or issues to be managed, are listed in Table 4 below.

Table 5: The different management lines and risk zones to be managed (DEA&DP, 2018).

Zone	**Description**	**Development Controls to Apply**
CPZ	Area seaward of the CPZ	No additional controls
CML	Area seaward of the CML and around development islands	• Prevent development transgressing the development boundary;

		• General development parameters to avoid insensitive development.
DSL	Area seaward of the DSL and around development islands	As per EIA listing notices
Risk Zones	• Medium term (50 year) erosion risk zone (built-up areas); • Long term (100 year) erosion risk zone (rural areas); • Area within 1:100yr floodline or below the 10m amsl contour around estuaries; • Littoral active zones.	Development parameters specific to: • Encroachment; • Erosion risk; • Mobile sand; • Flooding; • Storm damage; • Public access; • Vegetation control; • Public amenities and infrastructure.

The schematic figure below indicates the areas within the flood risk zones of estuaries and littoral active zones (Figure 4).

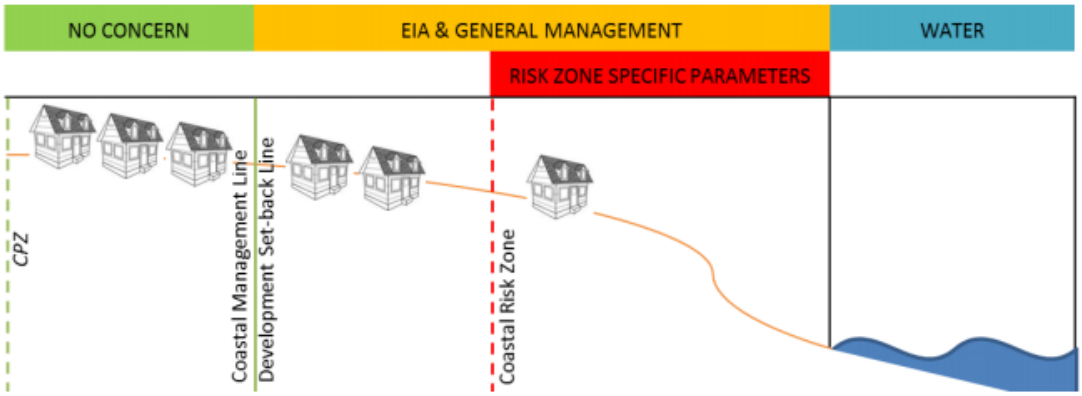


Figure 4: A schematic of the different development risk zones (DEA&DP, 2013).

The output of the above process was captured in a Coastal Management Lines (CML) project report developed by DEA&DP, which adds to the previously accepted processes/hazard line determination process. The report also includes a discussion on possible ways in which the risk zones and various management lines can be used by authorities to manage coastal development, e.g., through municipal coastal overlay zones or the EIA process.

The CML report is accompanied by mapping products that spatially illustrate the various lines and zones, and can be accessed via the DEA&DP's Coastal Management viewer (please find the link to the viewer below):

- DEADP/Coastal_Management_Lines_Garden_Route (MapServer)

3.5.4 Implementation Actions Guided by Coastal Management Lines

General coastal management parameters which can be guided by the CML's (DEA&DP, 2018):

- Development and activities may not result in removal or destruction of vegetation which could either destabilize a primary or significant dune or cause an adverse effect on the beach and dune system due to increased erosion.
- Development and activities may not result in structure-induced scour, or removal or disturbance of in situ sandy sediments of the beach and dune environment to such a degree that an adverse effect to the beach and dune system would result from either reducing the existing ability of the system to resist erosion during a storm or lowering existing levels of storm protection to adjacent properties and structures.
- Development and activities may not affect natural processes in a manner that results in increased rates of erosion along the shoreline on either side of the development or activity.
- Existing coastal processes, including dune migration and littoral drift, should, where possible, not be impeded and indigenous vegetation must be maintained.
- Development and activities may not direct discharges of water or other effluent in a seaward direction in a manner that would result in adverse effects. The activity shall be designed so as to minimize erosion induced surface water runoff within the beach and dune system and to prevent additional seaward or off-site discharges.
- Development and activities may not result in a change in groundwater movement that significantly alters subsoil conditions, soil (sand) stability or vegetation seaward of the structure.
- Development and activities may not impede public access and/or accessibility to the coast, public amenity or public recreation.
- As per Section 28 of the National Environmental Management Act (Act 107 of 1998), all landowners, any person in control of land or premises or any person who has a right to use land or premises are obliged under a 'duty of care' to take appropriate measures to minimise or prevent pollution or degradation of the coastal environment during the execution of lawful activities.
- Decisions and actions related to the coastal zone must take a risk averse and cautious approach, which takes into account the limits of current knowledge about the consequences of decisions and actions, and which promotes the integrity of coastal ecological systems and functions.
- New structures must preferably be elevated on pilings, posts, piers-and-joists, column or similar foundations without breakaway walls, designed in a manner as to not impede the flow of flood waters or wave action, and reduce the potential accumulation of debris below the structure;
- During conceptual building design, consideration must be given to issues of privacy, overshadowing, reflectivity and visual impact, as well as the apportionment and positioning of higher risk site areas for parking, open space and recreational areas;
- Only fully enclosed / self-contained effluent storage and treatment systems will be permitted if links to sewer mains are not possible. These must be located outside of risk areas, or otherwise on the landward side of structures or either side of structures, in accordance with prescriptions of a suitably qualified person to ensure suitable sealing and safety;
- Municipal bulk infrastructure, and where possible reticulation networks, are to be located outside the overlay zone unless related to coastal public amenities (e.g., playground);

- Expendable structures such as boardwalks or viewing platforms shall be sited so that their failure does not have adverse impact on the beach and dune system, any adjoining major structures, or any coastal protection structure;
- No infilling and excavation may occur within the 1:100-year flood line area of a river/estuary or within the estuarine functional zone;
- Structural designs, site layouts and barriers must be shown to accommodate wind-blown sand movement, with the intended outcome being unimpeded sand movement and avoidance of increased turbulence;
- Vegetated corridors between buildings should not be encroached into by permitting relaxation of setbacks in the side-spaces;
- In respect of boundary demarcation:
    - Public-owned land shall not be fenced, enclosed or utilised for any other use than that provided for in terms of its current zoning;
    - Boundary walls, fencing etc. may not be erected below the high-water mark, except where the structures are specifically permitted as coastal defense structures;
    - Fencing or other barriers on the seaward side of properties exposed to occasional wave action must be designed to limit structural damage to the fence or barrier and associated negative impacts on the environment; and
    - Boundary walls adjoining public access routes may not exceed 1.8m in height in order to promote the safety of pedestrian routes through public surveillance;
- Dune rehabilitation may not prevent public access to public property unless sanctioned by the authority, in which case alternative access must be provided;
- Access points / paths to the beach must be consolidated and consist of raised wooden / recyclable plastic boardwalks without concrete foundations to reduce adverse effects on dunes and associated vegetation;
- Gardening and landscaping may not result in removal or destruction of vegetation which will either destabilize a primary or significant dune, or cause a significant adverse effect on the beach and dune system due to increased erosion by natural coastal processes or human movement, or detrimentally affect the ecology or habitat;
- Construction of boardwalks and viewing platforms to commence once appropriate approvals and authorisations are received. The design must be aligned by the appropriate Disaster Risk Management plans, and guided by the Estuarine Management Framework and Implementation Strategy Activity Guidelines;
- Investigation into potential funding mechanisms which will enable the erection of boardwalks and viewing platforms at local municipal level;
- In respect of planning and suitable appearance of coastal defenses:
    - Coastal defenses shall be sited as far landward as practicable and designed to minimize adverse effects on the beach and dune system, fauna, flora, geology and existing structures within its proximity, and shall not interfere with public beach access or enjoyment;
    - The structural design of coastal defense structures must:
        - i) Integrate the defense of all properties within an area experiencing beach regression;
        - ii) Be designed and certified by a professionally registered structural engineer;
        - iii) Remain stable under the hydrodynamic and hydrostatic conditions for which they are proposed;
        - iv) Provide a level of protection compatible with existing topography; and
        - v) Be safe for animals and humans interacting with the structure;
    - Materials used in physical barriers must:
        - i) Be applied consistently and uniformly across multiple properties within an area experiencing beach regression;
        - ii) Have, where visible, a texture and/or colouring that matches the general aesthetic of the adjacent beach or coastal zone;

- iii) Not be of a form or nature that can be broken up, shredded or displaced by coastal processes; and
- iv) Not be injurious to humans or animals (i.e., no spikes, barbed wire, razor-wire or the like affixed to physical barriers, and no electrification below 1.8m above ground level).

All planning and decision-making related to coastal management lines, development setback lines and risk zonations must ultimately recognise the need to limit and fairly allocate the liabilities related to development in the coastal zone. Municipalities are responsible for decision-making, and they need to take into account the best information that is currently available. However, risk is a shared responsibility and the private sector (including landowners) along with the Municipality and other government departments need to ensure that available information translates into sustainable development and, very importantly, protection of public coastal access. Consequently, in order to reduce conflicts over responsibilities and appropriation of blame, it is of utmost importance that the information and knowledge generated by this, and similar studies be applied with the necessary level of consistency and alignment (DEA&DP, 2018).

3.6 The Amended National Estuarine Management Protocol

3.6.1 Purpose of the Protocol

The National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008), ("the NEM: ICMA" which was promulgated in December 2009, requires estuaries of the Republic to be managed in a coordinated and efficient manner, in accordance with a National Estuarine Management Protocol. Section 33(2) of the NEM: ICMA empowers the Minister responsible for Environmental Affairs with the concurrence of the Minister responsible for Water Affairs to publish a Protocol that will provide guidance for the management of estuaries through the development and implementation if (individual) estuarine management plans (EMP, s). The National Estuarine Management Protocol (EMP) was amended in 2021. The amended EMP seeks to achieve greater harmony between ecological processes and human activities, while accommodating orderly and balanced estuarine resource utilization (RSA, 2021).

The purpose of the National Estuarine Management Protocol is to (RSA, 2021):

a) Determine a strategic vision and objectives for achieving effective integrated management of estuaries;
b) Set standards for the management of estuaries;
c) Establish procedures, or provide guidance, regarding how estuaries must be managed and how the management responsibilities are to be exercised by different organs of state and other parties;
d) Establish minimum requirements for estuarine management plans;

e) Identify who must prepare estuarine management plans and the process to be followed in doing so, and;
f) Specify the process for reviewing estuarine management plans to ensure that they comply with the requirements of the NEM: ICMA.

3.6.2 Objectives of the National Estuarine Management Protocol

In order to recognise and effectively manage the unique environmental, economic, and social aspects of each estuary, it is important to establish strategic objectives. The strategic objectives for effective integrated management of estuaries include (RSA, 2021):

1) To conserve, manage and enhance sustainable economic and social use without compromising the ecological integrity and functioning of estuarine ecosystems;
2) To maintain and/or restore the ecological integrity of South African estuaries by ensuring that the ecological interactions between adjacent estuaries; between estuaries and their catchments; and between estuaries and other ecosystems, are maintained;
3) To manage estuaries co-operatively through all spheres of government; and to engage the private sector/entities (banking, insurance industry, including landowners) and civil society in estuarine management;
4) To protect a representative sample of estuaries (such protection could range from partial protection to full protection) in order to achieve overall estuarine biodiversity targets as determined by the 2011 National Biodiversity Assessment and the subsequent updates;
5) To promote awareness, education and training that relate to importance, value and management of South African estuaries, and;
6) To minimise the potential detrimental impacts of predicted climate change through a precautionary approach to development in and around estuaries and with regard to the utilization of estuarine habitat and resources.

3.6.3 The Development of Estuary Management Plans

Generally, most estuarine systems occur within the boundaries of a single municipality, and some occur totally or partly within areas that are currently protected or are likely to be protected in future. Local government generally has closer involvement with activities happening within and around estuaries than the other spheres of government, and it is the local people that usually benefit most from the goods and services that estuaries provide. The Municipal Systems Act (Act No 32 of 2000) requires all Municipalities to develop and implement IDPs that promote participation of communities and liaison with other spheres of government.

Considering the above and taking into account Sections 33, 34, 45, 47 and 49 of the NEM: ICMA (dealing with the Estuarine Management Protocol, Estuarine Management Plans and Coastal Management Programmes), the following authorities are responsible for the development of EMPs and coordination of the implementation process:

1) Where an estuary falls within the boundary of a municipality, the provincial environmental department must develop an Estuary Management Plan (EMP) in consultation with the affected municipality or municipalities and the relevant national government departments;
2) Where an estuary crosses provincial boundaries, the national Department must develop the EMP in consultation with the Provincial Lead Agencies for the NEM: ICMA and other relevant organs of state;
3) Where an estuary is within a protected area, or is identified as part of a protected area expansion strategy, the management authority responsible for the protected area must develop the EMP in consultation with relevant government departments. Where an estuary crosses the boundary of a protected area, the protected area management authority must work together with the other relevant government departments or agencies to develop a coordinated EMP;
4) Where an estuary falls wholly or partially within a harbour, the national Department must develop the EMP in consultation with the National Ports Authority or other managing organ of state for the harbour and relevant municipalities;
5) Where an estuary crosses an international state boundary, the national Department, in collaboration with the responsible authority of the affected state or states, must develop the EMP in consultation with the relevant government departments of the affected states;
6) Provincial Lead Agencies may enter into agreements with municipalities in terms of section 156(4) of the Constitution to assign the function of developing an EMP to a municipality, subject to the requirements of the amended National Estuarine Management Protocol;
7) Approved EMPs must be integrated, as applicable, into Coastal Management Programmes, Integrated Development Plans, Spatial Development Frameworks and protected area management plans, and implementation must be coordinated by the responsible management authority in consultation with affected organs of state.

In terms of the Amendments to the National Estuarine Protocol, the Provincial Lead Agencies for the NEM: ICMA must, as part of the provincial coastal management programme, identify a priority list of estuaries for which EMPs should be developed within the province. These estuaries must be in need of conservation and effective management, as identified from the national priority list in the 2011 National Biodiversity Assessment and subsequent updates, which would inform a phased approach for the development of EMPs over a period of years within the province (RSA, 2021).

Consideration should be given, in appropriate circumstances, as to whether certain estuaries can be clustered or grouped together for the purpose of developing one EMP as opposed to an EMP for every single estuary. Factors which may be considered in assessing the feasibility of this could include location, size, ecosystem similarities, similar user profiles and challenges and similar role players and stakeholders. This should include a schedule of Municipalities that should develop these EMPs and their capacity to do so. The Provincial Lead Agencies for ICM must inform the Department about the capacity needs of the municipality to develop such EMPs (RSA, 2021).

If Provincial Lead Agencies for ICM enter into agreements with Municipalities in terms of section 156(4) of the Constitution, 1996, to give the function for developing an EMP to that municipality, they must inform the Department where such agreements have been entered into. The Department may, within available resources, provide technical and management support to capacitate a municipality, where there has been an agreement between the province and a municipality to develop an EMP, if and when such a need arises. This will depend on the importance of that particular estuary in meeting biodiversity targets and the strategic objectives of the Department. In order to develop sound EMPs scientific information generated through robust research is critical. The Department of Science and Innovation (DSI), DFFE and Departments of Water Affairs, Environmental Affairs and other relevant departments will play a crucial role in supporting research to address issues of uncertainties in estuaries, like Climate Change, and providing guidance in the development of appropriate policies for better management of estuaries. The identified responsible management authority to develop the EMP needs to budget accordingly for the development of these plans. Private entities and non-government organizations can play a supporting role in the development of an EMP by supporting the responsible management authority (RSA, 2021). GRDM will support the development and implementation of EMPs in the Garden Route District.

The Estuary Management Plans for the Garden Route district estuaries can be viewed and downloaded from the following DEA&DP link:

- https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-sustainability/biodiversity-and-coastal-management

Detailed information on the implementation activities and responsibilities can be found in the relevant EMPs.

4. GARDEN ROUTE COASTAL MANAGEMENT STRATEGIES

A wide range of coastal management issues within each of the coastal management objectives (CMOs) were identified during the stakeholder workshops held in Garden Route from 10 to 17 April 2012. These issues need to be addressed by strategies that will be implemented by the various organs of state mandated to do so. The strategies are presented in this CMP in a format known as Management Action Plans, which provide details of the issue, action required, legislative context, mandate, time frame, cost (estimated only; unknown in many instances) and performance indicators.

Note that although in most cases a single action is prescribed, there must be a degree of flexibility involved prior to any intervention (as long as it complies with legislation requirements). The complexity of the coastal zone often means that site-specific characteristics will require a slightly different approach for each scenario depending on conditions and the exact context. A combination of expertise and common sense within the implementing committee should pave the way for a more flexible approach when required.

The strategies appear in no specific order of importance or priority, but the time frame component (one to five years) will indicate whether implementation is a high (1 to 3 years; red shading), medium (2 to 4 years; green shading) or low (4 to 5 years; yellow shading) priority. No shading within the time frame column of the strategy tables indicates an action that is either ongoing (i.e., from the 1st year and continuing over the long-term) or not the responsibility of a local or District authority (displayed as not applicable).

Activities highlighted in the tables below are dependent on the availability of funding. All relevant implementers e.g. Municipalities, organs of state, etc. are required to source funding from their respective entities as well as consider funding streams from other sources, for example international donors like Global Climate Fund, Global Environmental Fund, United Nations, etc. Successful implementation of the MCMP is dependent on collaboration and partnerships considering the current limitations in the fiscal climate.

TABLE CMO 1 – MANAGEMENT STRATEGIES FOR PUBLIC ACCESS				
Issue 1.1 Location and condition of existing legal coastal access land				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Determine location of all existing and recently closed (e.g. Gouritsmond) access points and ascertain legality, infrastructure (e.g. parking lots, foot paths, boardwalks, stairs, ramps, slipways, jetties, disabled persons access, servitudes/roads, ablution & waste facilities), level of maintenance (condition) and site-specific as well as cumulative impact.	NEM: ICMA (Chapter 2, Part 3, Sections 18 to 20).	The GRDM, or the Category-B Local Municipalities (LM's), with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities has been accepted / signed. GRDM and / or LM's and DEA&DP, in conjunction with the relevant stakeholders (DFFE or DEA&DP).	1 – 5 years (double check timeframes against the Provincial CMP – Keith)	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
Performance Indicators				
Report detailing location (include GIS visual representation) of all legal and illegal access sites, associated infrastructure & level of maintenance and impact assessment. Coastal Access Audit Report.				

Issue 1.2 Additional coastal access land				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Assess the need for updates to the Coastal Access Audit. (b) Assess and investigate any new applications for coastal access.	NEM: ICMA and appropriate coastal access By-laws	The GRDM, or the Category-B Local Municipalities (LM's), with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and	Ongoing	Provincial and internal process, in conjunction

		local Municipalities has been accepted / signed. GRDM and / or LM's and DEA&DP, in conjunction with the relevant stakeholders (DFFE or DEA&DP).		with external stakeholders.
Performance Indicators				
Report detailing all locations where coastal access is being denied but should exist in accordance with development RODs, as well as new coastal access land applications.				
(c) Review or assess all new title deeds, or existing title deeds where concerns have been raised, of properties along the coast to determine the existence of legal servitudes to the coastal public property that have been closed off. (d) Ensure inclusion of provision of public coastal access in all gated communities uniformly;		The GRDM, or the Category-B Local Municipalities (LM's), with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed, in conjunction with Category B-local Municipalities (LM's) Town Planning Departments.	Ongoing	Internal process, in conjunction with external stakeholders.
Performance Indicators				
Report detailing the location of all servitudes which originally allowed access to the coast, but which have since been closed off by property owners.				
Number of coastal access Notices issued to perpetrators.				
(e) Additional coastal access land to be identified (inclusive of outcomes from a and b above) and designated after consideration of site-specific and cumulative impacts, individual landowners' rights, site-specific desirability or demand (from user groups), carrying capacity in more sensitive areas and financial implications (ability to establish and maintain). An assessment of access sites available for emergency services needs to be undertaken - these do not need to be formal access points available to the public but need to be located so as to provide access when entry into remote areas is required.	ICMA (Chapter 2, Part 3, Sections 18 to 20); ORV Regulations (for vehicle access) and EIA Regulations (for listed activities	The GRDM, or the Category-B Local Municipalities (LM's), with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed, in conjunction with Category B-local Municipalities (LM's) Town Planning Departments; as well	1 to 5 years (after completion of a and b)	GRDM, or local Municipalities, need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDP's.

	and impact assessments).	as DEA&DP; DFFE, CapeNature (for ORV and EIA Regulations).		
Performance Indicators				
(i) Report detailing desired additional coastal access land and impact assessment.				
(ii) Designation of coastal access land with associated infrastructure (e.g., waste bins, parking, ablutions and disabled persons access) and maintenance management plan.				
(iii) Additional (informal) access sites identified, mapped and made available to emergency service institutions, together with contact details of landowners, to facilitate access by emergency personnel to the coast.				
(f) Depending on where Agreements are in place, the GRDM, or local Municipalities with support from the GRDM, to adopt the Coastal Access By-laws developed by DEA&DP, or review and update it if they wish to do so, in order for it to speak to the specific coastal access challenges, conditions, needs and requirements of a specific Municipality.	NEM: ICMA	The GRDM, or the Category-B Local Municipalities (LM's), with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed, to adopt Coastal Access By-laws	1 to 5 years	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
(i) Coastal access By-laws developed by DEA&DP for all Municipalities, for adoption (or review and adoption) by Municipality/ies who will be taking on this function, depending on Agreements signed. (ii) Written Agreement between District and local Municipalities signed and approved.				

Issue 1.3 Protection of the environment				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**

(g) Designation of new coastal access land to exclude areas that include sensitive coastal habitats (e.g., primary dunes, coastal forest, intertidal saltmarsh and wetlands), bird breeding sites, priority conservation areas (e.g., area between Gericke's Point, Kleinkrantz and Swartvlei) and areas prone to erosion or accretion; no commercial-based activities should be considered for these areas.	NEM: ICMA (Chapter 2, Part 3, Section 19).	The GRDM, or the Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed, (appoint service provider to identify and assess areas. Support from DFFE, DEA&DP, CapeNature and SANParks related to sensitive coastal environments.	Ongoing	Internal process with external support.
Performance Indicators				
All new sites considered for coastal access land to exclude identified environmentally sensitive areas.				

Issue 1.4 Coastal access through future developments				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Servitudes that allow access to the coast to be considered for all new applications for developments that might have the potential to exclude the general public from coastal public property – to go hand-in-hand with the Environmental Impact Assessment (EIA) process. All Basic Assessments or EIAs to consider this taking into account site sensitivity, historical context (existing rights) and cumulative impacts.	Conditions in ROD issued in terms of the EIA Regulations.	Commenting authorities in conjunction with relevant authorizing agent (DFFE or DEA&DP).	Ongoing for each new application.	Part of EIA process - no cost to Municipalities.
Performance Indicators				
(i) All Basic Assessments and EIAs to include an assessment of feasibility and impact of coastal access land.				
(ii) All RODs for new developments to contain conditions applying to coastal access land (servitudes).				

Issue 1.5 Illegal coastal access land				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
All Public Launch Sites (PLS) must be listed/registered as per the PLS Regulations. All illegal coastal access land identified under issue 1.1 must be assessed and the landowners instructed to register the land. Any coastal access related structures to have the necessary approvals, environmental authorization and lease Agreements in place, or removal of any structures and rehabilitation of the sites must be done (repair or removal Notices).	NEM: ICMA (Chapter 7, Part 1, Section 60); aspects of the EIA Regulations and ORV Regulations may also apply.	The GRDM, or the Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed, in conjunction with National DFFE (Oceans & Coast) and DEA&DP (Coastal Management).	Ongoing	Costs to be covered by offenders.
Performance Indicators				
(i) Assessment recommendations to be implemented.				
(i) Repair or removal notices issued to all transgressors.				
(ii) Sites are either authorized / legalized, or closed and rehabilitated.				

TABLE CMO–2 - MANAGEMENT STRATEGIES FOR INFRASTRUCTURE, SPATIAL PLANNING AND DEVELOPMENT				
Issue 2.1 Limit infrastructure development for coastal access land to designated coastal access land.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Ensure that infrastructure development for coastal access land takes place at points designated as coastal access points only through the coastal planning scheme, as a policy directive to prevent cumulative impacts. This action should be linked to CMO–1 - Public Access (Issue 1.1 to 1.3).	NEM: ICMA (Chapter 2, Part 3, Section 20(f); Section 56(3)(d).	The GRDM, or the Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed.	Ongoing	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
(b) Establish coastal planning scheme By-laws which indicate the above.	NEM: ICMA (Section 50).	The GRDM, or the Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed.	Depending on Municipality.	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
Performance Indicators				
(i) An inventory of designated access sites and associated infrastructure (required infrastructure or existing infrastructure).				
(ii) A coastal planning scheme is developed and stipulates the above restrictions (By-laws) as land use policy directives along the coastline (depending on Municipality.				

(ii) Establishment of coastal planning scheme by-laws that specifies the above (depending on Municipality).				
(c) Maintain or upgrade existing infrastructure (e.g. roads, sewerage system) and municipal facilities (e.g., ablutions, walkways, boardwalks, camp sites and resorts) in coastal zones. The NEMA EIA regulations, Coastal Management Lines and Coastal Protection Zone will be considered during the maintenance and upgrade of existing infrastructure along the coastal zone.	NEM: ICMA (Section 20).	All LMs.	Ongoing.	The Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs. Costs variable depending on type, extent and state of infrastructure (IDP projects).
Performance Indicators				
(i) An inventory of designated access sites and associated infrastructure requiring maintenance or upgrade.				
(ii) Dedicated IDP project and allocated funds, presented in the IDP.				

Issue 2.2 Limit development in the coastal zone through land use planning and decision-making processes				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Review Municipal Spatial Development Frameworks (SDF's) and ensure that Coastal Management Lines and delineation of urban edge are included.	NEM: ICMA (Section 49(2)(c)(iii)), MSA	All LMs.	Next SDF review and update	Part of SDF review and update progress (budget allocated through IDP).

(b) Develop a coastal planning scheme that is aligned with and adopts the following land use management policies: (1) promote nodal development to prevent urban sprawl (use existing strategies to make informed decisions, (2) proposed developments must be within the limits of the ecological carrying capacity and existing services/resources (sewerage treatment, water availability) of an area, (3) discourage informal settlements in the coastal zone where there is lack of services, (4) restrict sub-division of agricultural land for resorts and other high impact tourist, business or industry related land use activities, (5) developments must not infringe on or detract from sites of heritage significance in the coastal zone, (6) all development applications in the coastal zone that requires an EIA, and which includes a cumulative impact assessment and heritage impact assessment (where applicable), must consider Coastal Management Lines and Coastal Protection Zone, and (7) any other land use activity restrictions that contribute to the objectives of the NEM: ICMA. The 2023 Western Cape Biodiversity Spatial Plan (WC BSP), including mapped CBAs and ESAs, and all applicable approved Estuary Management Plans (EMPs) must also be used as spatial informants when developing the coastal planning scheme and when considering coastal land-use and development decisions.	NEM: ICMA (Section 49(2)(c) (iii & iv; includes requirement to consider zones for mixed-cost housing), Section 56(3)(d), Section 56(1)(b), Section 57.	The GRDM, or the Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM (depending on whether written coastal management Agreements between the GRDM and local Municipalities have been accepted / signed (may be done in house or appoint consultants), in consultation with the MEC and after consultation with any authority that is responsible for managing an area to which the planning scheme applies e.g., SANParks, CapeNature, and all other relevant stakeholders.	Depending on Municipality	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
(c) Develop coastal planning scheme by-laws that encompass the policy directives indicated in (a) and (b) above.	NEM: ICMA (Section 50).	The Category-B Local Municipalities (LM's), in conjunction with Town Planning Departments, and with support from the GRDM.	Once a planning scheme is developed.	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.

Performance Indicators				
(i) Urban edges are indicated in SDFs.				
(ii) A coastal planning scheme is developed which is aligned with the above land use policy directives.				
(iii) A coastal by-law is established in this regard.				
(d) All the above policy directives (a) and (b)(1)-(7) form part of the municipal SDFs Land Use Management System (LUMS).	NEM: ICMA (Section 42(4)(e) and Section 48(4); Local Government: Municipal Systems Act, 32 of 2000, Sect€ 26(e); Provincial SDF and associated Western Cape Policy guidelines: Rural Land Use Planning and Management Guidelines (Draft 2009); NEMA (in general and Section 2 (r).	LMs, in conjunction with SDF and Town Planning Departments.	Next SDF amendment and review process	SDF amendment and review budget (allocated in IDP).
Performance Indicators				
(i) Establishment of urban edges in SDFs**.**				
(ii) Municipal SDF land use management systems (LUMS) stipulate the above restrictions as policy directives along the coastline.				

(e) Adopt the following land use decision making protocols (which are indicated in the coastal planning scheme (b) and the coastal planning scheme by-laws (c) above): (1) Land use change applications that may contribute to linear coastal development must be negatively received; (2) Subject all applicable land use applications in the coastal zone to an EIA with a heritage impact assessment, cumulative impact assessment and carrying capacity assessment; (3) Discourage informal settlements in the coastal zone where there is lack of services; (4) Restrict the sub-division of agricultural land for resorts and other high impact tourist, business or industry related land use activities; (5) Developments must not infringe on or detract from sites of heritage significance in the coastal zone.	Land Use Planning Ordinance (15 of 1985); NEMA EIA regulations; NHR Act (Chapter 2, Section 38).	LMs, in conjunction with their SDF and Town Planning Departments, and the relevant environmental authorizing agent (DFFE or DEA&DP).	Ongoing for each new application.	Internal process - no additional cost.
Performance Indicators				
(i) Register of coastal land use applications and associated Record of Decisions.				
(ii) All LUPO applications, Basic Assessments and EIAs to include a cumulative impact assessment and carrying capacity assessment (ecological and infrastructural).				

Issue 2.3. Protect property against natural disasters and climate change affects				
Actions	**Legislation**	**Mandate**	Timeframe	**Budget**
(a) Prevent damage to property caused by flooding and storm surges due to erosion and accretion (associated with sea level rise) or other climate change impacts through engineering technologies and maintenance of current sea walls, dolosse etc. No development of new hard protective structures should be permitted, with other adaptation options being preferred. Standardize the approach as much as possible (National or Provincial protocol - although a generic approach is not always feasible due to site-specific dynamics). Prevention should also include the protection and rehabilitation of natural defense systems, such as primary dunes, littoral vegetation, salt marshes, wetlands, floodplains and seagrasses. These strategies should be included in Municipal Disaster Management Plans.	NEM: ICMA, Section 49 (2)(c)(v) for coastal erosion and accretion; Disaster Management Act (Sections 52 & 53).	GRDM and LM's; DFFE and DEA&DP to develop a standard protocol for dealing with erosion and accretion.	Ongoing	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
Performance Indicators				

(i) Development of a document / standard protocol that incorporates these actions, and identifies approved soft measures as well as alternative emergency technologies to be employed, which is integrated into municipal Disaster Management Plans (Municipalities, DFFE and DEA&DP).				
(**ii**) Inventory of properties that require protection, the type of engineering technology to be employed and properties indicated on a map (and preferably indicated in GIS format).				
(iii) Number and percentage of properties requiring protection that are protected through the development of appropriate infrastructure.				
(b) Determine the high-water mark (HWM) and delineate the 100m from the HWM.	The position of the HWM is provided for in terms of the NEM: ICMA (Chapter 2, Part 1, Section 14), Section 49(2)(c)(v) requires CMPs to address coastal erosion and accretion.	Although the NEM: ICMA does not mandate this action to Municipalities, the GRDM in conjunction with each LM should motivate for this to be done by DEA&DP as soon as possible in order to include it as part of their strategy to address issues of coastal erosion and accretion.	1 to 2 years for current assessment , thereafter continuous	DEA&DP function to delineate the HWM; LMs can update GIS database at no cost.
(c) Delineate the 5m contour and all undeveloped portions of foredune that are currently backed by development.	Section 49(2)(c)(v) requires CMPs to address coastal erosion and accretion (note that the DEA&DPs Climate Change Strategy and Action Plan highlights that development at estuaries is setback above the 5m contour.	LMs, in conjunction with their SDF and Town Planning Departments, and the relevant environmental authorizing agent (DFFE or DEA&DP).	Continuous	As part of financial availability / funding.

(d) Delineate the 1:50 and 1:100-year flood lines.	NEM: ICMA Section 16(1)(i) makes provision for the 1:50 year flood line as part of the coastal protection zone; 1:100-year flood line is provided for in the NWA in relation to township developments (Section 144).	For any new developments, the responsibility is placed on developers or applicants to determine flood lines where no flood lines exist.	1 to 2 years for all available data and ongoing for each new development application.	All new applicants to cover costs for determining flood lines.
(e) The creation of work opportunities by the LM's that focus on the rehabilitation of natural defenses, and the promotion of this by the Garden Route District Municipality.	In line with the Western Cape Provincial Coastal Management Programme (PCMP).	GRDM and LM's	Ongoing	As part of financial availability / funding.
(f) The Garden Route District Municipality to undertake a gender, youth and disability gap analysis, and track the number of women, youth and disabled employed by the LM's in the rehabilitation of natural defense projects.	In line with the Western Cape Provincial Coastal Management Programme (PCMP).	GRDM	1 to 3 years	As part of financial availability / funding.
Performance Indicators				
(i) The CMP delineates all these focus areas and prevents future developments in these areas, and also forms part of coastal planning schemes (where implemented).				
(ii) An inventory of properties within the above areas (property lines, erfs, and indicated in GIS / map format).				
(ii) The development of a gender, youth and disability gap analysis related to employment in rehabilitation of natural defense projects.				
(e) Set back lines to be determined for the Garden Route District Municipal area, and then included in Municipal SDF's and planning schemes to inform no-go or high-risk development areas. Coastal management lines must be incorporated into the updated spatial development framework for all municipal entities	NEM: ICMA (Chapter 2, Section 25).	DEA&DP to develop set back lines; GRDM and LM's to incorporate them into SDF's or planning schemes / planning processes.	1 to 2 years, thereafter continuous.	Provincial budget.

Performance Indicators				
Set back lines developed and incorporated into the SDF's of the Municipalities.				
(f) Prevent development within 100 m of the HWM, below the 5 m contour and below 100 and 50-year flood lines; strictly monitor (and preferably prevent) future development below 6.5m amsl and undeveloped portions of foredune.	Land Use Planning Ordinance (15 of 1985); NEMA EIA regulations.	Land use applications must be processed by Municipal town planners and the relevant environmental authorizing agent (DFE or DEA&DP).	Ongoing for each new application.	No cost.
Performance Indicators				
(i) Register of coastal land use applications and associated Record of Decisions.				
(ii) All LUPO applications, Basic Assessments and EIAs to include these areas in their applications, in GIS format.				

(g) Develop a coastal planning scheme that prevents development in the areas described above (b to e).	NEM: ICMA (Section 56(3)(d).	LMs, in conjunction with their SDF and Town Planning Departments, (may be done in house or appoint consultants), in consultation with the MEC and after consultation with any authority that is responsible for managing an area to which the planning scheme applies e.g., SANParks, CapeNature.	2 to 5 years	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.

(h) Establish coastal planning scheme By-laws that prevent development in the areas described above (b to e).	NEM: ICMA (Section 50).	LMs, in conjunction with their SDF and Town Planning Departments, (may be done in house or appoint consultants), in consultation with the MEC and after consultation with any authority that is responsible for managing an area to which the planning scheme applies e.g., SANParks, CapeNature.	2 – 5 years, or once a planning scheme has been developed	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
Performance Indicators				
(i) A coastal planning scheme is developed with the areas indicated as no go areas.				
(ii) Establishment of coastal planning scheme By-laws that prevent future developments in these areas.				
(i) Indicate the areas (b to e) above in municipal SDFs and prevent development in these areas through the LUMS.	ICM –CT (Section 42(4)(e) and 48(4)) - in terms of alignment of SDFs with CMPs. Local Government: Municipal Systems Act, 32 of 2000, Section 26(e).	Garden Route DM and all LMs (in conjunction with their SDF and Town Planning Departments).	During the next SDF amendment or review process)	SDF amendment or review budgets (allocated in IDP).
Performance Indicators				

These areas are indicated in municipal SDFs and the development restrictions form part of the LUMS.				
(j) Coastal Zone Management Strategies are developed for all LM (these should include all aspects recommended in the Sea Level Rise Study (Appendix 2), e.g., coastal zone management units, sustainable coastal management plans, adaptation studies, alternative housing/structure technologies, economic risk assessment, management capacity, early warning systems, risk assessments, education–& awareness etc.).	Non-applicable - recommendations from Sea Level Rise study, Sea Level Rise Study (Umvotu Africa, (Appendix 2),.	All LMs (may appoint service provider).	2 to 4 years	Depending on funding or available financial and human resource capacity, the Municipality / Municipalities need to look at the actions related to their budgets and amend accordingly, and plan for these in their IDPs.
Performance Indicators				
Coastal Zone Management Strategies are developed for each local municipality.				
(k) Disaster Management Plans should incorporate the relevant aspects of the coastal zone management strategy.	Disaster Management Act (Sections 52 & 53).	GRDM, with input from the LMs (may appoint service provider).	2 to 4 years	In house; IDP allocated funding for updating disaster plan.
Performance Indicators				
(i) Disaster Management Plans incorporate all the actions above.				

Issue 2.4. Protect sensitive coastal habitats				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) The coastal protection zone incorporated into planning schemes (SDF) and all future developments limited in this zone (See Appendix 5; Figures A1.1 to A1.6); all largely undisturbed habitats/areas should be excluded from considerations for future development.	NEM: ICMA (Chapter 2, Part2, Sections 16 & 17; Chapter 3, Section 26 & 31; Chapter 7, Part 4, Section 62), MSA.	Provincial (DEA&DP) function to determine CPZ is completed municipal function to include CPZ in SDFs.	Now for inclusion in CMP; next SDF review period.	Part of this CMP budget.
Performance Indicators				
Coastal protection zone established and mapped in this CMP; incorporated into SDF.				
(b) Developments within the Outeniqua Sensitive Coastal Areas Extension (OSCAE) must be safeguarded through permit applications.	ECA (Regulations in terms of Section 21(l), Schedule 1 to 3).	Town Planning and Environmental departments of the George, Knysna and Bitou LMs.	Ongoing for each new application.	Internal process - no additional cost.
Performance Indicators				
Register of OSCAE applications and Record of Decisions.				
(c) Delineate the OSCAE area in the CMP and municipal SDFs (in GIS format). (Note that a sensitive coastal area in terms of ECA is part of the coastal protection zone).	ECA (Regulations in terms of Section 21(l), Sc€ule 1 to 3); NEM: ICMA (Sections 42(4)(e),48(4), 16(1)(b).	Town Planning of the George, Knysna and Bitou LMs; EFA for inclusion into CMP.	Now for inclusion in CMP; next SDF review period.	SDF review and update budget (allocated in IDP).
Performance Indicators				
(i) OSCAE area delineated in CMP and municipal SDFs (in GIS format).				

(d) Identify other sensitive coastal environments that require protection and special coastal management, e.g., estuaries, coastal wetlands, critically endangered habitats, Listed Threatened Ecosystems, NFEPA wetlands (also CBAs and ESAs).	NEM: ICMA (Sections 8(b), 27(1)(c) and 49(3)(d); NEMA (Section 2.4(r).	GRDM and EAF's (as part of this CMP). Proclamation and management of areas, however, is primarily a Provincial and sometimes a national function.	Now for inclusion in CMP.	Part of the current Garden Route CMP.
Performance Indicators				
Sensitive coastal habitats indicated in the CMP (Note: in terms of the CBA maps almost the entire coastline is sensi€e because it is either a CBA or ESA).				
(e) Develop a coastal planning scheme that is aligned with the land use management guidelines recommended and associated with the CBA maps and DEA&DPs Rural Land Use Planning and Management Guidelines (of the provincial SDF) to protect areas identified in action (c) above.	NEM: ICMA (Section 56(3)(d).	Garden Route DM and all LM (may be done in house or appoint consultants), in consultation with any authority that is responsible for managing an area to which the planning scheme applies.	2 to 3 years	R200 000 for development of a planning scheme (includes consultation with all relevant stakeholders).
Performance Indicators				
A coastal planning scheme is developed and aligned with the above land use policies.				
(f) Declare sensitive coastal habitats as special management areas in terms of the NEM: ICMA.	NEM: ICMA (Section 23).	Minister (DFFE), after consultation with the MEC (DEA&DP).	2 to 3 years	Not a Municipal function.
Performance Indicators				
Sensitive coastal habitats are declared as special management areas in terms of the NEM: ICMA and provided in GIS format.				

(g) Establish a coastal planning scheme and associated scheme By-laws that prevent and/or restrict development in specified sensitive coastal habitats.	NEM: ICMA (Sections 50 and 56(3)(d).	Garden Route DM and all LMs (may be done in-house or appoint consultants).	2 to 3 years	R200 000 for development of planning scheme (includes consolations with all relevant stakeholders).
Performance Indicators				
(i) Establishment of a coastal planning scheme and associated scheme by-laws that prevent and/or restrict development in specified sensitive coastal habitats.				
(h) (h) Identify Municipal land that can be declared as Protected Areas, Protected Environments and/or be incorporated into CPP. Promote private landowners to secure protected area status or formalize Stewardship agreements.	NEM: PAA (Section 3.5); Western CapeNature Conservation Laws Amendment Act (Section 7).	Garden Route DM and all LMs (may be done in-house or appoint consultants). CapeNature, SANParks and private landowners.	4 to 5 years.	R200 000 for service provider to identify land and engage landowners.
Performance Indicators				
The number and percentage of Protected Areas or Nature Reserves on municipal land and/or private land.				
(i) Establish and strengthen provincial stewardship Programmes in these areas.	NEM:BA (Section 48(2)) requires that Municipalities are aligned with the National Biodiversity Framework (Section 4.5.3).	Garden Route DM and all LMs, in consultation with Provincial authorities (DEA&DP and CapeNature) and SANParks.	5 years (+)	Unknown.
Performance Indicators				
The number of stewardship agreements with private landowners and CapeNature/SANParks.				

(j) Indicate sensitive areas in SDFs (including the CPZ) and provide land use management guidelines that are aligned with the provincial SDFs Rural Land Use Planning and Management Guidelines.	Local Government: Municipal Systems Act (Section 26e); NEM: ICMA (Section 42(4e) and 48(4).	Garden Route DM, all LMs, DEA&DP .	Next SDF review and update.	SDF review and update budget (allocated in IDP).
Performance Indicators				
SDFs reflect these areas with associated land use management guidelines.				
(k) Strict adherence to SDFs and existing building regulations.	Land Use Planning Ordinance; and/or the NEMA EIA regulations.	Land use applications processed by municipal town planners and environmental personnel and the relevant environmental authorizing agent (DFFE or DEA&DP).	Ongoing for each new application.	Internal process - no additional cost.
Performance Indicators				
Register of land use and EIA applications with associated Record of Decisions.				
(l) GRDM to consult the Western Cape DEA&DP and local Municipalities to determine the use of active retreat for properties adjacent to CPZ. Development of funding proposals to enable active retreat.	NEM: ICMA	GRDM and DEA&DP	2 to 3 years	
Performance Indicators				
(i) Report on the potential for active retreat for properties adjacent to CPP. (ii)Funding proposal developed.				

Issue 2.5. Maintain the coastal 'Sense of Place'				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Develop a coastal planning scheme that promotes nodal development to prevent urban sprawl and ribbon development along the coastal zone, as a policy directive.	NEM: ICMA (Section 56(3d).	GRDM and all LMs (may be done in house or appoint consultants).	2 to 3 years	R200 000 for development of planning scheme.
Performance Indicators				
(i) A CMP coastal planning scheme is developed and stipulates the above restrictions as land use policy directives along the coastline.				
(ii) Urban edges indicated in SDFs (in GIS format).				
(b) Identify Municipal land that can be declared as Protected Areas or Nature Reserves, and/or promote private landowners to declare sensitive coastal environments as Protected Areas or Nature Reserves.	NEM: PAA (Section 3.5); Western CapeNature Conservation Laws Amendment Act (Section 7).	Garden Route DM and all LMs (may be done in-house or appoint consultants).	4 to 5 years.	R200 000 for service provider to identify land and engage landowners.
Performance Indicators				
The number and percentage of Protected Areas or Nature Reserves on municipal land and/or private land.				
(c) Establish and strengthen provincial stewardship Programmes in these areas. Land use applications under LUPO that can be incorporated into the CapeNature or SANParks stewardship Programmes should be flagged.	NEM:BA (Section 48(2)) requires that Municipalities are aligned with the National Biodiversity Framework (Section 4.5.3).	Garden Route DM and all LMs, in consultation with Provincial authorities (DEA&DP and CapeNature) and SANParks.	5 years (+)	Unknown.
Performance Indicators				

The number of stewardship agreements with private landowners and CapeNature or SANParks.

Issue 2.6 Critical Biodiversity Area Maps and planning.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Use the CBA maps to delineate urban edges (Appendix 5; Figures A5.1 to A5.7 for CBA maps). In addition, source and use surveys or assessments conducted by other institutions, e.g., CBA assessment by KPOA for Keurbooms area.	NEM: ICMA (Section 49(2c-iii); Provincial SDF, as a policy directive, recommends the determination of urban edges.	Garden Route DM and all LMs.	Now - incorporate in next SDF review.	SDF review and update budget (allocated in IDP).
Performance Indicators				
Urban edges delineated in the SDFs.				
(b) Use the CBA maps to assist with identifying sensitive coastal habitats and areas to be protected (See Issue 2.4d).				
Performance Indicators				
Sensitive coastal habitats indicated in the CMP (Note: in terms of the CBA maps almost the entire coastline is sensitive because it is either a CBA or ESA).				

Issue 2.7 Desalination plants				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Avoid the hasty installation of desalination plants within the coastal zone.	NEMA: EIA regulations.	The relevant environmental authorizing agent (DFFE or DEA&DP) in consultation with LMs.	Ongoing for each new application.	Not a Municipal function.
(b) Develop water sector plans that include long term planning in relation to the need and availability of water that takes into account urban expansion.	Water Services Act; Local Government: Municipal Systems Act (Section 26e).	LM town planning and environmental departments must ensure sustainable development of water resources (may be done in house or appoint consultants).	2 to 5 years (as part of the IDP/SDF review process)	R100 000 per LM for development of water sector plans.
Performance Indicators				
(i) Register of applications for desalination plants and associated Record of Decisions.				
(ii) Water sector plans or Water Services Development Plans (as part of the IDP and SDF) identify projected water needs, and SDFs indicate (where relevant) potential locations of desalination plants.				

TABLE CMO 3 - MANAGEMENT STRATEGIES FOR BIODIVERSITY CONSERVATION, PROTECTION AND ENHANCEMENT				
Issue 3.1 Estuary management.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Implement all existing Estuary Management Plans (EMPs); together with the MCC this will include incorporating zonation plans and management actions into Municipal IDPs and SDFs.	NEM: ICMA (Chapter 4); NEMP.	Estuary Forums and MCC for existing EMPs; Garden Route DM and LMs depending on jurisdiction for development of additional EMPs	3 to 5 years.	R300 000 per estuary.
(b) Support the RMA and contribute to the development of EMPs for all estuaries that currently do not have plans.				
Performance Indicators				
(i) Existing estuary Forums continue to function effectively (regular meetings, with documented proceedings and outcomes).				
(ii) EMPs for the remaining 10 estuaries in Garden Route are developed in line with the NEMP over the next four years.				

Issue 3.2 Alien vegetation removal				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Develop alien invasive species control and monitoring plan for municipal owned land (may include other state-owned land) and implement. (Note: The Garden Route CBA maps include alien vegetation maps that can be used to prioritize high density alien sites for George, Knysna and Bitou Municipalities; Appendix 5; Figures A4.1 to A4.3). Collection of gender disaggregated data for Working for Programmes implemented by the municipality.	NEM:BA (Section 76(2)) and the National Biodiversity Framework (NBF) (Section 4.3.5).	Garden Route DM and all LM (may be done in house or appoint consultants); liaise with all other organs of state that own land to make plan more	3 to 5 years	Costs will depend on the number of properties in the coastal zone and extent of infestation.

		comprehensive and inclusive.		
Performance Indicators				
(i) The alien control plan is identified as an IDP project with associated funding (for municipal properties).				
(ii) Production of an alien invasive species control and monitoring plan for municipal own land (may include other state-owned land).				
(iii) A system is in place to monitor implementation.				
(b) Implement programmes, such as the DWS's Working for Water and Working for Wetlands programmes, the DFF''s CoastCare programme, and the Dept. Agricultures' Land Care programme, to assist with clearing aliens. (Note that the Garden Route CBA map has an associated alien vegetation map that can assist with prioritizing areas).	NEM:BA (Section 76(2)) and the National Biodiversity Framework (Section 4.3.5); NWA must drive the clearance of aliens to protect water resources (Sections 3.1 and 5); CARA (Section 4 (4a) and Section 6 (l)).	DWS, DFFE, DoA in consultation with all Municipalities. Municipalities can be the implementing agents of some of these programmes and will therefore need to apply for funding in this regard. SANBI is responsible for monitoring implementation of alien invasive species regulations/eradication plans.	3 to 5 years and ongoing.	Unknown. Sources not from Municipal funds - include the Poverty Relief Fund and the Expanded Public Works Programme (Environmental and Cultural sector) led by the DFFE and DoA (Land Care).
Performance Indicators				
(c) Raise awareness amongst landowners regarding their duty to remove alien invasive species.	NEM:BA (Section 73(2 and 3); CARA (Section 6 (l) and Section 29).	SANBI, DWS and DoA in consultation with all municipal'ties.	3 to 5 years and ongoing.	As above (Also SANBI's Early Detection and Rapid Resp–nse programme (funded by Working for Water

				programme - DWS) was formed to control and manage emerging invasive alien plants in South Africa).
(d) Encourage landowners that have listed invasive species on their properties to control and eradicate these species.	As above	As above	3 to 5 years and ongoing.	As above
Performance Indicators				
(i) Awareness raising material produced e.g., Pamphlets.				
(ii) Inventory of landowners required to control and eradicate alien invasive species.				

Issue 3.3 Restoration and rehabilitation of biodiversity				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Planting of indigenous plants where alien species have been removed. Implemented after the completion of alien eradication plans and removal of aliens (Issue 3.2).	NEM: ICMA Section 83(d) for rehabilitation; NEM:BA Section 11(m)(i) & (n)(ii), Section 76(2); National Biodiversity Framework (Section 4.3.5); NWA (clearance of aliens to protect water resources as part of a national strategy; CARA (for provision of funding through LandCare for restoration	SANBI; DWS; DoA in consultation with the relevant municipality, although Municipalities can implement their own projects (as part of the Expanded Public Works Programme, Poverty Relief Programme, LandCare); Coastcare (DFFE) in consultation with Municipalities or the private sector.	3 to 5 years	Unknown. Sources not from Municipal funds - include Poverty Relief Fund; Expanded Public Works Programme (environmental and cultural sector) led by

	purposes to prevent soil erosion/degradation).			DFFE; LandCare led by DoA.
Performance Indicators				
Inventory of planting projects implemented.				
(b) Reintroduce indigenous plants and animals to enhance terrestrial biodiversity in Protected Areas and Nature reserves.	The Western CapeNature Conservation Laws Amendment Act (Section 82(1)(d)); NEM: PAA (Section 41); Western CapeNature Conservation Laws Amendment Act (transportation and relocation of animals); NEM:BA f–r permits for Threatened or Protected Species (TOPS) - (Section 18).	CapeNature; DFFE (approve management plans compiled by SANParks, CapeNature, local authority or other management body of a Protected Area); DFFE (approval of TOPS permits); DEA&DP (transportation/relocation).	3 to 5 years and ongoing (unless already being implemented).	Not a municipal mandate- budgets from other organs of state.
Performance Indicators				
(i) Management plans for Protected Areas (in terms of NEM: PAA) or Nature Reserves (in terms of the WC Nature Conservation Laws Amendment Act) include reintroduction of indigenous plants and animals.				
(ii) Increase in number of indigenous (especially rare and endangered) species.				

Issue 3.4 Biodiversity Monitoring				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**

(a) Monitor populations (in Protected Areas/Nature Reserves) to determine ecosystem health and improvement in terms of, for example: diversity, population numbers and richness.	NEM: PAA (Section 41) and MLRA (Section 43(3)).	Management plans: SANParks, CapeNature, local authorities or other management body of a Protected Area.	2 to 4 years for management plans that include monitoring; then ongoing.	Estimated R200 000 per year for monitoring programmes in Municipal Reserves. Budgets for MPAs and Provincial Reserves are not from Municipal sources.
Performance Indicators				
Production of monitoring plans as part of Protected Area/Nature reserve management plans (Municipal, Provincial and National protected areas).				
(b) Utilize CBA maps to monitor biodiversity status (in relation to changes in land cover due to future developments).	In terms of the NEM:BA (Section 11) & the National Biodiversity Framework (NBF), SANBI is responsible for monitoring the conservation status of ecosystems and all listed threatened or protected species in SA. The NBF also recognizes DWEA, Department of Forestry, SANParks, and provincial conservation authorities as lead agents in monitoring biodiversity. Bioregional programmes (i.e., C.A.P.E) direct the production of CBA maps (precursor to bioregional plans in terms of NEM:BA), which can assist with monitoring biodiversity in a bioregion.	Although the NBF indicates SANBI, DWEA, Department of Forestry, SANParks, and Provincial conservation authorities as the lead monitoring agents, DEA&DP and CapeNature, as partners of the C.A.P.E programme, will be the best parties to monitor the CBA Map. Municipalities should assist with this in terms of land use applications (data available in GIS format).	Ongoing.	No additional budget for Municipal entities; part of existing land use applications.
Performance Indicators				
(i) A GIS database indicating current land cover and land use (zoning) in the region, which will indicate changes in this regard (NOTE: All the CBA maps have an associated land cover or transformation shapefile which should be updated).				

Issue 3.5 Rehabilitation of illegal activities or structures				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Remove illegal structures (e.g., jetties, buildings, walkways or other structures) and rehabilitate disturbed areas where necessary (See CMO 8, Issue 8.3 for details).	NEM: ICMA	Transgressors	Continuous	To be funded by transgressors

Performance Indicators
See CMO 8, Issue 8.3.

Issue 3.5b Promote the inclusion of priority areas for formal protection				
(a) **Actions**	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(b) GRDM to engage and support the NPAES and WCPAES processes for enhanced ecosystem protection in the region			Continuous	Relevant responsible authorities to fund
(c) **Performance Indicators**	**Performance Indicators**	**Performance Indicators**	**Performance Indicators**	**Performance Indicators**

Issue 3.6 Pollution control and coastal cleanup strategies (also See CMO 6 for pollution and control of water resources).				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Develop a coastal cleanup strategy (more applicable to the Provincial or national CMP).	NEM: ICMA or White Paper for Sustainable Coastal Development–in South Africa (drives Coastcare); ECA (Section 19A - Municipalities must remove any litter).	DFFE (Coastcare or Working for the Coast); DEA&DP (coastal management section); in consultation with all Municipalities.	2 to 4 years	Funding from National (DFFE - Working for the Coast) or Provincial (DEA&DP) sources.
Performance Indicators				
A coastal cleanup strategy report is compiled (part of Provincial or National CMP actions).				
(b) Ensure adequate waste disposal containers are provided along the coast (at access points) and remove litter.	ECA (Section 19(2) & 19A); NEM: ICMA (Section 20).	All LMs.	2 to 4 years	Costs of disposal containers depending on number required; cost of regular emptying of bins is unknown (motivate in IDP).
Performance Indicators				
(i) Inventory of areas requiring waste disposal containers.				
(ii) Capacity (staff, vehicles and budget) to remove litter is available.				

Issue 3.7 Critical Biodiversity Area Maps and biodiversity conservation				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Use the CBA maps to assist with identifying the coastal corridor, with associated inland corridors, which should be protected (part of Provincial CMP).	As above	Either National (DFFE) or Provincial (DEA&DP) in consultation with GRDM.	1 to 3 years.	Not a Municipal function.
(b) Use CBA maps to identify areas that should be protected either under stewardship agreements or declared as Protected Areas or Nature Reserves in the terrestrial environment (part of National and Provincial CMPs). Note: Ideally all CBAs should be protected but this is unlikely or unrealistic.	As above; NEM: PAA; National Protected Areas Expansion Strategy and the National Biodiversity Framework in terms of NEM:BA.	The National Biodiversity Framework identifies SANBI, DFFE, DEA&DP, CapeNature and SANParks as lead agents to expand the Protected A€ Network.	1 to 3 years.	Not a Municipal function.
(c) Use CBA maps to identify priority conservation areas in the marine environment (i.e., marine CBA) for extension of the MPA network (part of National and Provincial CMPs).	As above; NEM: PAA; National Protected Areas Expansion Strategy and the National Biodiversity Framework in terms of NEM:BA.	As above	1 to 3 years.	Not a Municipal function.
(d) Delineate the coastal corridor, with associated inland corridors, in SDFs. (€e that the –BAs identify these).	NEM: ICMA Section 42(4)(e) and 48(4) in - in terms of inclusion in SDFs.	GRDM and LMs (town planning).	It depends on when the coastal corridor is established.	IDP budget for review and update of SDFs.
Performance Indicators				

(i) The Provincial CMP has coastal corridors with associated inland corridors delineated.
(ii) Number declared Protected Areas or Nature Reserves in the terrestrial environment.
(iii) Number of declared MPAs.
(iv) SDFs have the coastal corridors with associated inland corridors delineated.

Issue 3.8 Fire management				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Develop an Integrated Fire Management Plan.	National Veld and Forest Fire Act (Section 5(1)(a); Local Government: Municipal Structures Act (Section 84(1)(j).	GRDM, Department of Forestry in consultation with GRDM (Disaster Management, Integrated Fire Management) and landowners outside the urban edge).	Already done	Not applicable
(b) Participate in Fire Protection Associations (FPA).	National Veld and Forest Fire Act (Section 10); Local Government: Municipal Structures Act (Section 84(1)(j).	GRDM to coordinate with all affected landowners outside the urban edge.	2 to 4 years.	R20 000 for transport costs for interacting with landowners.
Performance Indicators				
(i) A fire management plan or Fire Action Plan is developed.				

(ii) Inventory of members actively participating in the FPA.

Issue 3.9 Financial measures to protect, conserve or enhance biodiversity.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Develop By-laws that provide tax exemptions, rebates, rates re-evaluation or other incentives for land that is conserved and protected through NEM: PAA, the WC NCLA or stewardship agreements with CapeNature or SANParks (can provide information in this regard through Municipal publications).	NEM: ICMA (Section 50); Municipal Property Rates Act (Section 3); Revenue Laws Amendment Act (60–of 2008); Garden Route DM Property Rates By-Law (Section 4 - provides for categories of properties: eco-tourism and conservation)	LM's, in consultation with responsible authorities.	2 to 4 years and ongoing as land use changes.	R30 000 for development of By-law.
Performance Indicators				
(i) Property Rates By-Law is developed that includes various options.				
(ii) An inventory of the number of properties with tax rebates etc.				

Issue 3.10 Protection of fish species and marine habitats				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Ongoing management of existing MPAs using Protected Area Advisory Committees for local stakeholder participation (local users, NGOs, Natural Resource User Groups (NRUGs) etc.) , expansion of boundaries of current MPAs (e.g., Goukamma and TNP), closure of existing open (fishing) areas within MPAs (Goukamma, including the estuary and Robberg) and establishment of additional MPAs and priority conservation areas as per Western Cape Protected Areas Expansion Strategy Note that the Garden Route CBA map, stretching from George to Bitou Municipalities, identifies several marine CBA for this purpose; See Appendix 3 (and Plate A3.1) and Appendix 5 (Figures A3.1 to A3.6) for more details, (Section 43(3) in terms of declaring MPAs, Section 77(e) in terms of declaring Closed Areas);	DFFE in collaboration with CapeNature and SANParks as managing authorities and WWF-SA (currently being driven	Not a Municipal function.	5 years	Not applicable

National Protected Area Expansion Strategy; NEM:BA and the National Biodiversity Framework in terms of expanding MPAs to protect marine biodiversity.	by WWF-SA and the MPA Expansion Group within the MPA Forum).			
Performance Indicators (as part of National and Provincial CMP)				
(i) Inventory of identified MPAs that require boundary expansion (e.g., Goukamma) and closure to fishing.				
(ii) MPA boundaries expanded, and areas closed to fishing.				
(ii) The MPA management plan includes areas close to fishing.				
(iv) The number of MPAs or priority conservation areas (with associated management plans identifying closed areas) is increased.				
(b) Develop and implement a national intervention Programme for critical line fish species, particularly estuarine dependent and shore-based species (e.g., Kob and white steenbras) or declare emergency measures (e.–., suspend all fishing for certain species).	MLRA (Section 14 - Determination of allowable catches and applied–effort) (Section 15 - Fisheries management areas) (Section 16 - Emergency measures).	DFFE and DEA&DP in collaboration with the South African Marine Line Fish Management Association (SAMLMA).	2 to 3 years	Not a Municipal function.
Performance Indicators				
A national intervention Programme is developed.				

Issue 3.11 Air quality management				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Development of an Air Quality Management Plan (AQMP) and integration into the IDP.	NAQA (Chapter 3, Sections 15 & 16).	GRDM, specifically the Air Quality Management section, and IDP Manager, in cooperation with the LM's.	Existing, and five yearly review period, and next IDP review.	Internal process.
(b) Drafting of by-laws for the implementation of the AQMP.	NAQA (Chapter 3, Section 11).	GRDM, specifically the Air Quality Management section, and Legal Department, in cooperation with LM's	Existing, and continuous	Implementation costs
(c) Appointment of a Municipal Air Quality Officer to implement the AQMP and coordinate all matters pertaining to air quality management.	NAQA (Chapter 3, Section 14).	GRDM, specifically the Air Quality Management section	Existing, and continuous	Annual remuneration package for Municipal employee.
Performance Indicators				
(i) AQMP is developed and integrated into the Garden Route DM IDP.				
(ii) By-laws drafted for the administration/implementation –f the AQMP.				
(iii) Air Quality Officer appointed.				

TABLE CMO 4 - MANAGEMENT STRATEGIES FOR HERITAGE RESOURCES				
Issue 4.1 Heritage resources in the Garden Route coastal zone need to be managed, protected and shared by all.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Identification of all heritage resources within the coastal zone of Garden Route (Grade I, II and III) and determination of which fall under local authority jurisdiction (Grade III resources).	NHR Act (Chapter 1, Section 8; Chapter 2, Section 30).	SAHRA for Grade I; Heritage Western Cape (for Grade II); LM or DM for Grade III (see Appendix 2 for contact details).	2 to 5 years	R200 000 for DM or R40 000 per LM; National and Provincial budgets not applicable.
(b) Establish a register of all heritage resources in the province (includes Garden Route District).	NHR Act (Chapter 1, Section 3)	Heritage Western Cape.		Provincial budget.
(c) Determine local authority capacity to manage and protect heritage resources and assist in building capacity (Provincial authority to perform functions until local authorities develop the required capacity).	NHR Act (Chapter 1, Section 24)	Heritage Western Cape	1 to 2 years	Provincial budget.
(d) Local authorities to protect and manage Grade III heritage resources and those Grade I and II resources whose protection and management has been devolved to them by National or Provincial authorities (guided by a heritage resources protection and management strategy).	NHR Act (Chapter 1, Sections 27 to 29)	GRDM in consultation with all LM (assisted by Heritage Western Cape until local capacity is considered adequate	Continuous	Unknown; dependent on resource type, location and number.
(e) Local authority to establish By-laws or make provisions in planning schemes for the management and protection of heritage resources.	NHR Act (Chapter 2, Sections 28 and 30; Chapter 3, Section 54).	LMs in consultation with GRDM and responsible authorities.	3 to 5 years	R30 000 for process to develop by-laws.

(f) Local authorities to provide incentives through by-laws or provisions in planning schemes for the management and protection of heritage resources.	NHR Act (Chapter 2, Section 43; Chapter 3, Section 54); NEM: ICMA (Chapter 6, Section 50); MS Act (Chapter 3, Sections 11 to 14).	GRDM in consultation with all LM.	Ongoing	Unknown; dependent on resources.
(g) Impact Assessment Reports to be required for developments that may impact on heritage resources.	NHR Act (Chapter 2, Section 38); any other legislation requiring an evaluation of a development on heritage resources (including EC Act, Minerals Act and IEM guidelines).	Predominantly Heritage Western Cape and SAHRA, but GRDM and LMs on occasion; lead authorities for authorization of EIAs.	Ongoing	Cost covered by developer or applicant.
(h) Local authorities order owners to stop work and repair damage if alterations or developments of items on heritage register take place without consent from the heritage authority.	NHR Act (Chapter 2, Section 30)	GRDM and all LMs.	Ongoing	Cost covered by developer or applicant.
Performance Indicators				
(i) A document detailing the identification and classification of all heritage resources within the coastal zone of Garden Route, and the establishment of heritage resources register.				
(ii) Establishment of local authority heritage agencies, firstly at District level and subsequently at LM level.				
(iii) Development of a heritage resources protection and management strategy (includes requirements in terms of manpower and funding).				
(iv) By-laws and planning schemes, aimed at protecting and managing heritage resources, are developed and implemented by DM and LMs.				
(v) All EIA processes must include appropriate consideration and assessment of impacts on heritage resources, where applicable.				

TABLE CMO 5 - MANAGEMENT STRATEGIES FOR DISASTER MANAGEMENT				
Issue 5.1 Effective and coordinated disaster management is required for ensuring human safety.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) The GRDM must establish and implement a Disaster Management Framework.	DM Act (Chapter 5, Section 42)	GRDM (Gerhard Otto).	Already done	Not applicable.
(b) Establish a disaster management coordination center for Garden Route district.	DM Act (Chapter 5, Sections 43 to 50).	GRDM Disaster Management Centre, in consultation with LM disaster offices.	Already done	Detailed in disaster management framework.
(c) The GRDM and all LM must develop and implement Disaster Management Plans (DMPs).	DM Act (Chapter 5, Sections 52 and 53).	GRDM and LMs (disaster management coordinators; see Appendix 2 for details).	Already done	Implementation requirements of each DMP.
(d) Create awareness throughout Garden Route of disaster management procedures and requirements from public to ensure safety (public workshops, media releases & advertising and pamphlets).	DM Act	GRDM (Disaster management and media relations).	Ongoing	R50 000 per year.
Performance Indicators				
(i) Approved disaster management framework that is consistent with the National and Provincial frameworks (done).				
(ii) Expansion of the existin' coordination center in George to include activities from all Garden Route's LM.				
(iii) All DMPs (District and LM) approved by National and Provincial centers and distributed amongst all LMs.				
(iv) Workshops at all major coastal centers covering all five coastal LMs once a year and regular media releases in all major newspapers, local community newspapers and municipal & community websites; pamphlets available at municipal offices, libraries and tourism offices.				

Issue 5.2 Estuary breaching protocols must ensure human safety, protection of property and infrastructure and the maintenance of ecosystem functioning.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(b) Coordination between relevant authorities to implement estuary mouth management plans.	EIA Regulations (in terms of Section 24[5] of NEMA); Estuary Management Plans as per NEM: ICMA (Chapter 4).	Municipalities, SANParks, CapeNature, DEA&DP, DWS and DFFE.	Ongoing	Funded by responsible management authorities.
Performance Indicators				
(i) Breaching protocols integrated with EMPs or other management plans, I.e., part of Groot Brak EMP (being developed) and GRNP management plan (already achieved).				
(ii) Consultation between Knysna LM and SANParks; if consensus is reached, a Service Level Agreement (SLA) must be entered into between SANParks and Knysna LM.				

Issue 5.3 Procedures for whale entanglements and beached whales & dolphins.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Contact South African Whale Disentanglement Network or Dolphin Action & Protection Group (DAPG) for entanglements and the DAPG for stranded animals.	Non applicable.	Any witness to an entanglement or stranding.	Ongoing	Not applicable.
Performance Indicators				
Not applicable.				

Issue 5.4 Awareness amongst recreational users of dangers associated with the sea.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Erection of signboards providing details of safe swimming areas, hazards such as riptides, sharks, blue bottles & boats and contact details for lifeguards and NSRI.	LM Outdoor advertising and signage by-laws.	LMs for signboards, with support from GRDM.	3 to 5 years, and continuous	R5 000 per signboard.
Performance Indicators				
Signboards erected at all access points wh–re recreational users will swim in the sea.				

TABLE CMO 6 - MANAGEMENT STRATEGIES FOR WATER QUALITY & QUANTITY				
Issue 6.1 Pollution of water sources (estuary and marine).				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Prevent contamination of marine and estuary waters (used for recreational activities) with *E.coli* and other pollutants or contaminants. Sources include sewerage treatment facilities, septic tanks, stormwater runoff, industrial effluent and agricultural return flows (all estuaries are important but prioritize Gwaing and Blinde Estuaries).	NWA (Chapter 3, Section 19); DWS water quality guidelines for recreational use; By-laws for stormwater management and sewerage infrastructure; WESSA requirements for blue flag status (beaches and marinas).	GRDM and all LMs (additional analysis of–samples by DWS); consultation with Dept. Agriculture for return flows.	Continuous	Municipal infrastructure maintenance budget (IDP)
(b) Prevent and remedy pollution of water resources.	NEM: ICMA (Section 69); NWA (Section –9 and 20); NEMA (Section 28); ECA (Section 31); Constitution (Section 156 - Garden Route DM Health By-laws controls stormwater and discharge to some degree).	Any owner/occupier of land from which pollution may or has impacted a water resource, including catchment management agencies, are responsible for preventing and remedying pollution; GRDM and LMs, DWS (in terms of WA); DFFE and DEA&DP (in terms of NEMA, ECA and the Constitution).	Continuous.	Costs mostly from Provincial or National budgets; transgressors, Municipal contributions variable depending on extent and source of pollution (IDP projects).
(c) Control wastewater discharge and stormwater run-off into estuaries, wetlands and coastal waters. This will include discharge into rivers, upstream of estuaries that feed into these estuaries. Discharge may include point source or discharge due to sewage	NEM: ICMA (Section 69); NWA (Section 3, General Authorizations or licenses in terms of Section 21(f),	DFFE for NEM: ICMA; DWS for NWA; and LMs.	Continuous.	Costs mostly from LM and Provincial or National budgets; Municipal

or waterworks leakages. Stormwater runoff systems should be designed with traps for litter and hydrocarbons (fuel/oil). Wastewater discharge into estuaries must be covered in individual estuary management plans.	(g) & (h); - NEMA (Section 28); Constitution (Section 156 - Garden Route DM Health By-laws controls stormwater and discharge to some degree).			contributions highly variable depending on extent and source of pollution.
(d) Monitor and record water quality of discharged wastewater that has the potential to impact water resources e.g., estuaries, wetlands, groundwater and coastal waters.	NWA - General Authorizations or licenses in terms of Section 21(f), (g) & (h) water uses.	GRDM, LM's and DWS and any Section 21(f), (g) & (h) water user in terms of the General Authorizations or license requirements.	Continuous.	GRDM, LM's and DWS, approximately R500 000 per year.
(e) Identify water users that do not comply with the NWA and the required water quality standards of discharged wastewater.	NWA - General Authorizations or licenses in terms of Section 21(f), (g) & (h) water uses.	DWS.	Continuous	National (DWS) budget, not Municipal mandate.
(f) Monitor water quality of water resources (within prioritized recreational areas) and report relevant incidents to DWS	NWA (Section 137- establishment of national monitoring systems); NWA Schedule 3 (Sections 72,73 and 151(l(l)) - Powers and duties of Catchment Management Agencies.	GRDM, LM's and DWS	Continuous.	Funded by GRDM, LM's and DWS
Performance Indicators				
(i) Levels of contaminants below the requirements for recreational use; minimum of weekly sampling at fixed sites. Most important is *E. coli* (100 units/100 ml in 80% of samples and 2 000 units/100 ml in 95% of samples).				
(ii) Water quality of aquatic resources is improved.				

(iii) Register of Section 21(f), (g) & (h) water users in terms of the NWA (The establishment of a national information system by the Minister, in terms of Section 139, should assist).
(iv) Inventory and location map of wastewater discharge points or problem sites.
(v) Register of transgressors in terms of water quality standards and monitoring procedures required in terms of the NWA.
(vi) Number of water quality issues within the municipality reported to the Department of Water and Sanitation

Issue 6.2 Contamination of groundwater for human use or consumption at Jongensfontein.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Upgrade sewerage treatment facility at Jongensfontein to prevent further contamination of the groundwater (freshwater springs).	NWA (Chapter 3, Section 19).	Hessequa LM.	2 - 3 years	Municipal infrastructure maintenance budget (IDP)
Performance Indicators				
Upgrade and ongoing maintenance complete and regular monitoring of samples shows no levels of contamination.				

Issue 6.3 Estuaries being deprived of freshwater due to abstraction of groundwater from fountains/springs (Stillbaai) or boreholes, abstraction of water directly from rivers and construction of dams that reduce base flows.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
This is a DWS mandate and requires both authorization for water use and the determination of the Ecological Reserve (should ultimately be incorporated into individual EMPs). This is not a Municipal function, but GRDM and LM can motivate DWS to investigate and carry out Reserve determinations.	NWA (Chapter 4 for water use; Chapter 3, Sections 16 & 17 for the Reserve).	DWS	4 to 5 years	DWS budget for determining water use allowances in estuary

				requirements (Reserve).
Performance Indicators				
Reserve determinations conducted for all catchments and implemented as part of either a catchment management plan or EMP.				

Issue 6.4 Developments in the coastal zone exceed the carrying capacity of water resources for human use or consumption.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Local authorities conduct an audit of water resources available for human use & consumption and restrict developments so as not to exceed their capacity to provide water.	Town planning schemes (SDF), IDPs and water services provision by-laws.	All LMs.	3 to 5 years and ongoing for all future development applications.	R30 000 per LM for internal audit of water capacity.
Performance Indicators				
Report from each LM detailing water resources and capacity to provide for existing demand, with projected capacity to provide for additional demand (10-year projection).				

TABLE CMO 7 - MANAGEMENT STRATEGIES FOR INSTITUTIONAL ARRANGEMENTS				
Issue 7.1 Implementation of the CMP.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Municipal Coastal Committee and sub-committees coordinate and oversee implementation and evaluation (after 5 years) of the CMP (see Chapter 4) and participate in the provincial coastal committee (PCC)	NEM: ICMA (Chapter 5, Section 42)	GRDM (Head: Environmental Management))	Ongoing	R20 000 per year for running costs.
Performance Indicators				
(a) Host and chair the MCC (and sub-committees) on a quarterly basis.				
(b) Participate and attend the PCC, MCC and sub-committees on a quarterly basis. .				

Issue 7.2 Interaction between organs of state (cooperative governance).				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Service level agreements to be entered into between local and district Municipalities, organs of state, parastatals, which clearly define devolved or cooperative responsibilities and funding arrangements, to facilitate the effective implementation of the strategies of the CMP (e.g. coastal access)	Most National and Provincial legislation provides for the devolution of powers to local authorities.	Initiated by GRDM but involving all relevant organs of state.	As required.	Budgets to be determined on a case-by-case basis.
Performance Indicators				
SLAs between organs of state and/or para-statals, e.g., Bitou LM and CapeNature for compliance and enforcement on the Keurbooms/Bitou Estuary; SANParks and Knysna LM for cooperative assistance with breaching of Swartvlei Estuary.				

Issue 7.3 Capacity of Municipal entities to fulfill mandates.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Assessment of existing capacity to fulfill mandates in terms of implementing strategies of the CMP (National and Provincial to do the same in the context of their respective CMPs).	Non applicable.	GRDM and all LMs.	3 years	R20 000 per Municipal entity for assessment.
(b) Increase capacity in areas where it is lacking so that Municipal entities can fulfill their mandates in terms of the Municipal Systems Act. Priorities should be the appointment of LM environmental officers whose mandate it is to oversee coastal management issues, and additional staff in small satellite towns, e.g., Witsand (these staff need to be conversant with coastal management issues and the relevant legislation and be able to liaise with other government institutions on a range of issues).	District & Local Mandates / functions are determined by the Constitution Section 156 (Schedule 4B and 5B) and functions are then divided by Municipal Structures Act, Section 84.	GRDM and all LMs.	3 to 5 years for high-priority strategies; ongoing as required.	Budget depends on the level of Municipal employee and numbers (provision to be made in IDP).
(c) MEC to appoint voluntary coastal officers (any member of the public with appropriate expertise) to perform duties and exercise powers ascribed to them in order to protect and conserve the coastal public property (help alleviate pressure on Municipal capacity).	NEM: ICMA (Chapter 5, Section 43).	MEC in consultation with the MCC to identify candidates.	2 to 5 years.	Voluntary - no budget.
Performance Indicators				
(i) Report from GRDM and LMs detailing their existing capacity and requirements to implement the strategies of the CMP.				
(ii) Appointment of additional Municipal employees to key positions aimed at implementing the strategies of the CMP.				
(iii) Strategies of the CMP are successfully implemented within time frames dictated by the CMP.				
(iv) Voluntary coastal officers appointed with clear mandates (powers and duties) who assist with compliance and enforcement.				

Issue 7.4 Availability of GIS data for spatial planning, EIAs and conservation initiatives.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Establish a central database with the GRDM where all GIS data used to inform spatial planning, EIA assessments (development applications) and conservation initiatives can be accessed from a central location. This will facilitate more efficient dissemination of information and allow for backups of all LM data.	Non applicable.	Initiated by GRDM, but needs cooperation of all LMs.	3 to 5 years, and then ongoing as new data is accumulated.	Initially R100 000 to access (locate) and transfer existing data, and R50 000 per year to update and maintain database.
Performance Indicators				
Functional central database where all GIS data can be accessed from a single location.				

Issue 7.5 Funding for implementation of CMP strategies.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Strategies must be included in the District and LM IDPs so that they can be prioritized and budgets allocated for their implementation.	NEM: ICMA (Chapter 5, Section 42).	GRDM and all LMs.	Depends on time frame allocated in CMP.	Budgets will vary considerably depending on scope and duration of implementing strategy.
Performance Indicators				
CMP strategies are included in the IDP on a priority basis and allocated funds for their implementation.				

Issue 7.6 Dissemination of the CMP.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
In addition to the PPP followed during the development of the CMP (by Garden Route, LM and Rhodes University), Garden Route DM must fulfill its obligations in terms of the NEM: ICMA and MS Act to inform stakeholders of the adoption of the CMP; in addition, they should issue press releases and place notices on their websites and interact with CBOs who can inform local communities.	NEM: ICMA (Chapter 6, Section 48); MS Act (Chapter 4).	GRDM with assistance from LMs and CBOs.	Continuous	R200 000 for media releases and services of CBOs.
Performance Indicators				
All residents of Garden Route are aware of the CMP and given the opportunity to provide comments prior to approval.				

Issue 7.7 Drafting of additional by-laws.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Additional by-laws to be developed for aspects of the CMP at local government level, which do not have existing legislation to assist with their implementation (e.g. horse riding on beaches and dead animal strandings and removal).	NEM: ICMA (Chapter 6, Section 50).	GRDM to take the lead in consultation with LMs.	3 to 5 years.	R50 000 for process to develop by-laws.
Performance Indicators				
All aspects of the CMP not addressed by National or Provincial legislation is addressed by Municipal by-laws.				

TABLE CMO 8 - MANAGEMENT STRATEGIES FOR COMPLIANCE & ENFORCEMENT				
Issue 8.1 Enforce existing legislation and planning schemes				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Municipal entities to enforce existing (and newly developed) by-laws and planning schemes (SDFs), and relevant National (e.g. NWA; EIA Regulations) and Provincial (e.g. Western Cape SDF) legislation and strategies. Existing legislation and strategies address most issues relevant to coastal management, and it is not the purpose of the CMP to reinvent the wheel - compliance should ensure that the ideals of the CMP are realized.	All by-laws and sections of National and Provincial legislation ascribed to local authorities; Municipal SDFs; and aspects of legislation devolved to local authorities by National and Province.	All GRDM and LM departments with mandates to enforce by-laws, SDFs and National and Provincial responsibilities devolved to the Municipal level.	Continuous	Budgets will vary considerably - need to consider additional manpower, capital equipment and maintenance costs.
Performance Indicators				
(i) Number of incidents of non-compliance are reduced.				
(ii) No deviations from town planning schemes and the SDF.				

Issue 8.2 Incidents of non-compliance with National and Provincial legislation.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Municipal entities report incidents of non-compliance to relevant National and Provincial organs of state for further action.	All aspects of National and Provincial legislation pertaining to	GRDM and all LMs.	Continuous	No cost.

	activities in the coastal zone.			
Performance Indicators				
Official record of cases logged with National and Provincial authorities.				

Issue 8.3 Illegal structures and activities in the coastal public property and coastal protection zone.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Conduct a survey of the coastal public property and coastal protection zone to verify all illegal structures and activities (e.g. non-compliance with ROD conditions on approved developments/activities, buildings, roads, fences, illegal access sites, bulldozing of dunes for views [Stilbaai East] and *ad hoc* protection measures) and then issue repair or removal notices (use CapeNature data base and GRDM aerial survey as starting point).	NEM: ICMA (Chapter 7, Section 60); Sea Shore Act (Section 10); NEMA (Chapter 7, Section 28).	DEA&DP to take lead with cooperation from GRDM, all LMs and CapeNature.	From 1st year and ongoing.	R200 000 for survey (may appoint service provider); cost of repair or removal covered by transgressors.
Performance Indicators				
(i) Data base of all illegal structures and activities in the coastal protection zone and coastal public property.				
(ii) Issued repair or removal notices and compliance with their conditions.				

Issue 8.4 Municipal courts.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Investigate the feasibility of establishing Municipal-based courts for the prosecution of alleged offenders with regards Municipal By-laws and town planning schemes.	CP Act.	GRDM to liaise with Department of Justice.	3 to 5 years.	No cost.
Performance Indicators				
(i) Records of meetings and outcomes with the Department of Justice.				
(ii) Ultimately, the success will be measured in the establishment of Municipal-based court (similar to those used to address traffic offences).				

Issue 8.5 Enforcement capacity EMIs in the Garden Route				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
a) Officials to attend the Environmental Management Inspector Training and to be designated in terms of NEM: ICMA, MLRA and other relevant legislation and attendance at EMI Lekogtla's	NEM: ICMA and relevant legislation	Officials, DEA&DP, and DFFE	Continuous.	TBC
b) Enforcement capacity, EMI and FCO training, Partnering in Blitz operations, planning of blitzs.	NEM: ICMA and relevant legislation	Officials, DEA&DP, and DFFE	Continuous.	
c) GRDM to motivate to relevant authorities for relevant compliance and enforcement training in the Garden Route district (EMI, FCO, J534, Case flow, etc.)	ICMA Act, MLRA and relevant legislation	GRDM, LM's, DEA&DP, and DFFE	Continuous.	TBC
Performance Indicators				

a) Number of EMIs appointed in the Garden Route
b) Number of officials trained

TABLE CMO 9 - MANAGEMENT STRATEGIES FOR EDUCATION & AWARENESS				
Issue 9.1 Create awareness of coastal management issues and solutions.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Initiate a series of workshops aimed at creating an awareness amongst the public of the legislation applicable to coastal management (NEM: ICMA, NEMA, EIA Regulations and ORV Regulations in particular), the issues impacting on coastal management and their rights in this regard (e.g. public access issues), and the role they can play in caring for the environment (reference to environment throughout this CMO section includes heritage resources).	None.	GDM, LM's, with support from DEA&DP and DFFE	Continuous	R5 000 per workshop (transport and refreshments; municipal venues used at no cost).
(b) Initiate in-house workshops for Municipal employees tasked with implementing strategies in the CMP in order to foster a better understanding of coastal functioning and the need (urgency) for management interventions.	None.	GRDM and LM's.	Continuous.	R2 500 per workshop (transport for GRDM presenter and refreshments; certificates of attendance).
Performance Indicators				
(i) Content for workshops developed and workshops held at all communities (maintain record of proceedings and attendance).				
(ii) Content for workshops developed and workshops held at all LMs (maintain record of proceedings and attendance; issue certificates to attendees).				
(c) Environmental education should become a part of the National education strategy so that future generations are exposed to a culture of environmental responsibility from an early age.	None.	Important action, but clearly a national mandate.	Once NCMP is developed.	Not applicable.
Performance Indicators				

Non applicable to this CMP.				
(d) Facilitate access to schools for civic organizations and environmental groups (e.g. birding clubs, environmental forums) in order to educate learners and create awareness of environmental issues, initiatives and responsibilities.	None.	LM's (with support from GRDM, DEA&DP, DFFE: LGS).	2 to 4 years.	Not applicable.
Performance Indicators				
Non applicable to this CMP.				
(e) Involve communities and local schools in environmental awareness initiatives such as beach clean ups, arbor day, marine week etc.	None.	GRDM to take lead in coordination, with implementation by LM's and support from DEA&DP, DFFE, and NGOs).	Ongoing.	Transport and refreshments costs for school children (R5 000 per outing).
Performance Indicators				
Participation of communities and schools in environmental awareness initiatives.				
(f) Erect signboards in key recreation areas (and posters at schools, community halls and public libraries) that provide basic (but essential) information about Garden Route's (and LMs) role in environmental issues, the CMP and contributions that individuals (or groups) can make towards conserving and enhancing the coastal environment. Signboards and posters should be predominantly visual for easier communication and understanding.	GRDM and LM Outdoor advertising and signage by-laws.	LM's, with support from GRDM.	2 to 5 years.	R5 000 per signboard (funds possibly from National DFFE or Provincial DEA&DP).
Performance Indicators				
Erection of signboards at all major public access sites.				

(g) Coastal access sites must include clear information (e.g. signage) to manage access-related impact for visitors. Municipalities should seek partnerships to enable this.	ICMA and municipal coastal access bylaw	GRDM and LM's	Continuous.	Depending on financial capacity
Performance Indicators				
Adequate information has been provided at coastal access sites.				

Issue 9.2 Education of public prior to issuing of recreational fishing licenses.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
GRDM to elevate to DFFE the need to educate recreational fishers with regards the MLRA regulations. GRDM and local Municipalities to support this education through distribution of pamphlets.	Regulations under the MLRA.	GRDM and National DFFE.	Not applicable.	Not applicable.
Performance Indicators				
Pamphlets available to users.				

Issue 9.3 Education of the judiciary with regards the severity of environmental transgressions.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Transgressions of environmental laws need to be placed in context and given a high-profile (such as Rhino or abalone poaching) so that courts deal more harshly with transgressors.	None.	National issue with responsibility to be assigned under the	Not applicable.	Not applicable.

		National CMP.		
Performance Indicators				
Not applicable to Municipal CMP.				

TABLE CMO 10 - MANAGEMENT STRATEGIES FOR ECONOMIC DEVELOPMENT				
Issue 10.1 Promote private sector investment.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
GRDM to host a workshop with business leaders to develop a strategy for encouraging private sector investment ("banking, insurance industry, including landowners"). Opportunities need to be identified, and an enabling environment created (balance between environment and development and facilitation of bureaucratic processes) that inspires confidence amongst potential investors.	None.	GRDM in consultation with DEA&DP, Municipal LED bodies and possibly Dept. Trade & Industry.	3 to 5 years.	R50 000 for preparation advertising and hosting of workshop.
Performance Indicators				
Successful workshop indicated good attendance and an outcome in terms of an investment strategy.				

Issue 10.1 Mariculture opportunities and development of Stilbaai harbor.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Prioritize investigations into the feasibility of offshore cage culture (mariculture) for fin fish (as has happened in Port Elizabeth) and the development of the Stilbaai harbor (e.g. heritage museum, marine-based excursions, aquarium etc.).	For mariculture - MLRA (Chapter 1, Section 2; Chapter 3, Section 18; Chapter 8, Section 77).	GRDM to facilitate negotiations with DFFE: Fisheries and DFFE (for mariculture) and Dept. Public Works for Stilbaai harbor and to appoint service providers to conduct feasibility studies.	2 to 4 years.	R300 000 for each feasibility study.
Performance Indicators				

Buy-in from DFFE and Dept. Public Works and completed feasibility reports from service providers.

Issue 10.2 Micro-economic activities and opportunities.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Encourage and facilitate micro-economic activities that empower previously disadvantaged communities (e.g. tourism guides, heritage tours and guides and street vendors/informal traders).	By-law for informal trading; Municipal economic development strategies as part of IDPs.	LED and tourism departments within GRDM, in consultation with LMs (can also interact with NGOs and CBOs).	2 to 5 years and ongoing as additional opportunities arise.	Unknown, but financial aid to assist with starting up activities may be required.
Performance Indicators				
Increase in the number of informal traders and increased involvement of PDIs in the tourism industry.				

TABLE CMO 11 - MANAGEMENT STRATEGIES FOR TOURISM AND RECREATION				
Issue 11.1 Additional and maintained coastal access to stimulate tourism				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Identify coastal access land that will stimulate the tourism potential of the coastal region. Designation of coastal access land as per CMO 1: Issue 1.2(c).	NEM: ICMA (Chapter 2, Part 3, Sections 18 to 20); ORV Regulations (for vehicle access) and EIA Regulations (for listed activities and impact assessments); Municipal Structures Act: Section 84.1(m) for promotion of local tourism by DM.	GRDM and LM's	2 to 5 years (after completion of Issues 1.2a and b)	R300 000 per Municipality for assessment; cost for negotiation, designation and maintenance unknown.
(b) Include designated coastal access land in SDFs.	NEM: ICMA (Section 20).	All Municipalities.	3 years (or next SDF review period)	As part of the SDF budget.
Performance Indicators				
(i) Report detailing desired additional coastal access land and impact assessment.				
(ii) Designation of coastal access land with associated infrastructure (e.g. waste bins, parking, ablutions and disabled persons access) and maintenance management plan.				
(iii) Designated coastal access land in SDFs.				

(c) Maintain coastal access points (e.g. infrastructure and paths) to ensure that the tourism potential of the area is not negatively impacted.	NEM: ICMA (Chapter 2, Part 3, Sections 18 to 20); Municipal Structures Act: Section 84.1(m) for promotion of local tourism by DM.	All LM to maintain.	Ongoing.	Maintenance costs unknown at this stage.
Performance Indicators				
(i) Inventory and map of designated coastal access land that requires ongoing maintenance.				
(ii) Identified as an ongoing IDP project and budget made available.				
(d) GRDM and local Municipalities commit to and support the public launch sites listing process	Public launch sites Regulations.	Local municipality, district municipality and DEA&DP.	1 to 2 years	Municipal budgets.
(e) GRDM and local Municipalities to finalize and implement the operational plans for registered public launch sites.	Public launch sites Regulations.	Local municipality, district municipality and DEA&DP.	1 to 2 years	R30 000 for each management plan at each launch site.
Performance Indicators				
(i) Public launch sites published.				
(ii) Operational plans for all public launch sites implemented.				

Issue 11.2 Provide recreational activities within the coastal zone				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Identify and map coastal recreational use areas for various activities, such as bird watching, hiking trails, running, cycling, horse riding, shore-based whale watching, scuba diving and jet skiing. Some recreational activities will be compatible while others will be incompatible, for example beach horse riding and swimming, jet skiing and scuba diving or whale watching. These areas should correlate with the designated coastal access land outside of urban edges to reduce cumulative impacts and to prevent disturbance of sensitive coastal areas (see CMO 1: Issues 1.1 to 1.3).	Constitution (Section 156, Schedule 5B: Beaches and amusement facilities). Municipal Structures Act (Section 84.1(m) for promotion of local tourism by GRDM.	All LM to appoint service provider to identify and assess areas. Garden Route DM to assist.	3 to 5 years	R200 000 for a DM survey or R40 000 per LM (includes development of EMPs).
(b) Liaise with landowners for rights of access and overnight accommodation, where required, including local entrepreneurs or businesses, to promote activities (i.e. scuba, cycling, horse riding) as part of the process of identifying and mapping feasible areas.	As above	As above	3 to 5 years	Part of budget detailed above.
(c) Develop environmental management plans for the various recreational use areas and identify infrastructure needs for the various activities, such as walkways along the beachfront, tow paths along estuaries, whale watching viewpoints, hides for bird watching, paths for hiking, running, cycling and horse riding.	As above	As above	3 to 5 years	Part of budget detailed above.
(d) Promote local economic development (LED) in this regard and increase business activity by compiling brochures on local investment opportunities and promoting this as a tourism theme or activity.	As above	All LM's and GRDM.	3 to 5 years	R40 000 for production and distribution of brochures.
(e) Lobby the national and provincial tourism organizations to promote these local tourist activities/facilities to the international and national market.	As above	As above	3 to 5 years	Unknown.

(f) Incorporate the mapped areas into municipal SDFs	NEM: ICMA (Section 42(4)(e) and Section 48(4)).	All Municipalities (in house or appoint consultants as part of the SDF review process).	Subsequent to (a) and (b), during the next SDF review cycle	Cost part of Municipal SDF review.
Performance Indicators				
(i) Document that details and maps coastal recreational use areas.				
(ii) Environmental Management Plans developed.				
(iii) Municipal LED Programme identifies projects and funding (e.g. LED fund, Consolidated Municipal Infrastructure Programme, Development Bank of South Africa) for recreational use areas.				
(iv) Brochures developed.				

Issue 11.3 Promote organized events				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Increase the number of organized sport events (e.g. triathlons, X-terra etc.) and festivals, such as the Oyster Festival, by liaising with the relevant organizations.	Municipal Structures Act (Section 84.1(m) for promotion of local tourism by GRDM).	LMs and GRDM, in consultation / collaboration with NGO's and tourism departments.	3 to 5 years	Unknown.
(b) Advertise such events to increase participation (e.g. brochures, tourism websites, newspapers, Garden Route FM radio).	Municipal Structures Act (Section 84.1(m) promotion of local tourism by DM)	LMs and GRDM, in consultation / collaboration with NGO's and	3 to 5 years	R30 000 for brochures and advertising costs each year.

		tourism departments.		
Performance Indicators				
(i) Annual programme of organized events.				
(ii) Materials developed to advertise events.				

Issue 11.4 Certification and eco label programmes				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) GRDM and LMs to participate in the relevant certification and eco label programmes (e.g. WESSA Blue Flag/green coast) identification of new sites and maintenance of existing sites.	Constitution (Section 156, Schedule 5B: Beaches and amusement facilities). Municipal Structures Act (Section 84.1(m) for the promotion of local tourism by GRDM).	LMs to pursue options within their jurisdiction.	Continuous	Cost of building and maintaining infrastructure, lifeguards etc. will be highly variable.
Performance Indicators				
(i) Certification or eco label secured for relevant coastal features (e.g. Beach, marina estuary) and list published.				

Issue 11.5 Safety and security				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Procure budget to deploy lifeguards at identified beaches to ensure swimmers' safety.	Constitution (Section 156, Schedule 5B: Beaches and amusement facilities). Municipal Structures Act (Section 84.1(m) for the promotion of local tourism by GRDM).	All LM, in collaboration with Garden Route DM.	Continuous	Municipal budgets
(b) Procure budget to deploy security personnel at identified beaches to ensure security of people and property (vehicles).	As above	As above	Continuous	Municipal budgets
Performance Indicators				
(i) IDP reflects both lifeguard and security forces as a project with funds allocated.				
(iii) Presence of lifeguards and security personnel increased, with an increase in staff numbers over time.				

Issue 11.6 Dogs and beaches				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Designate dog friendly beaches to prevent the indiscriminate closure of beaches to owners and their dogs, which takes into account sensitive coastal environments. Final beach selection should be determined during the IDP Public Participation Process (PPP) or other form of PPP. Three categories should be considered - no dogs on Blue Flag beaches, dogs on leashes in areas with lots of other users or near to bird nesting sites and no leash required in more remote areas.	Constitution (Section 156, Schedule 5B: Beaches and amusement facilities). (Note that Garden	All LMs and responsible management authorities.	Continuous (and next IDP review)	R30 000 for PPP for each LM.

	Route DM Public Amenities By-Law, in part, controls dogs in beaches).			
(b) Develop a coastal by-law in which dogs are prevented access to sensitive coastal areas and/or rules of conduct are developed to prevent disturbance to sensitive coastal areas, e.g. around bird nesting colonies. The by-law should indicate general rules of conduct.	NEM: ICMA (Section 51); Constitution (Section 156, Schedule 5B: Beaches and amusement facilities). (Note that Garden Route DM Public Amenities By-Law, in part, controls dogs on beaches).	LMs for site-specific regulations.	Continuous	R40 000 for development of By-laws.
Performance Indicators				
(i) A database and map of dog friendly beaches.				
(ii) A coastal by-law is developed in which dogs are prevented access to sensitive coastal areas and/or rules of conduct are developed to prevent disturbance to sensitive coastal areas, such as bird nesting colonies; and other general rules of conduct.				

Issue 11.7 Use of the beach by horses.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Develop by-laws that provide for the use of public beaches (excluding Blue Flag beaches) by horses (private use and commercial ventures), stipulating specific areas, times and clean-up requirements so as to minimize interference with other activities. Facilities for parking (car and horse-trailer) must be a requirement.	NEM: ICMA (Section 50).	LMs to identify areas and assist with Regulations.	3 to 5 years.	R40 000 for development of By-laws.

Performance Indicators
By-laws drafted and horses allowed on selected non-Blue Flag beaches at specific times under strict conditions.

Issue 11.8 Access to harbours				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) GRDM and local Municipalities will liaise with Department of Public Works and Infrastructure, DFFE and National Ports Authority (managing authority of the port) to provide access to harbours where access is currently closed to the public, e.g. at Mossel Bay.	Constitution (Section 156, Schedule 4B: pontoons, ferries, jetties, piers and harbours).	GRDM and LMs.	Continuous	Unknown.
(b) Identify LED projects that could enhance tourism activities in harbours i.e. tour guides, boating trips.	Constitution (Section 156, Schedule 4B: Local Tourism) Municipal Structures Act (Section 84.1(m) for the promotion of local tourism by GRDM).	All LM, in collaboration with Garden Route DM.	Continuous	Unknown.
Performance Indicators				
(i) Access to harbours is gained.				
(ii) IDP project and funding identified for LED projects.				

Issue 11.9 Tourism websites				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Upgrade and maintain tourism websites; Garden Route needs to be branded and marketed as a destination for eco-friendly, non-consumptive activities in the coastal zone.	Constitution (Section 156, Schedule 4B: Local Tourism) Municipal Structures Act (Section 84.1(m) for the promotion of local tourism by GRDM).	GRDM and LMs.	Continuous	In-house or external service provider (R20 000 per year per website).
Performance Indicators				
All websites are upgraded and maintained.				

Issue 11.10 Maintain the coastal 'Sense of Place' to benefit tourism				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Protect biodiversity and landscapes to maintain the coastal 'sense of place' to ensure that the tourism potential of the area is not negatively affected. Various mechanisms are available, for example conservation mechanisms (namely: NEM: PAA, WC NCLA, stewardship agreements), appropriate land use, protection of heritage resources and invasive alien species control. Refer to CMO 2, Issue 2.5.	NEM: ICMA, NEMA, NEM:BA, NWA etc.; Municipal Structures Act (Section 84.1(m).	Various stakeholders. Refer to CMO 2, Issue 2.5.	Continuous	Unknown.
Performance Indicators				
Refer to CMO 2, Issue 2.5.				

Issue 11.11 Enable sustainable jet-skis management.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
LM's and GRDM to elevate the need for coastal and estuarine Jet-skis management framework to the relevant authority and to support its implementation.	NEM: ICMA, NEMA, NEM:BA, NWA etc.; Municipal Structures Act (Section 84.1(m), public Amenities By-laws.	LM's and GRDM.	3 to 5 years.	Unknown.
Performance Indicators				
By-laws drafted to allow jet-skis access to launch sites to proceed to and back from sea.				

TABLE CMO 12 - MANAGEMENT STRATEGIES FOR SUSTAINABLE LIVELIHOODS				
Issue 12.1 Existing activities need to be controlled and additional opportunities explored.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
(a) Existing subsistence and small-scale commercial fisheries must be evaluated and regulated (number of participants, quotas and area of operation) so as protect scarce marine resources and allow sustainable utilization of target species.	MLRA (Chapter 3, Part 1 Section 14 and Part 2 Sections 18 and 19.	Regulating resource use will contribute to the overall Vision for Garden Route, however, this action is the mandate of National DFFE and must be dealt with by the NCMP.	3 to 5 years	Not applicable.
(b) New opportunities for subsistence and small-scale commercial fishers should be explored based on available resources and research aimed at ensuring sustainable utilization (number of licenses, area of operation, quotas and target species).				
Performance Indicators				
To be determined by the NCMP.				

TABLE CMO 13 - MANAGEMENT STRATEGIES FOR RESEARCH				
Issue 13.1 Management decisions based on sound scientific research.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Garden Route to inform research institutions to conduct research aimed at solving specific problems, e.g. estuary breaching, erosion and accretion prevention, reserve assessments, socio-economic impact of setback lines, resource protection, biodiversity enhancement and environmental impact of coastal access land. Monitoring initiatives to be conducted e.g.beach monitoring through regular surveys, patrols, inspections, and other information gathering technologies.	South Africa's National Research and Development Strategy, 2002	GRDM, SANParks Scientific Services, CapeNature researchers, DFFE researchers, and research institutions / NGO's	Ongoing	Depending on organizational resources – funding of issue-specific research (with assistance from Province or National) or other funding mechanism. Costs will vary depending on scope of work.
Performance Indicators				
Proof that management decisions have been based on sound scientific data and evidence (e.g. reference to work published in primary and popular scientific publications).				

Issue 13.2 Non-consumptive use within the coastal zone.				
Actions	**Legislation**	**Mandate**	**Timeframe**	**Budget**
Motivate for an assessment of non-consumptive recreational activity opportunities within the Garden Route coastal zone. Both the potential for the establishment of new opportunities and expansion of existing ventures must be assessed. Examples include linking and expanding hiking (trail running) & biking trails between SANParks areas and private property, SCUBA diving within MPAs, bird watching, whale watching, horse riding trails etc. Consultation with all affected parties (e.g. landowners, service providers, tourism) is paramount. This can be used to inform the Tourism strategy 11.2a described in the CMO11 table.	Non applicable, but any new venture must adhere to all legislative requirements.	GRDM to draft TOR and call for proposals from suitable organizations.	3 to 5 years.	Unknown, but possibly in the region of R300 000.
Performance Indicators				

Initially a Draft framework and TOR developed by Garden Route DM, followed by completed Report with recommendations by service provider.

4.1 The Monitoring of Implementation Actions

4.1.1 Municipal Coastal Committees

The monitoring of the implementation of the Garden Route district Coastal Management Programme (CMP) will be the responsibility of a Municipal Coastal Committee (MCC) that is representative of all stakeholders. At present, the Garden Route District chairs the Garden Route District MCC. The function of the MCC is to facilitate the implementation and evaluation/audit (after five years) of the CMP, and to provide a forum where issues can be raised and discussed in a transparent manner. In this way, all management decisions are made collectively with the full participation and knowledge of all stakeholder groups.

4.1.2 Legislative Context of a Municipal Coastal Committee

In accordance with Chapter 5, Section 42 of the NEM: ICMA, the establishment and functions of an MCC are as follows:

1. Each metropolitan municipality and each district municipality that has jurisdiction over any part of the coastal zone ***may establish*** [1]a coastal committee for the municipality and, subject to subsection (4), determine its powers.

2. Any local municipality that has jurisdiction over any part of the coastal zone ***may establish*** a coastal committee for the municipality and subject to subsection (4) determine its powers, which may include the power to establish local subcommittees of the municipal coastal committee.

3. A municipal coastal committee contemplated in subsections (1) and (2) may include:

    a. persons with expertise in fields relevant to coastal management;
    b. representatives of the management authorities of coastal protected areas or special management areas within the municipality; and
    c. representatives of communities or organizations with a particular interest in contributing to effective coastal management, such as port authorities, organs of state, persons whose livelihoods or businesses rely on the use of coastal resources, environmental interest groups and research organizations.

A municipal coastal committee contemplated in subsections (1) and (2) may:

    d. Promote integrated coastal management in the municipality and the coordinated and effective implementation of this Act and the municipal coastal management programme;

[1] Note that this implies that a Municipality is not obliged to establish a committee, but may choose to use existing structures, committees or organizations to implement the CMP. This differs from the National and Provincial CMPs, which must establish such committees.

e. Advise the municipal manager, the municipal council and the provincial coastal committee on matters concerning coastal management within the area of jurisdiction of the municipal coastal committee;

f. Advise the municipality on developing, finalizing, reviewing and amending the municipal coastal management programme;

g. Promote a coordinated, inclusive and integrated approach to coastal management within the municipality by providing a forum for, and promoting, dialogue, co-operation and co-ordination between the key organs of state and other people involved in coastal management within its area of jurisdiction;

h. Promote the integration of coastal management concerns and objectives into the municipality's integrated development plan and spatial development framework and into other municipal plans, programmes and policies that affect the coastal environment; and

i. Perform any coastal governance function delegated to it.

4.1.3 Garden Route District Municipal Coastal Committee

In order for the Garden Route district Municipal Coastal Committee (MCC) to function effectively, one must guard against it comprising too many members. For example, if every angling club (deep-sea and rock & surf) were to be represented, their numbers alone would be close to 20. The same applies to ratepayers and homeowners' associations. Instead, it is proposed that the MCC comprise mainly organs of state and para-statals (managers and decision-makers) and in accordance with sub-section 2 of Section 42 of the NEM: ICMA (see Section 4.2), sub-committees are set up that would comprise and represent the vast collection of different interest groups. The chairman of these sub-committees would then attend the MCC meetings and must be mandated to report back to their representative groups. Initially, sub-committees may be established to represent each of the coastal management objectives (see Chapter 2, Section 2.2), and can later be refined.

Based on this format and the other legal requirements detailed above, it is recommended that the following stakeholders are included on the MCC (non-exhaustive) (* denotes those who may not be required to attend all MCC meetings, but only those when items within their mandate or interest are on the Agenda):

- Garden Route District Municipality (lead authority and initial chair);
- Local (B) Municipalities of Bitou, Knysna, George, Mossel Bay and Hessequa (Additional representatives from the many Municipal Departments may be requested to attend depending on Agenda items);
- SANParks;
- CapeNature;
- Department of Environmental Affairs (Branches of Oceans & Coast and Biodiversity & Conservation);
- Department of Environmental Affairs and Development Planning (representative from Coastal Management in Cape Town and from regional office in George);

- Department of Water and Sanitation;
- Department of Forestry, Fisheries and the Environment (representative from each Department);
- Department of Minerals and Energy (including Mossgas/Petro-SA)*;
- Department of Trade & Industry*;
- Department of Public Works*;
- National and Provincial Heritage Resources Agencies*;
- South African Maritime Safety Authority*;
- Transnet: National Ports Authority*;
- Gouritz Cluster Biosphere Reserve;
- Ward Councillors;
- Provincial Coastal Committee (chairman or delegated representative);
- Estuary Management Forum (EMF) chairpersons (EMFs should be regarded as advisory bodies that assist the MCC in implementing individual EMPs; as per Section 9 of the Estuarine Management Protocol);
- Sub-committee chairpersons;
- WWF-SA;
- WESSA;
- Overberg and Cacadu District MCC chairpersons (once established). In the interim, representatives from the neighboring local Kouga (east) and Overberg (west) Municipalities may be included;
- Specialists, consultants or academics/scientists on an *ad hoc* basis and in an advisory capacity as required.

In addition to the formal structure and functioning of the MCC, it is important to recognize the value of not only scientific knowledge (for monitoring and informing management interventions) but that of informal knowledge or so-called ‘citizen’s science’. Opportunities should be created and recognized where local knowledge and capacity amongst civil society and civic organizations can make meaningful contributions. Members of the public can be used for data collection, for monitoring purposes and for consultations prior to management considerations. In this regard, the expertise within civic-based institutions such as bird clubs, hiking clubs and estuary & environmental forums should be embraced.

The MCC will report to the PCC through appropriate vehicles such as a written feedback, presentation and verbal input on a quarterly basis. The implementation of the MCMP will be tracked through an annual report on implementation. This will ensure that the Municipality and partners can respond to the required activities and challenges identified during the implementation year.

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APPENDIX 1: Garden Route District Coastal Environment Description

1.1 Bio-Physical Description

The GRDM coastal and marine environment is located along the southern coastline of South Africa and within the Agulhas inshore bioregion. The southern coastline extends from Cape Agulhas to Port Elizabeth, whereas the Agulhas inshore bioregion stretches from Cape Point to the Mbashe River in the east. The Agulhas inshore bioregion is one of five distinct marine bio-geographic zones in the country. Each bioregion presents a distinct biodiversity profile due to bioregional differences in physical oceanography (Maree and Vromans, 2010). The Agulhas bioregion reflects the highest number of endemic fish species compared with the other bioregions (Lombard, *et al*., 2004).

The coastline experiences strong wave action owing to its exposure to the south- westerly ocean swells. A relatively shallow bank extends almost 250 km out to sea, known as the Agulhas Bank. As part of the continental shelf, this bank is of key biological importance, influenced by warm water plumes from the Agulhas current, as well as cold, nutrient-rich 'bottom' water upwelling from the Benguela current. As a consequence, sea temperatures and productivity on the Agulhas Bank are intermediate between those of the west and east coast marine systems. The area supports a variety of marine mammals, seabirds, reef fish, deep water and open ocean fish, as well as shellfish; and is the centre of the South African fishing industry (Vromans, *et al*., 2010).

The coastline is characterised by a rocky shoreline interspersed with bays, sandy beaches, dunes, rivers, river mouths, estuaries and lakes. Intertidal geological habitats are comprised of exposed rocky shorelines, including boulders on sand, mixed shores and intermediate sandy shores. Numerous Vulnerable, Threatened or Endangered bird species populate intertidal sandy beaches, while the endemic and endangered pansy shell (*Echinodiscus bisperforatus*) inhabits sandy intertidal and subtidal areas around Plettenberg Bay. Major dune fields include, from west to east, Rietvlei dune cliffs, Vleesbaai dunes, Wilderness Buffalo Bay dunes, and the Plettenberg Bay – Keurboom dunes. Reef fish abundance is high for most of the coastline (Clark and Lombard, 2007).

There are 21 estuaries in the Garden Route District coastline. They are warm temperate estuaries and are mainly permanently open systems with a few being temporarily open/closed systems, such as the Blinde and Goukamma estuaries, whereas the Wilderness Lakes is an estuarine lake system. The Bloukrans is classified as a river mouth and therefore not included as an estuary. Some rare and endangered fish and bird species are associated with the estuaries. For example, the edangered and endemic Knysna Seahorse (*Hippocampus capensis*) inhabits the Knysna and Keurbooms/Bitou Estuaries (also Klein Brak and Swartvlei historically but not anymore), while the endangered Blue Crane (*Anthropooedes paradisea*) frequents the Kaaimans Estuary. Estuaries also play a vital role in the life history of many threatened linefish species such as dusky kob (*Argyrosomus japonicus*), white steenbras (*Litjhognathus lithognathus*) and leervis (*Lichia amia*). The Knysna Estuary is ranked number one in South Africa in terms of its conservation importance (Turpie and Clark, 2007). A number

of important wetlands have been mapped along the coastal zone, ranging from seep, to valley bottom, floodplain and depressional wetland types, each with a distinct species composition (Job et al., 2008; Nel *et al*., 2011).

Fynbos, forest, thicket and azonal vegetation types grow along the GRDM coastline, with fynbos being the most widespread. According to Mucina *et al*. (2005) and Mucina and Rutherford (2006), there are 21 national vegetation types, including two waterbody types, known as Cape Coastal Lagoons and Freshwater Lakes. Half of the 21 national vegetation types are Threatened Ecosystems, with two categorized as Critically Endangered, five as Endangered and four as Vulnerable. Threatened Ecosystems that are listed in terms of NEM: BA include Cape Lowland Alluvial Vegetation, Eastern Coastal Shale Band Vegetation, Garden Route Granite Fynbos, Garden Route Shale Fynbos, Groot Brak Dune Strandveld, and Knysna Sand Fynbos. Canca Limestone Fynbos is endemic to the Hessequa and Mosselbay Municipalities, occurring nowhere else in the world. The vegetation types have been further subdivided into finer-scale sub-types (Vlok and de Villiers, 2007; Vlok *et al*., 2008). Numerous endemic plant and animal species are associated with the vegetation types, as well as rare and endangered organisms, such as the Critically Endangered *Disa newdigateae*, the Vulnerable Blue duiker (*Philantombo monticola*) and the Critically Endangered Brenton Blue Butterfly (*Orachrysops niobe*).

1.2 Critical Biodiversity Area Maps

Fine-scale Critical Biodiversity Area (CBA) Maps (1:10 000) have been developed for all the coastal Municipalities within the Garden Route District Municipality (Appendix 5). The CBA maps identify priority biodiversity areas that require protection, guide sustainable development by providing biodiversity information to decision makers, serve as the common reference for all multi-sectoral planning procedures (e.g. Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), Environmental Management Frameworks (EMFs) and Environmental Impact Assessments (EIAs), and are the precursors to NEM: BA published bioregional plans.

The CBA Maps divide the landscape into Protected Areas (PAs); Critical Biodiversity Areas (CBA's) (terrestrial and aquatic, with buffers), Ecological Support Areas (ESA) (Critical ESA and Other ESA, with buffers), Other Natural Areas and No Natural Areas Remaining (or No Remaining Natural Areas). A number of marine CBAs are delineated within the area stretching from Kaaimans Mouth to the Tsitsikamma portion of the Garden Route National Park. These are as follows (from west to east):

- The Kaaimans River Mouth, to the west of Wilderness (George Municipality);
- The area from Wilderness, just west of the Touws River mouth through to Platbank, just east of Sedgefield. This area includes the dune area of the Groenvlei-Swartvlei mouth, which could be incorporated with the westward extension of the Goukamma Nature Reserve, a formal Protected Area (spans both the George and Knysna municipal areas);
- The area extending from just east of Buffels Bay to Brenton-on-Sea (Knysna Municipality);
- A marine extension of the Knysna Heads (Knysna Municipality);

- The area from Noetsie to Toegroeiberg, east of Kranshoek (Knysna and Bitou Municipalities);
- The marine extension of the Piesangs River Mouth at Plettenberg Bay (Bitou Municipality);
- The marine extension of the mouth of the Keurbooms Estuary (Bitou Municipality);
- The area extending from east of Keurboomstrand to the western boundary of the Tsitsikamma National Park (Bitou Municipality).

Table 6: The national vegetation types that occur along the Garden Route district coastline (Mucina and Rutherford, 2006).

SA Vegetation type	Biodiversity Target	Protection status (% protected)	Ecosystem Status	Biome	Municipality
1. Albertinia Sand Fynbos	32%	5.4% (+2.3%)	Vulnerable	Fynbos	Hessequa, Mosselbay,
2. Blombos Strandveld	36%	20.7% (+11.1%)	Least Threatened	Fynbos	Hessequa
3. Canca Limestone Fynbos	32%	0.1% (+3.1%)	Least Threatened	Fynbos	Hessequa, Mosselbay,
4. Cape Estuarine Salt Marshes	24%	22.8% (+3%)	Least Threatened	Azonal Vegetation	Knysna, Bitou
5. Cape Lowland Freshwater Wetlands	24%	16% (+2.1%)	Least Threatened	Azonal Vegetation	George, Bitou
6. Cape Lowland Alluvial Vegetation	31%	0.9%	Critically Endangered	Azonal Vegetation	Hessequa
7. Cape Seashore Vegetation	20%	44.5% (+1.3%)	Least Threatened	Azonal Vegetation	Hessequa, Mosselbay, George, Bitou
8. Central Coastal Shale Band Vegetation	27%	abt.25% (+42.5%)	Least Threatened	Fynbos	Mosselbay
9. Eastern Coastal Shale Band Vegetation	27%	16.1% (+5.2%)	Endangered	Fynbos	Bitou
10. Eastern Rûens Shale Renosterveld	27%	0.3%	Critically Endangered	Fynbos	Hessequa
11. Garden Route Granite Fynbos	23%	1.3%	Endangered	Fynbos	Mosselbay, George, Knysna
12. Garden Route Shale Fynbos	23%	5% (+3%)	Endangered	Fynbos	George, Knysna Bitou
13. Groot Brak Dune Strandveld	36%	0% (+0.7%)	Endangered	Fynbos	Mosselbay, George
14. Knysna Sand Fynbos	23%	3.2% (+2%)	Endangered	Fynbos	Knysna, Bitou

15. North Langeberg Sandstone Fynbos	30%	13.3% (+44.6%)	Least Threatened	Fynbos	Mosselbay,
16. South Outeniqua Sandstone Fynbos	23%	47.3%	Vulnerable	Fynbos	Knysna, Bitou
17. Southern Afrotemperate Forest	34%	59.7%	Least Threatened	Forests	George, Knysna, Bitou
18. Southern Cape Dune Fynbos	36%	> 16% (+3.5%)	Least Threatened	Fynbos	George, Knysna
19. Southern Cape Valley Thicket	19%	0.1% (+1%)	Vulnerable	Albany Thicket	Hessequa
20. Southern Coastal Forest	40%	53.4% (+0.8%)	Least Threatened	Forests	Knysna, Bitou
21. Tsitsikamma Sandstone Fynbos	23%	about 40%	Vulnerable	Fynbos	Bitou

PAs, CBAs and ESAs represent the biodiversity priority areas and should be managed in a natural to near-natural state. Each category has been assigned a Desired Management Objective, ranging from rehabilitation and no further degradation (for PAs, CBAs), to maintaining ecological processes (ESAs) to areas favored for development (No Natural Areas Remaining or No Natural Remaining Areas). Associated with the CBA Map is a recommended set of land-use activities (e.g. conservation, extensive agriculture, rural housing). Almost the entire GRDM coastal zone, apart from the urban areas and a few Other Natural Areas, is designated as a PA, CBA or ESA (Maree and Vromans 2010; Vromans et al. 2010).

1.3 Socio-Economic Profile

The Garden Route District Municipality in South Africa is a vibrant area with a diverse socio-economic landscape, characterized by a mix of urban and rural areas, and a strong reliance on tourism, agriculture, and forestry.

Key urban settlements along the Garden Route district coastline comprise, from west to east, Witsand, Jongensfontein, Stilbaai, Gouritzmond, Mosselbay, Wilderness, Sedgefield, Knysna and Plettenberg Bay. Mosselbay, Knysna and (to a lesser extent) Plettenberg Bay, are however the main economic drivers along the coastal area.

The Garden Route District Municipality faces significant socio-economic challenges, including high poverty rates, unemployment, and inequality, even within the same communities, where residents can have varying needs and priorities. The district's economy is diverse, with tourism and agriculture being key sectors, but job creation and economic growth are lagging (WCG, 2023). While the region has strong infrastructure and natural resources, addressing these challenges is crucial for sustainable development (WCG, 2023).

The below profile uses data primarily sourced from Statistics South Africa, administrative data from sector departments, the Municipal Review and Outlook (MERO), Global Insight Regional Explorer and Quantec (WCG, 2023). The data sourced from sector departments are the most

recent that is available. The Statistics South Africa 2022 Census contains the latest survey data available at municipal level (STATS SA, 2022).

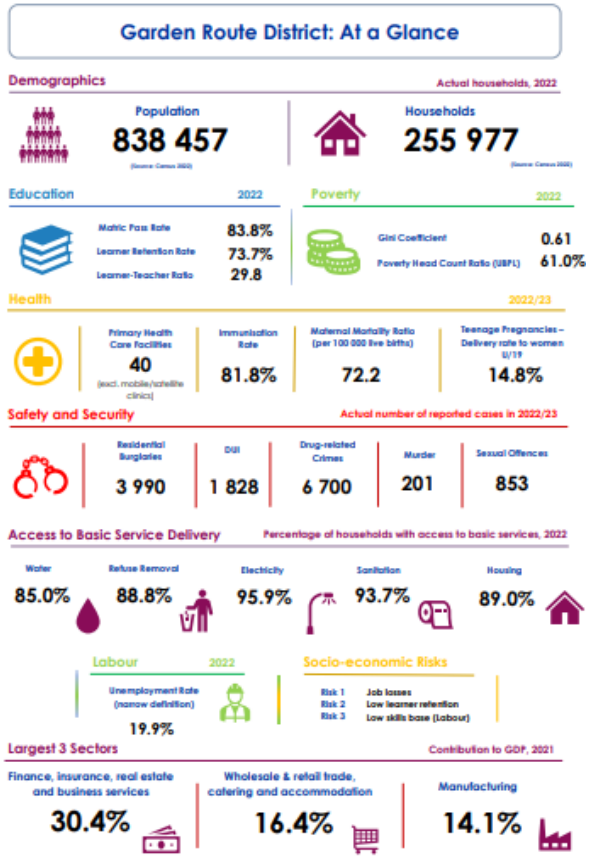


Figure 5: The STATS SA census profile data for the Garden Route district.

1.3.1 Poverty and Inequality:

South Africa suffers among the highest levels of income inequality in the world when measured by the commonly used Gini index. Inequality manifests itself through a skewed income distribution, unequal access to opportunities, and regional disparities. The National Development Plan (NDP) has set a target of reducing income inequality in South Africa, endeavouring to lower the Gini coefficient from 0.7 in 2010 to 0.6 by 2030. The GRDM nearly meets that goal with a Gini coefficient of 0.61, but along with the Overberg District (0.61), has amongst the most unequal distributions of income in the Province (0.60) (WCG, 2023). This reflects the discrepancy between persons with well renumerated jobs in George as well as affluent households living along the coast, compared to the lower incomes earned by rural farm workers as well as households residing in the numerous informal settlements across the region. Income inequality is also more pronounced among the coloured (0.54) and black African (0.54) demographic groups where some households have built wealth, whilst others have yet to escape the poverty trap (WCG, 2023).

The Upper Bound Poverty Line (UBPL) head count ratio is the proportion of the population living below the UBPL i.e., that cannot afford to purchase adequate levels of food and non-food items. The UBPL in South Africa is R1 417 (in April 2022 prices) per person per month.

In 2022, 61.0 per cent of the GRDM population fell below the UBPL (WCG, 2023). This figure improved marginally from the 62.2 per cent recorded in 2019, indicating progress despite the challenging economic conditions facing households across the country. Poverty is more pronounced in the Oudtshoorn, Bitou and Knysna municipal areas. While the region exhibits lower levels of poverty compared to the Western Cape rate (64.1 per cent), the situation is far from comforting, given the significant number of households experiencing the adverse effects of poverty (WCG, 2023). These consequences include lower life expectancy, malnutrition, food insecurity, heightened exposure to crime and substance abuse, reduced educational attainment, and substandard living conditions. Therefore, the NDP sets the ambitious goal of eradicating poverty by 2030. To alleviate these negative impacts of poverty, GRD SASSA centres issues grants to a total of 188 598 people (30.2 per cent of the district's population), offering vital income support to these households (WCG, 2023).

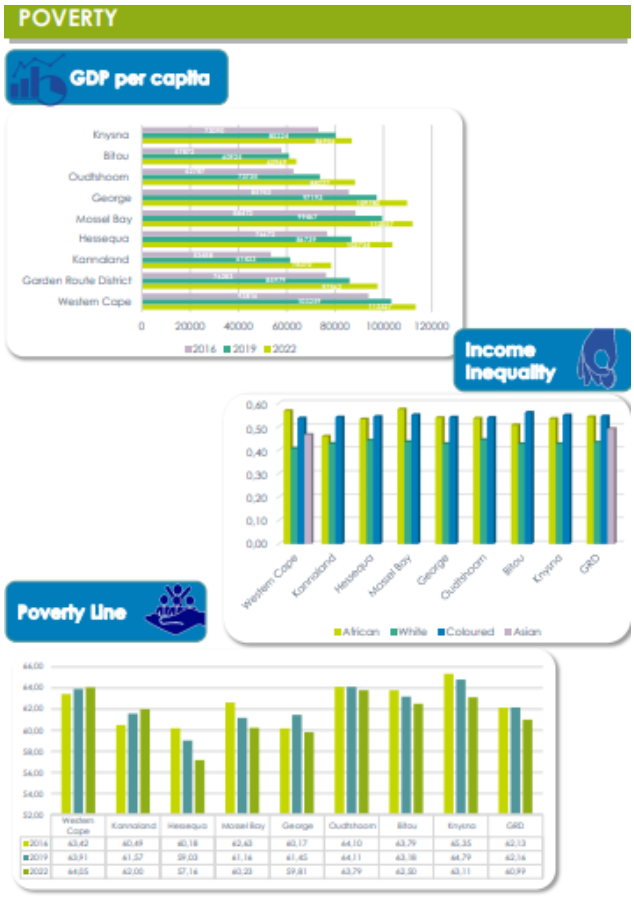


Figure 6: The income inequality and poverty line of the Garden Route district.

Within the Garden Route district, poverty rates are high, with a significant portion of the population living below the poverty line. The Gini coefficient, a measure of income inequality, is also high, indicating a wide gap between the rich and poor. Poverty is concentrated in specific areas, with some local Municipalities facing more severe challenges. The dependency ratio, the ratio of people in a population who are not working to those who are, is high, further exacerbating poverty.

1.3.2 Employment and Labor Market:

The Garden Route district has a high unemployment rate, particularly in the informal sector. The wholesale and retail trade, catering, and accommodation sectors are major employers, but the informal sector also plays a significant role. There is a large working-age population, but not all are employed. The labour force participation rate, the percentage of the population actively seeking work, is relatively high, but the unemployment rate remains a concern (WCG, 2023).

1.3.3 Population and Demographics:

According to the Statistics South Africa 2022 census data, the Garden Route district municipal area had a population of 838,457 in 2022, and is the second fastest-growing region in the Western Cape Province (STATS SA, 2022; WCG, 2023). Within the district, the George and Mossel Bay Municipalities comprises of almost half of the total population of the district. Future predictions suggest continued growth within these towns, which will place immense pressure on the coastal ecosystems.

The Garden Route district is the third most populated region in the Western Cape Province, representing 11.3% of the Provincial population. The region is characterized by both highly urbanized coastal areas (like Knysna, Mossel Bay, and Bitou) and rural farmlands (like Kannaland, Hessequa, and Oudtshoorn) (WCG, 2023). Population density in 2023 was 27.2 persons per km², with an expectation of a slight increase to 27.8 by 2025. The working-age population (15-64 years) makes up a significant portion of the population in areas like Knysna (STATS SA, 2022; WCG, 2023).

1.3.4 Economic Profile:

The Garden Route district's economy is heavily influenced by tourism, which is supported by coastal resources and attractions. Agriculture, particularly in areas like Kannaland, Hessequa, and Oudtshoorn, plays a significant role, with activities ranging from traditional farming to unique products like ostriches. Forestry and agro-processing also contribute to the manufacturing base (WCG, 2023).

The construction industry is supported by tourism and real estate investments, with improvements to facilities driving growth. In 2023, the Garden Route economy grew by 1.0% year-on-year, reaching a RGVA value of ZAR45.08 billion (WCG, 2023).

Due to a growing tourism sector and increasing investments into holiday housing, especially along the coast, the construction industry is the fastest growing sector. Agriculture, forestry and fishing continue to be relatively important sectors, contributing approximately 7.3%. The traditional line fish, squid and oyster fisheries are the main commercial fisheries that exist along the coastline. The traditional line fish fishery is predominantly active between Mosselbay and Plettenberg Bay. The chokka squid fishery operates on inshore spawning grounds situated around Plettenberg Bay and towards Tsitsikamma. There is concern that the oyster fishery along the Southern Cape, particularly in the Mosselbay, George and Knysna areas, is over exploited. The smaller coastal towns, such as Sedgefield, Buffels Bay and Nature's

Valley, are dominated by tourism, with the retail sector, services and the municipality contributing to economic activities (Chalmers et al., 2009).

1.3.5 Social Aspects:

The district experiences both challenges and opportunities in terms of social development. Challenges include unemployment, poverty, and teenage pregnancies, which can impact learner retention rates. The region also faces challenges related to affordable housing and access to quality healthcare and education (WCG, 2023).

Opportunities exist in leveraging the region's natural beauty and attractions to foster sustainable tourism and economic growth. The focus on infrastructure development, particularly roads and recreational ports, is aimed at improving accessibility and promoting investment (WCG, 2023).

1.3.6 Interesting Facts of Key Municipal Areas:

- **George:** The most populated municipal area in the GRD, with a 2021 population of 221,637.
- **Mossel Bay:** A significant coastal town with a strong focus on tourism and maritime activities.
- **Knysna:** Known for its lagoon and coastal scenery, with a notable tourism industry.
- **Oudtshoorn:** A rural area with a strong agricultural sector, particularly known for ostrich farming.
- **Bitou:** The fastest-growing municipality in the region, due to its location as the point of entry to the Western Cape.
- **Hessequa and Kannaland:** Largely rural areas with a focus on agriculture.

In essence, the Garden Route District Municipality is a region of contrasts, with a strong blend of urban and rural areas, and a diverse economy that leverages its natural assets. The region faces various social and economic challenges, but also possesses significant opportunities for growth and development through sustainable practices and strategic investment (WCG, 2023).

APPENDIX 2: Detailed Legislative Review

2.1 Legislative Review

Municipalities are mandated to implement effective environmental management under a range of policies and legislation, including those dealing with coastal development, environmental management, the conservation and sustainable use of biodiversity, pollution and waste management. They are responsible for (1) Implementing the environmental policies, plans and programmes of national and provincial government; (2) Ensuring alignment between Integrated Development Plans (IDPs) and provincial Environmental Implementation Plans; (3) Ensuring that IDPs comply with the NEMA principles; and (4) Ensuring that IDPs are aligned to the National Biodiversity Framework (South Africa's National Biodiversity Strategy and Action Plan: Country Study, 2005).

This legislative review determines municipal mandates and responsibilities in relation to coastal zone management (e.g. NEM: ICMA, NEMA, NEM: BA, ECA, MSA etc). The following potential coastal management issues were investigated to determine municipal obligations in terms of legislation, namely: environmental protection, land-use authorization (zoning), disaster management, fire control, alien control, carcass disposal, sand management, water quality and water pollution in the coastal zone.

2.1.1 Constitution of the Republic of South Africa (Act 108 of 1996)

Although no specific reference to coastal management is made, the Constitution requires LM to provide services to communities in a sustainable manner, while providing a healthy environment (Section 152). Consequently, it provides a clear mandate for Municipalities to take on environmental management responsibilities (South Africa's National Biodiversity Strategy and Action Plan: Country Study, 2005).

District and LM have those functions and powers referred to it in Sections 156 and 229 of the Act, including other matters assigned to it by National or Provincial legislation. Under Schedule 4B, the applicable biodiversity matters over which a municipality has executive authority are: air pollution (LM); municipal health services (DM), municipal public works (DM & LM); pontoons, ferries, jetties, piers and harbours (LM); stormwater management systems in built up areas (LM); water and sanitation services, domestic wastewater and sewerage disposal (DM). Under Schedule 5B, the applicable biodiversity matters are: beaches and amusement facilities (LM); billboards and advertisements (LM); cleansing (LM); public nuisance (LM); and refuse removal, dumps and disposal (DM & LM) (Pierce and Mader, 2006).

Section 156 gives Municipalities the power to pass By-laws. Garden Route district has declared several By-laws, for example the Municipal Health By-laws, in which the removal of carcasses is directed at owners of a dead animal, bird, poultry fish or crustacean situated on land they own, occupy or use. Removal includes the remains of aquatic or marine fauna that have died or washed up on such premises (Section 8). Section 5 requires that wastewater irrigation or discharge, which does not comply with the NWA, or other health nuisance that impacts on groundwater must be remediated, while Section 32 confers duties and provisions of landowners or occupiers to prevent the pollution of stormwater and associated surface and

groundwater. The Commonage By-Law requires that carcasses are removed from the commonage by the Municipality. Section 12 of the Public Amenities By-Law prevents persons from impacting streams or wetlands in a public amenity. The '*Stormwater Management By-laws*' states that the municipality may discharge stormwater into any watercourse (Section 7.2(b) & (h)) provided it has the necessary authorization from DWS as required under the NWA.

Implication for Municipalities: Municipalities are responsible for protecting the environment. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability. Garden Route DM has the mandate to implement carcass removal and water resource protection in relation to the provisions as set out in the By-laws.

2.1.2 Local Government: Municipal Systems Act (Act 32 of 2000)

Although no specific reference to coastal management is made, the Act does require that a municipality provide municipal services in an environmentally sustainable manner (Section 4(2)(d)). Municipalities therefore play a fundamental role in protecting the environment, and by implication the coastal environment. The Act makes statutory provision for the preparation of Integrated Development Plan (IDPs) and Spatial Development Frameworks (SDFs) (Section 26[e]) to ensure environmental sustainability.

The IDP must be aligned with any national or provincial sector plan, legislative planning requirements and any applicable disaster management plans. It is incumbent on Municipalities that, should any provincial strategy or action plan be formed in relation to climate change by the relevant organs of state, such Municipalities would have to appropriately amend and align their IDPs to give effect thereto. The DEA&DPs 'A climate change strategy and action plan for the Western Cape' (June 2007) must therefore be complied with.

Implications for Municipalities: They must ensure environmentally sustainable land use planning and management in the coastal zone, which can be integrated into the IDP and SDF. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability.

2.1.3 Local Government: Municipal Structures Act (Act 117 of 1998)

Although no specific reference to coastal management is made, Section 88 of the Act requires that District and LM co-operate with one another, by assisting and supporting each other, for example with environmental decision making. The Act sets out the functions and powers of District (Section 84(1) versus Local Municipalities (Section 83(1)).

In terms of Section 84(1), the District Municipality has the following functions that must be implemented through coastal zone management, namely: firefighting services (j); and the promotion of local tourism (m).

Implications for Municipalities: They must enhance cooperative governance in respect of land use planning and decision-making in the coastal zone. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability and protection.

2.1.4 Local Government: Demarcation Act (Act 27 OF 1998)

Although no specific reference to coastal management is made, Section 24 of the Act requires that, when the Demarcation Board determines a municipal boundary, its objective must be to establish an area that ensures the provision of services to the communities in an equitable and sustainable manner. Further, Chapter 1 Section 3(viii) encourages environmentally sustainable land development practices and processes. Municipalities therefore play a fundamental role in protecting the environment, and as a result the coastal environment.

Implications for Municipalities: They must ensure sustainable land use planning and management in the coastal zone. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability and protection.

2.1.5 Development Facilitation Act (Act 67of 1995)

Although no specific reference to coastal management is made, one of the principles of Chapter 1 is to encourage environmentally sustainable land development practices and processes; and discourages urban sprawl, while Section 1 promotes the sustained protection of the environment. Municipalities therefore play a fundamental role in protecting the environment, and as a result the coastal environment.

Implications for Municipalities: They must ensure sustainable land use planning and management in the coastal zone. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability and protection.

2.1.6 Land Use and Planning Ordinance (15 of 1985)

Zoning is governed by the Land Use Planning Ordinance. Although no specific reference to coastal management is made, Section 4(9) states that the preparation, amendment or review of a Structure Plan (or SDF) must take into consideration the conservation of the natural environment, while Section 36(2) refers to the need to consider the preservation of the natural environment. Municipalities therefore play a fundamental role in protecting the environment, and as a result the coastal environment.

Implications for Municipalities: It must ensure sustainable land use planning and management in the coastal zone. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability and protection.

2.1.7 National Environmental Management Act (Act 107 of 1998; NEMA)

The NEMA principles apply throughout the Republic to the actions of all organs of state that may significantly affect the environment. Municipalities must therefore exercise any function they may have, that may significantly impact the environment, in accordance with the NEMA principles, which requires that: developments are socially, environmentally and economically sustainable, the use of its environmental resources must serve the public interest and it should protect the environment as the people's common heritage.

Principle (r) refers to the coastal environment, which states that '*sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure'*, whereas Section 44 regulates vehicle use in coastal areas. In terms of Section 28, a municipality that causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent pollution or rectify the damage caused. Municipalities therefore play a fundamental role in protecting the environment (by implication the coastal environment).

Implications for Municipalities: It must ensure sustainable land use planning and management in the coastal zone, including pollution prevention by the municipality. If a municipal official believes that an activity will have a significant impact on the environment, the official must ensure that the NEMA minimum requirements for impact assessment are applied. The development of a coastal planning scheme, as part of the CMP, should enhance environmental sustainability and protection.

2.1.8 National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008; NEM: ICMA)

In terms of the NEM: ICMA, the primary municipal functions in relation to coastal management are to prepare and implement coastal management programmes (CMPs) within 4 years of commencement of the Act (Section 46), in order to manage their coastal areas in accordance with the coastal management principles of the Act. A CMP should delineate on a map the coastal zone which is comprised of (a) coastal public property (Section 7), (b) coastal protection zone (Section 16) and (c) coastal access land (Section 18). The establishment of the coastal protection zone is a response to rising sea levels (Section 17c & 28d).

Municipalities must establish a by-law that designates public access to the coastal public property (Section 18). Section 20 identifies other responsibilities in this regard e.g. signposts. Sections 49(1) & 49(2) prescribe the contents of a municipal CMP. Coastal planning schemes may be established (Section 56, 57) and form part of a municipal land use scheme (Section 57), while estuarine management plans may form part of the CMP (Section 34d). By-laws may be established to enforce the CMP (Section 50).

Municipalities must delineate coastal set-back lines and coastal boundaries, as designated by the MEC, on zoning scheme maps (Section 25 & 30). CMPs must incorporate actions to avoid the impacts of climate change, and may form part of the municipal IDPs and SDFs. Section

51 states that an IDP (and by implication the SDF) must be aligned to national and provincial coastal management programmes. Municipalities may not discharge effluent into coastal waters, unless authorised via the NWA general authorizations or a coastal waters discharge permit in terms of the NEM: ICMA (Section 69) or incinerate waste at sea (Section 70), unless a dumping permit granted under Section 71 is obtained.

Implications for Municipalities: They must develop a CMP that is aligned with the requirements of the NEM: ICMA (in terms of content and spatial prescriptions) that takes into account climate change and aims to protect the coastal environment.

2.1.9 National Environmental Management: Biodiversity Act (Act 10 of 2004; NEM: BA)

Although no specific reference to coastal management is made, the following municipal responsibilities will apply to coastal areas, namely: Municipalities must prepare an invasive species monitoring, control and eradication plan for municipal land, as part of their environmental plans and IDP, in accordance with Section 11 of the NEMA (Chapter 5). Section 54 states that Listed Threatened Ecosystems must to be taken into account in IDPs (by implication in SDFs), and will be considered special areas in terms of NEMA (Chapter 4).

Endangered ecosystems should be protected, while no protected species may be removed or damaged without a permit. Municipalities must align its IDP with the National Biodiversity Framework and any applicable bioregional plan (Section 48(2)).

The National Biodiversity Framework poses ‘Priority Actions’ for conserving biodiversity, of which three are the joint responsibility of Municipalities and other agencies, these are: implement the invasive alien species regulations and put in place other control mechanisms and monitor implementation (Section 4.3.5); and establish and strengthen provincial stewardship programmes (Section 4.5.3).

Implications for Municipalities: The development of an alien management plan and the promotion of stewardship programmes within the coastal zone and with other lead agencies. Include Listed Threatened Ecosystems in their IDP/SDFs, including the CMP, that require protection.

2.1.10 National Water Act (Act 36 of 1998; NWA)

Although no specific reference to coastal management is made, Municipalities have the following obligations or powers under the NWA:

- To give effect to the purpose of the Act (Section 2).
- To take reasonable measures to prevent pollution of water resources from land that it owns, controls, occupies or uses (Section 19).
- To remedy situations where pollution of a water resource occurs following an emergency incident and where the municipality is responsible for the incident or owns or controls the substance which caused the emergency incident (Section 20).

- Not to establish a township, unless the layout plan indicates the maximum level likely to be reached by floodwaters on average once in every 100 years (Section 144).
- To develop Water Services Development Plans.
- May not discharge stormwater directly into a water resource (Section 3.7.2 of the General Authorisations – NWA Sections 21(f) & (h)). However, according to the Garden Route DM Stormwater Management By-laws (Section 2) the municipality may, for the purpose of providing and maintaining infrastructure for a stormwater system – (b) drain stormwater or discharge water from any municipal service works into any watercourse, and (h) discharge stormwater into any watercourse, whether on private land or not.

Section 5 of the Garden Route District Municipality Municipal Health By-Law requires that wastewater irrigation or discharge, which does not comply with the NWA, or other health nuisance that impacts on groundwater must be remediated. Section 32 confers duties and provisions of landowners or occupiers to prevent the pollution of stormwater and associated surface and groundwater.

Implications for Municipalities: Prevent water pollution caused by municipal and landowner/occupiers activities. Further, to ensure that developers have delineated the 1:100 year flood line in relation to 'township' developments, within the coastal zone.

2.1.11 Marine Living Resources Act (Act 18 of 1998; MLRA)

The objectives and principles of the Act deal with the utilization, conservation and management of marine living resources, rather than coastal resources. Proposed developments are subject to the conservation principles of the Act (Section 2) and should not impact negatively on the marine environment through solid waste disposal or wastewater discharge. The Minister may delegate powers to Municipalities, while Section 79(1) allows the Director General to delegate powers to Municipalities. The Act and regulations should provide the principles and actions necessary for incorporation into municipal IDPs and SDFs.

Implications for Municipalities: Unless the Minister or Director General has delegated powers to the municipality, Municipalities have no legal mandate under the Act. However, Municipalities are responsible for ensuring the prevention of marine pollution through effluent discharge points that are under their management, if any.

2.1.12 National Veld and Forest Fire Act (Act 101 of 1998)

Where the municipality is owner of land, the Act places an enforceable responsibility on the municipality to take certain precautions to prevent and combat veldfires where there is a risk of fire e.g. maintain firebreaks, firefighting personnel and equipment. Municipalities are also obligated to be members of Fire Protection Agencies (FPAs). The Department of Forestry assists with developing area specific Fire Action Plans.

Implications for Municipalities: Municipalities must identify municipal land in the coastal zone and implement precautionary measures to prevent veldfires. They must be members of Fire Protection Agencies.

2.1.13 Environment Conservation Act (Act 73 of 1989; ECA)

The Garden Route coastal area from Tergeniet in the west to the Bloukrans River in the east was proclaimed in terms of ECA as the Outeniqua Sensitive Coastal Area Extension (1998). The Sensitive Coastal Areas Regulations control small-scale activities at the individual plot level in an effort to ensure sustainable development of the coast". Most of the area falls within the Lakes Area Development Act (39 of 1975) and most of the listed activities fall within estuaries, rivers and lagoons, which are now within the ambit of the NEM: ICMA. Although no specific reference to coastal management is made, other than in terms of the latter, a municipality is obligated to provide adequate waste disposal containers (Section 19(2)) and remove any litter (Section 19A) in its jurisdiction. Where a municipality's activities may result in serious environmental degradation, the municipality must prevent pollution; where it is unavoidable, minimize pollution; and where it has occurred, remediate the environment (Section 31). Municipalities therefore play a fundamental role in protecting the coastal environment against pollution and are responsible for the authorization of Sensitive Coastal Area Extension permits, where applicable.

Implications for Municipalities: Municipalities are responsible for litter control, preventing pollution due to their activities, and the protection of the Outeniqua Sensitive Coastal Area Extension.

2.1.14 National Environmental Management: Protected Areas Act (Act 57 of 2003; NEM: PAA)

Municipalities are empowered under this Act to declare an area as a Protected Area (nature reserve etc.). In designating a Protected Area, Municipalities are obliged to follow appropriate consultation processes before doing so. The Act dictates that local Protected Areas must be managed by the municipality itself or management must be assigned to a municipal entity. Furthermore, the municipality must prepare a management plan.

Implications for Municipalities: Municipalities should identify municipal land in the coastal zone that could acquire Protected Area status, for example Critically Endangered habitats or Critical Biodiversity Areas.

2.1.15 Western Cape Nature Conservation Laws Amendment Act (Act 3 of 2000)

Section 7 of the Act allows Municipalities, with the approval of the Minister, to establish a local nature reserve on land vested in it or under its control or management and may for that purpose acquire land by agreement or expropriation.

Implications for Municipalities: Municipalities should identify municipal land in the coastal zone that could be designated as a Nature Reserve, for example Critically Endangered habitats or Critical Biodiversity Areas.

2.1.16 National Heritage Resources Act (Act 25 of 1999; NHRA)

The NHRA deals with the management and protection of heritage resources, of which the environment is a component (not only cultural resources). The NHRA therefore provides for the protection of biodiversity and refers general powers and duties to local authorities in this regard, for example:

- The identification and management of Grade III heritage resources and heritage resources, which are deemed to fall within the competence of local authorities in term of the NHRA (Section 8(4)).
- Assisting heritage resource authorities in their functions to protect heritage resources (Section 9(1)).
- When revising their IDP, SDF or any relevant sector plan, local authorities must compile a heritage resource inventory, and submit it for inclusion in a provincial heritage register (Section 30(5)).
- When revising their IDP, SDF or any relevant sector plan, they must investigate the need for the designation of heritage areas and to protect places of environmental or cultural interest (Section 31(1)-(4)).
- The power to designate any area to be a heritage area, after consultation with the provincial heritage resources authority, the property owners in the area and affected communities (Section 31(5)).

Implications for Municipalities: Municipalities must identify and compile an inventory of heritage resources along the coast. Areas of biodiversity importance could be designated as a heritage resource, for example Critically Endangered habitats or Critical Biodiversity Areas.

2.1.17 Disaster Management Act (Act 57 of 2002)

The Act requires Metropolitan and District Municipalities to prepare municipal disaster management frameworks (Section 42) and to establish a disaster management centre (Section 43). A disaster management centre must, among other specifications, give guidance to organs of state, the private sector, non-governmental organisations, communities and individuals to assess and prevent or reduce the risk of disasters (Section 47). All Municipalities must prepare disaster management plans (Section 52, 53) as part of their IDPs. A district municipality, after consultation with the local municipality, is primarily responsible for the co-ordination and management of disasters, unless both Municipalities have agreed that the local municipality will assume primary responsibility (Section 54(1), 54(2)).

Implications for Municipalities: Municipalities must identify potential disasters that may occur along the coast and negatively impact coastal ecosystems. For example, oil spills, flooding, coastal accretion and erosion. These will require integration into disaster management plans.

2.1.18 National Environmental Management: Waste Act (Act 59 of 2008)

The Act regulates waste management so as to protect the environment against pollution and ecological degradation, and to secure ecologically sustainable development. Section 9(1) requires that a municipality authorised to carry out waste management services in terms of the Municipal Structures Act (117 of 1998), must exercise its executive authority to deliver waste management services in accordance with the national waste management strategy (Section 7), including national and provincial norms and standards (Section 7, 8), and develop an integrated waste management plan, as part of its IDP, for approval by the MEC (Section 11(4)(a)(i) & (ii). A list of waste management activities that requires a basic assessment or EIA has been Gazetted (by the Minister of DWEA) in terms of Section 19(1).

Implications for Municipalities: Municipalities who operate waste disposal facilities that may impact the coastal environment must take measures to prevent pollution and environmental degradation thereof, particularly with respect to water resources.

2.1.19 Conservation of Agricultural Resources Act (Act 43 of 1983; CARA)

The Act does not impose any function or obligations on Municipalities. However, where a Municipality is a rural land user it will have to comply with the CARA provisions and regulations in respect of land use, unless exempted by an executive officer. For example, Municipalities may be obliged to maintain soil conservation works and may not cultivate virgin soil (Section 12). Under Regulation 4 (4a), municipal land users are required to control weed and invader plants, and no land user shall utilise the vegetation in a vlei, marsh or water sponge or within the flood area of a watercourse, or within 10 meters horizontally outside the flood area in a manner that causes the deterioration of natural agricultural resources (Regulation 7(2)). Funding is available from National Department of Agriculture for clearing of invasive species and damage to property due to floods.

Implications for Municipalities: Municipalities must protect water resources and remove alien vegetation on rural land they own.

2.1.20 National Environmental Management: Air Quality Act (Act 39 of 2004; NAQA)

The objective of the AQA is to provide a framework for the protection and enhancement of air quality, the prevention of air pollution and ecological degradation and securing ecologically sustainable development. Essentially, it strives to provide a safe and healthy environment through enhancing the quality of ambient air. The Act is binding on all spheres of government, which means it is directly applicable to the Garden Route District. The objectives of the Act are achieved via a national framework, which includes monitoring protocols and norms &

standards for emission controls and air quality management planning. Local (municipal) monitoring, standards and compliance activities may be administered via by-laws and should be detailed in an Air Quality Management Plan (AQMP) that forms part of the IDP.

Implications for Municipalities: Municipalities must provide a clean and healthy environment through the management of ambient air quality. This must be done according to National standards and must be detailed in an AQMP (Section 15 & 16) administered by an appointed air quality officer (Section 14). Sectors that need to be monitored include industry, retail, construction and waste management/disposal.

APPENDIX 3: Marine Protected Areas

3.1 Introduction

Marine Protected Areas (MPAs) are a management strategy primarily used to protect and conserve biodiversity, habitats and cultural (heritage) resources, although they also serve as a vital fisheries management tool (protection of key species and enhancement of stocks in open areas through seeding3 or migration) and provide opportunities for environmental education, recreation and tourism (which in turn generate income) and research (Hockey and Branch 1997; Attwood *et al*. 2000; Tunley 2009).

Marine protected areas are declared in terms of the MLRA, recognized by the NEM: PAA and regulated by both Acts. The MLRA prevails if there is a conflict over marine living resources, while the NEM: PAA prevails with respect to some protected area functions but clearly not the control of fishing activities, or the prohibiting of activities, which may impact negatively on the marine protected area. The management of existing MPAs and the proclamation and management of additional MPAs is a National or Provincial mandate, with SANParks and CapeNature administering National Parks and Provincial MPAs respectively.

As such, roles and responsibilities do not have any Municipal mandate and are therefore not addressed in any detail in this CMP. However, given the role that MPAs play in protecting and enhancing marine biodiversity, conserving heritage resources, attracting tourists, providing a key education function and the stunning landscapes and vistas, they significantly contribute to the overall Vision for Garden Route. MPAs will be referred to in this context in the CMP where appropriate.

This chapter provides an overview of MPAs in the Garden Route district as well as a summary of strategies and assessments designed to provide additional protection to key habitats and species in order to meet biodiversity conservation targets.

3.2 Garden Route District Marine Protected Areas

There are four MPAs within the Garden Route District, three of which are managed by CapeNature and one by SANParks (see Tunley 2009).

SANParks

- Tsitsikamma National Park – Proclaimed in 1964, the MLRA and NEM: PAA are both applicable to the MPA section. The original MPA extends 57 km from Groot River (East) to Die Punt at Nature's Valley; only the eastern section between Bloukrans and Nature's Valley fall within Garden Route's boundaries. The seaward boundary is 3 nm offshore from Groot (East) to the Bloukrans River and 0.5 nm offshore from there to Nature's Valley. The entire area is no-take, with the original open area (shore-based angling) west of Storms River being closed in 2001. Transit by vessels through the Park is also prohibited. An additional marine section (De Vasselot) to the west of Nature's Valley extends 0.5 nm offshore and acts as a buffer; it is a controlled zone, but fishing is allowed.

CapeNature

- Goukamma – initially proclaimed in 1990 and re-declared under the MLRA in 2000, it extends 14 km between Buffalo Bay and Platbank just east of Sedgefield and 1nm offshore. The offshore area is no-take but shore angling (with restrictions) is allowed. There is a proposal being considered by the MPA Expansion Group via the MPA Forum with the involvement of WWF-SA to realign the MPA boundary to include additional sub-tidal reef areas and to rezone the shoreline and Goukamma Estuary to increase the protection of key fish species.
- Robberg – proclaimed in 2000 under the MLRA. Extends for 9.5 km along the Robberg Peninsula and 1nm offshore. The offshore area is no-take but shore angling (with restrictions) is allowed. Consideration is also being given to rezoning the southern shoreline portion of the MPA as no-take.
- Stilbaai – proclaimed in 2008 under the MLRA. It comprises 13.5 km of coastline between Bosbokduin (Noordkapperspunt) and the Rietvlei *vywers* and extends from the highwater mark to 4.2 km offshore; it also comprises a large part of the Goukou Estuary. There are three restricted zones (see below) with the remaining area being a controlled zone; - Geelkrans is the eastern part of the MPA adjacent to the Geelkrans Nature reserve and the *vywers*.
    - Skulpiesbaai in the extreme southwest in the vicinity of Noordkapperspunt.
    - Goukou Estuary (between 4 and 15 km from the mouth).

3.3 Coastal and Marine Protection Strategies and Assessments

3.3.1 National Spatial Biodiversity Assessment (marine)

According to Lombard *et al*. (2004) the existing (National) MPA network does not provide sufficient protection for marine biodiversity. When considering both species and habitats that require additional protection, several new MPAs are proposed. None fall within the Garden Route District management area, although the species analysis (seaweeds, invertebrates and fish) showed that in order to attain biodiversity conservation targets, additional areas outside of the existing MPA network would need to be considered for extra protection in the vicinity of Mossel Bay. It must be stressed that this is a preliminary assessment based on incomplete data sets and that additional research is required before making definitive recommendations.

The protection of sub-tidal habitats requires urgent attention, as the existing MPA network does not extend sufficiently far offshore to provide adequate protection. In order to meet required conservation targets, South Africa needs to consider the proclamation of offshore MPAs (Lombard *et al*. 2004). Whether offshore is defined as the coastal waters (12 nm offshore) or the coastal zone (200 nm offshore), there remains a considerable amount of work before areas can be identified.

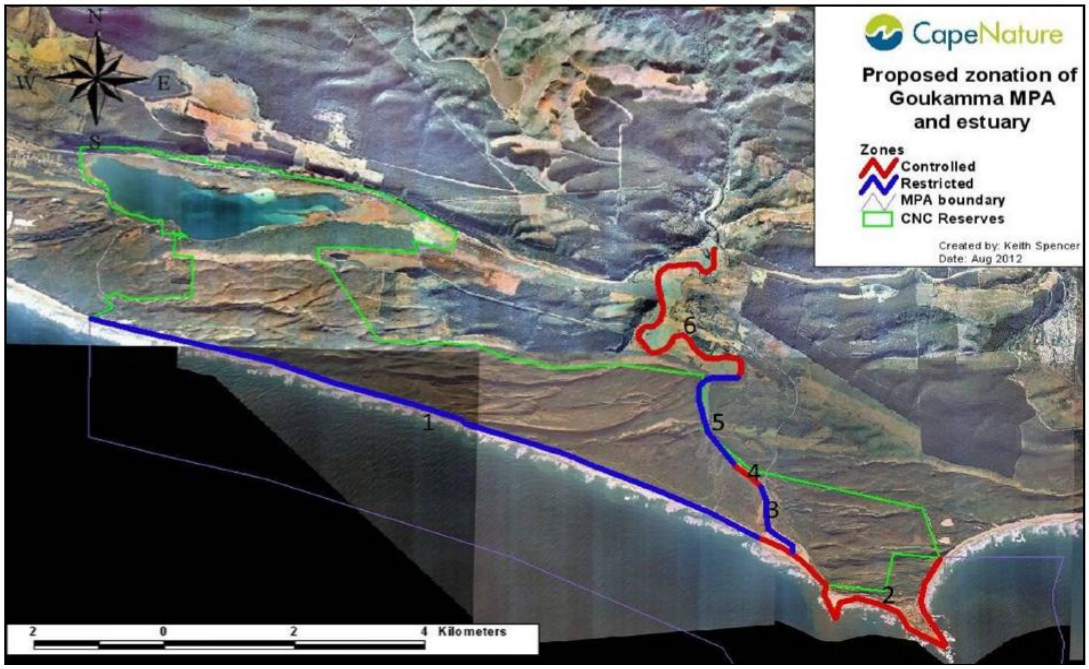


Figure 7: Proposed rezoning of the Goukamma MPA and Goukamma Estuary (note the MPA boundary is the existing boundary.

3.3.2 Marine Conservation Plan for the Agulhas Bioregion

Acknowledging the shortcomings highlighted by Lombard *et al.* (2004), Clark & Lombard (2007) performed an additional detailed fine-scale analysis within the Agulhas Bioregion, extending from Cape Point to the Mbashe River, and used key (sensitive) habitat types to determine additional areas that would need to be protected in order to meet conservation targets. The four habitat types used were coastal dune systems, intertidal, subtidal linefish habitat and subtidal geology types.

A number of important shortfalls in terms of habitat representation were identified in the existing MPA network. In the case of intertidal habitats, for example, only four (of the 23) intertidal identified habitat types meet their targets in existing No-take MPAs with targets of 20%, while this declines to three when the target is raised to 30%. Similarly, when high ranking line fish habitat is considered, only 46% of the target is conserved within the existing no-take MPA network when targets are set at 20% of the total, and declines to 31% when the target is increased to 30%. The extent to which these targets are attained are improved somewhat through the proclamation of the suite of proposed MPAs in the region (notably Kogelberg, Betty's Bay and Pringle Bay MPAs in respect of intertidal habitat and line fish conservation, and Addo MPA in respect of intertidal habitat conservation) but many gaps still remain. There is thus a clear need to increase the size and extent of the existing MPA network in the Agulhas Bioregion both through the addition of the proposed MPAs as well as additional conservation worthy areas.

In addition to the new MPAs proposed by Lombard *et al.* (2004), Clark & Lombard (2007) identify additional MPAs and 19 priority conservation areas that would assist in reaching the desired conservation targets for sensitive habitats. The guiding principles used to determine these areas were to minimize total reserve area, minimize known threats and promote

adjacency (areas next to existing MPAs). Two of their proposed MPAs fall within the Garden Route District management area, namely the Stilbaai MPA and the Skulpiesbaai restricted zone. Both of these have since been proclaimed within the Stilbaai MPA complex.

Five of the priority conservation areas fall within the Garden Route district management area, namely:

- Priority Area 8 – located between the Breede Estuary and Stilbaai, it would contribute significantly to some subtidal geology types. It is mostly sand (intermediate), with high linefish habitat scores but with no proposed dune reserves.
- Priority Area 9 – located to the east of the Gouritz Estuary in the Fransmanshoek/Vleesbaai area. It contains 42% of the target of the Vleesbaai dunes (proposed dune reserve) and has a range of intertidal habitats and good linefish habitat.
- Priority Area 10 – located on the eastern extremity of Mossel Bay in the vicinity of Herolds Bay. It is mostly exposed rocky shore, with good linefish habitat but with no proposed dune reserves.
- Priority Area 11 – located immediately to the west of the Goukamma MPA, it would contribute significantly to some subtidal geology types and to the Groenvlei-Swartvlei coastal dune system. There would be no additional contribution to intertidal habitat targets and only a minor contribution to linefish habitat targets.
- Priority Area 12 – located immediately to the west of Groot River (West) and extending to the Sout River, it does not contribute greatly to any specific feature targets, but contains good linefish habitat (rated as high) and contains Quartzite (Table Mountain Group), which is one of the subtidal geology types.

Clark & Lombard (2007) stress that these proposed priority areas should only be used as a guideline for they are based only on the best information available at present and only indirectly consider certain aspects such as the potential economic and socio-economic costs of selecting a particular area for enhanced conservation status. Such issues can only really be taken into account in much more detailed site specific analyses where a range of conservation planning options can be workshopped with those directly affected by any proposed changes in conservation status.

Perhaps most significantly, they also state that perhaps more important than expanding the existing MPA network, would be to concentrate on improving management within existing MPAs and to upgrade the levels of protection in those MPAs that allow for the exploitation of living resources. In other words, thought should be given to rezoning sections of the the Robberg, Goukamma and Stilbaai MPAs to include no-take areas from the shore.

3.3.3 Ecology, Management and Value of the Garden Route Coast

Similar recommendations have been made by Chalmers *et al.* (2009), with the following scenarios being proposed for enhancing conservation through the existing MPA network:

- Extend the offshore boundary of the Goukamma MPA, as motivated by Götz *et al.* (2009), to include deeper reef areas and enhance protection of these habitats and linefish species.
- Restriction of shore fishing in some areas of the Goukamma MPA and the southern portion of the Robberg MPA to enhance protection of coastal linefish species.

In addition to all the above studies and recommendations, it is recognized that offshore MPAs are needed as a matter of priority in order to protect deepwater habitats and offshore fisheries (both linefish and trawl).

3.3.4 National Biodiversity and Strategy Action Plan

The National Biodiversity Strategy and Action Plan (DEAT, 2005) is a 20-year strategy that identifies five strategic objectives for the conservation of biodiversity from terrestrial and aquatic ecosystems. For each strategic objective, the action plan identifies outcomes, activities, targets and indicators.

Relevant to the issue of expanding or improving the MPA network is Strategic Objective 5 (SO 5), which states the following:

"A network of conservation areas conserves a representative sample of biodiversity and maintains key ecological processes across the landscape and seascape".

The 15-year (i.e. 2020) target for this SO is "The protected area network covers 12% of the terrestrial and 20% of the marine environment thereby contributing to representation targets in priority areas". Within SO5, Outcome 5.2 gives the following mandate for the National Protected Area Expansion Strategy:

"*The protected area network is secured, expanded and managed to ensure that a representative sample of biodiversity and key ecological processes are conserved*".

Activity 5.2.1 of Outcome 5.2 specifically requires that the responsible institutions "*Expand, consolidate and/or rationalize the protected area network through a range of implementation tools, focusing on priority areas for representation and persistence of biodiversity*".

3.3.5 National Protected Area Expansion Strategy

The National Protected Areas Expansion Strategy (NPAES) (Jackelman *et al.* 2007) highlights how we can become more efficient and effective in allocating the scarce resources available for protected area expansion. It sets targets, provides maps of the most important areas and makes recommendations on mechanisms for protected area expansion. The NPAES is based on systematic biodiversity planning principles, and its overall goal is to achieve cost effective protected area expansion for ecological sustainability and climate change resilience. Implementation of the NPAES in the Garden Route will be the primary responsibility of the DFFE (Oceans & Coast and Biodiversity & Conservation branches), SANParks and CapeNature, although they may be supported by the South African National Biodiversity Institute (SANBI), National Treasury, Provincial Environmental Department (DEA&DP) and

NGOs. Key to the implementation of this strategy is the revitalization of the Protected Areas Forum.

The NPAES also recognizes that our existing protected area network falls short of sustaining biodiversity and ecological processes. In the context of the inshore zone in the Garden Route, the NPAES sets a target of 25% of the coastline that will need to be included into marine inshore MPAs in the next 20 years. Within the Agulhas Bioregion, this equates to an additional 152 km of coastline, of which 59 km should be no-take.

The NPAES uses the work of Lombard *et al.* (2004) to identify priority areas for inshore MPA expansion, and based on a combination of importance and urgency determined that the priority areas were in the Namaqua and South Western Cape Bioregions, followed by the Agulhas Bioregion (although urgency within the Garden Route District area was considered low). However, the strategy for expansion can be used when considering the more recent work by Clark & Lombard (2007) within the Agulhas Bioregion.

In terms of financing the expansion of the MPA network, the NPAES identified the following sources, namely the National Treasury, donor funding and revenues earned by MPAs. Although a figure of R23 billion is given as the amount required to acquire the land needed to meet terrestrial protected area targets, there is no indication of costs for expanding the MPA network.

Information gaps (relevant to MPAs) identified during the development of the NPAES, which could hamper its implementation and therefore require urgent attention, include:

- Updating and improving spatial information on the distribution of protected areas, linked to the Protected Area Register;
- improving spatial information on the distribution of conservation areas;
- mapping and classification of marine ecosystems and habitats, especially vulnerable marine habitats e.g. reefs, sponge beds and kelp forests;
- mapping marine ecological processes, for example spawning and nursery grounds and foraging areas for marine species;
- mapping pressures in the marine environment, including mining (diamonds, oil and gas), fishing and non-consumptive use rights including tourism; and
- assessing protected area effectiveness on an ongoing basis using appropriate tools.

Research opportunities (relevant to MPAs) linked to the NPAES include the following:

- Further exploration of the role of protected areas in supporting climate change resilience;
- research to support marine habitat mapping and classification;
- research on ecologically meaningful biodiversity thresholds for marine, estuarine and freshwater ecosystems;
- methods to integrate terrestrial, freshwater, estuarine and marine spatial planning to identify integrated priorities for protected area expansion; and
- research on past and present trends in the funding of protected area expansion in South Africa, and on likely costs of different mechanisms for protected area expansion into the future.

APPENDIX 4: Other Protected Areas

There are 55 protected areas in the Garden Route District Municipal area, which are illustrated in Figure 8 below (WCG: PDMC, 2021):

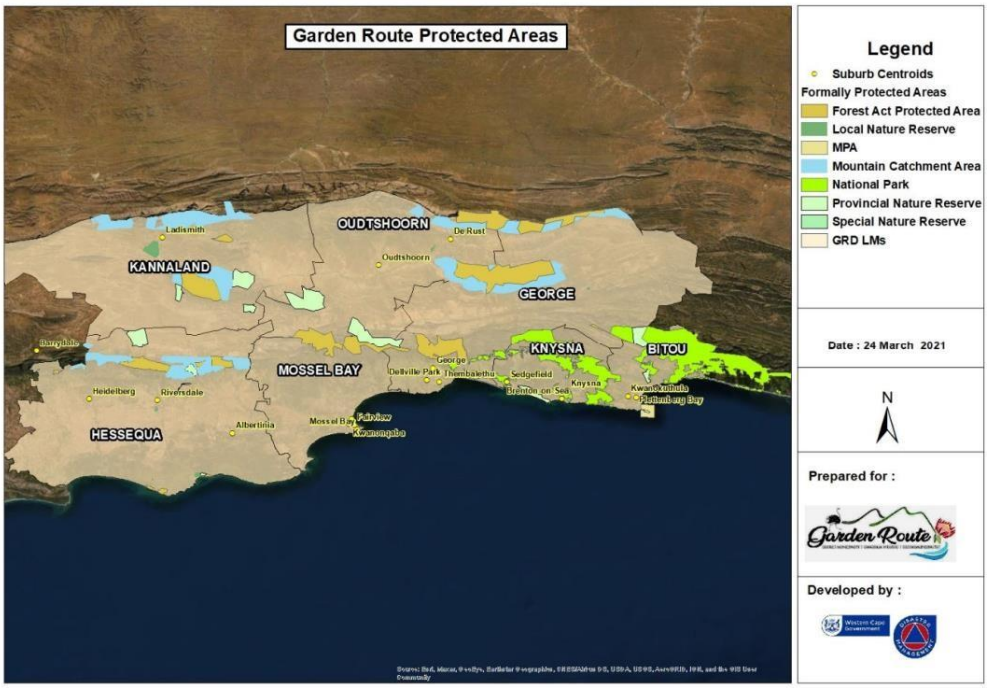


Figure 8: Protected areas in the Garden Route District Area (WCG: PDMC, 2021).

The formally declared land-based protected areas withing the Garden Route district consists of eleven nature reserves (Table 7). The Garden Route National Park (GRNP) is situated in the local municipal boundaries of George, Knysna and Bitou within the GRDM. The Garden Route National Park is a coastal reserve known for its indigenous forests, dramatic coastline and the Otter Trail. The GRNP is the result of the amalgamation of the existing Tsitsikamma and Wilderness National Parks, the Knysna National Lake Area and various other state-owned land.

Table 7: The eleven land-based protected areas within the Garden Route District Municipality

Protected areas

Land-based protected areas (formal)

Name	NSBA Category	Size (ha)	Size (%)
Baviaanskloof Nature Reserve	Provincial Nature Reserve	16041,4 ha	3,85%
Die Fort Local Nature Reserve	Local Authority Nature Reserve	114,4 ha	0,03%
EC Soetkraal Provincial Nature Reserve	Provincial Nature Reserve	34 ha	0,01%
Formosa Nature Reserve	Provincial Nature Reserve	4,9 ha	0%
Garden Route National Park	National Park	4366,6 ha	1,05%
Kammanassie Mountain Catchment Area	Mountain Catchment Area	16457,7 ha	3,95%
Kammanassie Nature Reserve	State Forest Nature Reserve	16842,6 ha	4,04%
Millwood Nature Reserve	State Forest Nature Reserve	57,7 ha	0,01%
Swartberg East Nature Reserve	State Forest Nature Reserve	5153,1 ha	1,24%
Swartberg-Oos Mountain Catchment Area	Mountain Catchment Area	8348,5 ha	2%
Witfontein Nature Reserve	State Forest Nature Reserve	2,4 ha	0%

11 reserves covering 67423,2 ha (16,17 %)

Ramsar sites

There are no Ramsar sites in the municipality.

The Garden Route Biosphere Reserve

The Garden Route Biosphere Reserve (GRBR) was designated in June 2017 by UNESCO as South Africa's 9th biosphere reserve and falls within the Cape Floristic Region (CFR) along the southern coast and includes the Goukamma and Robberg Marine Protected Areas, the Nelson Bay Cave situated in Robberg sector, the Wilderness Lake RAMSAR site, the Garden Route National Park and the Langkloof Valley. The GRBR's surface area totals 698 363 ha and contains high species diversity.

The region in which the GRBR is located is threatened by climate change, rapid urbanisation, poor land use practices and associated waste, uncontrolled spread of AIP and unsustainable use of natural resources. These ecological drivers coupled with social drivers (poverty, unemployment and inequality) threaten the sustainability of the region, and have served to inform the key focus areas of the GRBR. These focus areas include landscape management coordination, green enterprise mentorship development, school youth biosphere programme, biosphere membership, water pollution and town/land use planning capacity development.

The Gouritz Cluster Biosphere Reserve

The Gouritz Cluster Biosphere Reserve (GCBR), a landscape-scale initiative aimed to create a biodiversity corridor along the Gouritz River, where naturally occurring indigenous plants and animals could disperse freely from conservation areas of the inland mountains to the coastal mountains resulted in the designation of South Africa's 7th biosphere reserve in June 2015, totalling 3 187 893 ha. The GCBR is characterised by high levels of plant endemism and is the only area in the world where three global biodiversity hotspots, the Fynbos, Succulent Karoo and Maputoland-Tongoland- Albany Subtropical Thicket biomes, converge. Doringrivier, Ruitersbos and Zebraskop sectors form part of the Core Areas of the GCBR.

The Cape Floristic Region

The Cape Floristic Region (CFR) is one of the six Floral Kingdoms of the world and is therefore recognised globally as one of the richest plant areas and a hotspot in terms of diversity, density and number of endemic species. This diverse kingdom of plant life and associated fauna is represented by 13 protected area clusters, part of the CFR Protected Areas World Heritage Site. The Garden Route, Swartberg and parts of the Anysberg and Baviaanskloof complexes fall within the boundaries of the GRDM.

The Wilderness Lakes Ramsar Site

The Wilderness Lakes Ramsar site falls within the GRNP, covering an area of 1 300 hectares and includes estuarine lakes of Rondevlei, Langvlei and Eilandvlei, the Serpentine channel, and a dune system. A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention, and intergovernmental environmental treaty established in 1971 by UNESCO. The treaty provides for national action and international cooperation regarding the conservation of wetlands, as well as sustainable use of their resources. The Wilderness Lakes Ramsar Site supports over 285 native plant species, 32 fish species and a diverse marine and estuarine invertebrate fauna.

Breede-Olifants Water Management Area

The GRDM is predominantly located within the Breede-Gouritz Water Management Area (BOWMA), which is bounded by the Indian Ocean to the south, the Berg-Olifants Water Management Area (WMA) to the west, the Orange WMA to the north and the Mzimvubu-Tsitsikamma WMA to the east. There are two large rivers within the WMA, the Breede and Gouritz Rivers:

- The Breede River – its main tributary, the Riviersonderend River, discharges into the Indian Ocean; and
- The Gouritz – has three main tributaries, the Groot, Gamka and Olifants Rivers, and includes a number of other smaller rivers in the WMA including the Touws-, Duiwenhoks, Goukou-, Hartenbos-, Great Brak-, Kaaimans-, Knysna- and Keurbooms Rivers as well as the Palmiet-, Kars-, Sout-, Uylenkraals-, Klein-, Onrus- and Bot-Swart Rivers.

The local Municipalities within the GRDM that fall under the Breede-Gouritz WMA include George, Kannaland, Knysna, Bitou, Hessequa, Mossel Bay, and Oudtshoorn Municipalities. The Gouritz River is the main river, contributing 41% of the surface flow in the WMA. The other main rivers, which drain the inland area, are the Buffels-, Touws-, Groot-, Gamka-, Olifants- and Kammanassie Rivers (Figure 9). The Duiwenhoks River supplies more than 1.2 million m³ per annum to the Overberg Water Board potable Duiwenhoks Rural Water Supply Scheme (domestic supplies to Heidelberg, Slangriver, Witsand and other smaller settlements as well as domestic and stock water), of which 0.7 million m³ per annum is transferred into the Breede WMA to supply farmers. There are three distinct water resource zones within the Gouritz WMA based on topography and climate, these include –

- The semi-arid Great Karoo consisting of the Gamka River catchment to the north of the Swartberg Mountains and the Touws/Buffels/Groot River catchments, to the west of the Klein Swartberg Mountains.
- The Olifants River which isfed by mountain streams rising in the Swartberg Mountains to the north, the central Kammanassie Mountains and the coastal Outeniqua Mountains in the south.
- The Coastal Belt, which includes the Gouritz/Goukou/Duiwenhoks catchments, extends from the western boundary of the WMA to (and including) the catchment of the lower Gouritz River, and the remaining coastal belt extends to the eastern boundary of the WMA.

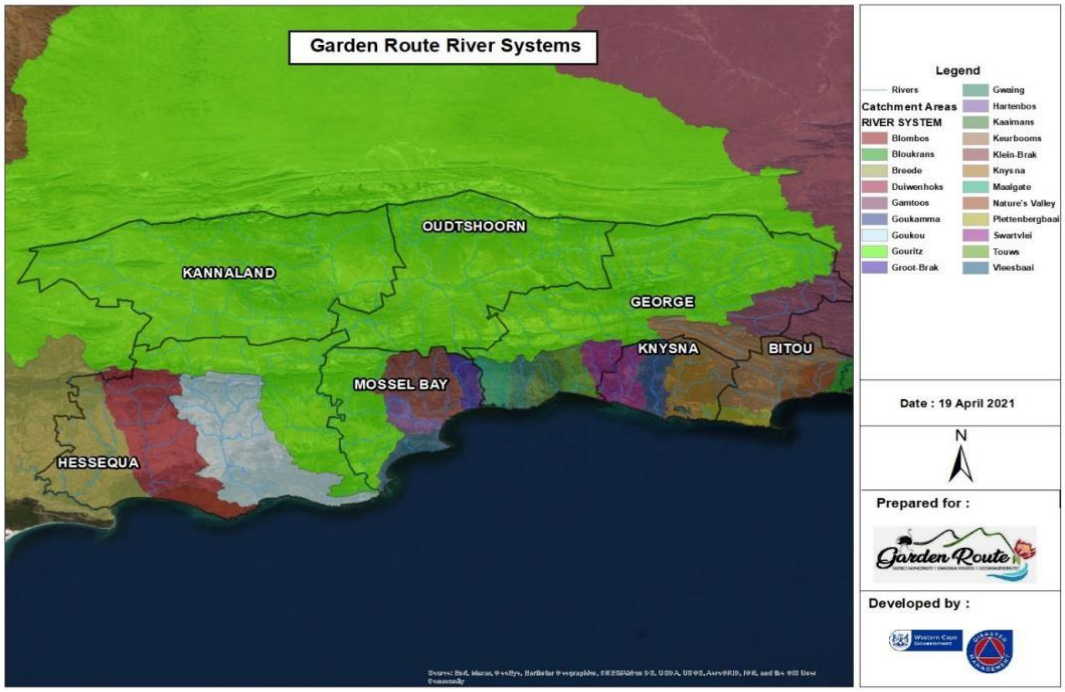


Figure 9: River Systems in the Garden Route District Municipal Area (WCG: PDMC, 2021.

The water quality of the Gouritz River is characterised by elevated salt concentrations. Water quality is good in the headwaters of the tributaries of the Gouritz River; however, it is characterised by elevated salt concentrations further downstream due to the geology of the region, high evaporation, and agricultural impacts. In terms of wetlands in the GRDM, according to the GRDM Climate Change Adaptation Summary Report (2018), most wetlands are classified as either 'moderately modified' (between 25% and 75% of the wetland land cover is natural) or 'heavily to critically modified' (less than 25% of the wetland land cover is natural). The Garden Route Lake District comprises five lakes and three lagoon estuaries, of which Swartvlei is the largest lake that is also a tidal lagoon. The other lakes include Groenvlei, Rondevlei and Upper Langvlei, which flows into Lower Langvlei (also known as Island Lake).

APPENDIX 5: Maps and Figures

5.1 The Coastal Protection Zone, Including Coastal Wetlands

The Following Figures (6 Maps; Figures 10 to 15) illustrate the Coastal Protection Zone, and Include Coastal Wetlands within 2km of the High-Water Mark:

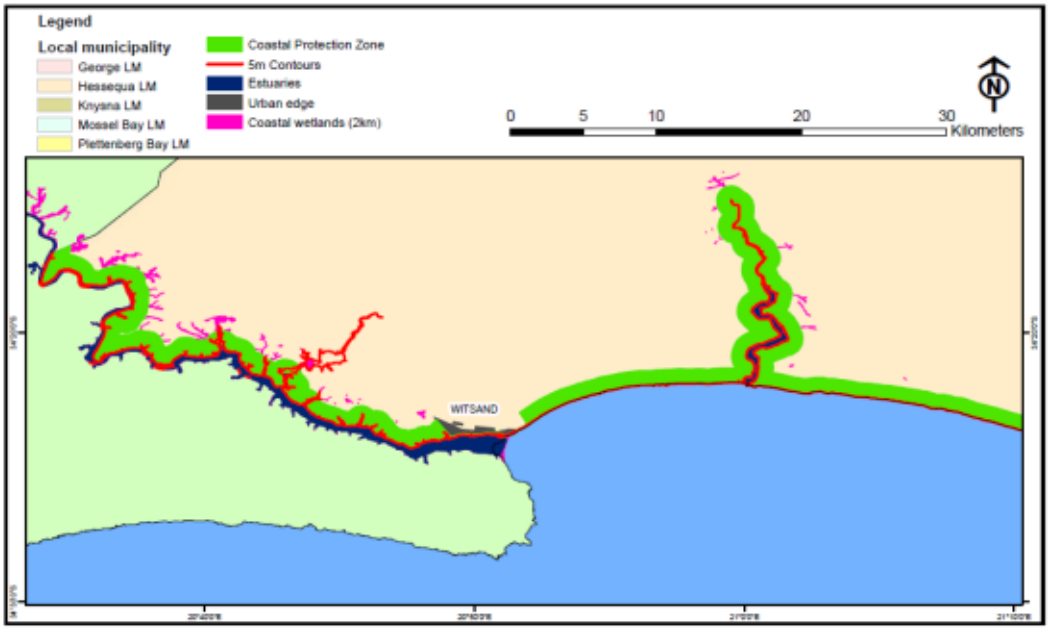


Figure 10: Hessequa Municipal Area - Coastal Protection Zone (Map 1).

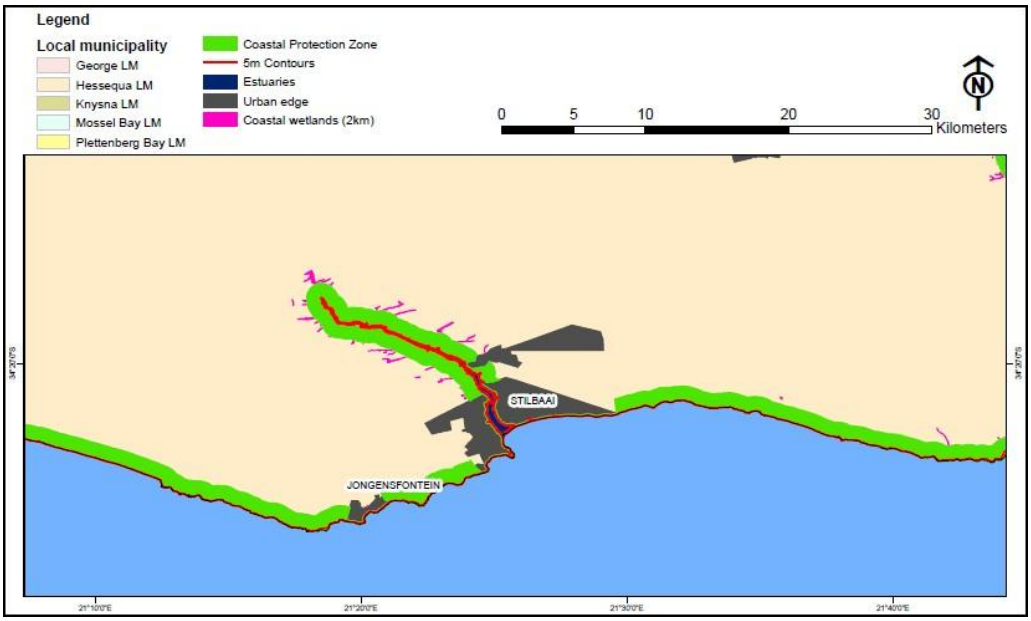


Figure 11: Hessequa Municipal Area - Coastal Protection Zone (Map 2).

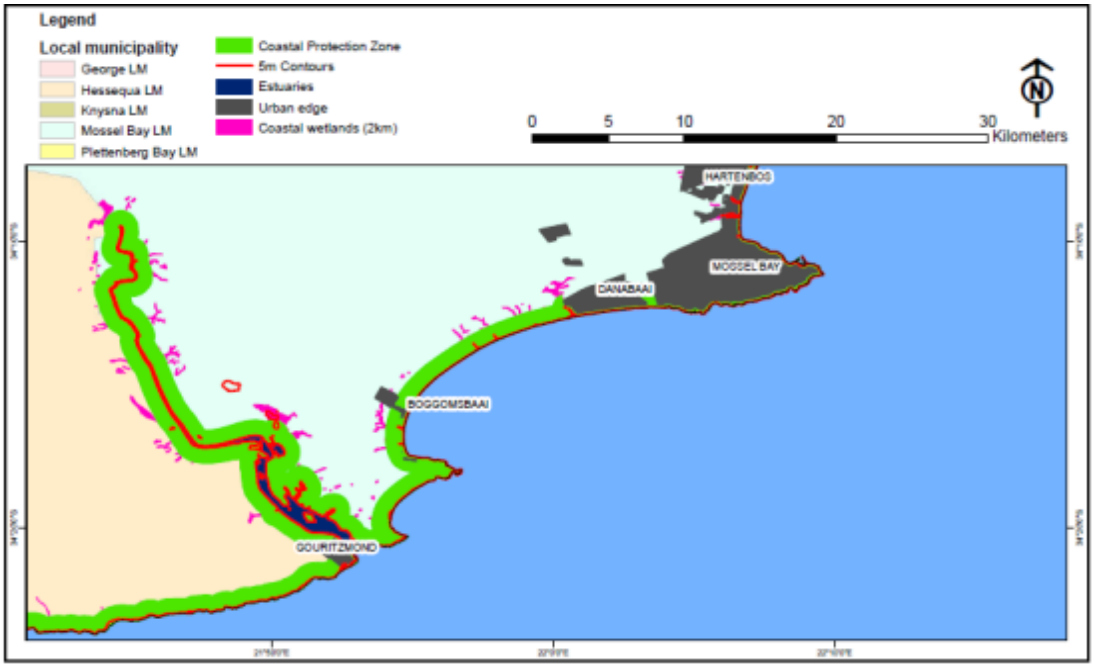


Figure 12: Hessequa/Mossel Bay Municipal Area - Coastal Protection Zone.

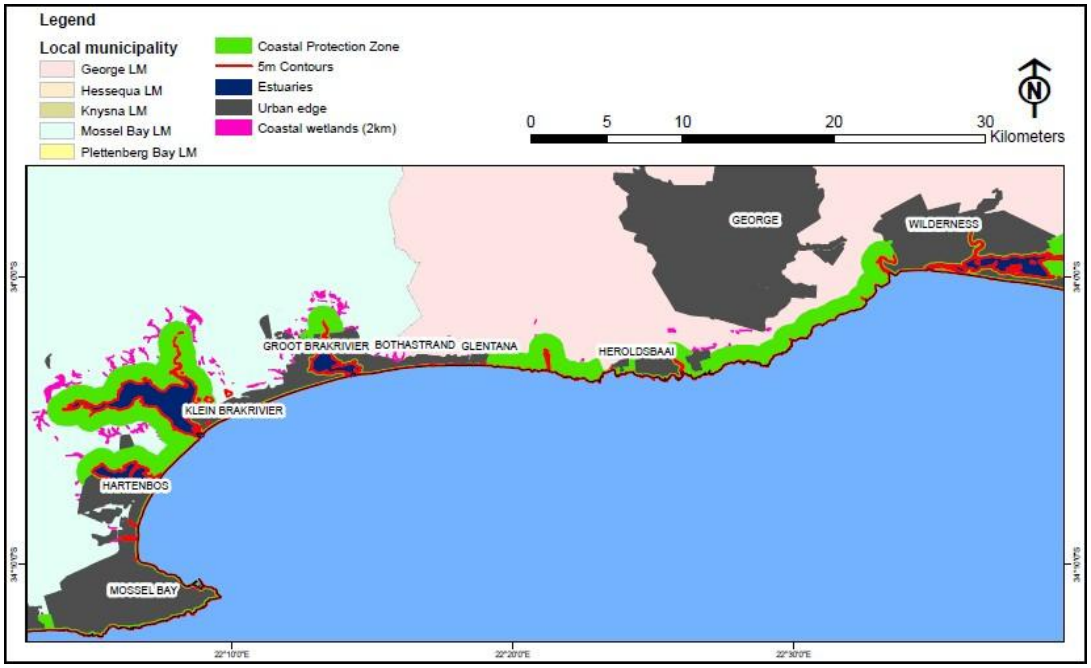


Figure 13: Mossel Bay/George Municipal Area - Coastal Protection Zone.

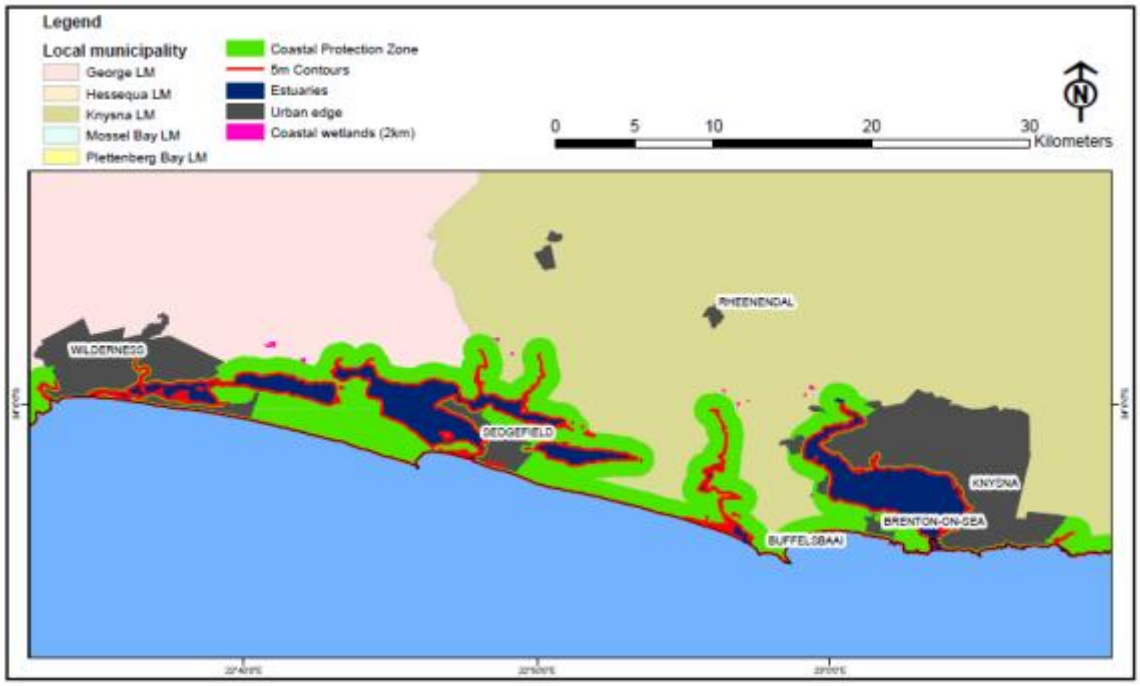


Figure 14: George/Knysna Municipal Area - Coastal Protection Zone.

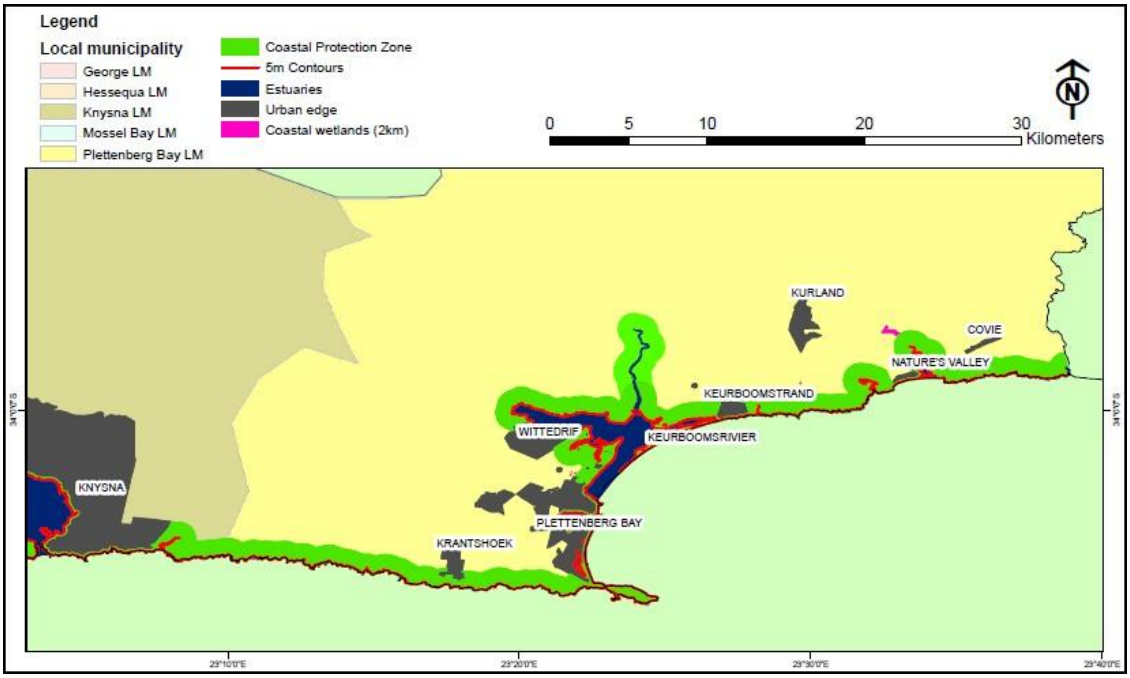


Figure 15: Knysna/Bitou Municipal Area - Coastal Protection Zone.

5.2 Estuaries, Protected Areas, and Nature Reserves / PriorityConservation Areas

The following Figures (6 Maps; Figures 16 to 21) illustrate the Estuaries (with or without management plans), Protected areas, and Nature Reserves/Priority Conservation Areas within the Garden Route District's Coastal Zone.

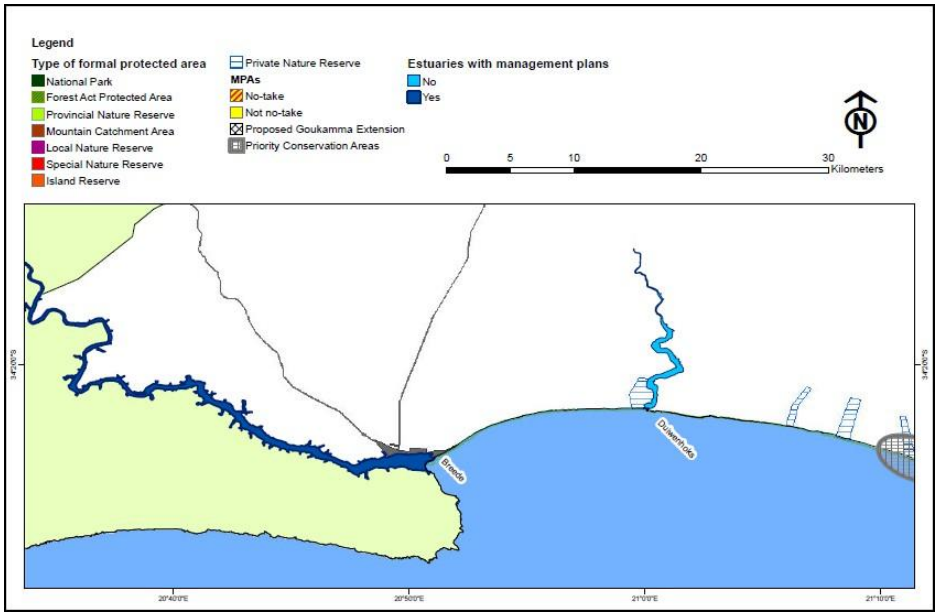


Figure 16: Hessequa Municipal Area – Estuaries, Protected Areas and Nature Reserves/ Priority Conservation Areas (Map 1).

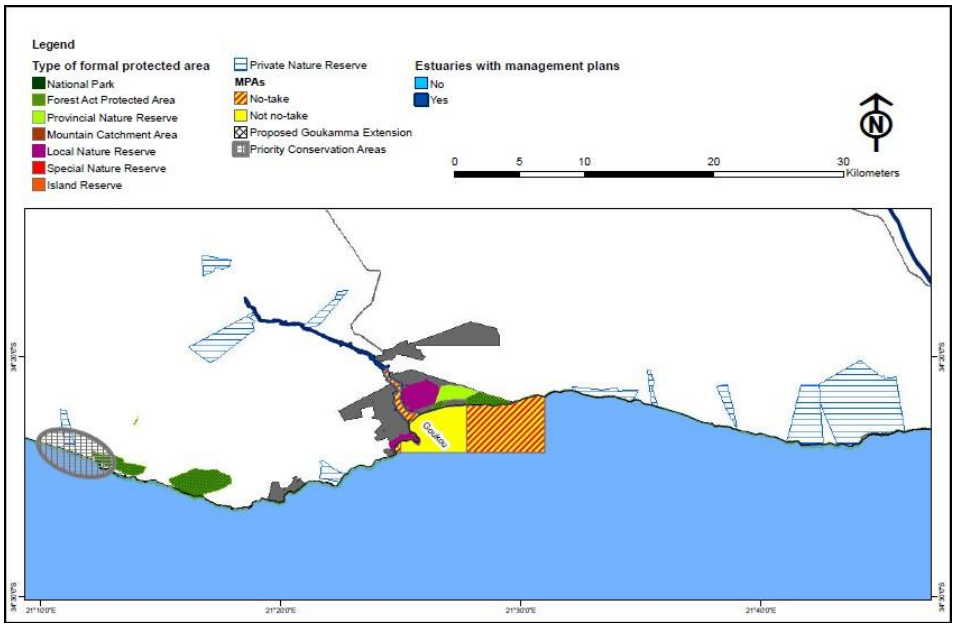


Figure 17: Hessequa Municipal Area – Estuaries, Protected Areas and Nature Reserves/Priority Conservation Areas (Map 2).

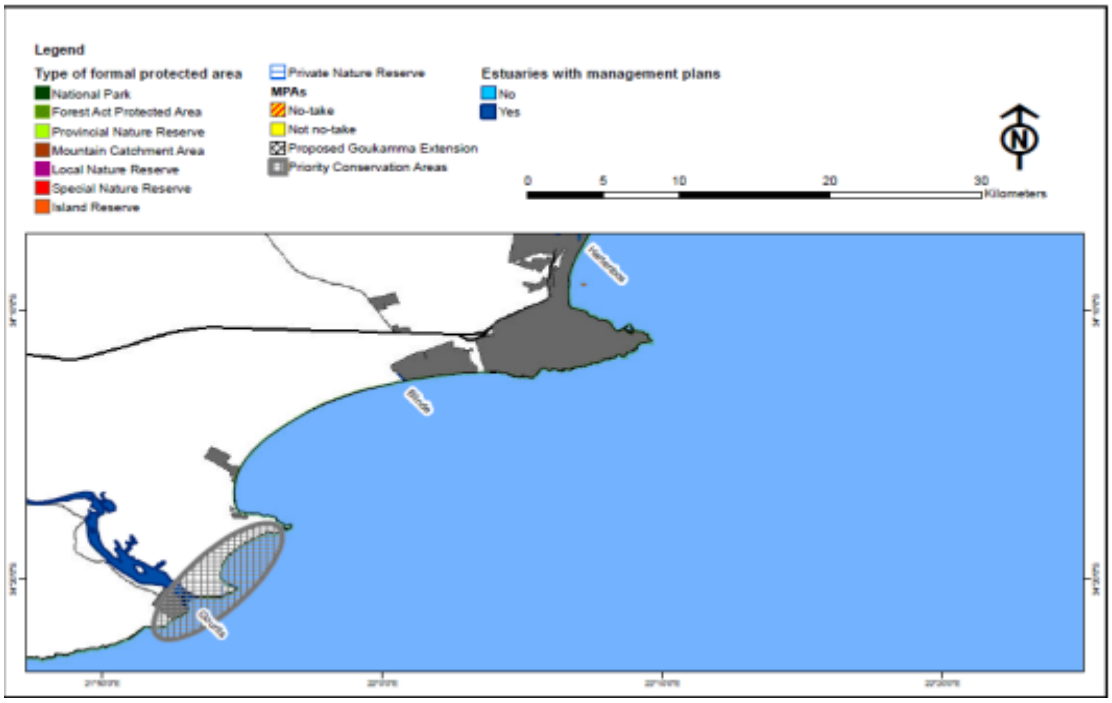


Figure 18: Hessequa/Mossel Bay Municipal Area – Estuaries, Protected Areas and Nature Reserves/Priority Conservation Areas.

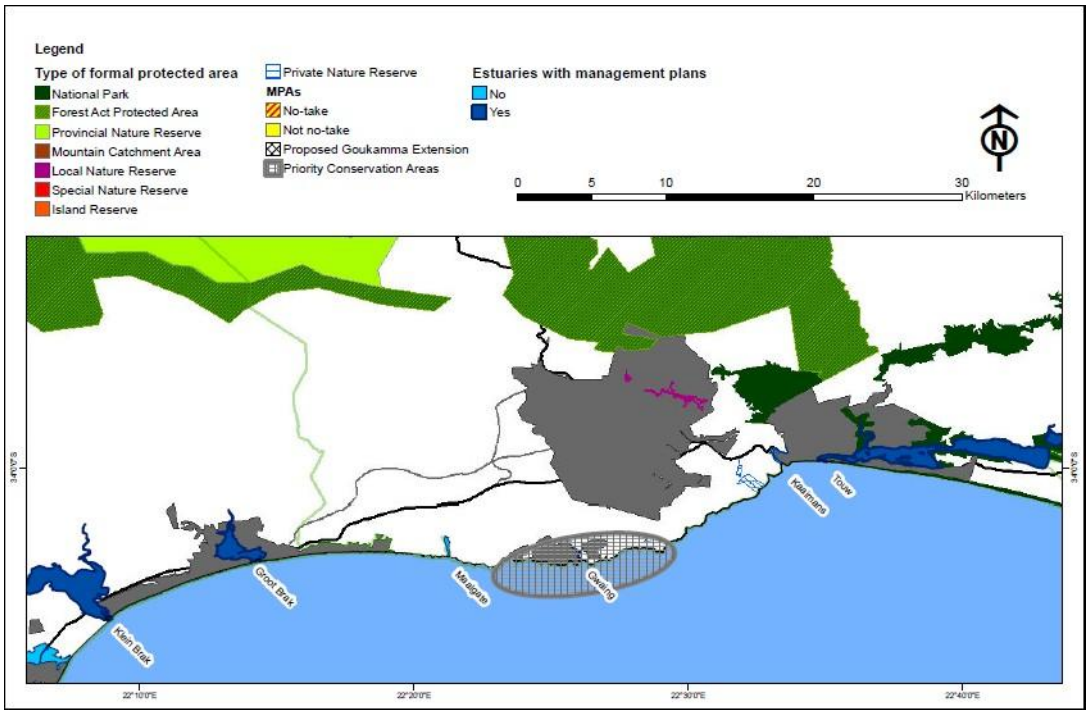


Figure 19: Mossel Bay/George Municipal Area – Estuaries, Protected Areas and Nature Reserves/Priority Conservation Areas.

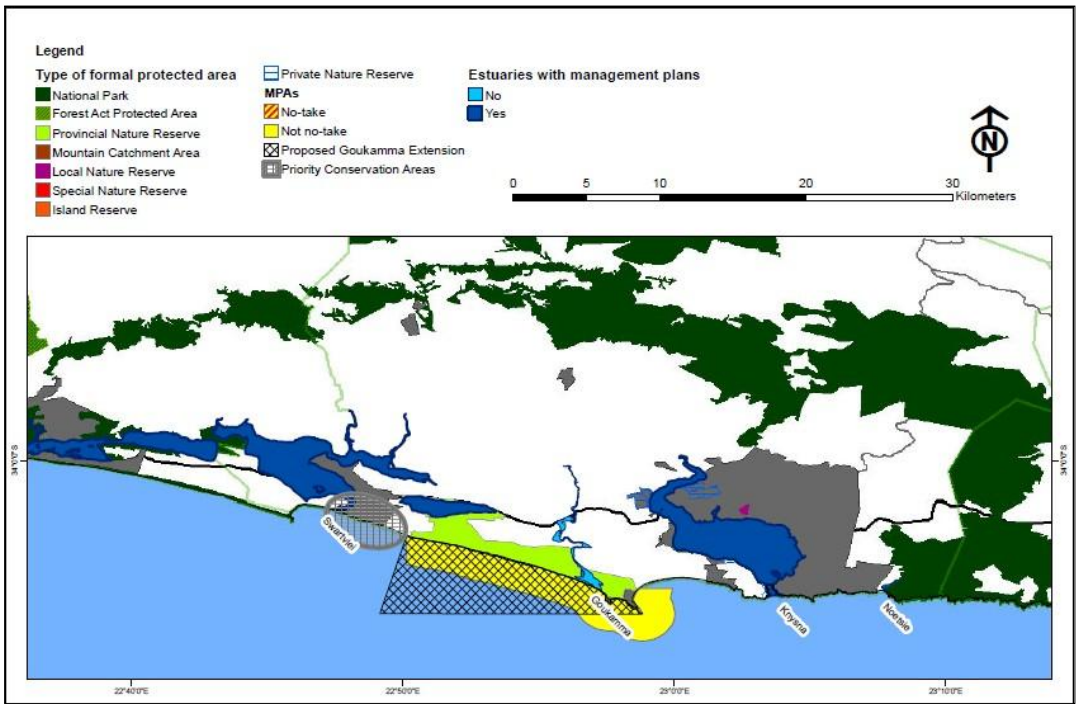


Figure 20: George/Knysna Municipal Area – Estuaries, Protected Areas and Nature Reserves/ Priority Conservation Areas.

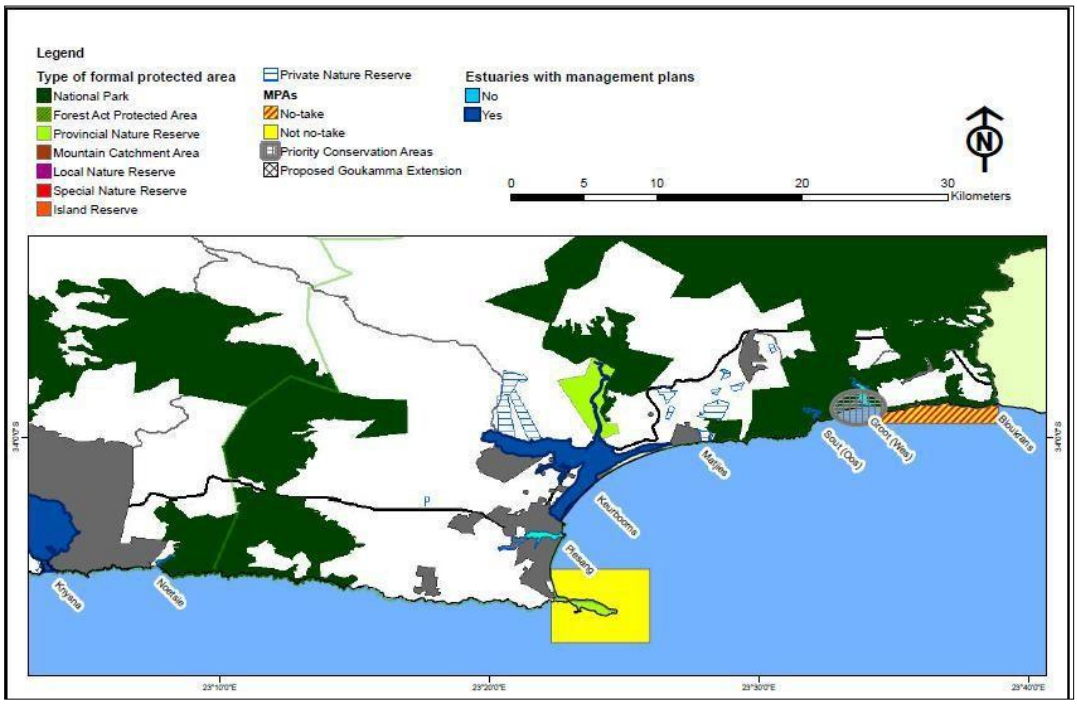


Figure 21: Knysna/Bitou Municipal Area – Estuaries, Protected Areas and Nature Reserves/ Priority Conservation Areas.

5.3 Percentage Alien Invasive Plants and Critical Biodiversity Areas

The following Figures (10 Maps; Figures 5.3.1 (Figures 22 – 31) and Figures 5.3.2 (Figures 23 – 29) are the Percentage Alien Invasive Plants and Critical Biodiversity Areas within the Garden Route District.

5.3.1 Percentage Alien Invasive Plants

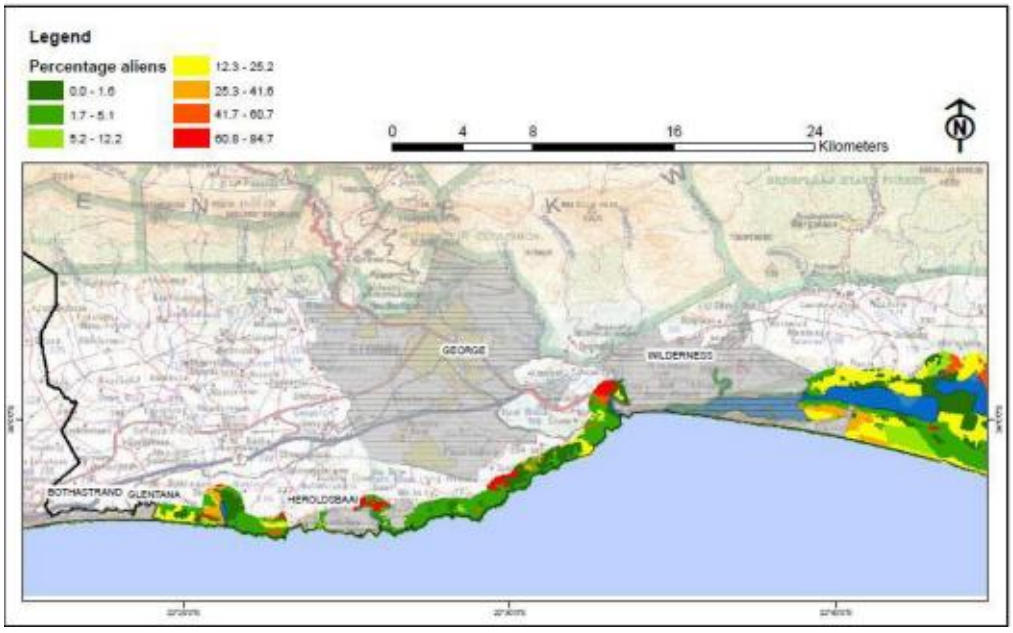


Figure 22: George/Knysna Municipal Area - Percentage Alien Invasive Plants.

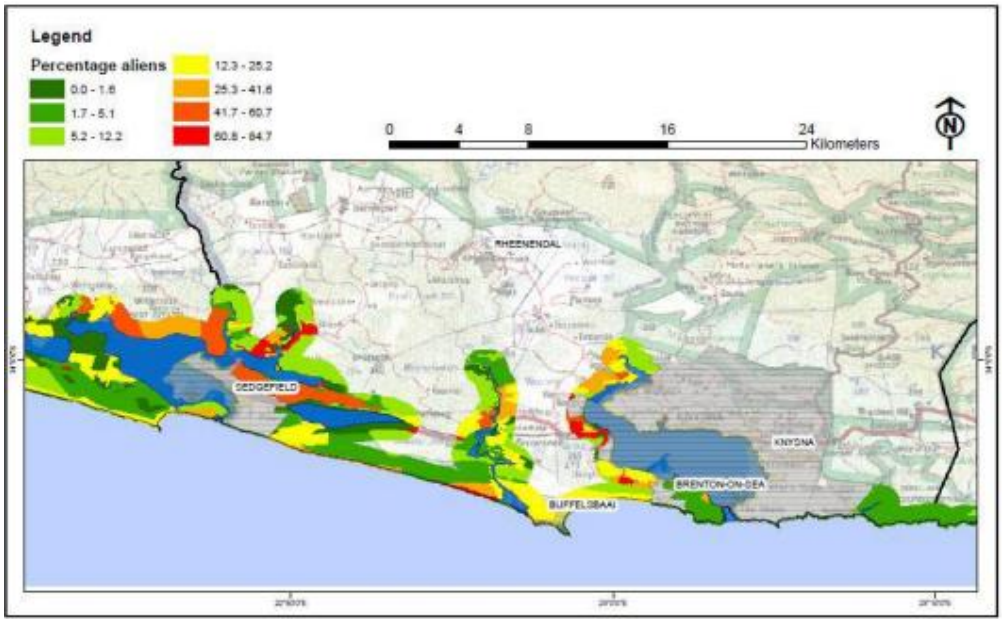


Figure 23: Knysna Municipal Area - Percentage Alien Invasive Plants.

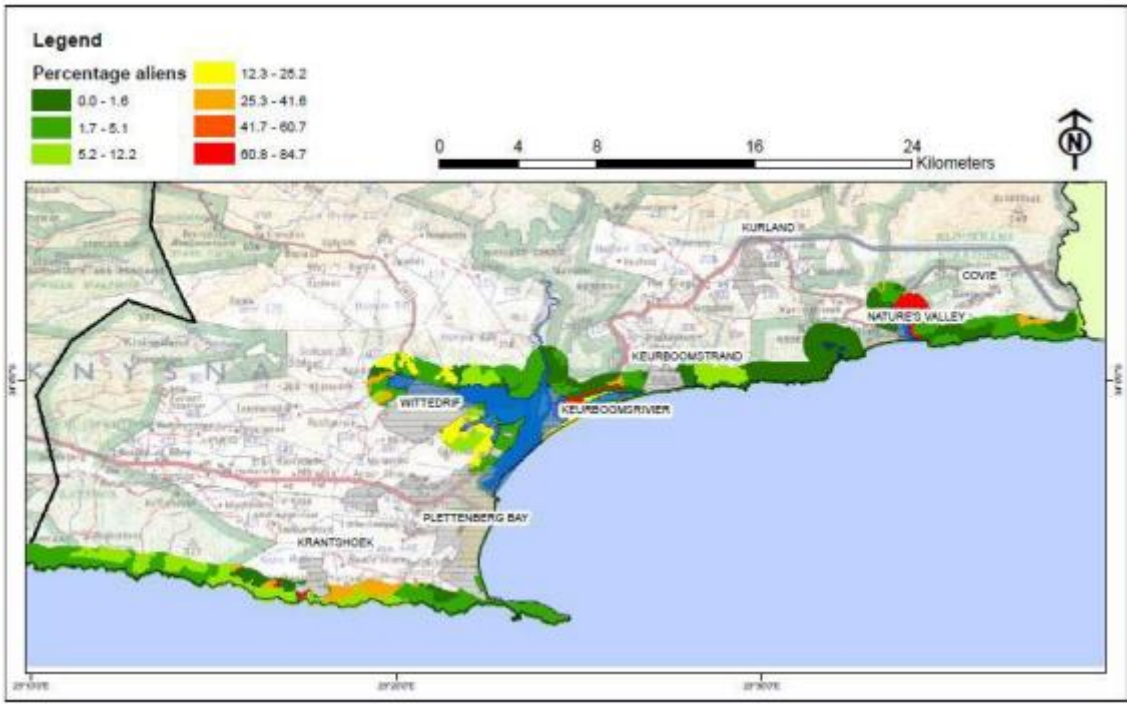


Figure 24: Knysna/Bitou Municipal Area - Percentage Alien Invasive Plants.

5.3.2 Critical Biodiversity Areas

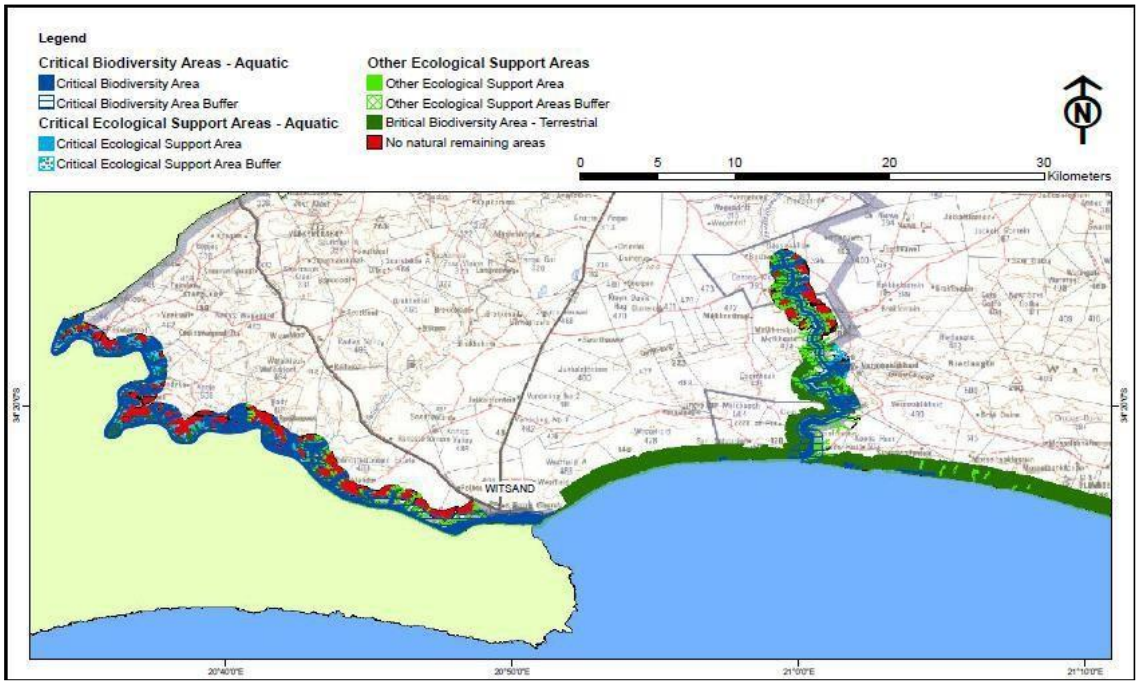


Figure 25: Hessequa Municipal Area – Critical Biodiversity Areas (Map 1).

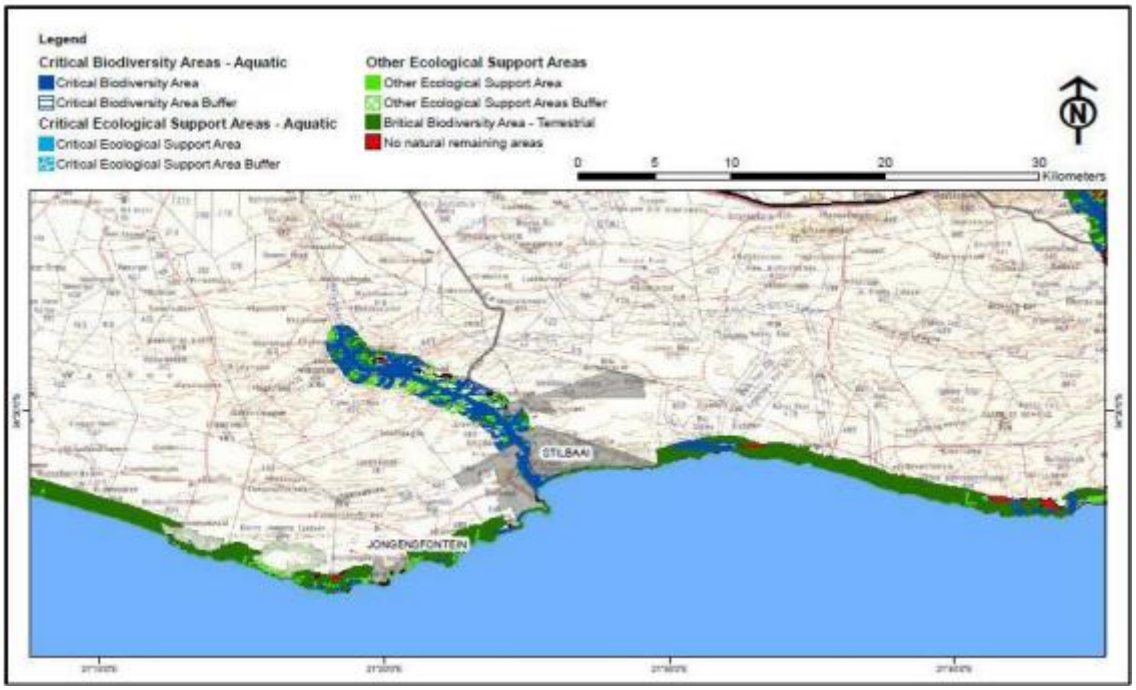


Figure 26: Hessequa Municipal Area – Critical Biodiversity Areas (Map 2).

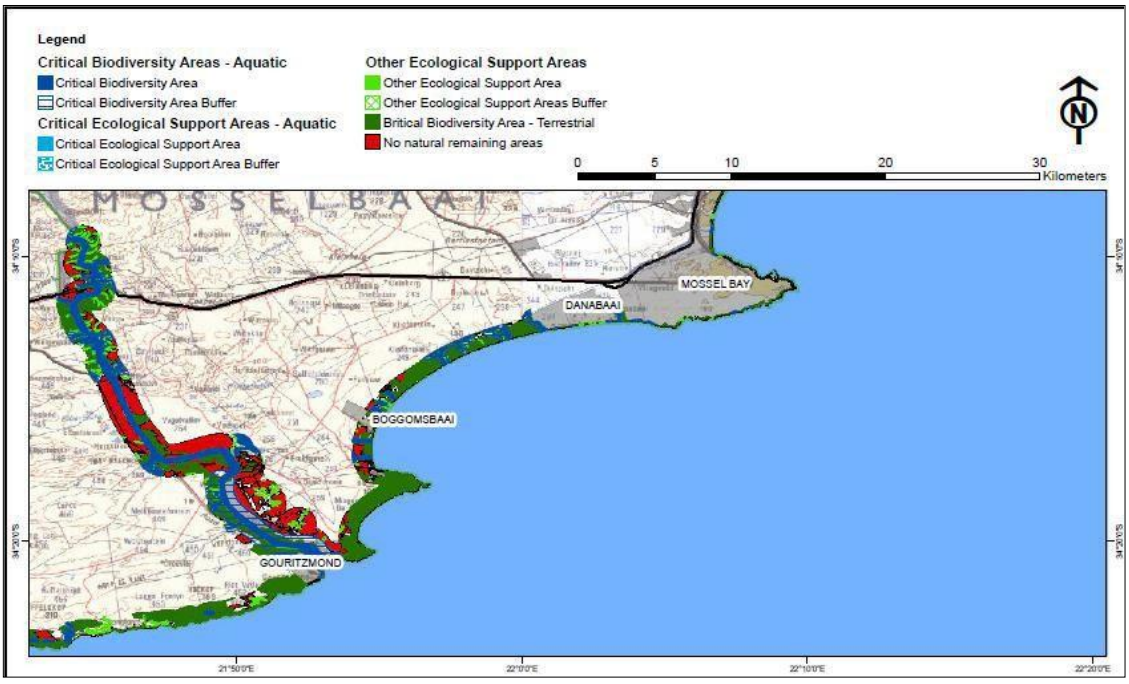


Figure 27: Hessequa/Mossel Bay Municipal Area – Critical Biodiversity Areas.

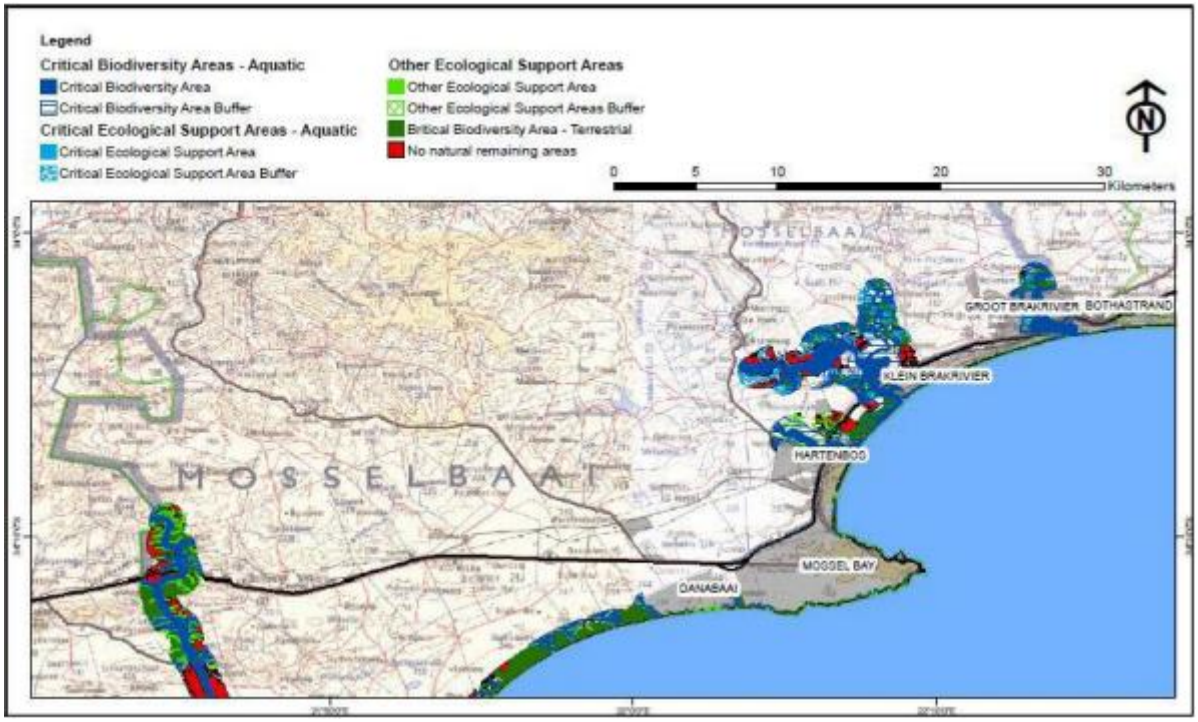


Figure 28: Mossel Bay Municipal Area – Critical Biodiversity Areas

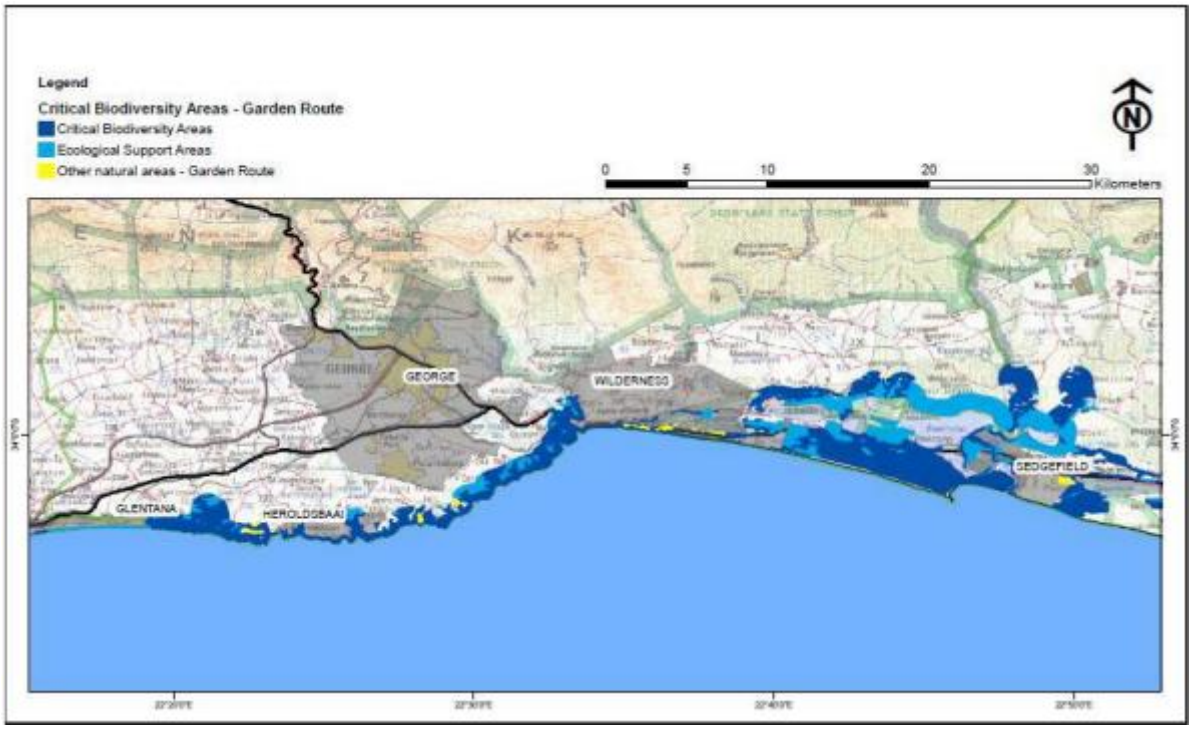


Figure 29: George/Knysna Municipal Area – Critical Biodiversity Areas.

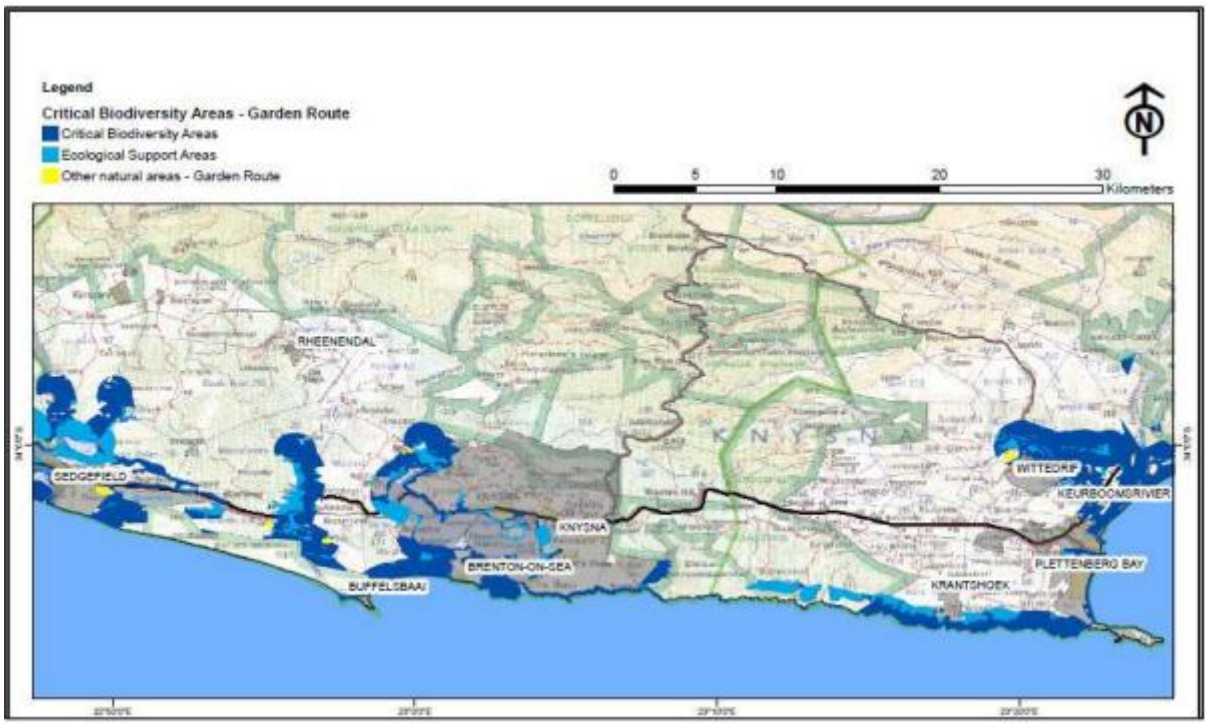


Figure 30: Knysna/Bitou Municipal Area – Critical Biodiversity Areas (Map1).

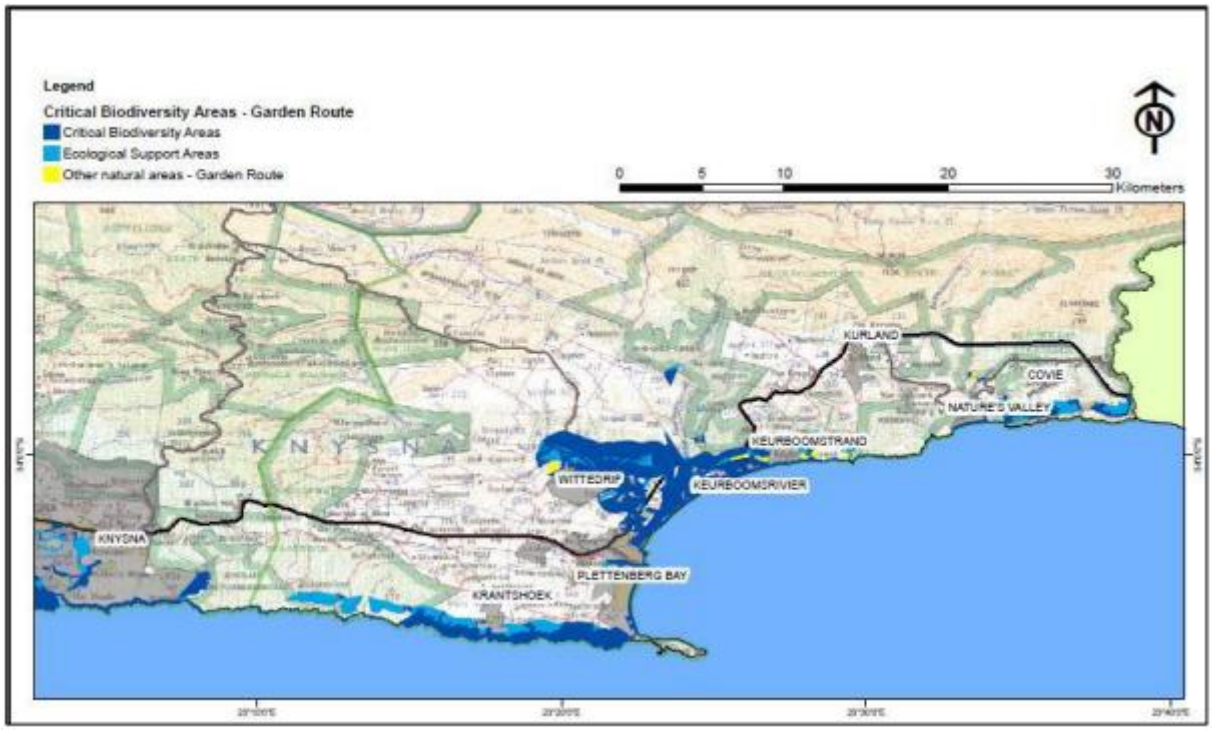


Figure 31: Knysna/Bitou Municipal Area – Critical Biodiversity Areas (Map 2).

5.4 Risk Areas in Terms of Coastal Erosion and Extreme Events

The following Figures (12 Maps; Figures 32 to 43) Illustrate the Risk Areas in Termsof Coastal Erosion and Extreme Events

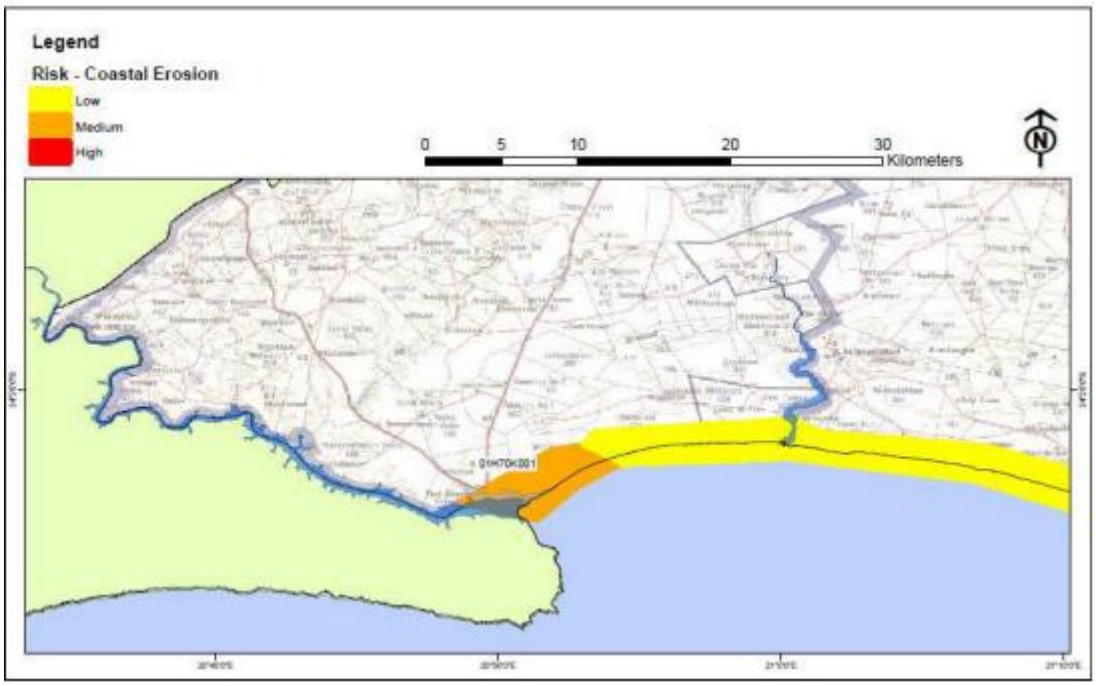


Figure 32: Hessequa Municipal Area – Coastal Risk of Erosion (Map 1).

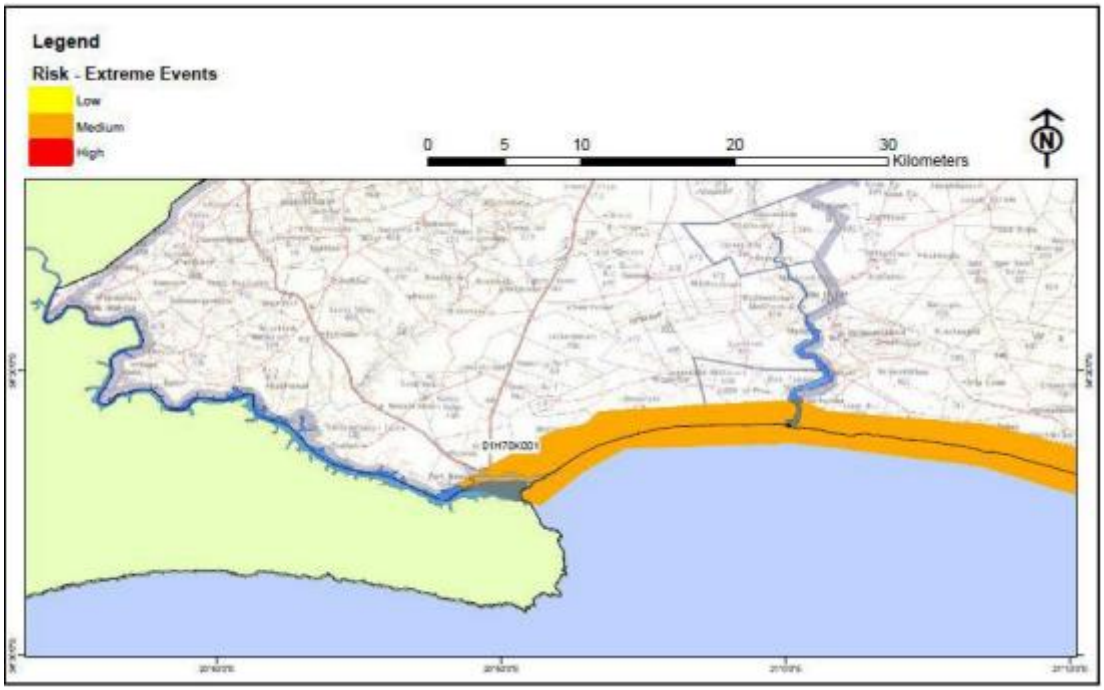


Figure 33: Hessequa Municipal Area – Coastal Risk of Extreme Events (Map 1).



Figure 34: Hessequa Municipal Area – Coastal Risk of Erosion (Map 2).

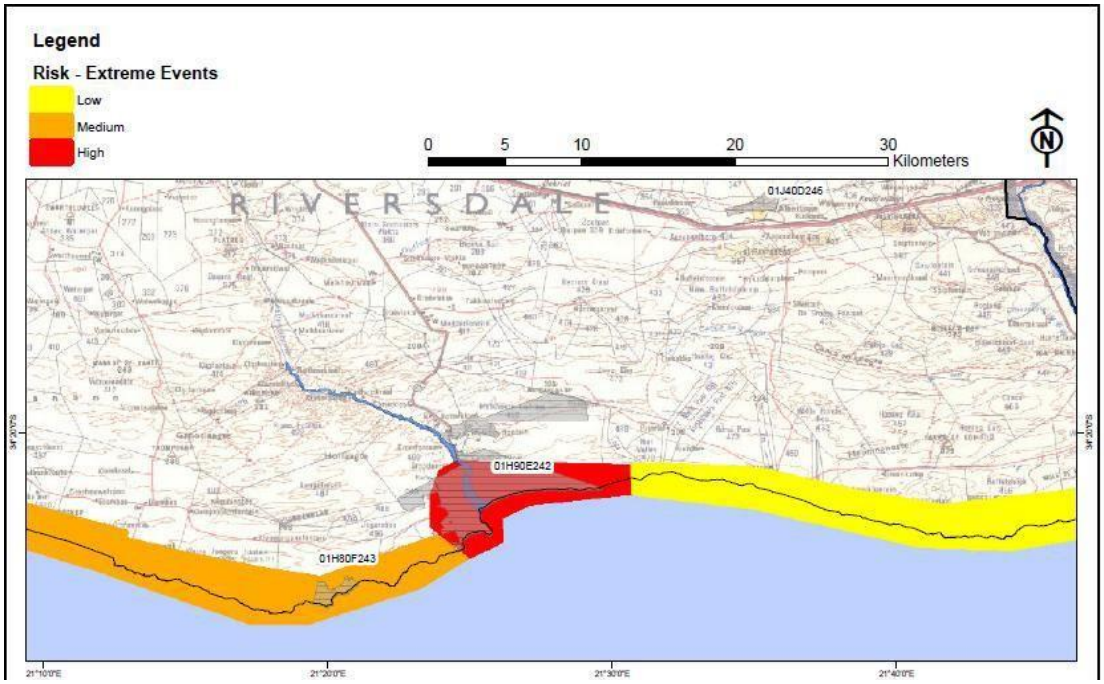


Figure 35: Hessequa Municipal Area – Coastal Risk of Extreme Events Map 2).

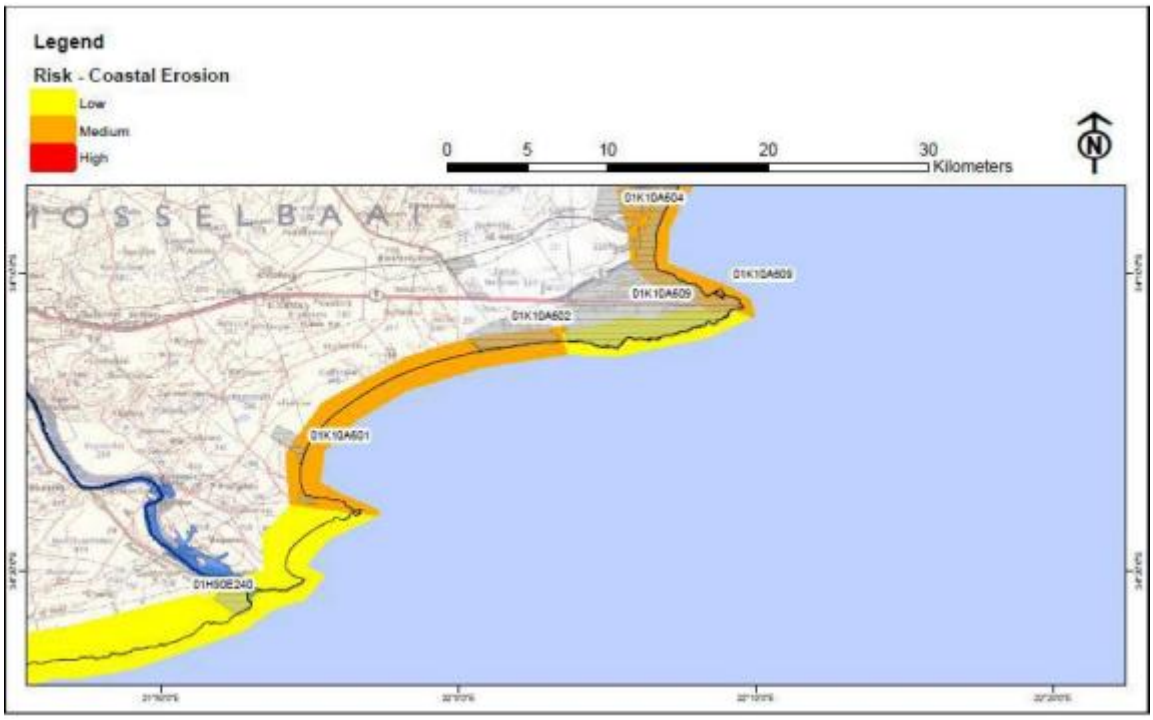


Figure 36: Mossel Bay Municipal Area – Coastal Risk of Erosion.

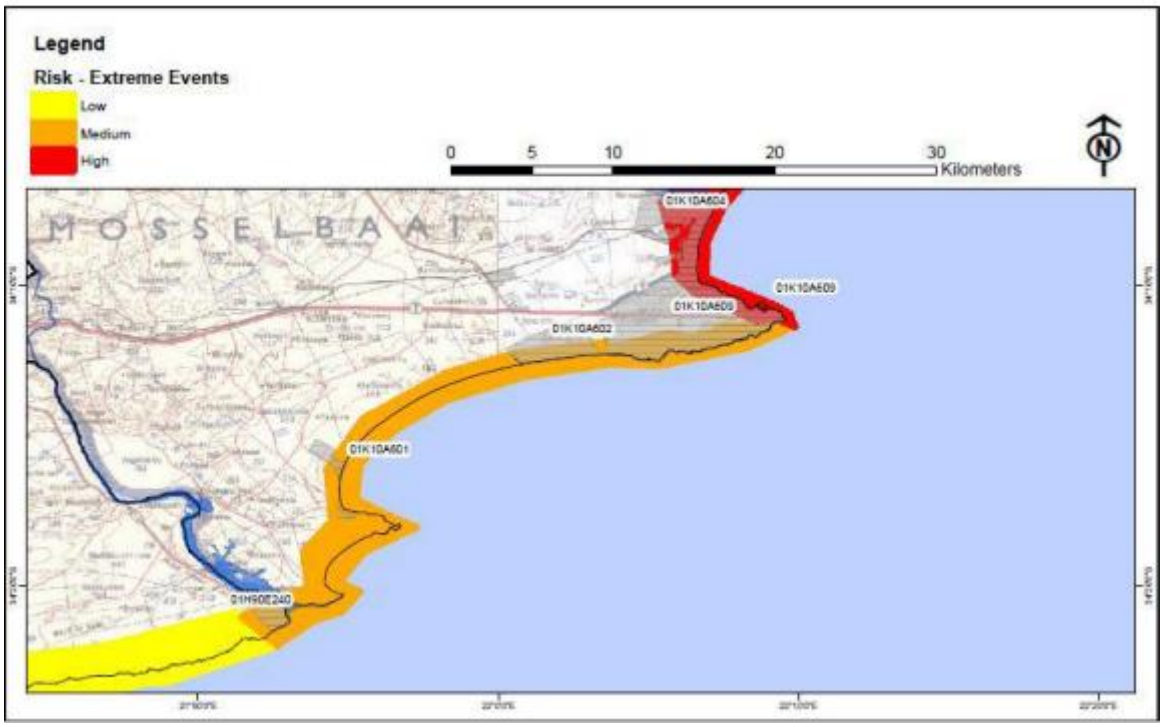


Figure 37: Mossel Bay Municipal Area – Coastal Risk of Extreme Events.

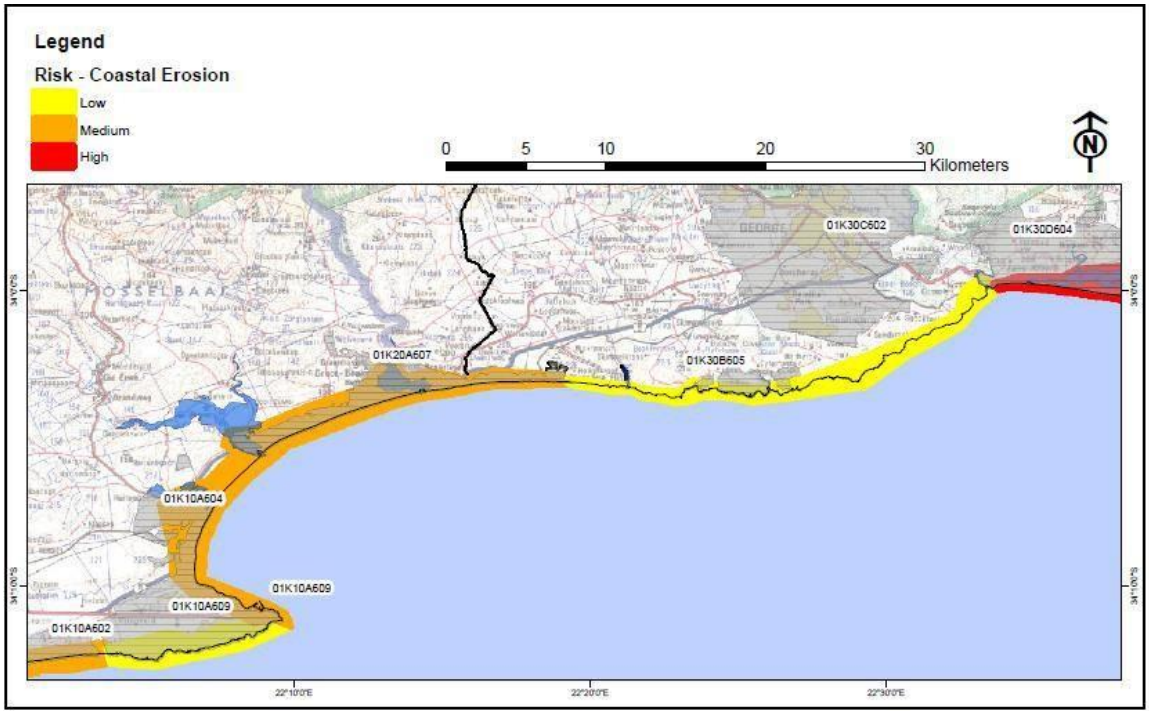


Figure 38: Mossel Bay/ George Municipal Area – Coastal Risk of Erosion.

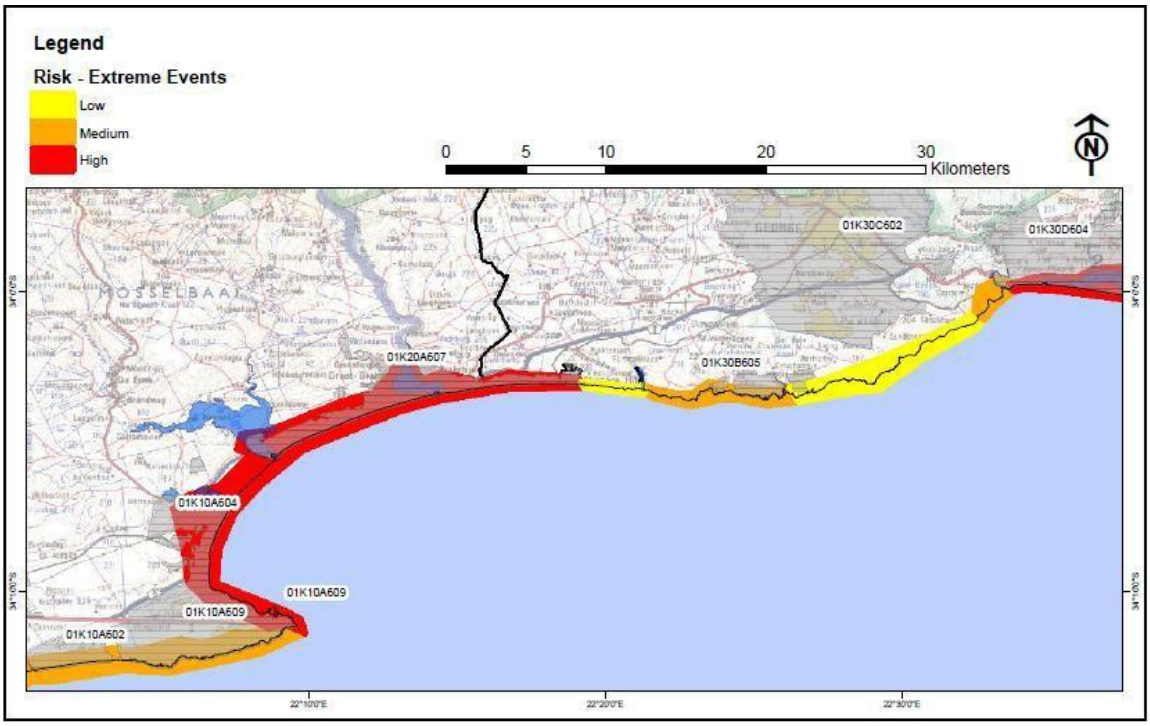


Figure 39: Mossel Bay/George Municipal Area – Coastal Risk of Extreme Events.

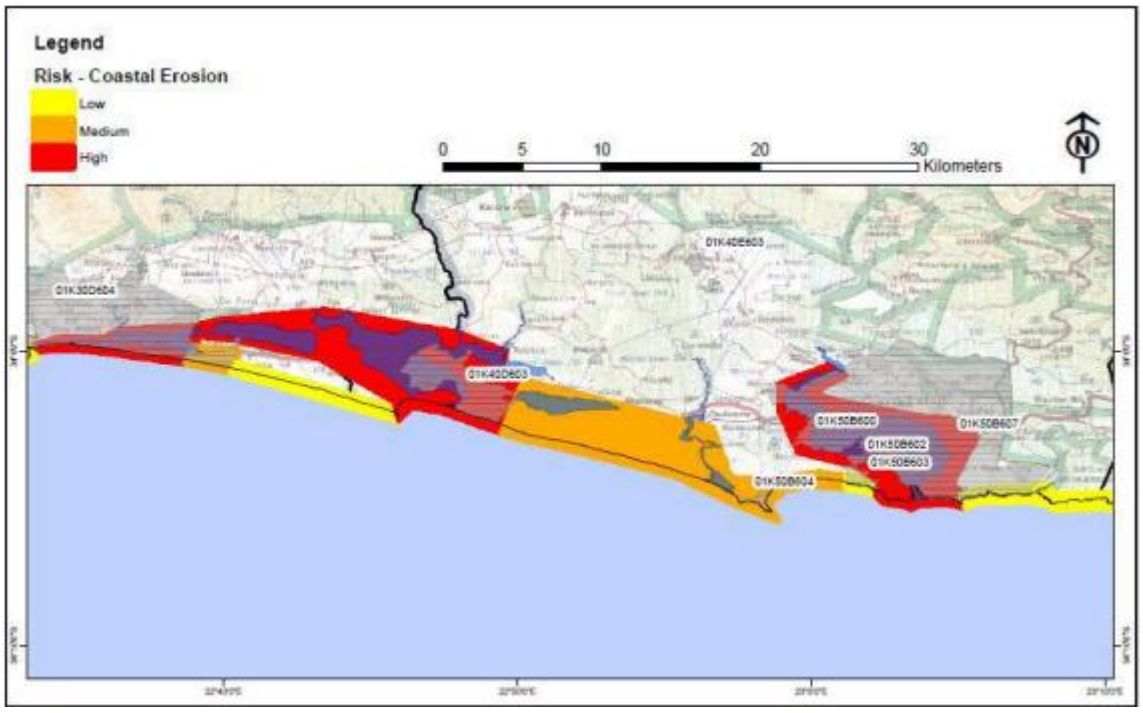


Figure 40: George/Knysna Municipal Area – Coastal Risk of Erosion.

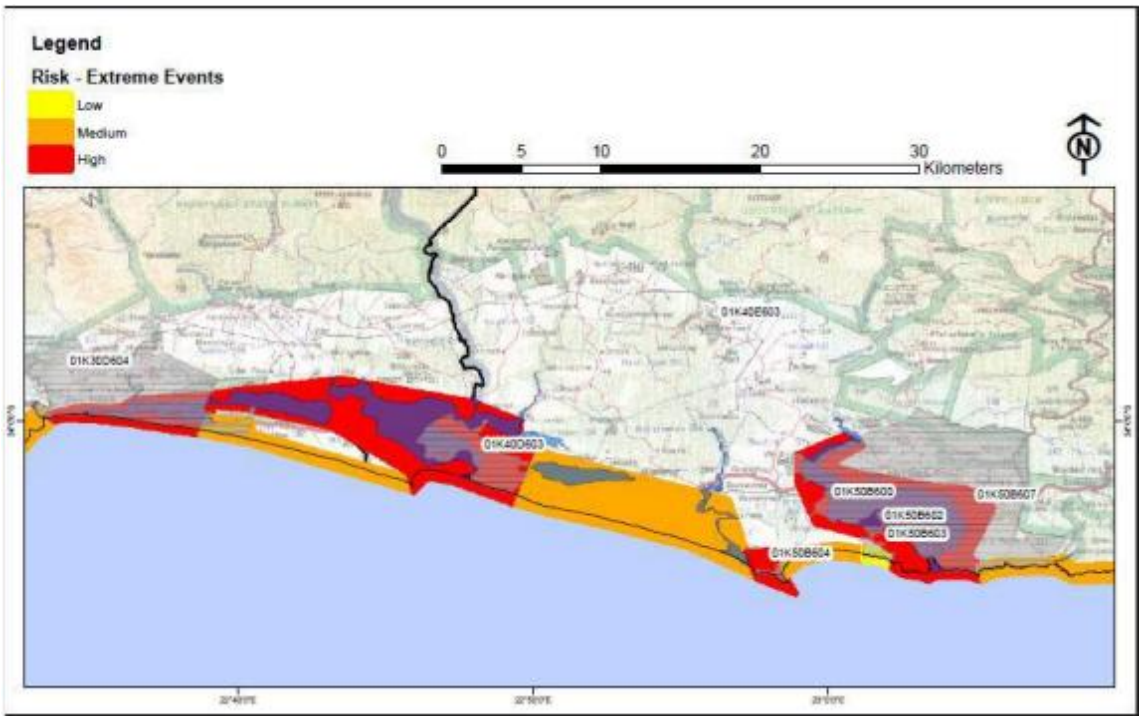


Figure 41: George/Knysna Municipal Area – Coastal Risk of Extreme Events.

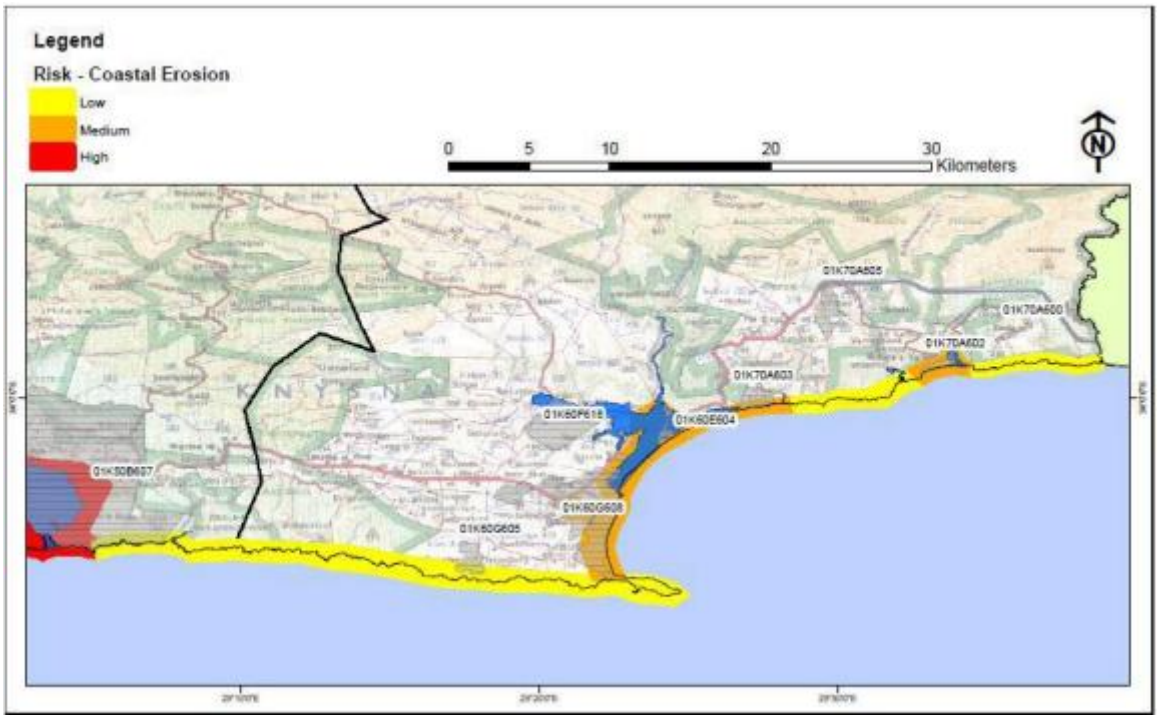


Figure 42: Knysna/Bitou Municipal Area – Coastal Risk of Erosion.

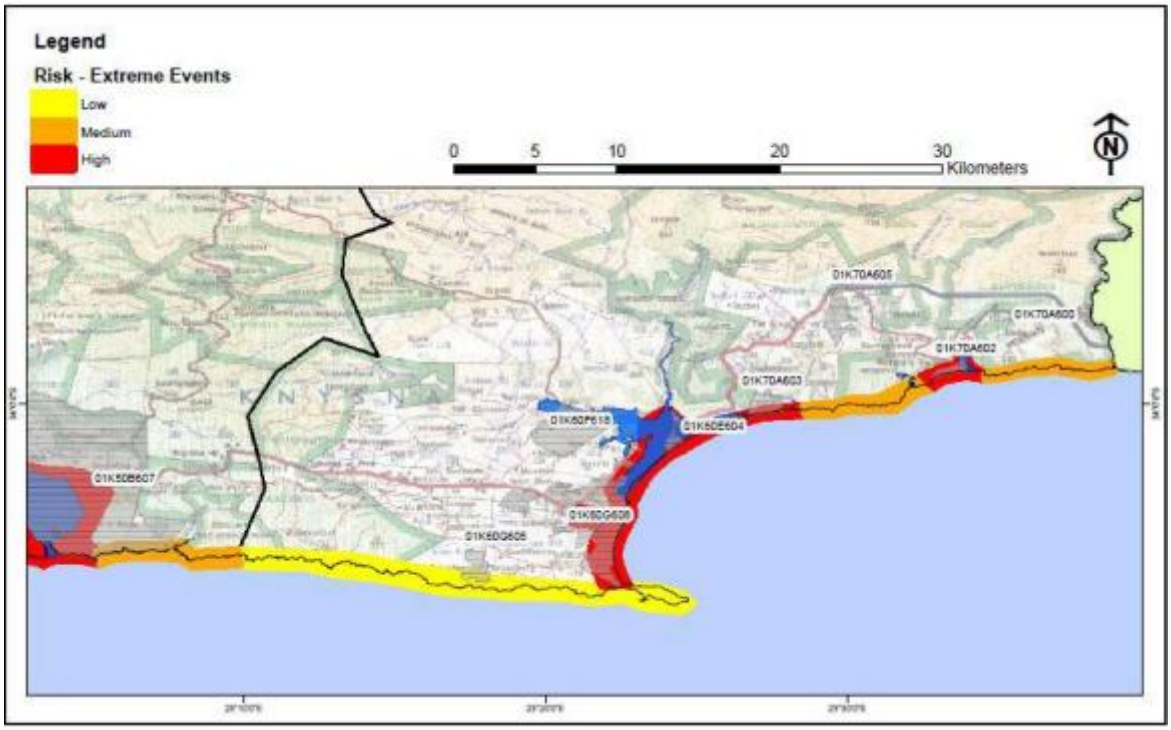


Figure 43: Knysna/Bitou Municipal Area – Coastal Risk of Extreme Events.

APPENDIX 6: The Public Launch Site Register (currently being updated)

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PROVINCE OF THE WESTERN CAPE

PROVINCIAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

MANAGEMEMENT OF PUBLIC LAUNCH SITES IN THE COASTAL ZONE REGULATIONS, 2014 (GN NO. R. 497 GOVERNMENT GAZETTE NO. 37761 OF 27 JUNE 2014)

NOTICE: PUBLICATION OF PUBLIC LAUNCH SITES AND THE IDENTIFIED MANAGEMENT BODIES FOR EACH LISTED SITE FOR THE WESTERN CAPE.

I, Anton Bredell, Provincial Minister of Local Government, Environmental Affairs and Development Planning in the Western Cape, hereby list the official Public Launch Sites for the Western Cape and identify the respective Management Bodies responsible for each of the listed sites as provided in the table below, in terms of section 2(1)(a)&(b) of the *Management of Public Launch Sites in the Coastal Zone Regulations, 2014 (GN No. R. 497 Government Gazette No. 37761 of 27 June 2014).*

Signed at Cape Town this 24th day of June 2015.

A BREDELL, MINISTER OF LOCAL GOVERNMENT, ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

P.K. 193/2015 26 Junie 2015

PROVINSIE WES-KAAP

KENNISGEWING: PUBLIKASIE VAN OPENBARE BOOTLANSEERPLEKKE EN DIE GEINDENTIFISEERDE BESTUURSLIGGAME VIR ELKE GENOEMDE LIGGING VIR DIE WES-KAAP.

Ek, Anton Bredell, Provinsiale Minister van Plaaslike Regering, Omgewingsake en Ontwikkelingsbeplanning van die Wes-Kaap, lys hiermee die amptelike Openbare Bootlanseerplekke vir die Wes-Kaap en identifiseer die onderskeie Bestuursliggame vir elke genoemde ligging, soos aangedui in die tabel hieronder, kragtens artikel 2(1)(a)&(b) van die *Management of Public Launch Sites in the Coastal Zone Regulations, 2014 (GN No. R. 497 Government Gazette No. 37761 of 27 June 2014).*

District/ Distrik	Management Body/ Bestuursliggaam	Public Launch Sites/ Openbare Bootlanseerplekke
City of Cape Town Metropolitan	City of Cape Town Metropolitan Municipality	• Oceana Power Boat Club • Blouberg Beach (Doodles) • Harbour Island (Gordon's Bay) • Hottentots Holland • Strand Beach Road • Sonwabe • Kommetjie • Melkbosstrand • Miller's Point (main slipway & secondary slipway) • Witsands
West Coast	Matzikama Municipality	• Doring Bay Harbour (unproclaimed) • Strandfontein by the Café • Papendorp
	Cederberg Municipality	• Eland's Bay (Old Crayfish Factory)
	Bergrivier Municipality	• Northern Dwarskersbos • Roolbaai
	Saldanha Municipality	• Brittania Bay • Cubb, Paternoster • Paternoster • Klein, North West Bay • Jacobsbaai
	Swartland Municipality	• Yzerfontein
Overberg	Swellendam Municipality	• Moddergat • Malgas Western Bank • Infanta Slipway
	Cape Agulhas	• Suiderstrand
	Overstrand	• Fisherhaven Slipway (A & B) • Harderbaai Slipway • Prawn Flats Slipway • Maanschynbaai Slipway (Hangklip) • Maanschynbaai Slipway (Klein River) • Rooiels Coastal Slipway • King Street Slipway • Kleinmond Coastal Slipway • Kleinbaai Boat Launching Site • Buffeljachtsbaai • Franskraal Coastal Slipway (Blousloep) • Du Toit Street Slipway • Blue Water Bay (Pearly Beach) • Die Damme (Cape Agulhas) • Rietfontein (Cape Agulhas)
Eden	Bitou Municipality	• Plettenberg Bay Ski Boat Club
	Knysna Municipality	• Buffalo Bay Ski Boat Club
	George Municipality	
	Mossel Bay Municipality	• Klein Brak • Great Brak
	Hessequa Municipality	• Breede Estuary – Die Kraaltjie • Breede Estuary – NSRI Slipway • Duivenshok Site A Upriver • Goukou Main Slipway • Gourits Estuary Slipway

Figure 44: Provincial Notice of the public launch site register.

APPENDIX 7: National, Provincial and Local Government Roles and Responsibilities

Table 8: National, Provincial and Local Government roles and responsibilities in terms of the NEM: ICMA (DEA, 2014, DEA&DP, 2022; RSA, 2008).

	ASPECT	RESPONSIBILITIES
NATIONAL GOVERNMENT ROLES AND RESPONSIBILITIES		
1	The management of coastal public property	Ensuring the state as a public trustee, provides for the protection, management, and enhancement of coastal public property as an inalienable area within the coastal zone that belongs to the citizens of South Africa. This is achieved by developing regulations to control the use of coastal public property, determine and adjust the boundaries of coastal public property as deemed appropriate, as well as designation and inclusion of certain portions of state-owned land as coastal public property, to achieve the objectives of the NEM: ICMA.
2	The National Estuarine Management Protocol	Ensure that the National Estuarine Management Protocol (No. 533 of June 2021 as amended) is implemented and that for each estuary along the SA coast has Estuarine Management Plans, which meet the minimum requirements as prescribed, are put in place in collaboration with responsible authorities appointed for Estuary Management Plan (EMP) development and implementation.
3	The National Coastal Committee	Establishment of the National Coastal Committee (NCC) (currently operating as Working Group 7 (WG7)), determination of its powers and appointing representatives for the Committee.
4	Monitor the Appointment of provincial lead agencies	Ensure that provincial lead agencies for ICM are established and function on a continual basis.
5	Development and Implementation of the National Coastal Management Programme	Develop an NCMP aligned with the contents of the NEM: ICMA (Published in March 2015).
6	Consistency and alignment between the NCMP and other statutory plans	Ensure that any plan, policy, or programme adopted by an organ of state that may affect coastal management is consistent and aligned with the NCMP.
7	Consultation and public participation	Ensure meaningful consultation with government and other coastal stakeholders.

8	Environmental authorisations for coastal activities	Where environmental authorisation is required for listed activities within the coastal zone, the competent authority must take into account all relevant factors listed in Section 63(1) of the ICMA. Ensure that where an environmental authorisation is not required for coastal activities, the Minister considers listing activities that may require a permit or license in terms of Section 63(6).
9	Discharge of effluent into coastal waters	Ensure that point source discharges of polluted effluent are effectively assessed, controlled, and monitored.
10	Dumping of waste into coastal waters	Prohibit incineration at sea and ensure that the overall intent of Section 70 and 71 of the NEM: ICMA is understood by stakeholders.
11	Emergency dumping at sea	Ensure that consideration is given to emergency situations relating to the dumping of waste at sea.
12	The National Action List	The selection of and prioritisation of certain substances by the MEC will allow for the effective screening of waste proposed for marine disposal according to its potential effecton human health and the marine environment.
13	Determination of national appeals powers	Establish powers of Ministers and MECs and procedures to be followed in determining appeals.
14	Prescribing regulations and fees	Develop regulations for the management of activities within coastal public property and consult the Minister of Finance before making any regulations which will entail expenditure of funds in future years, application fees, or regulations imposing fees, costs, or any other charges.
15	General provisions applicable to regulations	Specify general procedures relating to regulations, including penalties for contraventions.
PROVINCIAL GOVERNMENT ROLES AND RESPONSIBILITIES		
	Aspect	**Responsibilities**
1	Management of the coastal protection zone	Ensuring the protection, management, and enhancement of the coastal protection zone. This is achieved by developing regulations to control the use, determine and adjust the boundaries of the coastal protection zone as deemed appropriate, as well as designation and inclusion of certain portions of provincially controlled state-owned land as coastal public property to achieve the objectives of the ICMA. This may also include the appointment of voluntary coastal officers.
2	Establishment of coastal management lines	Establish coastal management lines by notice in the Gazette to restrict or prohibit certain activities that may have an adverse effect on the coastal zone.
3	Marking coastal boundaries	The MEC may determine or adjust any coastal boundary related to CPZ, CML and coastal access land. Any boundaries determined or adjusted in terms of Section 26 of the NEM: ICMA by the MEC must be communicated to Municipalities so that they must include these in zoning maps and / or land use

		schemes.
4	Designation of provincial lead agencies	In collaboration with the Premier, ensure that provincial lead agencies for coastal management are designated and function effectively to promote and coordinate coastal management within a coastal province.
5	Establishment and functioning of Provincial Coastal Committees	Establishment of the Provincial Coastal Committee (PCC), determination of its powers and appointing representatives for the Committee.
6	Development and Implementation of PCMPs	Develop PCMPs aligned with the contents of the NEM: ICMA and NCMP.
7	Consistency and alignment between PCMPs and other statutory plans	Ensure that any plan, policy, or programme adopted by an organ of state that may affect coastal management is consistent and aligned with PCMPs, which in turn is aligned with the NCMP.
8	Consultation and public participation	Adequate consultation and public participation precede the exercising of power by the MEC, which the NEM: ICMA requires to be exercised in accordance with this section.
9	Environmental authorisations for coastal activities	Coastal management issues considered in terms of Section 63 of the NEM: ICMA and requirements of this section complied with before an environmental authorisation is issued in terms of Chapter 5 of the NEMA.
10	Implementation of national Regulations	Implement national Regulations, for example, list public boat launch sites that may be used by the public to access the coastal zone.
11	Regulations by MECs	Develop regulations for the management of activities within the coastal protection zone and specify general procedures relating to regulations, including penalties for contraventions.
12	Information and Reporting on Coastal Matters	Prepare a report on the state of the coastal environment in the province which must contain any information prescribed by the Minister.
13	Co-ordination of actions between provinces and Municipalities	Liaise with coastal Municipalities in the province to co-ordinate actions taken in terms of this Act by provincial organs of state in the province with actions taken by Municipalities.
LOCAL GOVERNMENT / MUNICIPAL ROLES AND RESPONSIBILITIES		
	Aspect	**Responsibilities**
1	Access to coastal public property	Ensuring that the public has equitable access to coastal public property by designating coastal access land to promote access to CPP along the coast, withdraw inappropriate coastal access land, and follow an environmentally sensitive and socially responsible process in designating coastal access land.

2	Coastal management line demarcation on zoning maps	Delineate coastal management lines in Spatial Development Frameworks and municipal zoning / land use scheme maps (should participate in any provincial coastal management line determinations, but this is discretionary; work with relevant provincial department to determine municipal coastal management lines which the province must Gazette). Contribute to the implementation of legal framework associated with coastal management lines.
3	Determining and adjusting coastal boundaries of coastal access land	Ensure specified considerations are taken into account when determining or adjusting a coastal boundary of coastal access land.
4	Marking coastal boundaries on zoning maps	Delineate coastal boundaries determined or adjusted in terms of Section 26 of the NEM: ICMA on zoning scheme maps and in Spatial Development Frameworks, where applicable and appropriate.
5	5 Municipal CMPs	Prepare and adopt a municipal CMP for managing the coastal zone or specific parts of the coastal zone in the municipality.
6	Consistency and alignment between Municipal CMPs and other statutory plans	Ensure that any plan, policy or programme adopted by an organ of state that may affect coastal management is consistent and aligned with municipal coastal management programmes, which in turn is aligned with provincial coastal management programmes and the national coastal management programme and ensure that IDPs (including its spatial development framework) is consistent with other statutory plans (See Section 52 (1)(a-f) of the NEM: ICMA) adopted by either a national or a provincial organ of state.
7	Consultation and public participation	Adequate consultation and public participation precede the exercising of power by a municipality, which this Act requires to be exercised in accordance with Section 53 of theNEM: ICMA.
8	Implementation of land use legislation in coastal protection zone	Section 62 of the NEM: ICMA obliges any organ of state that is implementing any legislation that regulates the planning or development of land, in a manner that conforms to the principles of cooperative governance contained in Chapter 3 of the Constitution, apply that legislation in relation to land in the coastal protection zone in a way that gives effect to the purposes for which the protection zone is established as set out in Section 17 of the NEM: ICMA. Furthermore, SPLUMA requires that a land use scheme must comply with environmental legislation. Source: Adapted from DEA (2014) and updated in terms of amendments to the NEM: ICMA 2014 (effected in May 2015).

Source: Adapted from DEA (2014) and updated in terms of amendments to the NEM: ICMA 2014 (effected in May 2015) (DEA&DP, 2022).

APPENDIX 8: Selected Coastal Heritage Resources

The following examples provide a preliminary, non-exhaustive inventory of important cultural heritage resources in the Garden Route district:

1. Blombos Cave

Stilbaai, Hessequa - Provincial Heritage Site and major Middle Stone Age archaeological complex, recognised for engraved ochre, shell beads and evidence of early symbolic practices. The site is on private land and is not generally open for public access.

2. Noordkapperpunt Stone-Walled Fish Traps

Stilbaai, Hessequa - National Heritage Site containing historic intertidal fish traps (vywers). The structures are part of living fishing heritage; their precise age and origins are uncertain, and traditional maintenance and use remain important.

3. Pinnacle Point Site Complex

Mossel Bay - A significant Middle Stone Age archaeological complex documenting marine-resource exploitation, heat treatment of stone and innovations in human behaviour. Included in the UNESCO World Heritage serial property inscribed in 2024.

4. Cape St Blaize Cave

Mossel Bay - Historic archaeological cave below the Cape St Blaize lighthouse, associated with early excavations and evidence of past coastal occupation.

5. Klipriver Midden

Harkerville, Knysna - Shell midden containing shells, animal bones and cultural artefacts which document hunter-gatherer food use and the history of human interaction with the coastal environment.

6. Matjes River Rock Shelter

Keurboomstrand, Bitou - Provincial Heritage Site with Later Stone Age archaeological deposits, shell remains, tools and burials, providing evidence of hunter-gatherer communities and past coastal livelihoods.

7. Nelson Bay Cave

Robberg Nature Reserve, Bitou - Prominent Stone Age archaeological site with deposits that illuminate ancient coastal settlement, subsistence patterns and environmental change. The reserve has an interpretive centre.

8. Keurbooms Rock Art

Keurbooms area, Bitou - San rock paintings associated with the spiritual and cultural traditions of Indigenous communities in the region.

Please Note:

This list is indicative and should be verified and supplemented through SAHRA, Heritage Western Cape, existing heritage impact assessments, municipal heritage inventories and consultation with relevant Indigenous descendant and local fishing communities.

Inclusion on a heritage list does not establish a right of access to privately owned or sensitive archaeological sites.

A previously mentioned Dumbleton Cave reference has not been included in this verified selection pending confirmation of its exact site identity and heritage documentation.