



# Draft Inaugural KwaDukuza Coastal Management Programme

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Prepared for KwaDukuza Municipality by the Coastal Unit of SSI Engineers and Environmental Consultants

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# 1. Executive Summary



## **1.1 INTRODUCTION**

This section of the Coastal Management Programme (CMP) provides background information on the value of the KwaDukuza coastal area and the benefits that this important ecosystem provides, as well as unpacking the tools which may be used to manage the coast in order to promote sustainable coastal development. The CMP process in terms of the ICM Act is also introduced, followed by a more detailed account of the process employed in developing the KwaDukuza CMP in terms of the situational assessment, public participation and implementation steps.

The CMP is one of four products prepared as part of this appointment. Another two of the products are the Situational Analysis and Consultation Report which were produced for comment and later summarised and compiled into the final CMP. The final product is the stand-alone Draft Development Management Tool which proposes to inform in respect to zoning, setback lines and development controls. This tool considers access land and identifies areas of future conservation, protection and development. Such development is in respect to potential recreational areas. Costing will be included as part of the implementation process once agreement is reached in respect to recommendations made.

## **1.2 SITUATIONAL ANALYSIS**

The situational analysis component reviews the characteristics and current management context of the KwaDukuza coastal area in order to identify and describe emergent and recurrent coastal issues, constraints and opportunities from existing information. The situational assessment gathered and interpreted the information that served as the basis for the development of a draft coastal vision and objectives. This component of the CMP does not intend to re-sample or re-describe the social, economic or ecological situation of the KwaDukuza Municipality area but rather synthesises the numerous existing documents, reports and publications that have done so previously. The primary objective of the situational analysis presented here is to integrate the findings of the Integrated Development Plan, Strategic Environmental Assessment, Spatial Development Framework and other information that is relevant to coastal management within KwaDukuza.

### ***1.2.1 Overview of the KwaDukuza Coastal Area***

This section of the situational analysis provides an abridged overview of the KwaDukuza coastal area in terms of its location, environmental characteristics and socio-economic considerations. This information has been sourced predominantly from the KwaDukuza Strategic Environmental Assessment.

### ***1.2.2 Synopsis of Legislative and Institutional Instruments***

This section of the situational analysis summarises the various legal tools which are of direct or indirect relevance to the KwaDukuza CMP and management of the KwaDukuza coastal area in general. These tools range from the overarching Constitution of the Republic of South Africa, national Acts, national and provincial policies, to district and local level municipal sector plans and policies.

Emergent and recurring socio-economic and environmental issues of the KwaDukuza coastal area are summarised in Table 5 of the CMP and duplicated for ease of reference below.

**Table 5. Emergent and recurring socio-economic and environmental issues of the KwaDukuza coastal area.**

Issues	Source*	Themes				
		Governance & Capacity Building	Our Coastal Assets	Coastal Planning	Natural Resource Management	Pollution Control & Waste Management
<b>1. Ecological Degradation</b>						
1.1. Biodiversity Loss	1;2;8;12		X	X	X	X
1.2. Dune Degradation	2		X	X	X	X
1.3. Shoreline Degradation	3;2		X	X	X	X
<b>2. Inappropriate Development</b>						
2.1. Poor Coastal Settlement Design	4;11;12		X	X		X
2.2. Lack of Development Controls	4;12	X		X		
2.3. Loss of Undeveloped Land	5		X	X	X	
2.4. Overdevelopment of Urban Areas	2;5;8;12		X	X		
2.5. Rapid Coastal Development	6;2;12		X	X	X	
2.6. Ribbon Development	3;2		X	X	X	
2.7. Coastal Squeeze	3		X	X	X	
<b>3. Dynamic Coastal Processes</b>						
3.1. Climate Change	1;3		X	X		
3.2. Sea-level Rise	1;3		X	X		X
3.3. Coastal Erosion	1;3		X	X	X	
3.4. Sand Replenishment Malfunction	7		X	X	X	
<b>4. Coastal Pollution</b>						
4.1. Upstream Industrial Pollution	1;6;8		X			X
4.2. Localised Pollution	1;6;8;12		X		X	X
<b>5. Coastal Access</b>						
5.1. Inadequate Parking Facilities	8			X		
5.2. Private Landholding Issues	8;12	X	X			
<b>6. Inadequate Infrastructure</b>						
6.1. Basic Services Backlog	9			X	X	X
6.2. Inadequate Electrical Infrastructure	6			X		
6.3. Limited Water Supply Capacity	10;12			X	X	X
6.4. Inadequate Sanitation Infrastructure	8;10;12			X	X	X
<b>7. Human Resources</b>						
7.1. Lack of Institutional Capacity	8;12	X				
7.2. Poor Integration of Activities/Sector Plans	8	X				

\* Sources

1. Towards a CMP for KwaDukuza 2008
2. KwaDukuza IDP 2007-2012
3. KwaDukuza SEA 2007
4. Draft KZN Coastal Management Policy 2004
5. iLembe LED Strategy 2008
6. iLembe Energy Master Plan 2008

7. KwaDukuza CZRU 2003
8. iLembe Coastal Working Group Minutes
9. iLembe IDP 2008-2009
10. iLembe Water & Sanitation Master Plan 2007
11. KwaDukuza Draft SDF & LUMS 2008
12. Public Participation 2009

### 1.3 PUBLIC PARTICIPATION

This component of the KwaDukuza CMP has allowed stakeholders to contribute to the validity, relevance and efficacy of the programme by facilitating a forum in which an agreed-upon focus group and members of the public were able to comment on the issues identified by the situational analysis; the development of a vision for KwaDukuza's coast; as well as to validate and prioritise the proposed implementation steps of the CMP.

### 1.4 THEMES, STRATEGIC PROGRAMMES AND PROJECTS

This component of the CMP involves identification of key activities, project, role-players, actions and indicators towards effective management intervention. By employing the information and outcomes from the situational analysis and the public participation process and, using the framework of the National CMP (the White Paper for Sustainable Coastal Development in South Africa), this section complements the policy aspect of the CMP by making specific recommendations and proposing implementation steps to address the KwaDukuza coastal issues and opportunities.

A summary of implementation priorities of strategic programmes, and specific activities or projects, under each theme is presented in the CMP in section 5.2 and Table 6 which is duplicated below for ease of reference.

**Table 6. Implementation priorities of the strategic programmes to address the coastal issues and opportunities of the KwaDukuza municipal area.**

<b>THEME A: GOVERNANCE AND CAPACITY BUILDING</b>	<b>Implementation Priority</b>
A1. Coastal public participation and partnerships	
A1.1. Attendance at meetings and cooperation with the iLembe District Coastal Committee	<b>1</b>
A1.2. Establishment of a KwaDukuza MCC	<b>1</b>
A1.3. Establishment and implementation of operational guidelines (applicable to the MCC)	<b>1</b>
A2. Coastal management education and training	
A2.1. Municipal Training Programme	<b>1</b>
A2.2. Design and Implement KwaDukuza Education and Awareness Campaign	<b>2</b>
A3 Dedicated coastal responsibility	
A3.1. Specific ICM activities and key performance indicators built into performance agreements	<b>1</b>
A3.2. Required integration between sectors in respect to implementation	<b>1</b>
A3.3. Development of a Development Planning tool(s)	<b>1</b>
A4. Review of products and processes (cycle of coastal management)	
A4.1. KwaDukuza CMP	<b>1</b>
A4.2. Inception of CMP review cycle	<b>1</b>
<b>THEME B: OUR COASTAL ASSETS</b>	
B1. Coastal infrastructure	
B1.1. Apply for Blue Flag status	<b>3</b>



B1.2. Identify and develop additional beach recreational nodes	1
B1.3. Identify and develop additional parking facilities	1
B1.4. Identification of potential tidal pools	1
B1.5. Long-term collection of coastal tourism and recreational statistics	3
B2. Coastal access (physical and equitable)	
B2.1. Assessment of physical access	1
B2.2. Management and facilitation of public access servitudes (ICM Act)	1
B2.3. Maintain Ballito promenade	1
B2.4. Resolve conflicting and/or historically granted rights	3
B2.5. Reinstatement and protection of coastal public property	3
B2.6. Capitalise on historical and cultural resources	2
B3. Coastal safety and security	
B3.1. Public Private Partnerships for security	1
B3.2. Maintenance of access points	1
<b>THEME C: COASTAL PLANNING</b>	1
C1. Coastal planning	
C1.1. Formal adoption of the Development Planning Tool (DPT) component of the KwaDukuza CMP and integration thereof with the municipal IDP and LUMS (see also C1.4)	1
C1.2. Implement of the KwaDukuza Coastal Management Programme	1
C1.3. Links to IDP	1
C1.4. Appropriate coastal development to be promoted (Nodal development (or precincts), and the balance between developed and undeveloped, conservation, agriculture)	2
C1.5. Identification of dynamic coastal processes and provision of services in harmony	2
C2. Coastal economic development	
C2.1. Promote long term economic potential and coast specific economic development activities that are dependant on a coastal location	2
C2.2. Adequate and accessible public facilities	1
C2.3. Promotion of appropriate tourism and recreational activities	2
C2.4. Management of municipal and other boat launch sites	1
C2.5. Investigation into potential accommodation co-operation scheme (Links with ongoing tourism strategy)	3
C2.6. Investigation into projects to capitalise on the new airport and Ballito's status as an "edge city"	2
C3. Coastal poverty alleviation	
C3.1. Support for the Working for the Coast programme	1
C3.2. Sustainable Livelihoods projects – diversify opportunities for poor coastal communities	2

<b>THEME D: NATURAL RESOURCE MANAGEMENT</b>	
D1. Coastal conservation and protection	
D1.1. Development of estuary management plans	2
D1.2. Identification of potential coastal protected areas	3
D1.3. Protection of coastal corridor and links to an open space system and EKZNW systematic conservation plan	1
D1.4. Ecosystems services assessment	2
D1.5. Marine Protected Area for Umvoti-Umhlali	2
D2. Coastal setback	
D2.1. Climate change preparedness strategy and risk assessment	1
D2.2. Confirmation of sea-level rise projection, coastal erosion line and contribution to KZN coastal development setback determination	1
D2.3. Establishment of the coastal zone boundary	3
<b>THEME E: POLLUTION CONTROL AND WASTE MANAGEMENT</b>	
E1. Coastal pollution control and waste management	
E1.1. Beach clean-up and PPPs	1
E1.2. Support the Working for the Coast programme	1
E1.3. Assessment of discharge into KwaDukuza Coastal environment, recommendations and plan of action for management	1
E1.4. Storm water management strategy	1
E2. Coastal disaster management	
E2.1. Coastal risk assessment	1
E2.2. Integration with other management tools	1

## 1.5 DEVELOPMENT MANAGEMENT TOOL PRÉCIS

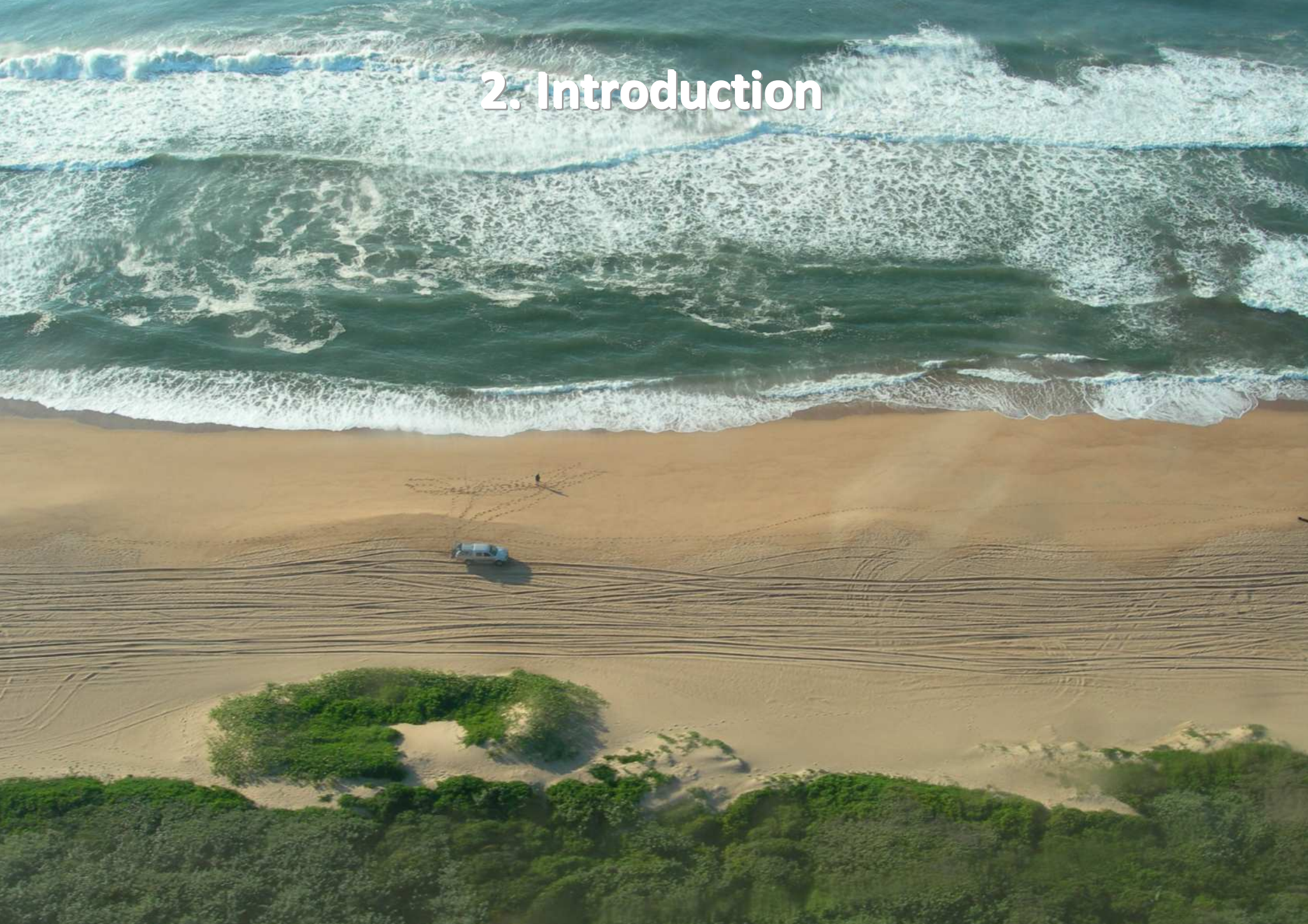
As briefly referred above, a stand-alone development planning tool (DPT) was developed in parallel with the KwaDukuza CMP in accordance with the terms of reference provided by KwaDukuza Municipality. This product was developed in order to assist with development and planning decisions in the KwaDukuza coastal zone, and is compatible with formal municipal planning structures such as the Land Use Management System (LUMS) and the Spatial Development Framework. This is as a result of the dynamic and unique nature of the coastal environment, which requires specialised management and planning. The DPT will form an additional 'layer' on top of the LUMS and will allow for additional requirements in terms of decision-making in the coastal zone. The DPT also lists *inter alia* prohibited activities and recommended activities in 10 identified precincts along KwaDukuza's coast. The inherent linkage between this component of the CMP and the remainder of the implementation steps necessitates a précis or summary of the main aspects of this tool as a part of the final CMP.



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## 2. Introduction





The value of the coastal area cannot be overstated. Coastal ecosystems are unique, and provide free ecosystem goods and services in the form of, amongst many others, natural resources which sustain livelihoods, and coastal and ocean recreation which contributes to an improved quality of life. The coastal area is the dynamic interface between the marine and terrestrial environments, and is an extremely diverse and complex facet of the broader ecosystem. This unique interface is also a focal point for human activities and these vary in terms of the diversity of the social, economic and ecological character of the changing coastline from Kosi Bay, in the east, to Port Nolloth, on the West Coast. The coastal area is the desired location for major public infrastructure such as harbours, airports, road and rail networks, as well as being critical from a strategic and military perspective.

Taking into account the complexities of the coastal zone, it becomes clear that such an area requires specialised management efforts. A coastal management programme (CMP) is one example of a management instrument that was designed for use in the coastal zone. A CMP is a management tool that is prescribed by the Integrated Coastal Management Act of 2008 (Act No. 24 of 2008; ICM Act).

The concept of CMPs or local area plans, although only formalised by the ICM Act of 2008, have been around for some time, and along the coast north of Durban there are a number of these management tools that have been developed to at least a draft level. These are shown in Fig. 1.



**Figure 1. The 2009 state and progress of coastal management plan development in the coastal areas adjacent to the KwaDukuza Municipality.**

With the completion of the KwaDukuza Municipality CMP, the coastline from Umkomaas, south of Durban to the KwaDukuza boundary to the north will be included in a local area or municipal CMP.

Globally, there is an increasing reliance on coastal resources to provide economic opportunities as well as to sustain the livelihoods of the resident communities. Given South Africa's history under apartheid, many people have previously been denied access to the free ecosystem goods and services provided by the coast. This situation, coupled with past inadequacies in management of the coastal zone (which was resource-centred, rather than people-

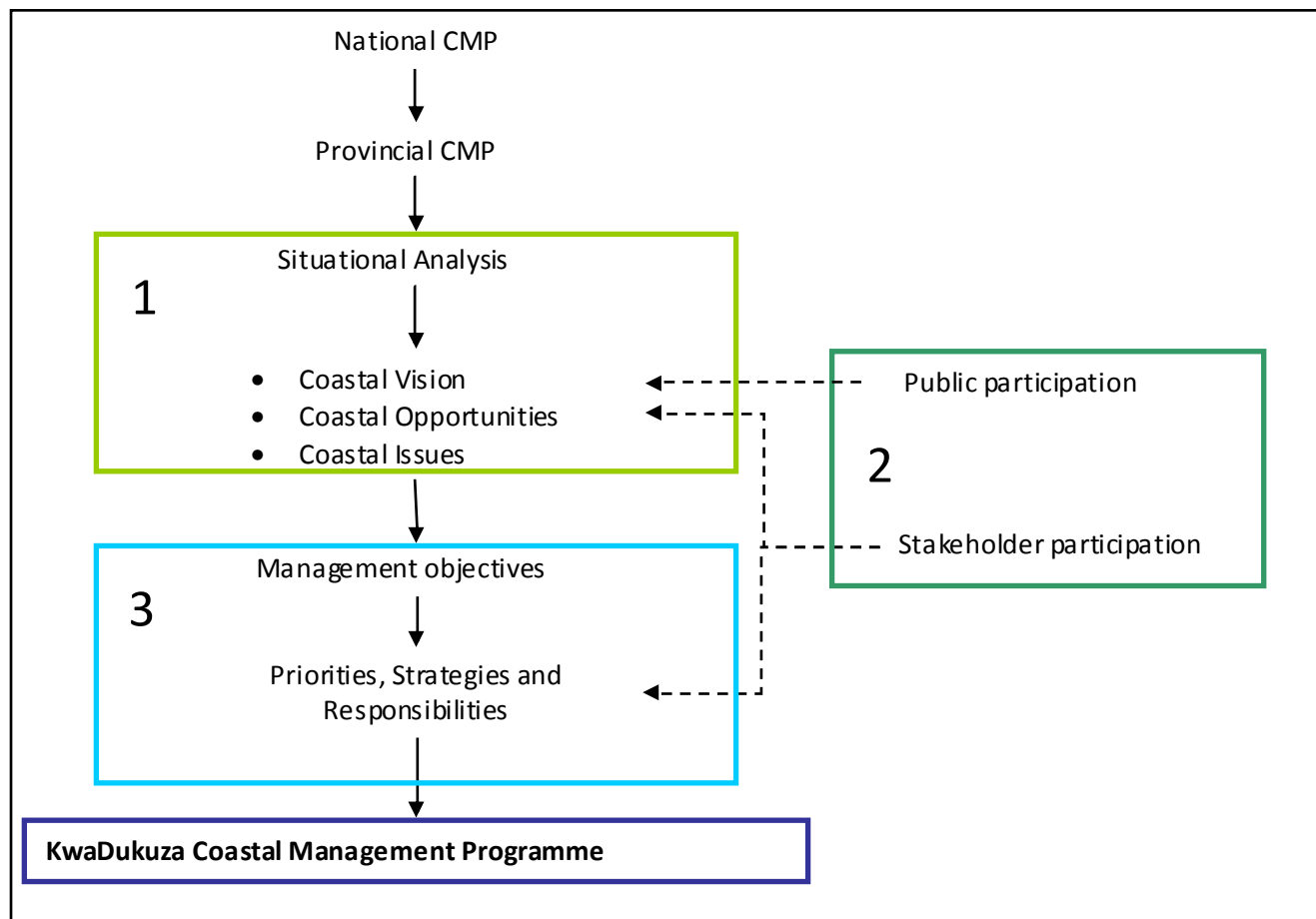
centred) and the ensuing environmental degradation, has resulted in a state of affairs which poses serious challenges to those tasked with the management of this dynamic system. Recognition of this situation resulted in the publication of an important national policy document in the form of the Coastal Policy Green Paper in 1998 (DEAT, 1998), soon followed by the White Paper for Sustainable Coastal Development in South Africa in 2000 (DEAT, 2000). The White Paper promoted integrated coastal management (ICM) in the pursuit of sustainable coastal development. ICM is broadly defined as the management of complex human behaviour and interactions in coastal areas where there is generally a multitude of social, economic and environmental opportunities.

Central to sustainable coastal development in the South African context is maintenance of the ecological integrity of coastal systems concomitantly with reconstruction, redevelopment and redress of the historically unjust management practices which characterised South Africa under the apartheid regime. Therein lies a significant challenge, as balancing the needs of people and the environment necessarily involves trade-offs between growth, development and environmental integrity. This situation is particularly acute in the coastal area, where overlapping activities and high population densities make conflicts over resources common (Glazewski & Haward, 2005). Successful coastal management thus requires an integrated approach which relies on accurate and scientifically defensible data and information, is entrenched in legislation, while also promoting co-operative governance.

Prior to the enactment of the ICM Act, management of the coastal zone in South Africa was hindered by poor integration across sectors and severe capacity constraints. Coastal management was conducted on an *ad hoc* basis, and development approvals were often considered in isolation. Such an approach seldom considers issues such as the cumulative environmental impacts of coastal development, or issues of public access to the coast. Enter the ICM Act which has been promulgated, first and foremost, to establish the statutory requirements for integrated coastal and estuarine management in South Africa. One of the many reasons for the adoption of this form of management is to promote the conservation of the coastal environment, and to maintain the natural character of coastal landscapes and seascapes. Implicit in the above purposes 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 (Celliers et al., 2009).

The ICM Act, in its pursuit of sustainable coastal development through integrated and co-ordinated coastal management, directs that each coastal municipality must develop a CMP within four years of the commencement of the Act. It is this requirement, in concert with the chequered history of coastal management efforts in South Africa, which has resulted in the inception of a CMP for the KwaDukuza (Local) Municipality.

The development of the KwaDukuza CMP has been undertaken as prescribed by the ICM Act, and consisted of three parallel phases *viz.*, the preparation of a situational analysis, a public participation and consultation process, and the compilation of the management objectives, priorities, strategies and responsibilities (Figure 2).



**Figure 2. The three phases of the development of the inaugural formal Coastal Management Programme for KwaDukuza.**

The first phase contextualises the current state of the KwaDukuza coastal area through a desktop-based situational analysis of relevant national, provincial, district and local municipal management and legal tools. This process was undertaken to achieve the dual goals of:

- Extracting emergent socio-economic and environmental issues which characterise the KwaDukuza coastal area; and
- Providing the policy and legislative basis for the CMP.

The second phase of public participation and consultation was undertaken in accordance with the stipulations of the National Environmental Management Act (NEMA, Act No. 107 of 1998). Also, the ICM Act unequivocally vests ownership of the coastal area with the people of the Republic of South Africa, to be held in trust by the state. It is therefore important that civil society is afforded an opportunity to participate meaningfully in the formulation of a coastal



management system. The people of KwaDukuza were requested to participate in the formulation of a local vision for coastal management in KwaDukuza, as well as to review and amend the list of issues and opportunities identified during the situational analysis phase of the CMP.

The third and final phase in the development of the KwaDukuza CMP involved a synthesis of the outcomes of the previous two phases based on the guidelines and principles of the National White Paper for Sustainable Coastal Development. The White Paper is deemed as the best-practice alternative in the absence of a national CMP. This phase presents the actions and activities that constitute the act of integrated coastal management and will result in the development of goals, objectives, strategies and priorities for coastal management in KwaDukuza.

It is duly acknowledged that it is unrealistic to expect a single management intervention to sufficiently address all the issues associated with a coastal area as large and as diverse as KwaDukuza. The KwaDukuza CMP has therefore been developed in full cognisance of the requirement of the ICM Act that municipal CMPs must be reviewed every five years. It is intended that the lessons learnt and the issues identified during the inaugural KwaDukuza CMP process be incorporated into the subsequent iterations of the CMP, and evolve towards achieving true integrated coastal management, and ultimately, sustainable coastal development.

### 3. Situational Analysis



### 3.1 INTRODUCTION

This situational assessment reviewed the characteristics and current management context of the KwaDukuza coastal area in order to identify and describe, from existing information, emergent and recurrent coastal issues, constraints and opportunities. The situational assessment gathered and interpreted the information that served as the basis for the development of a draft coastal vision and objectives. This document does not intend to re-sample or -describe the social, economic or ecological situation of the KwaDukuza Municipality area but rather to draw on numerous existing documents, reports and publications that have done so previously. The primary objective of the situational analysis presented here is to integrate the findings of the Integrated Development Plan, Strategic Environmental Assessment, Spatial Development Framework and other relevant information sources (See Table 1).

**Table 1. Reports, plans and publications relevant to the development of a coastal management programme for KwaDukuza Municipality. The acronyms used in the table are also used throughout the document.**

Document Name	Document Type	Date Published	Date Range
Integrated Coastal Management Act 2008 (ICM Act)	National Legislation	2009	NA <sup>1</sup>
White Paper for Sustainable Coastal Development	National Policy	2000	NA
Draft KZN Coastal Management Policy	Provincial Policy	2004	NA
iLembe Integrated Development Plan (IDP)	District Municipal Policy	2008	2008-2009
iLembe Consolidated Local Economic Development (LED) Strategy	District Municipal Sector Plan	2008	NS <sup>2</sup>
iLembe Energy Master Plan	District Municipal Sector Plan	NS	NS
iLembe Water & Sanitation Master Plan	District Municipal Sector Plan	NS	NS
KwaDukuza IDP	Local Municipal Policy	2007	2007-2012
KwaDukuza Draft Spatial Development Framework (SDF) & Land Use Management System (LUMS)	Local Municipal Policy	2008	2008-2009
KwaDukuza Integrated Human Settlement Development Plan	Local Municipal Policy	2007	2007-2012
Towards a CMP for KwaDukuza	Local Coastal Policy	2008	2008-2009
Policy Approach to Coastal Development	Local Coastal Policy	2007	NS
KwaDukuza Coastal Zone Recreational Use Plan	Local Coastal Policy	2003	NS
KwaDukuza SEA	Local Management Plan	2007	NS

<sup>1</sup>NA - Not applicable

<sup>2</sup>NS – Not specified

The situational analysis is one of a suite of products that will result in the development of a comprehensive CMP for KwaDukuza.

## **3.2 OVERVIEW OF THE KWADUKUZA COAST**

### **3.2.1 Location**

KwaDukuza Municipality, in the province of KwaZulu-Natal, forms part of iLembe District Municipality and abuts eThekweni Municipality to the south, Mandeni Municipality to the north and Maphumulo and Ndwedwe municipalities to the west (see Fig. 3 and 4 overleaf). The Indian Ocean forms the eastern boundary of the municipality.

### **3.2.2 Environmental Considerations**

According to the draft KwaDukuza SDF & LUMS (2008) the natural environment of KwaDukuza is presently under threat mainly from urban and tourism developments on the coast and in the south of the municipality. There are major coastal development opportunities but also requirements for appropriate conservation of sensitive coastal environments. The potential for increased development pressures and opportunities emanating from the south are already visible in terms of pressure for additional coastal accommodation and various forms of economic development (KwaDukuza Draft SDF & LUMS, 2008). More specific information on the environmental status of the KwaDukuza area can be found in the SEA, discussed under Sub-section 3.2.5.4.

### **3.2.3 Socio-economic Considerations**

Within iLembe, KwaDukuza represents the leading economy in the district, sometimes referred to as the 'development engine' – a fitting description for a municipality that contributed 51.4% towards the district economy in 2005 (iLembe LED Strategy, 2008).

The iLembe Consolidated LED Strategy defines the following sectors as constituting the economic pillars of the district. As KwaDukuza represents the prevailing economy in the district, these sectors may be extrapolated to a certain extent as applying to KwaDukuza (Table 2).



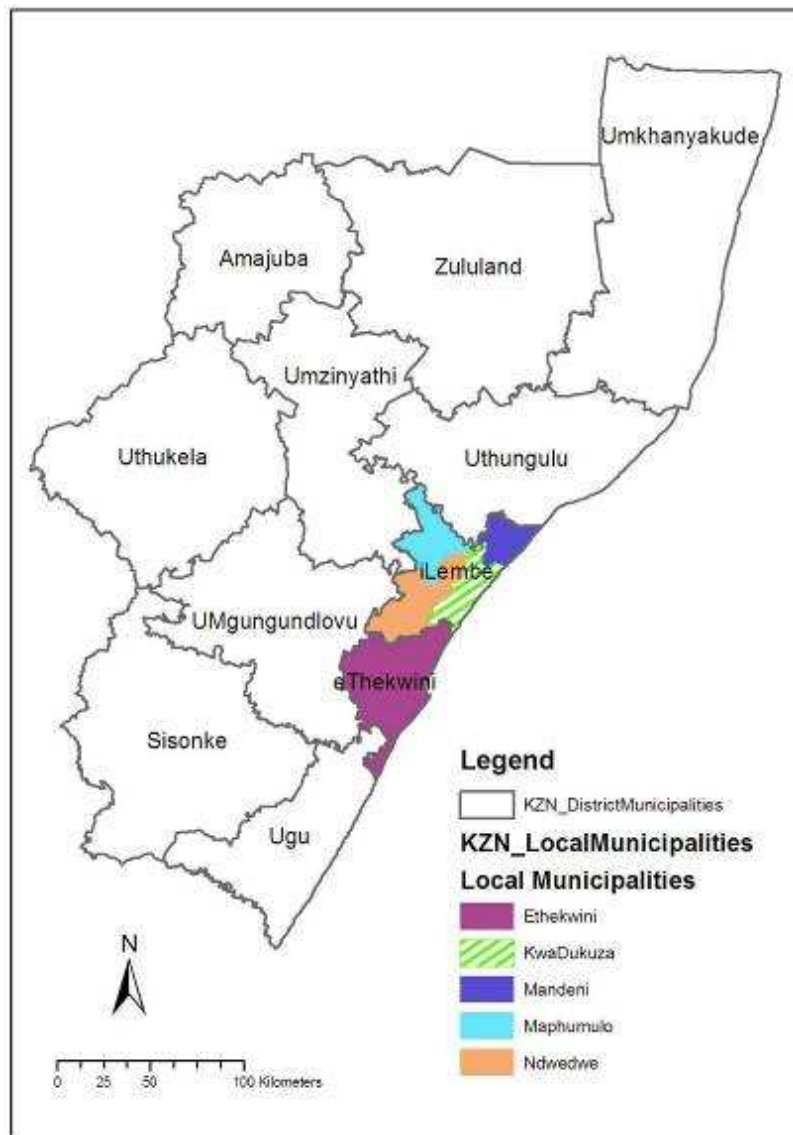


Figure 3. Location of the KwaDukuza Municipality within the province of KwaZulu-Natal and the district municipalities.

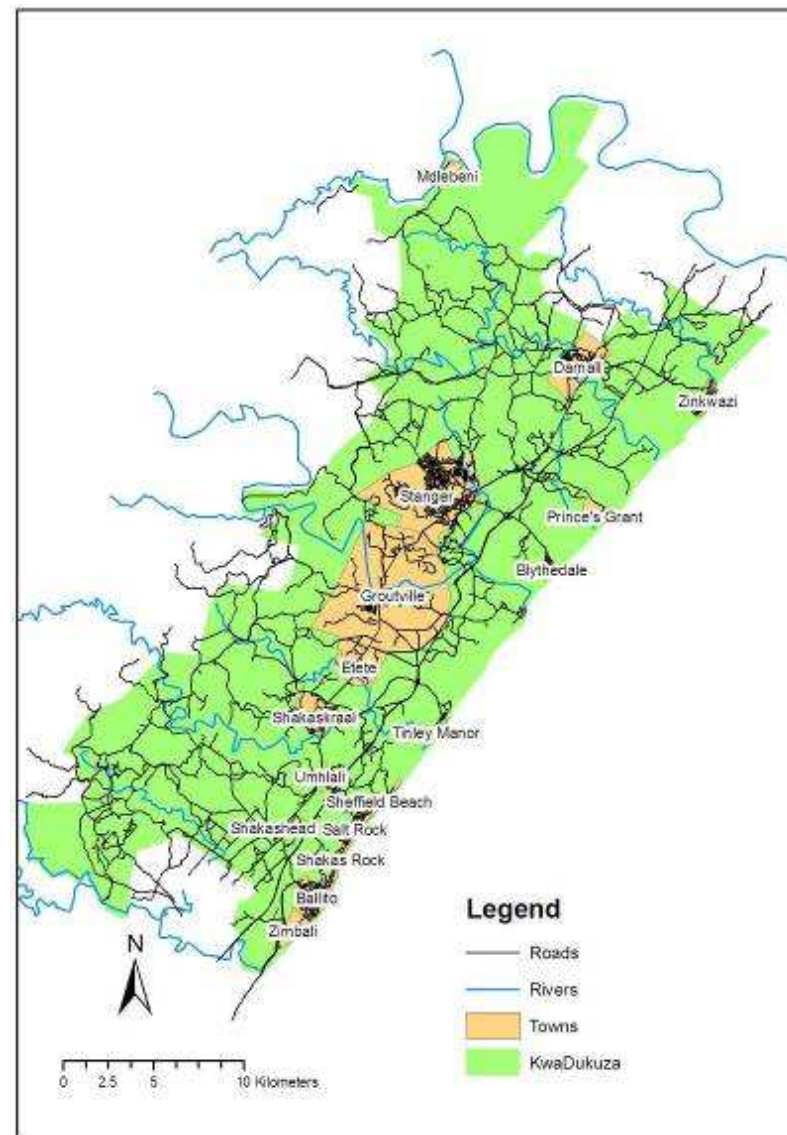


Figure 4. Location of roads, towns and rivers within the KwaDukuza municipal area.



**Table 2. Economic pillars of the iLembe District Municipality according to the iLembe Consolidated LED Strategy of 2008.**

Sector	Type
<b>Agriculture</b>	<ul style="list-style-type: none"><li>• Commercial agriculture such as sugar cane farming along the coastal strip; and</li><li>• Subsistence agriculture in the rural hinterland and inland areas.</li></ul>
<b>Manufacturing</b>	<ul style="list-style-type: none"><li>• Primary sector manufacturing consisting of heavy industries such as sugar and paper mill production in the Isithebe Industrial Estate near Mandeni; and</li><li>• Secondary sector activities which comprises light industries.</li></ul>
<b>Tourism</b>	<ul style="list-style-type: none"><li>• Cultural and heritage tourism;</li><li>• Beach tourism (particularly in KwaDukuza); and</li><li>• Nature-based tourism.</li></ul>
<b>Services</b>	<ul style="list-style-type: none"><li>• The informal sector;</li><li>• Wholesale / retail trade;</li><li>• Transport / storage;</li><li>• Communication;</li><li>• Financial / insurance;</li><li>• Real estate;</li><li>• Business / community / social / personal services; and</li><li>• Government services.</li></ul>

Agriculture and coastal tourism are historically the main economic activities in KwaDukuza, with the central corridor representing one of two commercial farming hubs in iLembe. Agriculture contributes some 23% of the total gross domestic product, with large-scale, commercial sugar cane operations representing the dominant agricultural product (iLembe LED Strategy, 2008). Commercial afforestation and the associated paper mills are located at Mandini and KwaDukuza respectively. Industrial manufacturing investments in KwaDukuza include the Stanger Sappi Paper Mill and Sugar Mills in Darnall and Gledhow. The Isithebe Industrial Estate in the Mandini area is of significance in the north and the Tongaat / Maidstone industrial areas in eThekweni in the south. Smaller scale light industrial activities exist north of Ballito and in the Groutville area.

Satellite images derived from the USA Defence Meteorological Satellite Program's Operational Line scan System (DMSP-OLS; NOAA National Geophysical Data Center, <http://www.ngdc.noaa.gov/dmsp/>) show the increase in night time lights over time in the KwaDukuza area. It clearly demonstrates the increasing use of electricity and lighting over an increasing land area (Fig. 5). This increase in night time lights can be correlated with a concomitant growth in GDP (Sutton et al., 2007). Two major growth centres (between 1992 and 2003) were identified in the KwaDukuza area viz, Ballito and Groutville.

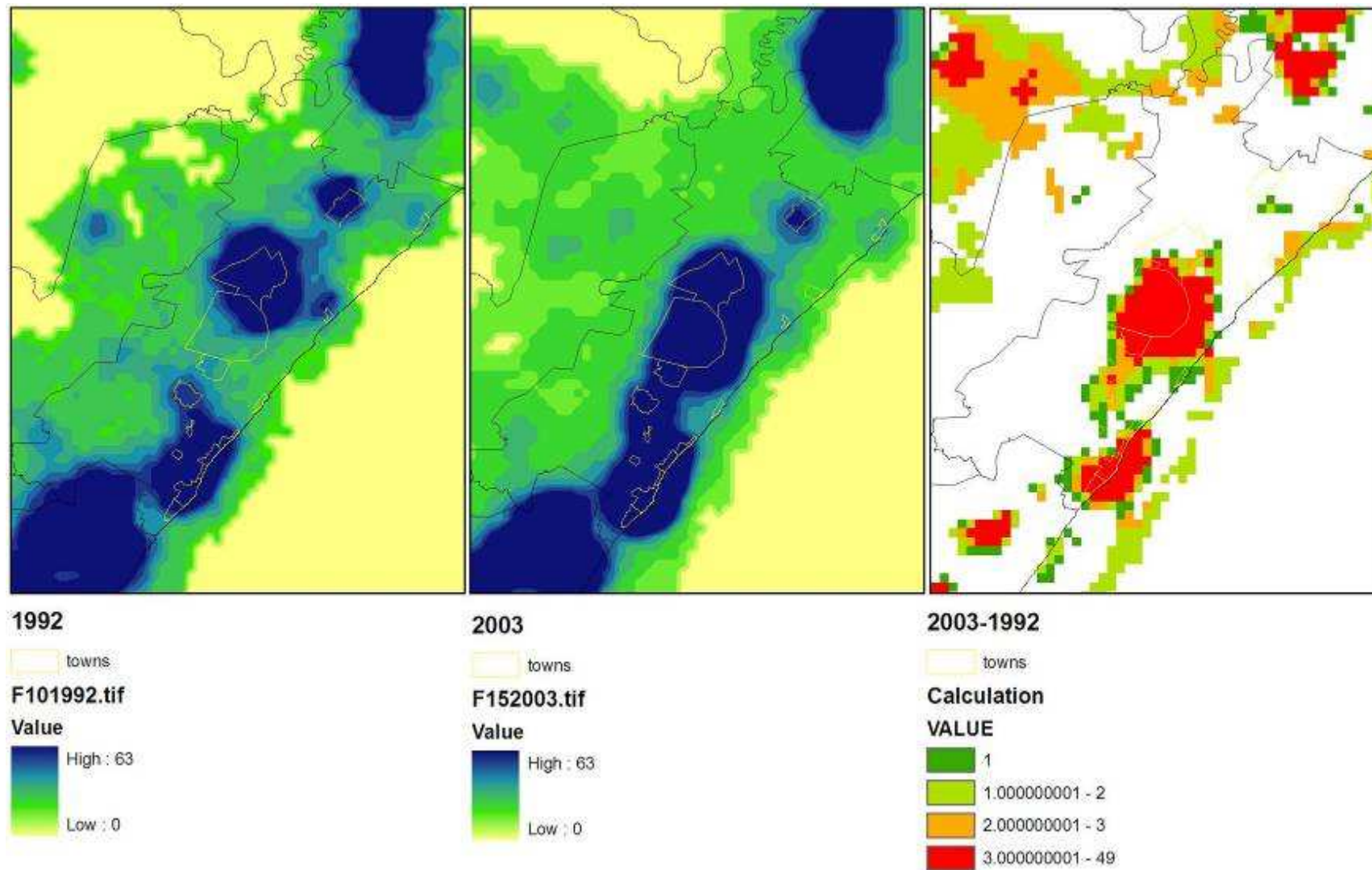


Figure 5. Satellite images derived from the USA Defence Meteorological Satellite Program's Operational Line scan System (DMSP-OLS; NOAA National Geophysical Data Center) for the KwaDukuza municipal area for the year 1992 and 2003. The map on the right shows the areas in which there was an increase in light energies for the years 2003 and 1992. The colour scale indicates the scale of increase (green – less change, red most change).

National tourism statistics (Tourism KZN, 2008) indicate that foreign and domestic tourism markets contribute 8% of South Africa's Gross Domestic Product (GDP). Provincial statistics show that:

- Domestic tourism contributes 10% of KZN's GDP;

- KZN contributed R14.1 billion (9%) to total tourism revenue generated in 2008;
- Of foreign tourists who arrived by air, 73% visited KZN's beaches; while 46% of those who travelled by land engaged in beach-related activities; and
- Approximately 65% of domestic tourists to KZN in 2007 visited the province's beaches.

The regional (North Coast, sourced from Tourism KZN, 2008) trend shows that:

- Within KZN, 21% of domestic and international tourists visited the North Coast in 2008;
- The North Coast of KZN was visited by 684 000 domestic tourists in 2007 (13% of total domestic visitors to the province); and
- The entire iLembe coastline has been proposed as part of a future tourism development corridor.

The statistics point to the important role that tourism plays towards the generation of revenue on a national, provincial and regional scale. Beach tourism is particularly popular in KZN, and thus the maintenance of beaches which are attractive to tourists, is of utmost importance in KwaDukuza. This includes the maintenance of natural beach function; sense of place; natural attraction and the provision of adequate tourist amenities and infrastructure. The tourism potential of the coastal area is highlighted by the high number of tourists which visited the KZN coastal region as a whole. The lower figures of tourists visiting the North Coast are indicative of an opportunity to capitalise on the prospect of beach-related tourism in the area.

### **3.3 SYNOPSIS OF LEGISLATIVE AND INSTITUTIONAL INSTRUMENT ANALYSIS**

#### **3.3.1 Introduction**

The management landscape of the KwaDukuza area is diverse as a result of the requirements of a number of legal instruments exerting an influence on municipal management. These are depicted in Figure 6.

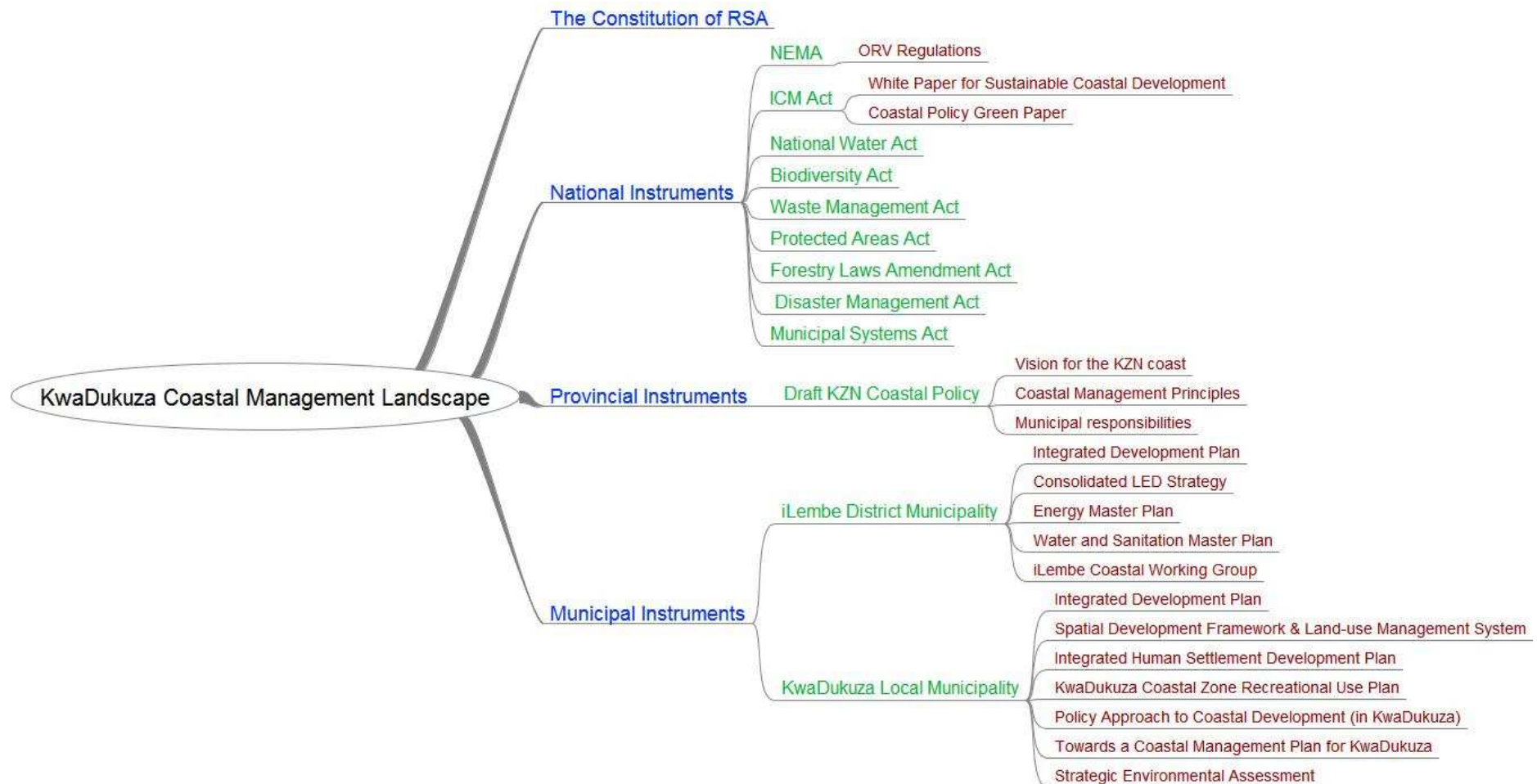


Figure 6. The KwaDukuza coastal management landscape as defined by the suite of legal and management instruments.

### 3.3.2 National Legislation

#### 3.3.2.1 The National Environmental Management Act

The National Environmental Management Act (Act No. 24 of 1998; NEMA) is the fundamental and overarching legal instrument for environmental management in South Africa. The NEMA is underpinned by the Constitutional right of all South Africans to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development (section 24 of the Constitution of the Republic of South Africa). More specifically,

the NEMA has been established in order to provide for: *“cooperative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of state; and to provide for matters connected therewith”*.

Chapter 1 of the NEMA contains an extensive list of principles that are intended to guide the implementation of environmental management in South Africa. Chapter 2 prescribes the institutions which are to be used for the implementation and administration of environmental management in South Africa. Chapter 3 provides for a crucial element of environmental management in South Africa, namely co-operative governance. In contrast to traditional modes of ‘top-down’ and prescriptive government, co-operative governance may be loosely defined as “the building of partnerships between government and civil society in order to ensure co-responsibility for environmental management and to empower stakeholders to participate effectively” (DEAT, 2000: viii). Chapter 4 provides for fair decision-making and conflict management through processes of conciliation, arbitration and investigation, among others. Chapter 5 details goals and implementation procedures of integrated environmental management. This relates primarily to matters involving environmental authorisations. Chapter 6 sets out procedures for aligning South Africa’s environmental management efforts with international environmental legislation and agreements. Chapter 7 sets out measures for compliance, enforcement and protection in terms of environmental hazards, accessibility of information and protection of whistle-blowers. Chapter 8 details the ways in which environmental management co-operation agreements may be used for the purposes of compliance with the requirements of the NEMA and the principles which underpin the NEMA. Chapter 9 provides for administrative measures in implementing the NEMA and the specific environmental management acts (SEMA) which the NEMA provides for.

Coastal management is intrinsically linked to the provisions of the NEMA, as the Integrated Coastal Management Act (ICM Act, Act No. 24 of 2008) is a SEMA and as such is also subject to the provisions of the NEMA. It is a requirement of the ICM Act that it be read, interpreted and applied in conjunction with the NEMA (section 5 of the ICM Act).

### 3.3.2.2 *The National Water Act*

The National Water Act (Act No. 36 of 1998) has been established *“to provide for fundamental reform of the law relating to water resources; to repeal certain laws; and to provide for matters connected therewith”*.

The preamble for the National Water Act elaborates on the rationale for its establishment:

- Recognizing that water is a scarce and unevenly distributed national resource which occurs in many different forms which are all part of a unitary, inter-dependent cycle;
- Recognizing that while water is a natural resource that belongs to all people, the discriminatory laws and practices of the past have prevented equal access to water, and use of water resources;
- Acknowledging the National Government’s overall responsibility for and authority over the nation’s water resources and their use, including the equitable allocation of water for beneficial use, the redistribution of water, and international water matters;
- Recognizing that the ultimate aim of water resource management is to achieve the sustainable use of water for the benefit of all users;
- Recognizing that the protection of the quality of water resources is necessary to ensure sustainability of the nation’s water resources in the interests of all water users; and
- Recognizing the need for the integrated management of all aspects of water resources and, where appropriate, the delegation of management functions to a regional or catchment level so as to enable everyone to participate.



The National Water Act has direct relevance to coastal management in the sense that freshwater and saline water resources have their meeting place in the coastal zone, creating unique and sensitive estuarine habitats. Furthermore, issues of water quality and quantity are often emergent in the coastal area due to factors such as saline intrusion into groundwater. The ICM Act also provides for cooperation and collaboration between the departments responsible for water affairs and environmental affairs in terms of establishment of the National Estuarine Management Protocol and in terms of regulating discharge of effluent into estuaries (Celliers et al, 2009).

#### 3.3.2.3 *The Biodiversity Act*

The Biodiversity Act (National Environmental Management: Biodiversity Act, Act No. 10 of 2004), also a specific environmental management act or SEMA in terms of the NEMA, has been established in order to *“provide for the management and conservation of South Africa’s biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith”*.

The management and protection of coastal biodiversity thus needs to be in accordance with the Biodiversity Act as stipulated above. The use of biological resources is common in the coastal area, and coastal management efforts therefore need to align with the principles which inform, and the prescriptions of, the Biodiversity Act.

#### 3.3.2.4 *The Waste Act*

That Waste Act (National Environmental Management: Waste Act, Act No. 59 of 2008) prescribes measures *“to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith”*.

In light of the above rationale for waste management, coastal environmental management interventions that include an element of waste management need to proceed in a manner that gives effect to the underlying principles and directives contained in the Waste Act. Coordination and alignment in this regard is particularly important as Chapter 8 of the ICM Act deals specifically with marine and coastal pollution control.

#### 3.3.2.5 *The Protected Areas Act*

The Protected Areas Act (National Environmental Management: Protected Areas Act, Act No. 57 of 2003) provides for the protection and conservation of ecologically viable areas which represent South Africa’s biological diversity, including natural landscapes and seascapes. In addition, the Protected Areas Act provides for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; and for inter-governmental co-operation and public consultation in matters concerning protected areas.

The requirements and prescriptions of the Protected Areas Act are of relevance to coastal management efforts in relation to Marine Protected Areas (MPAs) and Coastal Protected Areas. The location and position of these protected areas are of great importance in terms of determining and delineating the boundaries of the coastal zone in terms of the ICM Act.

#### *3.3.2.6 The Forestry Laws Amendment Act*

The Forestry Laws Amendment Act (Act No. 35 of 2005) has been established primarily to amend the National Forests Act of 1998, while also including provision for the Minister to establish a trust in respect to State forests under certain circumstances. Further reasons for the establishment of this Act include exemption for certain uses of protected trees and to provide for criminal sanctions in connection with certain activities in forests.

Indigenous coastal forests form an integral part of the larger coastal ecosystem, not only in terms of providing habitats for coastal fauna and flora, but also in terms of providing important ecosystem goods and services to humans. It is thus necessary that any aspect of coastal management which directly or indirectly involves natural forests is aligned with the provisions of legislation such as the Forestry Laws Amendment Act in this regard.

#### *3.3.2.7 The Disaster Management Act*

The Disaster Management Act (Act No. 57 of 2002) has been established to provide for:

- An integrated and co-ordinated disaster management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery;
- The establishment of national, provincial and municipal disaster management centres;
- Disaster management volunteers; and
- Other matters concerning disaster management.

Disaster management in a coastal context is a crucial aspect of holistic coastal management, particularly in light of recent extreme events along the KwaZulu-Natal shoreline. It is thus necessary that provisions be made for coastal disaster management, and that these provisions are in compliance with the Disaster Management Act.

#### *3.3.2.8 The Municipal Systems Act*

The Municipal Systems Act (Act No. 32 of 2000) has been established in order to provide for the following:

- The core principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of local communities, and ensure universal access to essential services that are affordable to all;
- To define the legal nature of a municipality as including the local community within the municipal area, working in partnership with the municipality's political and administrative structures;
- To provide for the manner in which municipal powers and functions are exercised and performed; to provide for community participation; to establish a simple and enabling framework for the core processes of planning, performance management, resource mobilisation and organisational change which underpin the notion of developmental local government;
- To provide a framework for local public administration and human resource development; to empower the poor and ensure that municipalities put in place service tariffs and credit control policies that take their needs into account by providing a framework for the provision of services, service delivery agreements and municipal service districts;

- To provide for credit control and debt collection;
- To establish a framework for support, monitoring and standard setting by other spheres of government in order to progressively build local government into an efficient, frontline development agency capable of integrating the activities of all spheres of government for the overall social and economic upliftment of communities in harmony with their local natural environment;
- To provide for legal matters pertaining to local government; and
- To provide for matters incidental thereto.

As the chosen spatial unit for local and district government management structures, a sound knowledge of the roles, functions and processes of municipalities are critically important to management interventions of any kind which take place within the borders of a municipality's jurisdiction. Recommendations and implementation plans of coastal management efforts must take the provisions of the Municipal Systems Act into account in terms of motivating for funding for implementation and in terms of the role that municipalities need to fulfil in the management process as the local representatives of national government.

#### *3.3.2.9 The Integrated Coastal Management Act*

##### **Introduction**

After the publication of the White Paper, it was necessary that the principles, goals and objectives contained therein be entrenched by the publication of national legislation to allow for enforcement and effective implementation. This occurred in early 2007 with the publication for public comment of the Integrated Coastal Management Bill (ICM Bill). After much deliberation and review of public comment, the ICM Bill was enacted in February 2009 as the Integrated Coastal Management Act (National Environmental Management: Integrated Coastal Management Act, Act no. 24 of 2008, the ICM Act). The rationale for the publication of legislation which deals specifically with the unique coastal environment is further supported by the long title of the ICM Act, summarised by Figure 7.

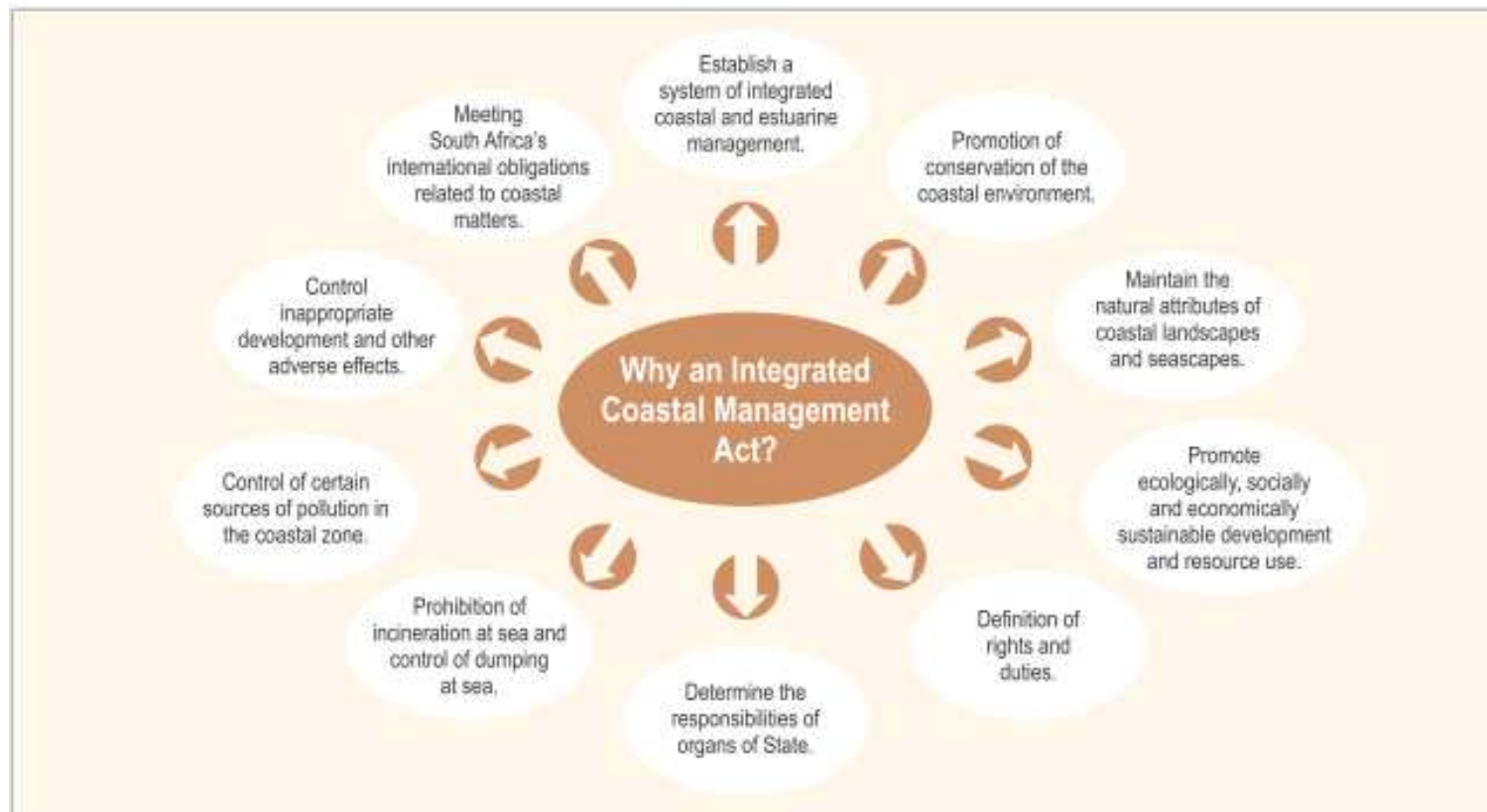
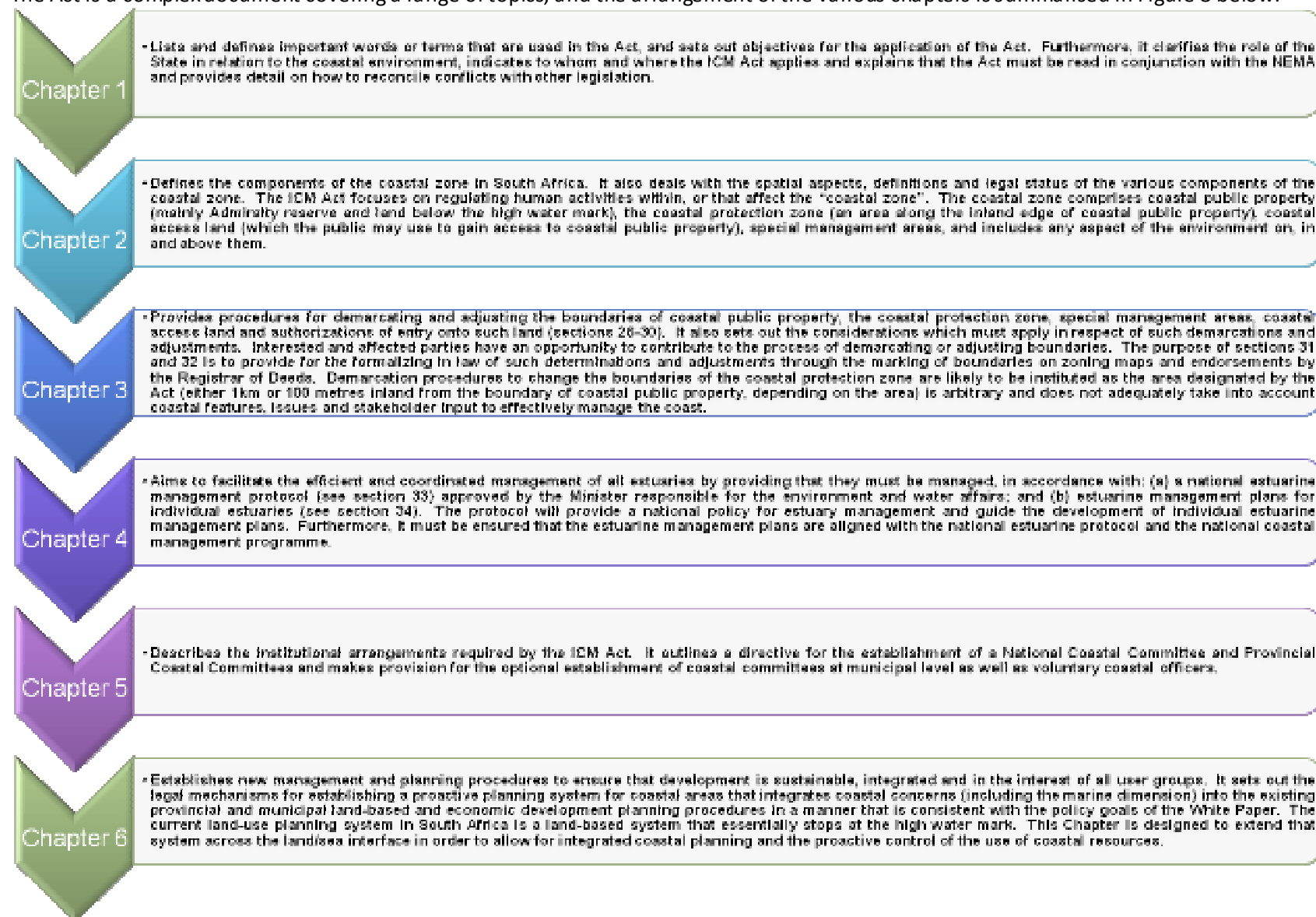


Figure 7. Rationale for the publication of the ICM Act (taken from Celliers et al., 2009).

## Arrangement of the ICM Act

The Act is a complex document covering a range of topics, and the arrangement of the various chapters is summarised in Figure 8 below.





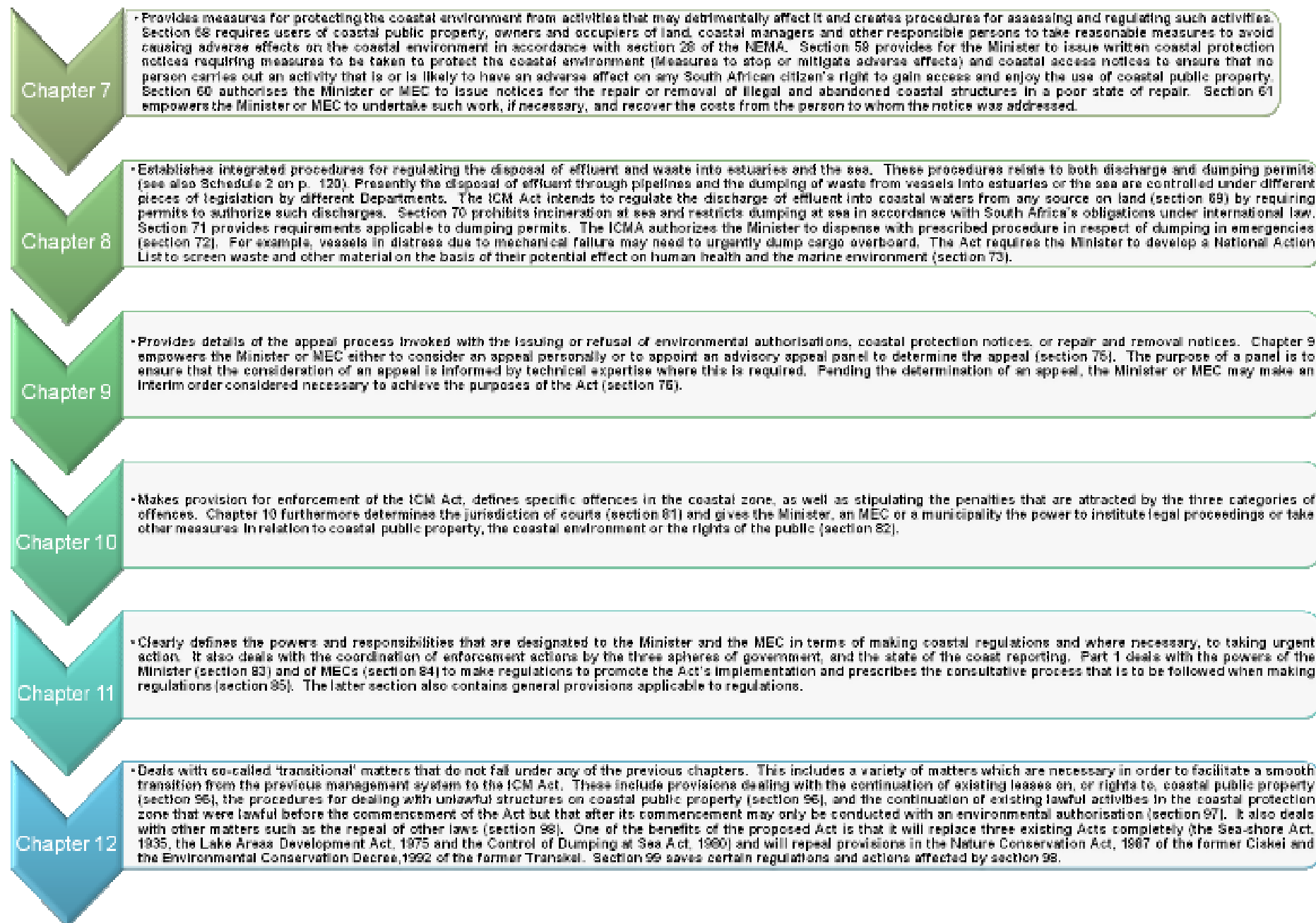


Figure 8. Arrangement of the ICM Act (adapted from Celliers et al, 2009).

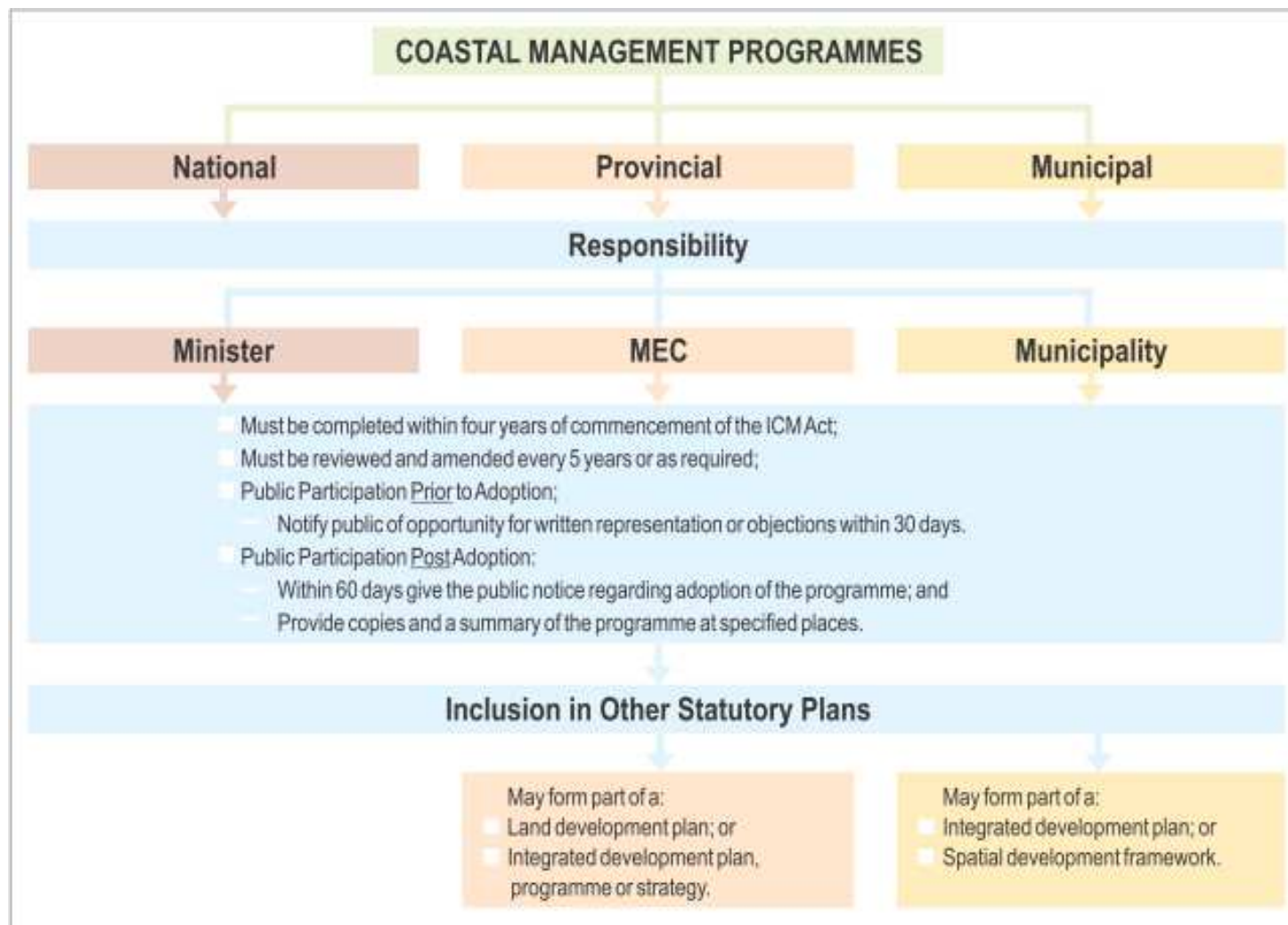
The development of a coastal management programme is the result of requirements as stipulated in Chapter 6 of the ICM Act. The components of this chapter are discussed in the following section.

### **Coastal Management Programmes**

The development of the KwaDukuza CMP is in response to the ICM Act requirement for each coastal municipality to undertake such a CMP. The stipulations of the ICM Act in terms of Chapter 6 are condensed by the following summary, taken from Celliers et al (2009).

*The intention of the ICM Act is that CMPs are established in all spheres of government starting with a national CMP. The provincial CMPs must be established to be consistent with the national CMP, and the Municipal CMPs must be established to be consistent with both the provincial and national CMPs. This hierarchical relationship allows for the development of a strategic and overarching national CMP followed by CMPs that include increasing levels of local level management detail. This arrangement also accommodates management responses that are sensitive to the natural, social and economic differences along the South African coastline.*

The process and timing for the preparation and adoption of CMPs is depicted in Figure 9.



**Figure 9. Responsibilities and processes for the development of coastal management programmes (used with permission from Celliers et al, 2009).**

In terms of the contents of CMPs as provided for by the ICM Act, CMPs must meet a number of requirements before formal acceptance of such programmes. Once a municipality adopts a CMP it may prepare by-laws to provide for the implementation, administration and enforcement of such a programme. The requirements referred to above are listed in Table 4. It should be noted that additional requirements may be prescribed and CMPs will have to take these into account.

**Table 4. Content requirements for the coastal management programmes (CMPs) of the three spheres of government. Grey shading refers to shared requirements between at least two CMPs (used with permission from Celliers et al, 2009).**

National	Provincial	Municipal
(1) All programmes must be a <b>policy directive</b> on integrated coastal management that provides for a coordinated, integrated and uniform approach by government departments (organs of state), NGOs, the private sector and local communities.	This programme must be <b>consistent</b> with the National CMP and the National Estuarine Management Protocol.	This programme must be <b>consistent</b> with the National and provincial CMPs and National Estuarine Management Protocol.
(2) All programmes must contain, as appropriate, either a national, provincial or municipal <b>vision</b> for coastal management including the sustainable use of resources.		
(3) All programmes must contain, as appropriate, either national, provincial or municipal <b>objectives</b> for coastal management.		
(4) <b>Priorities and strategies</b> to achieve the National Coastal Management objectives.		
	<ul style="list-style-type: none"> <li>(i) Achieve the provincial coastal management objectives of the province; and</li> <li>(ii) Develop priorities and strategies to develop estuarine management plans for estuaries in the province.</li> </ul>	Achieve the provincial and local coastal management objectives of the municipality, and to address: <ul style="list-style-type: none"> <li>(i) The high percentage of vacant plots and the low occupancy levels of residential dwellings;</li> <li>(ii) Equitable designation of zones for mixed-cost housing taking into account the needs of previously disadvantaged people;</li> <li>(iii) Coastal erosion and accretion; or</li> <li>(iv) Coastal access.</li> </ul>
(5) All programmes must include <b>performance indicators</b> to measure progress with the achievement of relevant coastal management objectives.		
(6) <b>National norms and standards</b> for the management of the coastal zone generally as well as specific components therein.	Although not explicit in the ICM Act it follows that the provincial and municipal CMPs must implement national norms and standards.	
(7) <b>Framework for co-operative governance</b> that identifies the responsibilities of different organs of state, including their responsibilities in relation to marginalised or previously disadvantaged communities that are dependent on coastal resources for their livelihood and facilitates co-ordinated and integrated coastal management.	Although not explicit in the ICM Act it follows that the provincial and municipal CMPs must implement the framework for co-operative governance.	
(8) Although the Act is silent on the need for a programme of projected expenditure, it follows that such a programme of expenditure will be desirable.	May include a programme of <b>projected expenditure</b> and investment by the provincial and municipal government in order to implement the CMPs.	
		A municipal CMP may also include a: <ul style="list-style-type: none"> <li>(i) Description of specific areas within the coastal zone that require special management and strategies; and</li> <li>(ii) Estuarine management plans.</li> </ul>

The ICM Act also provides for a review (and amendment if necessary) cycle for CMPs. The following section describes this process (taken from Celliers et al, 2009). Section 54 of the ICM Act gives the Minister the power to review any provincial CMP, at any time, while similarly Section 55 empowers the MEC, to review, at any time, any municipal CMP. The Minister may also request that an MEC review a municipal CMP. Should the MEC be unable or unwilling to do so within a reasonable time period, the Minister himself may review such a CMP. The criteria for reviewing CMPs are provided in Fig. 10.



**Figure 10. The criteria for reviewing provincial and municipal coastal management programmes (CMPs). Major differences are underlined (used with permission from Celliers et al, 2009).**

Should the Minister decide that the provincial CMP does not comply with the conditions above, he or she must notify the MEC of the relevant province to amend or replace the programme within a reasonable period of time. The MEC must then follow the same procedure as if he or she is preparing and adopting a programme for the first time. The amended or replaced CMP may then only be adopted with the consent of the Minister.

The ICM Act requires the MEC to consider the advice of the Provincial Coastal Committee (see Section 39 of ICM Act), regarding the content of any municipal CMP. If after doing so the MEC determines that the municipal programme does not meet all the requirements mentioned in the table above, the MEC must notify the relevant municipality to amend or replace the programme within a reasonable time period. The municipality must then follow the same procedure as if they are preparing and adopting a programme for the first time. The amended or replaced CMP may only be adopted with the consent of the MEC.



### **Coastal Planning Schemes**

A coastal planning scheme is another tool which may be used to achieve coastal management objectives. A coastal planning scheme defines areas within the coastal zone or coastal management area which may be exclusively or mainly used for a specified purpose or activity. A planning scheme may also restrict or prohibit certain activities in or uses of a specified zone. As consistency is one of the strongest themes in the ICM Act, the coastal planning scheme cannot be established without notification in the government Gazette and must be aligned with the objectives of the ICM Act and any coastal management programmes or estuarine management plans which apply to that area. The Minister, MEC, municipalities and management authorities specified in Section 56 (3) of the ICM Act may establish coastal planning schemes.

There is a hierarchy of coastal planning schemes that are listed below (in order of precedence) established by:

- The Minister;
- The Coastal Protected Area Authority;
- The MEC;
- The Municipality; and
- The Special Management Area Authority.

It is important to note that a coastal planning scheme may not create any rights to use land or coastal waters.

If a coastal planning scheme includes an area that reaches into the sea more than 500 metres from the high water mark, or if the scheme affects the protection or use of marine living resources, it may only be established with the consent of the Minister. In addition, if the scheme affects the navigation of vessels at sea or restricts vessels entering or leaving a harbour, such a scheme may only be established with the consent of the Minister of Transport.

A coastal planning scheme may also form part of any existing municipal land use scheme provided that the municipality not adopt a land use scheme that is inconsistent with a coastal planning scheme established in terms of the ICM Act. If there is a land use scheme that was created after the commencement of the ICM Act which conflicts with a coastal planning scheme, the coastal planning scheme will prevail.

### **3.3.3 National Policies**

#### **3.3.3.1 *The White Paper for Sustainable Coastal Development in South Africa, 2000***

A growing realisation that historical coastal management practices in South Africa had failed to achieve sustainable coastal development shifted impetus away from management efforts that were technocratic and resource-centred, towards a method of coastal management which champions a participatory approach and prioritises equitable human development (Glavovic, 2006). In April 2000, this process culminated in the publication of the White Paper for Sustainable Coastal Development in South Africa (DEAT, 2000; hereafter 'the White Paper'), the product of extensive public consultation and participation. Arguably the most important feature of this watershed policy document is its inherent recognition of the coastal area as a unique asset with massive potential to benefit the people of South Africa if it is managed and utilised wisely. No longer was resource conservation the basis for coastal management, but rather the use of coastal resources was promoted in such a way that humans are able to benefit from their provision, but in such a way that the use of these resources by future generations is not compromised by today's greed.

Underpinned by this philosophy of 'people first', the White Paper effectively provides the overarching framework for coastal management in South Africa. In short, the White Paper provides a summarised background to the country's coastal zone; outlines a national vision for coastal management and sets out principles, goals and objectives for coastal management in order to achieve this vision. The White Paper concludes with a detailed plan of action which proposes implementation actions at National, Provincial and local levels. In summary, the key messages put forward by the White Paper include recognising the value of the coast; facilitating sustainable coastal development; promoting co-ordination and integration; and introducing a new style of management which has shared responsibility as its focal point. These themes and principles are embodied by the national vision for coastal management in South Africa:

*We, the people of South Africa, celebrate the diversity, beauty and richness of our coast and seek an equitable balance of opportunities and benefits throughout it.*

*We strive for sustainable coastal development – involving a balance between material prosperity, social development, cultural values, spiritual fulfilment and ecological integrity, in the interests of all South Africans.*

*We strive for a time when all South Africans recognise that the coast is ours to enjoy in a spirit of community.*

*We look forward to a time when all South Africans assume shared responsibility for maintaining the health, diversity and productivity of coastal ecosystems in a spirit of stewardship and caring.*

*We seek to guide the management of our coast in a way that benefits current and future generations, and honours our obligations and undertakings from local to global levels.*

The principles which underpin coastal management in South Africa are shown in Fig. 11 below.

PRINCIPLE	DESCRIPTION
National Asset	The coast must be retained as a national asset, with public rights to access and benefit from the opportunities provided by coastal resources.
Economic Development	Coastal economic development opportunities must be optimised to meet society's needs and to promote the wellbeing of coastal communities.
Social Equity	Coastal management efforts must ensure that all people, including future generations, enjoy the rights of human dignity, equality and freedom.
Ecological Integrity	The diversity, health and productivity of coastal ecosystems must be maintained and, where appropriate, rehabilitated.
Holism	The coast must be treated as a distinctive and indivisible system, recognising the interrelationships between coastal users and ecosystems, and between the land, sea and air.
Risk Aversion & Precaution	Coastal management efforts must adopt a risk averse and precautionary approach under conditions of uncertainty.
Accountability & Responsibility	Coastal management is a shared responsibility. All people must be held responsible for the consequences of their actions, including financial responsibility for negative impacts.
Duty of Care	All people and organisations must act with due care to avoid negative impacts on the coastal environment and coastal resources.
Integration & Participation	A dedicated, co-ordinated and integrated coastal management approach must be developed and conducted in a participatory, inclusive and transparent manner.
Co-operative Governance	Partnerships between government, the private sector and civil society must be built in order to ensure co-responsibility for coastal management and to empower stakeholders to participate effectively.

**Figure 11. National coastal management principles for South Africa (adapted from DEAT, 2000 and used with permission from Celliers et al, 2009).**

The White Paper sets out a number of goals and objectives for coastal management which also forms the basis for the KwaDukuza CMP. The goals and objectives provide more detailed direction for achieving the vision of sustainable coastal development through integrated coastal management. They address the key issues of concern. They also apply, build upon integrate and clarify directives outlined in related policies and legislation applicable to the

task of coastal management (taken from DEAT, 2000). The goals and objectives of national coastal management are presented under the headings or themes:

- (i) Governance and Capacity Building;
- (ii) Our National Asset;
- (iii) Coastal Planning and Development;
- (iv) Natural Resource Management; and
- (v) Pollution Control and Waste Management.

These same themes are used as the framework for developing specific management interventions for the KwaDukuza CMP.

Under each of these themes, a list of key issues and a set of proposed goals and objectives are presented. These goals and objectives should not be viewed in isolation from one another - they must be considered as a whole. Goals are statements providing direction for action - we strive to achieve them through our actions. Objectives are more explicit statements about how we can work towards the goals within a reasonable period of time. No one goal or objective has greater importance than another (taken from DEAT, 2000).

### **3.3.4 Provincial Policies**

#### **3.3.4.1 The Draft KwaZulu-Natal Coastal Management Policy**

Aspect	Summary
<b>Vision</b>	“We, the people of KwaZulu-Natal, celebrate the diversity, beauty and richness of our coast and seek an equitable balance of opportunities and benefits throughout it. We strive for sustainable coastal development – involving a balance between material prosperity, social development, cultural values, spiritual fulfilment and ecological integrity, in the interests of all citizens of KwaZulu-Natal. We strive for a time when all citizens of the province recognise that the coast is ours to enjoy in a spirit of community. We look forward to a time when all citizens of the province assume shared responsibility for maintaining the health, diversity and productivity of coastal ecosystems in a spirit of stewardship and caring. We seek to guide the management of our coast in a way that benefits current and future generations, and honours our obligations and undertakings from local to global levels”.
<b>Coastal management principles</b>	<ul style="list-style-type: none"> <li>• Informed by the principles contained in the National White Paper for Sustainable Coastal Development (DEAT, 2000).</li> <li>• These principles (see Figure 10) are regarded as the basis for coastal management at a national level and as such form the overarching framework for all subordinate coastal management efforts.</li> </ul>
<b>Goals and objectives</b>	<ul style="list-style-type: none"> <li>• To ensure meaningful public participation, and to promote partnerships between the Government, the private sector and civil society in order to foster co-responsibility in coastal management.</li> <li>• To promote public awareness about the coast and to educate and train coastal managers and other stakeholders to ensure more effective coastal planning and management.</li> <li>• To promote a dedicated, co-operative, co-ordinate and integrated coastal planning and management approach.</li> <li>• To conduct coastal planning and management activities in a manner that promotes learning through continuous research, monitoring, review and adaptation.</li> </ul>

	<ul style="list-style-type: none"> <li>• To support National Government in fulfilling international and trans-boundary responsibilities, whilst retaining South Africa's sovereignty and to undertake integrated coastal management with KwaZulu-Natal's neighbours.</li> <li>• To ensure that the public has the right of physical access to the sea, and to and along the sea shore, on a managed basis.</li> <li>• To ensure that the public has the right of equitable access to the opportunities and benefits of the coast, on a managed basis.</li> <li>• To preserve, protect or promote historical and cultural resources and activities of the coast.</li> <li>• To ensure that the Government fulfils its duties as the legal custodian of all coastal Government assets on behalf of the people of South Africa.</li> <li>• To promote the diversity, vitality and long-term viability of coastal economies and activities, giving preference to those that are distinctly coastal or dependent on a coastal location.</li> <li>• To alleviate coastal poverty through proactive coastal development initiatives that generate sustainable livelihood options.</li> <li>• To maintain an appropriate balance between built, rural and wilderness coastal areas.</li> <li>• To design and manage coastal settlements to be in harmony with local and regional aesthetic, amenity, biophysical and cultural opportunities and constraints.</li> <li>• To plan and manage coastal development so as to avoid increasing the incidence and severity of natural hazards and to avoid exposure of people, property and economic activities to significant risk from dynamic coastal processes.</li> <li>• To maintain the diversity, health, and productivity of coastal processes and ecosystems.</li> <li>• To establish and effectively manage a system of coastal protected areas.</li> <li>• To ensure that the use of renewable resources and associated user practices do not compromise the regenerative capacity of coastal ecosystems.</li> <li>• To use non-renewable coastal resources in a manner that optimises the public interest and retains options for alternative and future uses.</li> <li>• To rehabilitate damaged or degraded coastal ecosystems and habitats.</li> <li>• To implement pollution control and waste management measures in order to prevent, minimise and strictly control harmful discharges into coastal ecosystems.</li> <li>• To manage polluting activities to ensure that they have minimal adverse impacts on the health of coastal communities, and on coastal ecosystems and their ability to support beneficial human uses.</li> </ul>
<b>Municipal responsibilities</b>	<ul style="list-style-type: none"> <li>• Co-ordinate coastal management activities at a district and local level.</li> <li>• Establish and implement local (or otherwise municipal) Coastal Management Programmes.</li> <li>• Ensure that local IDPs and associated spatial plans and controls are not in conflict with the goals and objectives of the provincial coastal policy, identify and budget for coastal projects and establish special controls for sensitive coastal areas.</li> <li>• Incorporate relevant outputs of the Systematic Conservation Plan for coastal lands and estuaries into Integrated Development Plans and associated spatial plans and controls.</li> <li>• Manage and protect coastal resources under their ownership or custodianship.</li> </ul>



	<ul style="list-style-type: none"> <li>• Promote appropriate and sustainable coastal economic development.</li> <li>• Rehabilitate coastal resources where necessary.</li> </ul>
<b>Conclusion</b>	
<p><b>The KwaDukuza CMP should align itself with the provincial policy by ensuring that these principles are incorporated and the above responsibilities are adequately addressed by the CMP process. The provisions of the KwaDukuza CMP cannot be less stringent than those of the National or Provincial CMP, but can be more stringent through the use of additional controls. The KwaDukuza CMP must furthermore be spatially explicit in terms of management recommendations through the use of coastal planning schemes and links to the IDP, SDF and LUMS structures.</b></p>	

### 3.3.5 District Municipal Management

#### 3.3.5.1 The iLembe District Municipality IDP Review 2008/09

Aspect	Summary
<b>Coastal/environmental priorities</b>	<ul style="list-style-type: none"> <li>• The appropriate identification, conservation, rehabilitation and management of protected areas.</li> <li>• The appropriate usage and integration of environmental opportunities into wider settlement and development strategies.</li> <li>• An appropriate forward looking development structure that contributes to protecting, maintaining and developing the various environmental aspects of the District and facilitating their integration into the development of a multi-faceted and unique environment.</li> <li>• The protection, rehabilitation, integration and appropriate management of natural resources and their integration into tourism and urban development.</li> <li>• Linking the unique environments and opportunities in the west of the District to the established activities in the east.</li> <li>• Involvement of affected communities and the creation of an increased awareness of the importance and opportunities in protecting the natural environment ensuring that the communities benefit adequately from the appropriate management and usage of the natural resources.</li> <li>• Address the lack of funding for environmental management programmes and projects.</li> </ul>
<b>Conclusion</b>	
<p><b>The objectives and recommendations of the KwaDukuza CMP must as far as is practicable align with and contribute to the above priorities.</b></p>	

#### 3.3.5.2 The iLembe Consolidated Local Economic Development (LED) Strategy 2008

Aspect	Summary
<b>Overview</b>	<ul style="list-style-type: none"> <li>• Development within iLembe is concentrated along the coast, while the rural hinterland remains comparatively poor.</li> <li>• The iLembe coastal strip comprises KwaDukuza and Mandeni local municipalities and is characterised by tourism related activities with the focus of development being in the area formally known as the Dolphin Coast, now KwaDukuza</li> </ul>

	<p>Municipal area.</p> <ul style="list-style-type: none"> <li>• The overarching strategy has aimed to develop a framework and process towards the formulation of an effective and inclusive LED strategy for iLembe.</li> </ul>
<b>LED focus areas</b>	<ul style="list-style-type: none"> <li>• Infrastructural development.</li> <li>• Skills development.</li> <li>• District/Local co-ordination.</li> <li>• Promoting local competitive advantage.</li> </ul>
<b>Potential future states of the coastal area:</b>	<ul style="list-style-type: none"> <li>• Development of tourism potential in underdeveloped coastal areas.</li> <li>• The use of existing sector strengths to retain investments in coastal areas and expand investments in hinterland areas.</li> </ul>
<b>Coastal tourism vision</b>	<p>‘Develop the iLembe North Coast into a preferred tourism destination by meeting the demands of both international and domestic tourists through a co-ordinated approach to tourism management, marketing and product development, by building on the district’s rich cultural heritage, natural resources, excellent weather, and relaxation favourable lifestyle.’</p>
<b>Conclusion</b>	
<p>A major weakness constraining the economic development of KwaDukuza is the backlog of basic services such as water, sanitation and electricity. KwaDukuza faces the typical South African challenge of well-off coastal strip versus a poor hinterland area. Any coastal development strategy should also include links to inland economic centres and development nodes. The coast is not isolated from the hinterland and management efforts between the coast and inland areas must be seamless.</p>	

### 3.3.5.3 The iLembe Energy Master Plan 2007

Aspect	Summary
<b>Key issues identified</b>	<ul style="list-style-type: none"> <li>• Alarming rate of coastal development and the associated pressure this places on infrastructure provision.</li> <li>• The entire coast of iLembe has been prioritised for strategic development focuses in terms of local municipal SDFs.</li> <li>• Development of the Airport and Trade Port will undoubtedly affect the spatial structuring of the area by attracting additional commercial/industrial development.</li> <li>• Coastal and industrial pollution have proved problematic for electricity supply and reticulation by disrupting gang links (the mechanical connection of two or more circuit devices).</li> </ul>
<b>Conclusion</b>	
<p>KwaDukuza has been experiencing exceptional growth in upmarket residential and leisure developments and retail facilities particularly in the Ballito/Zimbali area which is expected to continue in a similar fashion north along the coastline. This needs to be accompanied by a matching roll-out in electrical infrastructure. This is particularly important in light of the increasing emphasis on using reverse osmosis to desalinate seawater and the high power demand this would place on provision of electricity.</p>	

#### 3.3.5.4 Water & Sanitation Master Plan for the iLembe District Municipality 2007

Aspect	Summary
<b>Introduction</b>	<ul style="list-style-type: none"> <li>There is a need for water and sanitation infrastructure to meet the growing demands of future development in iLembe.</li> <li>Coastal resorts and the Dube Trade Port are expected to have a significant impact on this demand for adequate water and sanitation infrastructure.</li> </ul>
<b>Water supply options</b>	<ul style="list-style-type: none"> <li>Existing water resources currently comprise abstraction from the Mvoti and Tugela Rivers in the northern area and the Umgeni Water Ndwedwe bulk supply as well as the Ngcebo scheme in the north-western Region of KwaDukuza.</li> </ul>
<b>Sanitation review</b>	<ul style="list-style-type: none"> <li>Growth along iLembe's development corridors will require waterborne sanitation systems and associated planning.</li> <li>Out-lying areas with sparse population densities make it unfeasible to provide waterborne systems, and are planned to utilise septic tanks systems in the long run.</li> <li>New pump stations are planned for Zinkwazi, Blythedale Beach and Salt Rock.</li> <li>New wastewater treatment works are planned for Sheffield Beach and between KwaDukuza and Blythedale Beach.</li> </ul>
<b>Stanger wastewater treatment works</b>	<ul style="list-style-type: none"> <li>The Stanger plant has a capacity of 10 Ml/d. It is currently operating at 3.5 Ml/d. The system takes in sewage from the KwaDukuza area, screens, degrits and provides primary settling separation. The system has two activated sludge modules, separate primary and secondary anaerobic sludge digestors, two secondary settling tanks, sludge drying beds and gaseous chlorination systems for effluent disinfection.</li> <li>The system then discharges into the Mbozamo River which is a tributary of the Mvoti River.</li> <li>Issues at the Stanger plant include fine screens which have bars missing which need to be replaced; inoperative screw pumps at the main pump station; aerator 2 –has one motor which has not been working for four years and needs to be replaced.</li> <li>The treatment works are surrounded by development and it is not be possible to extend the works beyond its current capacity.</li> </ul>
<b>Conclusion</b>	
<p><b>It is considered essential that bulk sanitation infrastructure is provided in tandem with bulk water supply. The provision of consistent and appropriate sanitation infrastructure is an issue of concern for this area. The historically placed infrastructure is no longer adequate for the current and projected future demand. Much of the original bulk sewage infrastructure is exposed to risk from sea-level rise, sea storms and floods and a long-term strategy to reduce risk is now required.</b></p>	

#### 3.3.5.5 Ilembe Coastal Working Group: 2004 to 2006

Aspect	Summary
<b>Mandate</b>	<ul style="list-style-type: none"> <li>Establishment of an institutional structure at District level to engage various roleplayers within the District to promote coastal governance, dialogue and collective action.</li> </ul>
<b>Issues impacting negatively on function</b>	<ul style="list-style-type: none"> <li>Lack of institutional capacity, specifically the need to develop capacity and commitment at all three levels of government.</li> <li>Limited human resources, i.e. the need to develop human resources along with an understanding of integrated coastal</li> </ul>

	<p>management (ICM) issues.</p> <ul style="list-style-type: none"> <li>• Financial constraints.</li> <li>• Co-ordination of activities and clarification of roles including the implementation of cooperative governance and the need to develop effective intergovernmental partnerships.</li> </ul>
<b>Representation</b>	<ul style="list-style-type: none"> <li>• Civil society (50% of total attendance).</li> <li>• Government (37% of total attendance).</li> <li>• Parastatals (13% of total attendance).</li> </ul>
<b>Issues identified applicable to KwaDukuza</b>	<ul style="list-style-type: none"> <li>• Lack of public parking areas at Tugela South Bank, Blythedale Beach, Tongaat River, and Zimbali.</li> <li>• Inadequate signage on beaches.</li> <li>• Illegal beach access.</li> <li>• Coastal pollution – notably the impact of water extraction from rivers and streams by developers which makes under-capacitated rivers vulnerable to sewage pollution as well as localised beach pollution/littering.</li> <li>• Biodiversity loss – transformed and disturbed coastal land.</li> <li>• Unsustainable/inappropriate coastal development.</li> <li>• Unsustainable service provision.</li> <li>• The need for a marine protected area (MPA) in KwaDukuza.</li> </ul>
<b>Conclusion</b>	
<p><b>The importance of structures such as the iLembe Coastal Working Group which is founded on the principles of co-operative governance in order to raise the profile of coastal management issues and ensure political support and buy-in, cannot be overstated. It is suggested that the formulation of the KwaDukuza Municipal Coastal Committee (MCC) be based on the experience gained and the lessons learnt from the proceedings of the iLembe CWG. The KwaDukuza MCC should also serve to re-invigorate the, to be formalised, iLembe MCC.</b></p>	

### 3.3.6 Local Municipal Management

#### 3.3.6.1 The KwaDukuza IDP 2007-2012

Aspect	Summary
<b>Vision</b>	<p>“By 2015 KwaDukuza will, through unity and good governance be an economic powerhouse, delivering services in an affordable and sustainable manner within a safe and healthy environment”</p>
<b>Infrastructural context</b>	<ul style="list-style-type: none"> <li>• There is a huge disparity in provision of services and there is a major service backlog within KwaDukuza Municipal area</li> <li>• Existing infrastructure is not maintained, evident in the poor condition of roads due to the poor standard of stormwater management and lack of maintenance.</li> <li>• Provision of water infrastructure is deemed a top priority with only half of the population currently having access to water. There is a severe water shortage in the area, which is exacerbated by new development applications.</li> <li>• Ways of reducing inefficiencies, waste and water loss need to be investigated.</li> <li>• Existing bulk electricity supply in the area is limited - the Stanger 133/33kV in-take substation is deemed “infirm and</li> </ul>

	<p>requires additional capacity” as it cannot support the current extensive developments occurring along the coast.</p> <ul style="list-style-type: none"> <li>• Additional residential development is causing massive pressure on municipal waste, stormwater and electrical infrastructure.</li> </ul>
<b>Environmental management</b>	<ul style="list-style-type: none"> <li>• KwaDukuza Municipality strives to be an environmentally sustainable municipal area that anticipates, manages and reduces its vulnerability to potential global and local environmental shocks, and works consistently to reduce the impact of its own built environment and urban processes on the broader envelope of natural resources.</li> <li>• Environmental management is often misrepresented in the form of conservation – it is often seen as a hindrance in the development arena.</li> <li>• Within this context, it should be seen as an integrative tool that focuses on efficient management, as there will be clear mechanisms to achieve the long term balance and communities that can sustain themselves.</li> <li>• Within this context, the development directive needs to promote efficient, sustainable growth within the context of limited resources.</li> <li>• The promotion of agriculture in areas of high potential coupled with public private partnership (PPP) initiatives in relation to land ownership and the optimum use of these prime resources.</li> <li>• The development and implementation of a renewable strategy across the District.</li> <li>• Incorporation of environmental management principles and day-to-day practices into the LUMS of local municipalities.</li> <li>• The formulation of targets and performance management systems to monitor implementation along with both national and international accountability.</li> <li>• Eco-tourism and the management and promotion of iLembe’s cultural assets are also essential.</li> </ul>
<b>Coastal context</b>	<ul style="list-style-type: none"> <li>• Rapid development in KwaDukuza has placed unprecedented pressure on the environment; this is particularly acute along the 46 km of coastline which is comprised of sandy beaches, dune forests and rocky headlands.</li> <li>• The demand for sandy beaches and the pressure to provide space adjacent to bathing beaches and other amenities, both for recreational activities and parking is also associated with the aforementioned rapid development.</li> <li>• Degradation of the coastline has negative implications for the tourism industry, which is considered crucial for economic development in KwaDukuza.</li> <li>• Remnant patches of riparian vegetation and coastal forest still exist, along with limited examples of coastal grassland – which are extremely important for conservation purposes.</li> </ul>
<b>Conclusion</b>	
<p><b>The KwaDukuza CMP must as far as possible align with the objectives and principles of the overarching IDP and integrate with the IDP in order to secure sufficient budget allocation for the identified coastal projects. The IDP is firm in identifying the importance of natural resources and the environment as a basis for recreation and tourism activities that are a major component of the character of this area. It promotes the protection and use of these resources to benefit the people in the Municipality. This management tool must be used to its full extent in order to empower the CMP.</b></p>	

### 3.3.6.2 The KwaDukuza Draft Spatial Development Framework and Land Use Management System 2008

Aspect	Summary
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<b>Development vision</b>	<p>“The spatial development framework will contribute to the balanced physical development of the municipality by establishing a spatial development structure guiding the management of future development, accommodating development pressures and additional investment, maintaining and further developing the economic potential of the municipality, while protecting and integrating the natural environment of the area”.</p>
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Providing strategic guidance for the future physical/spatial development of the municipality.</li> <li>• Ensuring that the envisaged physical/spatial development reflects the social, economic, and environmental development issues identified in the IDP.</li> <li>• Creating a tool to manage future development.</li> <li>• Establishing a development structure.</li> <li>• Facilitating integration.</li> <li>• Creating generative systems.</li> <li>• Promoting incrementalism.</li> <li>• Creating a sense of place.</li> <li>• Clustering development and establishing a centre strategy.</li> <li>• Identifying access routes as investment lines.</li> <li>• Recognising natural resources as primary assets.</li> <li>• Project initiation.</li> <li>• Reviewing present IDP, SDF and development status quo.</li> <li>• Agreeing on underlying principles and approaches.</li> <li>• Establishing a development vision, concepts and strategies.</li> <li>• Establishing the spatial development framework.</li> <li>• Identification of a corridor hierarchy.</li> <li>• Identification of a hierarchy of activity nodes.</li> <li>• Establishment of natural environmental systems.</li> <li>• Establishing dominant land uses.</li> <li>• Providing implementation guidance.</li> <li>• Participation and stakeholder involvement.</li> </ul>
<b>Development implications</b>	<ul style="list-style-type: none"> <li>• There are significant development pressures in the south of the municipality as well as on the coastal strip; this is likely to increase as the planned King Shaka Airport develops.</li> <li>• Pressures for a wide range of development types need to be appropriately managed.</li> <li>• As in most municipalities there exists a great need for additional appropriate accommodation and economic development, thus future residential development needs to be more structured and relate to both the creation of employment opportunities and ensuring the maintenance of a functional and attractive natural environment and the availability of support services.</li> <li>• The coastal and riverine environments require a sensitive approach and a greater level of protection, both for the retention of a good human environment, a functional agricultural sector as well as an increased tourism and recreation</li> </ul>

	<p>development.</p> <ul style="list-style-type: none"> <li>• While the present agricultural development represents the most significant contributor to the economic development of the municipality, pressures for other development are likely to reduce its significance in the future. Pressure on land at present used for agricultural activities, mostly in the form of sugar cane farming, may require more efficient land utilisation as well as a greater diversification.</li> <li>• A significant number of land claims in a central band of the municipality could have a delaying effect on development in this region.</li> <li>• In overall terms, KwaDukuza has great development opportunities through its location and opportunities, in particular if it is possible to manage development pressures and balance development better throughout the area, and if the municipality develops an appropriate capacity level for the management and promotion of appropriate development.</li> </ul>
<b>Development potential in KwaDukuza</b>	<ul style="list-style-type: none"> <li>• Development impetus emanates predominantly from the location of KwaDukuza town along the provincial development corridor abutting the eThekweni Municipality in the south.</li> <li>• The planned location of the new airport in close proximity to KwaDukuza is also likely to generate significant economic development potential, particularly in the southern part of the area.</li> <li>• Such development requires guidance in terms of contents and extent, particularly along the coast.</li> <li>• The R102 development corridor links all inland towns and developments to each other, providing opportunities for the development of economic and social nodal development.</li> <li>• The location of the North Coast Rail in the vicinity of the R102 provides additional development opportunities in particular if the existing infrastructure is appropriately upgraded.</li> <li>• The present significance of the agricultural sector in the economic development of KwaDukuza is well documented, and it has been suggested that major opportunities exist for diversification, beneficiation and better integrating local and surrounding communities in the benefits of agricultural development.</li> <li>• It is also widely agreed that the natural and cultural assets of KwaDukuza, linked to present and future improved accessibility, can and need to be further developed.</li> </ul>
<b>Development constraints in KwaDukuza</b>	<ul style="list-style-type: none"> <li>• The environmentally sensitive coastal strip which, although under substantial pressure for recreational usage and accommodation, needs to be better protected and managed.</li> <li>• Better protection and management of the river, lagoon and wetland systems to maintain and improve appropriate environmental functionality.</li> <li>• Relatively unstructured housing development in terms of location and integration into necessary social and economic support systems.</li> <li>• Limitations in terms of carrying capacity of identified river catchment areas.</li> <li>• The existence of numerous land claims in the central portions of the municipality, although it is agreed that this may primarily be an issue of development phasing.</li> <li>• The existence of poorer and less developed communities in the municipalities to the west and north.</li> <li>• Present limitations in the provision of appropriate physical and social support services to peripheral communities.</li> </ul>
<b>Environmental structuring</b>	<ul style="list-style-type: none"> <li>• The coast: a major component of the municipal environment. The coast of KwaDukuza is currently experiencing severe</li> </ul>

<b>approaches</b>	<p>pressure for additional development, thus a balance needs to be established between such pressures, ensuring equitable access and the need for appropriate protection and management of sensitive and unique coastal ecology.</p> <ul style="list-style-type: none"> <li>• River mouths, estuaries, and lagoons: unique and important environments requiring appropriate protection and management while offering unique opportunities for recreational development and other ecosystem services.</li> <li>• Major river systems and valleys: representing a major natural structuring element in the form of natural barriers which create breaks in the built development that require appropriate protection and management in order to be positively integrated into development.</li> <li>• Local tributaries: local rivers and streams providing opportunities for linking the natural environment of the major river system, providing local level relief from the built environment, need to be appropriately protected and managed to be positively integrated into development.</li> <li>• Other environmental resource areas: including significant hills, escarpments, landscapes – these need to be appropriately integrated and utilised sensitively for appropriate tourism and recreation activities, while being adequately protected and managed.</li> </ul>
<b>Coastal development</b>	<ul style="list-style-type: none"> <li>• The KwaDukuza Draft SDF and LUMS identify the coastal strip as a particularly important element in shaping development in KwaDukuza.</li> <li>• Some additional development is also likely to take place in the coastal strip, but it is anticipated that such development will be of low intensity, retaining a largely green coastal environment and providing/retaining appropriate access for all to the coast.</li> <li>• Coastal development needs to adhere to more stringent environmental considerations and the SDF promotes the creation of individual and unique clustered or nodal developments, rather than development along the entire coastal strip.</li> <li>• It should also be ensured that public access is retained and facilitated to the coast, river mouths and lagoons and any environmentally sensitive areas.</li> <li>• The expansion of residential development is also likely to be influenced by issues of access to increased physical services and existing land claims.</li> </ul>
<b>Recreation and tourism</b>	<ul style="list-style-type: none"> <li>• KwaDukuza is favourably positioned in respect to tourism as it contains approximately 50km of coastline in close proximity to eThekweni; is easily accessible from the N2 and is located adjacent to the new King Shaka International Airport.</li> <li>• The SDF identifies particular existing and potential future tourism nodes along the entire coast.</li> <li>• The SDF suggests that instead of continuing the development of a solid coastal urban band (i.e. 'ribbon development'), coastal development should take the form of appropriately sized clusters or nodes in the vicinity of the coast.</li> <li>• The location and size of these clusters would be determined by specific local environmental conditions, the desire to create manageable and unique development entities and to maintain public access to the beach front.</li> <li>• Amenities along the beach need to be upgraded appropriately.</li> </ul>
<b>Transport</b>	<ul style="list-style-type: none"> <li>• Coastal and central areas are well connected: N2, R102, R74 and R614.</li> <li>• Western parts of municipality are less well connected.</li> <li>• North Coast railway line provides important supporting infrastructure in proximity to the R102.</li> <li>• Completed airport at La Mercy (in eThekweni) expected to benefit KwaDukuza in terms of air transport infrastructure.</li> </ul>

<b>Residential</b>	<ul style="list-style-type: none"> <li>• Urban development located at KwaDukuza town (formerly Stanger), Ballito, Umhlali, Shaka's Kraal, Prince's Grant, Blythedale Beach, Tinley Manor, Zinkwazi and portions of Groutville.</li> <li>• Peri-urban to semi-rural settlement occurs throughout the centre of KwaDukuza Municipality, extending from the northern boundary via KwaDukuza town, Groutville and Umhlali to the southern edge abutting eThekweni.</li> <li>• There is significant variation in terms of density and the 'quality' of development in KwaDukuza Municipal area.</li> <li>• A variety of new housing areas are in the process of being established throughout the municipality from Ballito in the south to Damall in the north.</li> <li>• Rural and traditional settlement is concentrated predominantly in the north-western Ingonyama Trust areas.</li> </ul>
<b>Water/Sanitation</b>	<ul style="list-style-type: none"> <li>• Provision of water and sanitation was described as 'mostly adequate' in 2008.</li> <li>• Other sources reveal the provision of water and sanitation infrastructure to be barely adequate for the current needs of KwaDukuza Municipality, and inadequate for the anticipated residential expansion.</li> </ul>
<b>Conclusion</b>	
<p>It is suggested that the more stringent environmental protection measures which have recently been introduced, be a key consideration in any new development. This is towards the protection of the sensitive coastal environment, while simultaneously protecting coastal development from natural disasters. KwaDukuza needs to gain from the competitive advantage it has due to its location close to the new airport and develop its tourism and recreation sector in relation thereto. The upgrade and/or provision of infrastructure in KwaDukuza's coastal area needs to balance the infrastructural needs of the municipality and surrounds with the continued ecological functioning of its coastal area upon which so much depends. The SDF is also one of the critical management instruments, with the IDP and LUMS that will manage the spatial development of the KwaDukuza coastal area.</p>	

### 3.3.6.3 KwaDukuza Integrated Human Settlement Development Plan 2007-2012

<b>Aspect</b>	<b>Summary</b>
<b>Human settlement vision</b>	"To build vibrant and better communities within the KwaDukuza area of jurisdiction, through the provision of habitable, stable and sustainable settlement opportunities."
<b>Human settlement mission statement</b>	"To be the leading human settlement services unit within the district, working towards a slum-free environment through the provision of affordable housing to all qualifying residents."
<b>Overview</b>	<ul style="list-style-type: none"> <li>• KwaDukuza is the dominant commercial node in the district, and the next decade will see KwaDukuza being developed into a major urban area.</li> <li>• This is being driven predominantly by booming commercial investment and upmarket residential development along the coast of KwaDukuza, notably at Zimbali Golf and Leisure Estate extension, the Zimbali Lakes and Golf Estate development on the Tongati River, Simbithi Eco-Estate, Ballito Business Park, Seaward Estate Phases I and II, Dunkirk Estate, Sheffield Manor, Brettonwood and Zululami Estate, Blythedale Coastal Resort, and the Nonoti River Mouth Estate.</li> <li>• The coastline to the north of Salt Rock is currently being developed with Projects such as Palm Lakes, uShaka, Princess Grant, Blythedale Coastal Resort; and other smaller coastal settlements such as Tinley Manor Beach, Blythedale Beach and Zinkwazi are also located in this coastal strip.</li> </ul>
<b>Development era 1: pre-</b>	<ul style="list-style-type: none"> <li>• Fragmented urban settlement pattern in the Stanger and Ballito nodes with scattered settlements in Groutville,</li> </ul>

<b>boom (1990-2000)</b>	Shakaskraal, Damall and the coastal villages of Zinkwazi, Blythedale Beach, and Tinley Manor.
<b>Development era 2: development boom (2000-2007)</b>	<ul style="list-style-type: none"> <li>Integration of the fragmented urban settlement patterns with rapid expansion of development in and around the two main urban centres of Stanger/Groutville and Ballito.</li> </ul>
<b>Development era 3: consolidation (2008-2012)</b>	<ul style="list-style-type: none"> <li>The proposed aim of this development period is to ensure sustainable development and consolidation of development and spatial settlement patterns in KwaDukuza. Development won't slow down during this period - it is expected that developments valued at R100 billion will take place, focused on high-density coastal 'eco-tourism'.</li> <li>There is intent to promote the development of low-cost housing in KwaDukuza, but landowner issues are proving problematic in terms of incorrect title deeds and the reluctance of private owners to sell land to the municipality.</li> <li>A low-income housing project is planned for Nonoti, located on the coast to the north of Ballito and Salt Rock with a budget of R1 108 968.</li> </ul>
<b>Conclusion</b>	
<b>It is widely acknowledged that historical development practices have proceeded in an unsustainable manner in KwaDukuza. It is therefore necessary to apply more stringent development controls during the 'consolidation' era, particularly in the densely developed and highly sensitive coastal area.</b>	

#### 3.3.6.4 KwaDukuza Strategic Environmental Assessment (SEA)

<b>Aspect</b>	<b>Summary</b>
<b>Climate</b>	<ul style="list-style-type: none"> <li>Subtropical.</li> <li>Mild winters, warm to hot summers.</li> <li>Total annual precipitation: 1220mm.</li> <li>Mean annual temperature: 21.7° C with 7°C annual range.</li> <li>Prevailing winds: NE &amp; SW occurring with frequencies in excess of 25%.</li> </ul>
<b>Land Cover</b>	<ul style="list-style-type: none"> <li>Dense rural settlement areas.</li> <li>Rural intensive agricultural areas.</li> <li>Rural settlement areas.</li> <li>Urban areas.</li> </ul>
<b>Topography</b>	<ul style="list-style-type: none"> <li>0 - 20% (flat – 1:5) slopes.</li> <li>20 -33% (1:5 -1:3) slopes.</li> <li>&gt; 33% (1:3) slopes.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>KwaDukuza Municipal area forms part of the Cape and Karoo Systems.</li> <li>Underlain by bedrock comprising of sandstone and clay that have been subjected to major faulting, with sandy deposits in the vicinity of the coastline.</li> <li>Glenrosa and/or Mispar soils dominate the area.</li> <li>Soils range from moderate potential soils inland to good potential soils along the coastal regions.</li> <li>The potential soil erosion hazardous rating is 3.9 (considered to be high).</li> </ul>



<b>Hydrology</b>	<ul style="list-style-type: none"> <li>• In the coastal plain, rivers are characterised by relatively broad river valleys with wide, flat profiles.</li> <li>• In the interior of the municipality, rivers typically flow through deep, steeply incised valleys.</li> <li>• Rivers close to the coast are characterised by deposition of sediment and relatively long estuaries.</li> <li>• Three quaternary catchments are present: Nonoti River, Mvoti River, Mhlali River and Tongati River.</li> <li>• All major rivers are classified as moderately modified.</li> <li>• All rivers assigned status of 'vulnerable' in terms of the National Spatial Biodiversity Assessment.</li> <li>• Ongoing biomonitoring of riverine ecosystems essential.</li> </ul>
<b>Estuaries</b>	<ul style="list-style-type: none"> <li>• Zinkwazi: moderate to poor condition.</li> <li>• Nonoti: moderate to poor condition.</li> <li>• Umdlotane: moderate condition.</li> <li>• Mvoti: poor condition.</li> <li>• Seteni: moderate condition.</li> <li>• Mhlali: moderate condition.</li> <li>• Tongati: poor condition.</li> </ul>
<b>Wetlands</b>	<ul style="list-style-type: none"> <li>• Extensive degradation from land-use related factors.</li> <li>• Widespread adverse effects on ecological and biological functioning.</li> <li>• Deficit of data on wetlands.</li> </ul>
<b>Coastal Area</b>	<ul style="list-style-type: none"> <li>• Coastline stretches for approximately 50 km and comprises sandy beaches interspersed with rocky headlands.</li> <li>• Warm coastal waters support a wide variety of fish and shellfish.</li> <li>• Extensive recreational harvesting of inshore resources.</li> <li>• Large-scale modification of the coast due to land clearing for commercial agriculture and forestry – little natural coastal vegetation remains.</li> <li>• Ribbon development and 'coastalsqueeze' prevalent – severe adverse impacts on coastal biodiversity.</li> <li>• Beaches are primary tourist attraction to the region.</li> <li>• Five 'formal' bathing beaches (Clark Bay, Willards Bay, Thompson's Bay, Blythedale Beach and Zinkwazi Beach) along the coastline have been afforded protection and management from the Municipality where lifesaving facilities are available.</li> <li>• A number of these beaches are fast reaching capacity with evident over-crowding (e.g. Willards Beach) and accompanying impacts related to parking, ablutions and general ecological impacts.</li> <li>• Boat launch sites located at Zinkwazi, Blythedale/Umvoti, Umhlali, Christmas Bay, and Salmon Bay/Ballito.</li> <li>• KwaDukuza's beaches are considered to be eroding (retrograding) with the possible exception of the coastline north of Umvoti River Mouth, which is thought to be prograding (growing) due to the presence of vegetated 'relict' dunes.</li> </ul>
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>• KwaZulu-Natal Coastal Belt – endangered conservation status.</li> <li>• Northern Coastal Forest - least threatened conservation status, high carbon sequestration potential.</li> <li>• Subtropical Dune Thicket - least threatened conservation status, high carbon sequestration potential.</li> <li>• Maputaland Coastal Belt – vulnerable conservation status.</li> </ul>

	<ul style="list-style-type: none"> <li>• Eastern Valley Bushveld - least threatened conservation status.</li> <li>• Subtropical Coastal Lagoons – not described, but assumed to be endangered in line with estuary ratings.</li> <li>• Several planning units along the coastal section that have irreplaceability score of 1 (irreplaceable, critical for conservation) in terms of the KZN Conservation-Plan or C-Plan.</li> <li>• Alien invasive vegetation poses an increasing threat to remaining natural areas and resources.</li> </ul>
<b>Fauna</b>	<ul style="list-style-type: none"> <li>• There are a number of bird, mammal, antelope and reptile species which are considered rare and/or endangered or of conservations significance, particularly in the coastal forest areas.</li> <li>• There are a lack of open space corridors through which animal movement can occur.</li> </ul>
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>• The majority of land in KwaDukuza Municipality is highly transformed.</li> <li>• Most areas/resources that have not been developed or transformed are inaccessible or difficult to develop.</li> <li>• The environment of KwaDukuza Municipality is presently under threat mainly from urban and tourism developments on the coast and in the south.</li> <li>• There are major coastal development opportunities but also requirements for appropriate conservation of sensitive coastal environments.</li> </ul>
<b>Conclusion</b>	
<p><b>The environmental sustainability of KwaDukuza's tourism industry needs to be one of the key considerations of the KwaDukuza CMP. Above all, the CMP needs to integrate and unify the various sectoral plans towards the common goal of ensuring that the utilisation of the coastal environment for development purposes does not compromise its ecological functioning. The generally poor condition of estuaries with KwaDukuza needs to be urgently addressed while the further conversion of large portions of coastal land to gated residential estates would have serious implications for future coastal access and overall coastal natural and economic productivity. The SEA, in conjunction with Ezemvelo KwaZulu-Natal Wildlife system conservation plans must be used as the basis for further investigating potential areas that must be protected and that are identified in the Development Planning Tool.</b></p>	

#### 3.3.6.5 KwaDukuza Coastal Zone Recreational Use Plan

<b>Aspect</b>	<b>Summary</b>
<b>Overview</b>	<p>Description of the ecological and social status of the littoral active zone at the time of its publication in 2003.</p> <p>Prediction of potential pressures arising from development in the area.</p> <p>Description of factors relating to recreational use and demand; ecological assets; bathing beaches; launch sites; recreational use areas; as well as recommendations for future planning and management of the KwaDukuza coastal zone.</p>
<b>Guidelines</b>	<p>The adoption of a proactive policy to reduce the concentration of visitors to beaches by spreading visitor capacity to other areas.</p> <p>Acknowledgement of the dynamic nature of coastal processes and ensuring minimisation or restraint of development that interferes with those processes.</p> <p>Assessment of estuaries and riparian systems within KwaDukuza in order to further inform management options associated with such systems and advise on planning.</p> <p>Adoption of a policy of high, minimal and low impact recreational activity zones around river mouths and estuaries.</p>

	<p>The establishment of a Marine Protected Area with an associated 'Green Wedge' habitat preserve in the central KwaDukuza region.</p> <p>Promotion of the management of ecologically important areas through the implementation of planning and development controls as well as by-laws.</p>
<b>Conclusion</b>	
<p>Historical, mechanical and engineering interventions have caused ecological damage along the KwaDukuza coast by destabilising natural sand replenishment processes. For this reason, development on the KwaDukuza dune system is discouraged by the CZRU, especially development on the dune crest as this is considered to be one of the most sensitive areas of the dune system. The preservation of primary, secondary or climax dune vegetation is considered as one of the most important coastal management activities that should be undertaken by KwaDukuza, and thus the KwaDukuza CMP. Furthermore, all coastal dune environments should be accorded special protection according to the CZRU and this must be a key consideration of the KwaDukuza CMP. This coastal recreational use plan must be updated and serve as the basis for future node identification in conjunction with the Development Planning Tool. Much of the required work has already been detailed in this report.</p>	

#### 3.3.6.6 Policy Approach to Coastal Development in KwaDukuza

Aspect	Summary
<b>Status</b>	Adopted by Council.
<b>Overview</b>	The Policy Approach to Coastal Development in KwaDukuza was developed in light of the March 2007 tidal event and incorporates coastal management principles that are internationally and nationally accepted, as well as specific policy principles and recommendations that should be considered in appraising any activity along the storm affected coastline within KwaDukuza.
<b>Broad principles</b>	<ul style="list-style-type: none"> <li>Sand has been lost, so sand should be replaced. Replaced sand will be stored within geofabric bags to prevent further sand loss.</li> <li>Best International Practice in the face of sea-level rise is a phased coastal retreat.</li> <li>The optimum buffer is a natural dune cordon. Soft-engineered, artificial vegetated dunes can also be considered.</li> <li>Mixed rock (when not exposed, present at shallow depths), and sand coastlines and low gradient coastlines have experienced the worst storm damage.</li> <li>Phased coastal retreat will combat the increasing rising risk of coastal erosion, a consequence of sea-level rise [and beach sand reduction – this is believed to be happening but no solid proof].</li> <li>Soft coastal systems should be addressed with “soft engineering” solutions.</li> <li>“Hard” engineering should only be employed as a last resort as they cause erosion. Ballito is sand poor-sand pumping schemes should be considered with seawalls.</li> <li>The location and the type of physical damage (mostly on the north side of the bay) in the wake of the 19 March (2007) has been taken account of in this policy. However, this policy must also take account of the possibility that such a storm could come from the northeast or east (e.g. Cyclone Imboa, 1984). It should also be noted that should such a storm (swell from any direction) coincide with onshore gales the storm surge would increase the damage dramatically.</li> <li>The local authority should in general not undertake to provide any sea defence system for private property owners.</li> </ul>

	<ul style="list-style-type: none"> <li>Private property owners should remain obliged to maintain any defence system they establish and should be held liable for any failure, where such failure may affect other properties / persons.</li> </ul>
<b>Regionally specific issues</b>	<ul style="list-style-type: none"> <li>The KwaDukuza coastline is geologically controlled and comprises a series of small bays. Each is flanked by rocky points, stabilized by dolerite sills, with the bay comprising more erodable sandstones and siltstones. Each bay contains a beach, underlain by bedrock at shallow depths, grading landward into a non-functional dune cordon.</li> <li>Bay areas are more at risk than points.</li> <li>This event was <math>\pm</math> a 50 year storm. From this the 3.5 m (amsl) contour erosion line can be used as a guideline. Where development is below this contour, structures should not be replaced unless of local and regional strategic importance (i.e. service infrastructure, lifesaving facilities etc).</li> <li>Retreat should be the accepted norm for private structures below the 3.5m contour.</li> <li>Sandy vegetated dune cordons should be maintained unimpeded.</li> <li>Where structures have been undermined and require support, owners should identify options for retreat as initial proposal, followed by soft engineering stabilization and support proposals.</li> <li>Municipal town planning department should consider relaxation and town planning issues to accommodate “retreat option”.</li> <li>Within the bays – retreat and “soft engineering defences should be employed”.</li> <li>Stormwater control: Integrated stormwater management must be considered. All private properties should: identify if and where stormwater may be dissipated on site.</li> <li>Where stormwater is discharged onto a dune, such discharge should be positioned away from the dune face and toe; discharge should be onto a hardened area such as a rocky headland; integration of stormwater systems between neighbours should be encouraged.</li> <li>Property owners should be held liable for the maintenance of their stormwater discharge and any erosion or negative effect such discharge may have on any frontal dune or the beach.</li> </ul>
<b>Conclusion</b>	
<b>The principles and recommendations put forward by the Policy Approach to Coastal Development have informed and feature prominently among the considerations of the KwaDukuza CMP.</b>	

### 3.3.6.7 Towards a Coastal Management Plan for KwaDukuza

Aspect	Summary
<b>Overview</b>	The document contextualises the legal context (February 2008 – prior to the enactment of the ICM Act) for coastal management in KwaDukuza, as well as pertinent issues and challenges affecting the KwaDukuza coastline.
<b>Issue</b>	Municipal Response.
<b>Access to the coast</b>	<p>Identify major swimming beaches and recreational nodes along KwaDukuza coastline and earmarking of such beaches within spatial development framework.</p> <p>Establishment of right of way servitudes between newly developed estates wider than 10m.</p> <p>Ensure coastal estates contribute to public facilities on and around beaches.</p>

<b>Recreational management</b>	<p>Identification of coastal nodes and additional bathing and recreation areas.</p> <p>Identify roll out programme for extension of recreational facilities.</p> <p>Develop signage protocol applicable to coastal areas.</p> <p>Update Coastal Recreational Use Plan.</p>
<b>Ecological degradation and biodiversity loss</b>	<p>No loss of dune vegetation between the high water and secondary dune slack or following evaluation.</p> <p>Maintain geohydrology of frontal dune systems.</p> <p>Cordon and manage dune coastal habitats including “off beach” wetland and mesic forest habitat.</p> <p>Undertake dune establishment, alien weed eradication and coastal management programmes.</p>
<b>Climate change, sea-level rise and coastal erosion</b>	<p>Establish erosion line and ensure incorporation of 10m contour into all coastal planning applications.</p> <p>Ensure retreat is practiced by coastal developments both public and private – no eastern coastal expansion.</p> <p>Develop coastal erosion defence strategy with shoreline management plan.</p>
<b>Pollution</b>	<p>Establish point source high risk management response team with oil spill management protocol.</p> <p>Maintenance of coastal wetlands and rehabilitation of such wetlands where required.</p> <p>Monitoring of key indicators on regular basis (e.g. storm water outfalls).</p> <p>Withdrawal and retreat of high risk point pollution sources, such as sewer lines and septic tanks.</p>
<b>Building and development control</b>	<p>Establishment of setbacks utilizing 10m contour as well as biophysical evaluation of the coastline.</p> <p>Public developments to show retreat or design alternatives.</p> <p>Reduced density and hardpanning of the frontal and secondary dune.</p>
<b>Conclusion</b>	
<p><b>‘Towards a Coastal Management Plan for KwaDukuza’ is considered as the precursor to the KwaDukuza Coastal Management Programme and as such the recommendations and issues identified therein warranted inclusion and analysis in the context of the KwaDukuza CMP.</b></p>	

### 3.3.7 Summary of Issues

All the documents relating to the district (iLembe) and local (KwaDukuza) municipal areas were examined and the recurrent and emerging issues were identified and categorised (Table 5) as belonging to one of the themes of the White Paper (DEAT, 2000). These issues were identified and were presented to stakeholders and the public for verification and discussion. This process is discussed in Section 4 below and the final and verified information is the basis for the management interventions (Section 5).

**Table 5. Emergent and recurring socio-economic and environmental issues of the KwaDukuza coastal area.**

Issues	Source*	Themes				
		Governance & Capacity Building	Our Coastal Assets	Coastal Planning	Natural Resource Management	Pollution Control & Waste Management
<b>1. Ecological Degradation</b>						
1.1. Biodiversity Loss	1;2;8;12		X	X	X	X
1.2. Dune Degradation	2		X	X	X	X
1.3. Shoreline Degradation	3;2		X	X	X	X
<b>2. Inappropriate Development</b>						
2.1. Poor Coastal Settlement Design	4;11;12		X	X		X
2.2. Lack of Development Controls	4;12	X		X		
2.3. Loss of Undeveloped Land	5		X	X	X	
2.4. Overdevelopment of Urban Areas	2;5;8;12		X	X		
2.5. Rapid Coastal Development	6;2;12		X	X	X	
2.6. Ribbon Development	3;2		X	X	X	
2.7. Coastal Squeeze	3		X	X	X	
<b>3. Dynamic Coastal Processes</b>						
3.1. Climate Change	1;3		X	X		
3.2. Sea-level Rise	1;3		X	X		X
3.3. Coastal Erosion	1;3		X	X	X	
3.4. Sand Replenishment Malfunction	7		X	X	X	
<b>4. Coastal Pollution</b>						
4.1. Upstream Industrial Pollution	1;6;8		X			X
4.2. Localised Pollution	1;6;8;12		X		X	X
<b>5. Coastal Access</b>						
5.1. Inadequate Parking Facilities	8			X		
5.2. Private Landholding Issues	8;12	X	X			
<b>6. Inadequate Infrastructure</b>						
6.1. Basic Services Backlog	9			X	X	X
6.2. Inadequate Electrical Infrastructure	6			X		
6.3. Limited Water Supply Capacity	10;12			X	X	X
6.4. Inadequate Sanitation Infrastructure	8;10;12			X	X	X
<b>7. Human Resources</b>						
7.1. Lack of Institutional Capacity	8;12	X				
7.2. Poor Integration of Activities/Sector Plans	8	X				

\* Sources

1. Towards a CMP for KwaDukuza 2008
2. KwaDukuza IDP 2007-2012
3. KwaDukuza SEA 2007
4. Draft KZN Coastal Management Policy 2004
5. iLembe LED Strategy 2008
6. iLembe Energy Master Plan 2008

7. KwaDukuza CZRU 2003
8. iLembe Coastal Working Group Minutes
9. iLembe IDP 2008-2009
10. iLembe Water & Sanitation Master Plan 2007
11. KwaDukuza Draft SDF & LUMS 2008
12. Public Participation 2009



## 4. Public Participation





#### **4.1 INTRODUCTION**

The ICM Act requires specific provisions for engagement with stakeholders as part of the coastal management programme (CMP) process. Having come into effect on 1 December 2009, compliance with the requirements of the ICM Act assumes paramount importance. To this end, three stakeholder consultation engagement meetings formed part of the KwaDukuza CMP process. The primary objectives of these meetings were:

- To confirm the range of issues/problems affecting the KwaDukuza coastal area identified by previous studies and to add to these if necessary;
- To gain input into the development of a local vision for the KwaDukuza coastal area; and
- To provide stakeholders with the opportunity to comment on the CMP process in general.

The meetings described above consisted of two 'focus group' meetings which involved the identification of key stakeholders from local government, the private sector, NGOs and the private sector; as well as a meeting which was open to members of the public. The former meetings were characterised by a more strategic focus in terms of relevant previous studies, coastal management issues and the way forward for the KwaDukuza CMP, while the latter public meeting was more focused on the development of the local vision and general comments, coastal management issues and the CMP process.

#### **4.2 DEVELOPMENT OF A VISION FOR THE KWADUKUZA COAST**

The development of a local vision for coastal management in KwaDukuza commenced with a review of the national and provincial visions, as per the ICM Act requirements. Using the above visions as a starting point, the local coastal management issues which affect KwaDukuza (as identified in the situational analysis) were taken into consideration along with input from the attendees of the first focus group meeting. This resulted in a draft vision for KwaDukuza, which was in turn presented at the public meeting for comment. The draft vision was amended based on comments received from the public meeting. The vision for coastal management in KwaDukuza is presented below.

*To sustainably manage the KwaDukuza coast, in so doing ensuring a safe home for residents and a regionally prominent and world-class destination for visitors where the free benefits and services that the coast provides are equally accessible to all. This will be achieved through sharing the responsibility of management of all coastal activities including recreation and development, thereby uniting all stakeholders in a spirit of stewardship. Furthermore, the philosophy which informs coastal management in KwaDukuza must promote a balance between conservation and the sustainable use of coastal resources, as well as acknowledge the dynamic and interconnected nature of the KwaDukuza coast and its hinterland while fostering a growing awareness and understanding of the important relationship that we have with our coast.*



# 5. Themes, Strategic Programmes and Projects





## 5.1 INTRODUCTION

This component of the CMP involves identification of key activities, projects, role-players, actions and indicators towards effective management intervention. This chapter employs the information and outcomes from the situational analysis (Section 3) and the public participation process (Section 4) and, using the framework of the national CMP (White Paper), makes specific recommendations to address the KwaDukuza coastal issues and opportunities. This process is illustrated in Fig. 12.

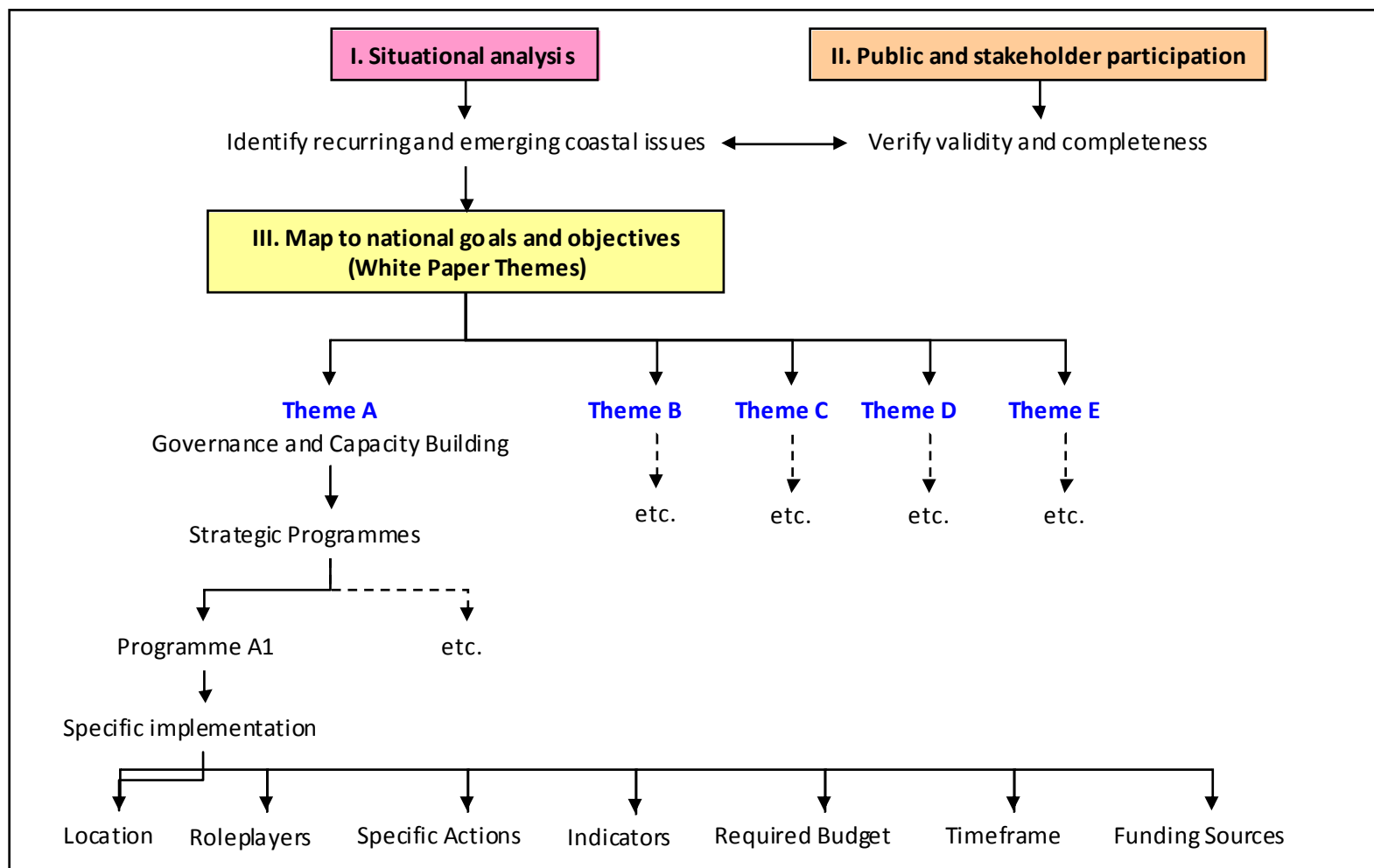


Figure 12. The link between the three phases of the KwaDukuza CMP process and the specific recommendations for implementation.

### 5.1.1 Theme A: Governance and Capacity Building

#### 5.1.1.1 Features of this theme:

- (i) Participation of all stakeholders – coastal governance & co-responsibility;
- (ii) Capacitated stakeholders and the promoting of public awareness;
- (iii) Integrated, co-ordinated decision making, planning and management; and
- (iv) Continued learning and review of programmes and processes.

#### 5.1.1.2 Issues addressed by Theme A

The diagram below provides an overview of this theme of Governance and Capacity Building as provided for by the National White Paper for Sustainable Coastal Development (DEAT, 2000). There are a number of KwaDukuza coastal issues which will be addressed using the framework provided by this theme. These are indicated in the diagram below against the red crosses on the left. Conversely, the recommended strategic programmes and implementation steps are represented by green ticks on the right-hand side of the diagram. Each theme as identified by the White Paper in this document has been depicted in this manner.



#### 5.1.1.3 Strategic programmes in Theme A.

STRATEGIC PROGRAMME A1. Coastal public participation and partnerships	
Objectives	
<ul style="list-style-type: none"> <li>To promote participation, co-operation and co-ordination of coastal management efforts.</li> <li>To improve the implementation of coastal policy, plans and regulations.</li> </ul>	

<ul style="list-style-type: none"> <li>To improve public awareness and understanding of coastal management and promote buy-in.</li> </ul>	
<p style="text-align: center;"><b>Overview</b></p> <p>Cooperative government and governance is a legal requirement of the Constitution, environmental specific, local government and development planning legislation. The ICM Act 2008 requires the establishment of National, Provincial and Municipal Coastal Committees (MCC). KwaDukuza is required to establish its own Municipal Coastal Committee as well as participate actively in the iLembe District Coastal Committee (DCC).</p>	
<p style="text-align: center;"><b>Implementation steps</b></p> <ul style="list-style-type: none"> <li>Attendance at meetings and cooperation with the iLembe DCC.</li> <li>Establishment of a KwaDukuza MCC.</li> <li>Establishment and implementation of operational guidelines.</li> </ul>	
<p style="text-align: center;"><b>A1.1. Attendance at meetings and cooperation with the iLembe District Coastal Committee</b></p>	
<b>Where?</b>	Applicable to whole municipal coastal area.
<b>Roleplayers?</b>	Chair of KwaDukuza MCC & selected representatives.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Identification of representation to the iLembe DCC.</li> <li>Consistent and regular participation (same, or one alternate representative at all meetings).</li> <li>Report to the iLembe DCC and report back to KwaDukuza MCC.</li> </ul> <p>Note that Municipal approval has been obtained to attend the iLembe Committee meetings.</p>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Minutes of meetings &amp; actions completed.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Increased coordination and cooperation between MCC and DCC.</li> </ul>
<b>Budget required</b>	Yes, S&T for officials attending meetings.
<b>Potential funders</b>	Municipal finance.
<b>Timeframe</b>	Attendance of meetings every second month.

#### **A1.2. Establishment of a KwaDukuza MCC**

<b>Where?</b>	Applicable to whole municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Government officials and stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Identification of most appropriate members.</li> <li>Consistent and regular participation (same, or one alternate representative at all meetings).</li> <li>Report back to represented organisations.</li> <li>Reporting to iLembe DCC.</li> </ul> <p>Note that Municipal approval has been obtained to establish an internal KwaDukuza Coastal Committee but excluding civil society – this committee’s membership needs to be extended to meet the requirements of the ICM Act.</p>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>EXCO resolution:</li> <li>Development of a Terms of Reference; and</li> <li>Minutes of meetings.</li> </ul>



Long-term:

- Improved understanding of coastal issues across municipal departments.

Yes, S&T, catering and venue.

KwaDukuza Municipality.

Ongoing – meetings proposed every second month.

**Budget required**

**Potential funders**

**Timeframe**

<b>A1.3. Establishment and implementation of operational guidelines (applicable to the MCC)</b>	
<b>Where?</b>	Applicable to whole municipal coastal area.
<b>Roleplayers?</b>	Municipal officials and MCC.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Source funding.</li> <li>• Develop guidelines in conjunction with ICM Act guidelines and regulations on a needs basis.</li> <li>• Distribute and implement guidelines.</li> </ul>
<b>Indicators</b>	Guidelines developed and implemented, implementation efficacy.
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality; DBSA; KZN Provincial Government.
<b>Timeframe</b>	Within 12 months of CMP adoption.

<b>STRATEGIC PROGRAMME A2. Coastal management education and training</b>	
<p><b>Objective</b></p> <ul style="list-style-type: none"> <li>• To promote local coastal management capacity within KwaDukuza.</li> <li>• To promote public awareness of issues in respect to coastal management.</li> </ul>	
<p><b>Overview</b></p> <p>The pursuit of a system of integrated coastal management requires that coastal stakeholders are included in decision-making. In order to ensure buy-in to the ICM process, it is essential that awareness levels of coastal management issues are raised and elevated on the social and political agenda. Raising awareness is also crucial to developing coastal management and conservation 'champions' which will continue to drive coastal issues forward.</p>	
<p><b>Implementation steps</b></p> <ul style="list-style-type: none"> <li>• Internal training programme.</li> <li>• Design and Implement KwaDukuza Education and Awareness Campaign.</li> </ul>	
<b>A2.1. Municipal Training Programme</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	All appropriate municipal officials.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Identification of appropriate officials to attend training.</li> <li>• Presentations to council members and/or EXCO on coastal management related issues.</li> <li>• Special and extended annual MCC meeting as a training exercise.</li> </ul> <p>An annual extended agenda in respect to highlighting coastal related issues to Councillors and Municipal officials and presentations on critical/news worthy topics should be motivated for.</p>

<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• At least one training session per annum;</li> <li>• Number of presentations made; and</li> <li>• Copies of presentations on municipal website.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Improved understanding of coastal issues by municipal officials.</li> </ul>
<b>Budget required</b>	Yes – limited.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	Immediate.

## **A2.2. Design and Implement KwaDukuza Education and Awareness Campaign**

**Where?**

The entire municipal coastal area.

**Roleplayers?**

Coastal stakeholders and the public.

**Specific actions**

- Publication of coastal-interest articles in local media.
- Identify critical education and awareness issues.
- Design and implement campaign which needs to be closely linked and integrated into any products resulting from the KwaDukuza tourism strategy.

**Indicators**

Short-term:

- Regular occurrence of activities; and
- Advertising and report back on activities in local media.

Long-term:

- Improved understanding of the dynamics of the coastal area; and
- Less resistance to development constraints that are intended to safeguard property and people.

**Budget required**

Yes

**Potential funders**

Multiple, PPP possible

**Timeframe**

Ongoing

<b>STRATEGIC PROGRAMME A3 Dedicated coastal responsibility</b>	
<b>Objective</b>	
<ul style="list-style-type: none"> <li>• To promote a dedicated, cooperative, coordinated and integrated coastal planning and management approach.</li> </ul>	
<b>Overview</b>	
The unique, sensitive and highly utilised nature of the coastal environment necessitates a dedicated approach to its management that is not distracted by other responsibilities or interests. This approach is in keeping with the guidelines of the National White Paper (DEAT, 2000), which advocates a system of dedicated management of the coastal area in recognition of the complexities of managing diverse human activities at the land-sea interface.	

<b>Implementation steps</b> <ul style="list-style-type: none"> <li>• Specific ICM activities and key performance indicators built into performance agreements.</li> <li>• Required integration between sectors in respect to implementation.</li> <li>• Development of a planning tool(s).</li> </ul>	
<b>A3.1. Specific ICM activities and key performance indicators built into performance agreements</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	Municipal officials (Technical, Management and Human Resources).
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop and workshop appropriate activities and associated key performance indicators.</li> <li>• Incorporate above into performance agreements.</li> <li>• Monitor compliance.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Generic set of activities and indicators;</li> <li>• Amended performance agreements; and</li> <li>• Review process.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Greater sensitivity to coastal issues, and willingness and confidence to engage with coastal matters.</li> </ul> <p>Note that ongoing review (and improvement) of the effectiveness of key performance indicators included in monitoring ICM activities</p>
<b>Budget required</b>	No.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	Within 12 months.
<b>A3.2. Required integration between sectors in respect to implementation</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	Municipal officials.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Identification of the appropriate sectors with coastal responsibilities.</li> <li>• Attendance and active participation in iLembe DCC meetings.</li> <li>• Attendance and active participation in KwaDukuza MCC meetings.</li> <li>• Effective implementation of ICM key performance indicators.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Minutes of meeting;</li> <li>• Implementation products; and</li> <li>• Review of performance agreements.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Improved understanding of the role of other departments in managing the coastal area.</li> </ul>
<b>Budget required</b>	Potentially in respect to implementation products identified.

<b>Potential funders</b>	Varied, depending on products proposed.
<b>Timeframe</b>	Ongoing.
<b>A3.3. Development of a Development Planning tool(s)</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	All coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop Planning Tool (DPT) – in preparation.</li> <li>• Implement tool.</li> <li>• Review tool.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Conception of the DPT;</li> <li>• Implementation of the DPT and incorporation into LUMS; and</li> <li>• Streamlined decision making process.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Reduced insurance claims and expenditure on public and private coastal infrastructure.</li> </ul>
<b>Budget required</b>	Accounted for in CMP.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	Ongoing.

<b>STRATEGIC PROGRAMME A4. Review of products and processes (cycle of coastal management)</b>	
<b>Objective</b>	
<ul style="list-style-type: none"> <li>• To ensure the continued development and review of practical, user-friendly and effective coastal management product and process.</li> <li>• To conduct coastal planning and management activities in a manner that promotes learning through continuous research, monitoring, review and adaptation.</li> </ul>	
<b>Overview</b>	
<p>Successful coastal management is not a ‘once-off’ intervention but needs to be understood as a cyclical process whereby stakeholders continually learn from and build upon their practical experiences (DEAT, 2000). This includes ongoing monitoring, review and amendment of coastal management policies, activities and projects.</p>	
<b>Implementation steps</b>	
<ul style="list-style-type: none"> <li>• Adoption of KwaDukuza CMP.</li> <li>• Inception of CMP review cycle (including budget allocation).</li> </ul>	
<b>A4.1. KwaDukuza CMP</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	Coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR and appoint service providers – completed.</li> <li>• Develop and implement CMP – underway.</li> <li>• Ensure financing of CMP implementation projects and actions.</li> </ul>

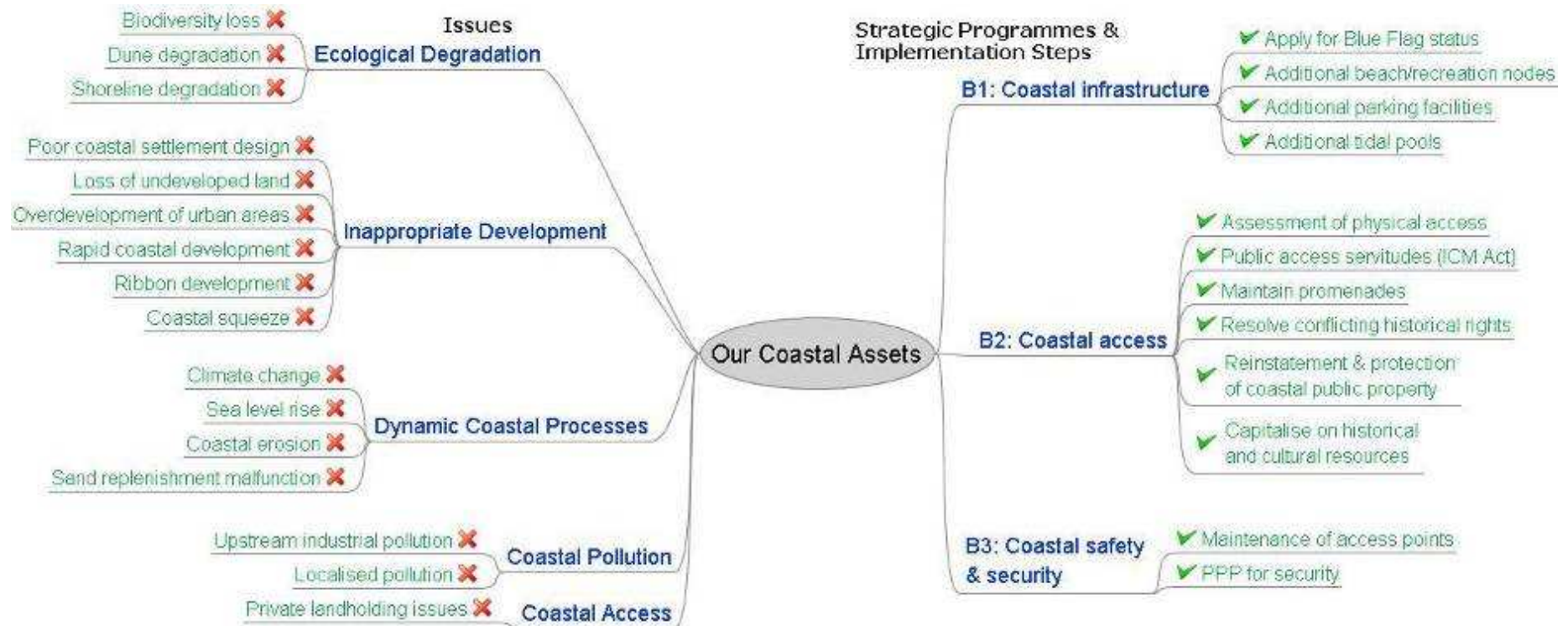
	<ul style="list-style-type: none"> <li>• Annual update of KwaDukuza CMP implementation plan.</li> <li>• Review and amend CMP every five years.</li> </ul>
<b>Indicators</b>	<p>Short term:</p> <ul style="list-style-type: none"> <li>• Formal approved of KwaDukuza CMP;</li> <li>• Development of a plan of action; and</li> <li>• Budget allocation.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Evolving, relevant and issue-responsive CMP.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	Every five years.

### 5.1.2 Theme B: Our Coastal Assets

#### 5.1.2.1 Features of this them:

- (i) Special assets - planned and managed for sustainable use;
- (ii) Importance of asset for tourism, recreation, property values etc.;
- (iii) Importance of the maintenance of infrastructure; and
- (iv) Importance of access (pedestrian and access to resources).

#### 5.1.2.2 Issues addressed by Theme B



#### 5.1.2.3 Strategic programmes in Theme B.

STRATEGIC PROGRAMME B1. Coastal infrastructure	
Objective	



<ul style="list-style-type: none"> <li>To promote sustainable use of the KwaDukuza coast.</li> <li>To promote the improvement of coastal infrastructure, coastal facilities, coastal access and promote diversity of coastal recreational opportunities.</li> </ul>	
<p style="text-align: center;"><b>Overview</b></p> <p>The development, upgrade and maintenance of coastal infrastructure in KwaDukuza needs to be undertaken in a manner that balances the needs of coastal area users with the provision of infrastructure and amenities that are not at risk to the projected effects of climate change and sea-level rise. In addition, coastal infrastructure needs to be developed, upgraded and maintained in a manner that causes the least adverse effect on the receiving coastal environment.</p>	
<p style="text-align: center;"><b>Implementation Steps</b></p> <ul style="list-style-type: none"> <li>Apply for Blue Flag status.</li> <li>Identify and develop additional beach recreational nodes.</li> <li>Identify and develop additional parking facilities.</li> <li>Identify and construct environmentally responsible and appropriately sited tidal pools.</li> </ul>	
<b>B1.1. Apply for Blue Flag status</b>	
<b>Where?</b>	Willards Beach, Tongaat Long Beach and other potential beaches.
<b>Roleplayers?</b>	Municipal officials and coastal landowners.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Identify appropriate beaches. Potential PPP possible in respect to high-profile beaches – Tongaat Long Beach, Zimbali beach and Willards beach.</li> <li>Commence application process.</li> <li>Upgrade facilities.</li> <li>Apply and monitor status.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Increased number of applications for Blue Flag status; and</li> <li>Number of beaches awarded Blue Flag status.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Increased number of beach users;</li> <li>Improved beach amenities;</li> <li>Increased tourism revenue as a result of improved and internationally recognised beaches; and</li> <li>Increased number of sporting and recreational events in KwaDukuza.</li> </ul>
<b>Budget required</b>	Yes, Blue Flag application fee. Cost of upgrading facilities and maintenance fee.
<b>Potential funders</b>	KwaDukuza Municipality and neighbouring land owners.
<b>Timeframe</b>	As soon as funding becomes available.

**B1.2. Identify and develop additional beach recreational nodes**

<b>Where?</b>	Potential beaches.
<b>Roleplayers?</b>	Coastal stakeholders and appointed service provider.
<b>Specific actions</b>	<p>Identify additional nodes (including ablution facilities).</p> <p>Consult stakeholders.</p>

<b>Indicators</b>	<p>Raise funds and undertake any necessary environmental assessments. Implement and maintain. Short-term:</p> <ul style="list-style-type: none"> <li>• Development of additional nodes.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Improved beach amenities;</li> <li>• Improved public infrastructure; and</li> <li>• Increased beach tourism and special event revenue.</li> </ul>
<b>Budget required</b> <b>Potential funders</b> <b>Timeframe</b>	<p>Yes. KwaDukuza Municipality; LED; Public Private Partnerships. Ongoing.</p>
<b>Where?</b> <b>Roleplayers?</b> <b>Specific actions</b>	<p style="text-align: center;"><b>B1.3. Identify and develop additional parking facilities</b></p> <p>The entire municipal coastal area. MCC and coastal stakeholders.</p> <ul style="list-style-type: none"> <li>• Develop TOR for project.</li> <li>• Access funding to identify appropriate areas.</li> <li>• Appoint service provider(s).</li> <li>• Access funding to implement project.</li> </ul>
<b>Indicators</b>	<p>It is noted that Access to the coast is an important Municipal responsibility which needs to be implemented in a responsible manner. Careful consideration should be given to the implementation of this activity. Short-term:</p> <ul style="list-style-type: none"> <li>• Increased parking capacity; and</li> <li>• Increased beach user numbers.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Increased revenue from activities related to beach use; and</li> <li>• Increased number of and range of special events.</li> </ul>
<b>Budget required</b> <b>Potential funders</b> <b>Timeframe</b>	<p>Yes. Varied. Ongoing.</p>
<b>Where?</b> <b>Roleplayers?</b> <b>Specific actions</b>	<p style="text-align: center;"><b>B1.4. Identification of potential tidal pools</b></p> <p>New recreational nodes. KwaDukuza Municipality, coastal stakeholders.</p> <ul style="list-style-type: none"> <li>• Identify needs and feasibility of tidal pools.</li> <li>• Obtain funding.</li> <li>• Develop TOR and undertake EIA.</li> <li>• Construct tidal pools.</li> </ul>

<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Additional tidal pools (The feasibility and need to develop additional tidal pools must be fully investigated prior to implementing this activity).</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Increased beach use; and</li> <li>Increased range of beach activities at recreational nodes.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	PPPs, KwaDukuza Municipality.
<b>Timeframe</b>	Within 24 months.

<b>B1.5. Long-term collection of coastal tourism and recreational statistics</b>
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<b>Where?</b>	All coastal tourism and recreational nodes.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders, hospitality industry.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Develop survey strategy that focuses on coastal tourism and recreation.</li> <li>Improve interacting and collaboration with EKZN Wildlife, ORI, TKZN and other agencies/organisations that undertake coastal related monitoring.</li> <li>Develop a database system in order to capture and extract statistical information.</li> <li>Inform coastal management activities such a motivations for coastal access land, construction of additional tidal pools etc.</li> <li>Establish monitoring committee under the auspices of the MCC.</li> </ul>

It is noted that this can be a demonstration project initiated by an external service provider. Part of the project would include the planning for and establishment of municipal competency.

<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Improved information on tourism and recreational statistics.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Improved efficiency in the deployment of resources based on user-requirements; and</li> <li>Improved decision making and service delivery based on user-requirements.</li> </ul>
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<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	Within 24 months.

<b>STRATEGIC PROGRAMME B2. Coastal access (physical and equitable)</b>
<p><b>Objective</b></p> <ul style="list-style-type: none"> <li>To ensure that the people of KwaDukuza and visitors to its coastline have the right of physical access to the sea, and along the KwaDukuza shoreline on a managed basis.</li> <li>To ensure that the people of KwaDukuza and visitors to its shores enjoy, on a managed basis, the benefits of equitable access to the opportunities of the coast.</li> </ul>

Overview	
Access to South Africa's coast by its citizens is a specific requirement of the ICM Act and is provided for by the National White Paper. It is imperative however, that such access is dependent on equitable and managed access which takes account of the sensitive and dynamic nature of the coastal environment.	
Implementation steps	
<ul style="list-style-type: none"> <li>Assessment of physical access.</li> <li>Management and facilitation of servitudes over coastal access land (ICM Act).</li> <li>Maintain the Ballito promenade.</li> <li>Resolve conflicting and historically granted rights.</li> <li>Reinstatement and protection of coastal public property.</li> <li>Capitalise on historical and cultural resources.</li> </ul>	
B2.1. Assessment of physical access	
Where?	The entire municipal coastal area.
Roleplayers?	Coastal stakeholders.
Specific actions	<ul style="list-style-type: none"> <li>Commission of a specialist study in respect to coastal access in terms of the provisions of the ICM Act. It should be noted that access in this respect is both along and to the coast.</li> <li>Obtain funding.</li> <li>Implement findings of specialist study i.e. declare coastal access land.</li> </ul>
Indicators	Instatement of, and maintenance of coastal access land in terms of the ICM Act.
Budget required	Yes.
Potential funders	KwaDukuza Municipality; DEARD.
Timeframe	Within three years of the commencement of the ICM Act.

#### B2.2. Management and facilitation of public access servitudes (ICM Act)

Where?	The entire municipal coastal area.
Roleplayers?	Coastal stakeholders, affected landowners.
Specific actions	<ul style="list-style-type: none"> <li>Implement process to declare coastal access land as specified by the ICM Act: <ul style="list-style-type: none"> <li>Secure buy-in from all stakeholder;</li> <li>Manage access;</li> <li>Maintain access and associated infrastructure; and</li> <li>Signpost access points.</li> </ul> </li> </ul>
Indicators	<p>It is noted that access points need to be maintained, signposted and secured.</p> <p>Short-term:</p> <ul style="list-style-type: none"> <li>Maintained, functional and secure coastal access points.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Improved distribution of beach users over municipal area; and</li> </ul>

<b>Budget required</b>	<ul style="list-style-type: none"> <li>Decreased congestion of beaches during holiday seasons.</li> </ul>
<b>Potential funders</b>	Yes
<b>Timeframe</b>	KwaDukuza Municipality (MTEF) Within three years of the commencement of the ICM Act
<b>Where?</b>	<b>B2.3. Maintain Ballito promenade</b>
<b>Roleplayers?</b>	Reconstructed promenade (Ballito).
<b>Specific actions</b>	KwaDukuza Municipality. <ul style="list-style-type: none"> <li>Obtain funding.</li> <li>Monitor condition and upgrade as required.</li> </ul>
<b>Indicators</b>	(The Ballito promenade reconstructed in 2009 using National Disaster Fund allocation – ongoing maintenance required) Short-term: <ul style="list-style-type: none"> <li>Functional, attractive and safe promenade.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>Improved distribution of beach users over municipal area; and</li> <li>Overall improvement of visitor numbers to Ballito.</li> </ul>
<b>Budget required</b>	Yes (maintenance budget).
<b>Potential funders</b>	KwaDukuza Municipality (MTEF).
<b>Timeframe</b>	As soon as possible.
<b>Where?</b>	<b>B2.4. Resolve conflicting and/or historically granted rights</b>
<b>Roleplayers?</b>	Specific identified coastal properties.
<b>Specific actions</b>	Coastal landowners, KwaDukuza Municipality. <ul style="list-style-type: none"> <li>Develop TOR for addressing these issues.</li> <li>Obtain funding.</li> <li>Appoint service provider.</li> <li>Implement findings.</li> </ul>
<b>Indicators</b>	It is noted that a partnership will be required with national Government to redress / purchase admiralty reserve in private ownership. Short-term: <ul style="list-style-type: none"> <li>Reduced number of conflicting land rights.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	Donors, DBSA.
<b>Timeframe</b>	Longer term.
<b>Where?</b>	<b>B2.5. Reinstatement and protection of coastal public property</b>
<b>Roleplayers?</b>	The entire municipal coastal area. Coastal stakeholders.

<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR.</li> <li>• Obtain funding.</li> <li>• Appoint service provider.</li> <li>• Implement findings/recommendations.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Increased land area designated as coastal public property; and</li> <li>• Improved coastal access.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Reduced number of and size of insurance claims and extent of damage to infrastructure; and</li> <li>• Reduced human intervention in maintaining a safe and natural coastal environmental.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	Multiple.
<b>Timeframe</b>	Long term.
<b>B2.6. Capitalise on historical and cultural resources</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	Coastal stakeholders, publicity association(s).
<b>Specific actions</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Identify diverse sustainable tourism opportunities (e.g. political – birth place of the ANC); and</li> <li>• Integrate with existing tourism thrust and studies.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Increased tourism revenue and visitor numbers associated with diverse opportunities.</li> <li>• Growth and diversification of the sector.</li> <li>• Improved marketing.</li> </ul>
<b>Indicators</b>	
<b>Budget required</b>	Yes.
<b>Potential funders</b>	Multiple.
<b>Timeframe</b>	Ongoing.

<b>STRATEGIC PROGRAMME B3. Coastal safety and security</b>	
<b>Objective</b>	
Improvement of safety and security in the KwaDukuza coastal area while simultaneously creating job opportunities for previously disadvantaged coastally located individuals.	
<b>Overview</b>	
Safety of coastal residents and visitors to the coastal area is of paramount importance in ensuring access to the coast. This activity also provides an opportunity to create sustainable job opportunities.	



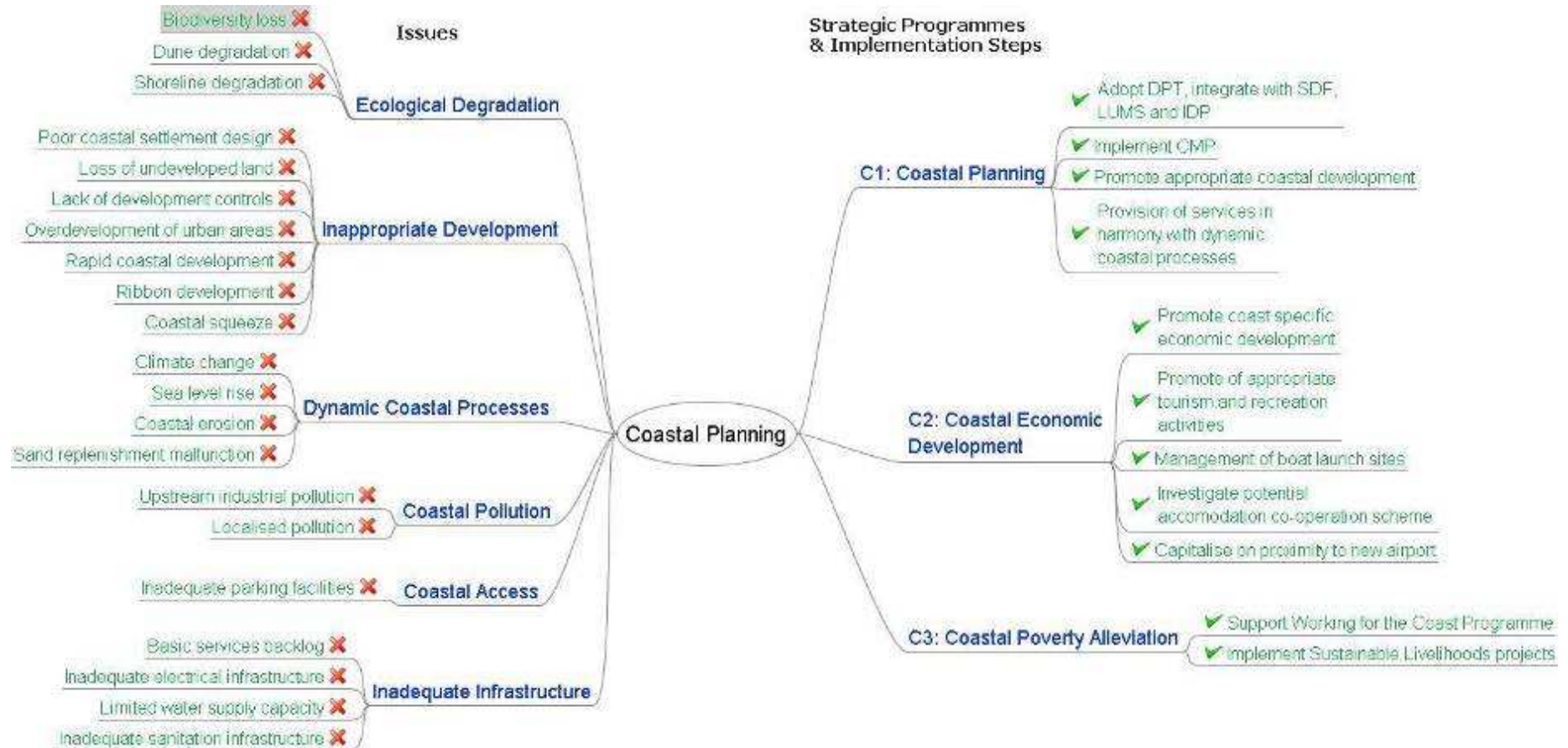
<b>Implementation steps</b> <ul style="list-style-type: none"> <li>• Maintenance of access points (dealt with previously under B2.2.).</li> <li>• Public Private Partnership (PPP) for security.</li> </ul>	
<b>B3.1. Public Private Partnerships for security</b>	
<b>Where?</b>	Select access points/newly identified nodes.
<b>Roleplayers?</b>	KwaDukuza Municipality, business community, civil society.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR for the development of a business plan for a “Coastcare car Guards and Guides” programme. (Implement successful SCLP pilot project – Coastcare Guards and Guides)</li> <li>• Obtain funding.</li> <li>• Appoint service provider(s).</li> <li>• Implement findings/recommendations.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Successful PPP; and</li> <li>• Improved security and reduced criminality.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Increased beach use by visitor numbers and length of day (hours that beach and related facilities is used per day; and</li> <li>• Increased tourism revenue due to improved business opportunity created by virtue of growth of tourism and recreation.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	Multiple, e.g. Extended Public Works Programme.
<b>Timeframe</b>	Within 24 months.

### 5.1.3 Theme C: Coastal Planning

#### 5.1.3.1 Features of this theme:

- (i) Need to be proactive – promote sustainable development;
- (ii) Need to maintain a balance between development and protection;
- (iii) Bad planning of the past, inappropriate development – impacts the value of the asset; and
- (iv) Highlight risk (associated with climate change etc.).

#### 5.1.3.2 Issues addressed by Theme C



### 5.1.3.3 Strategic programmes in Theme C.

STRATEGIC PROGRAMME C1. Coastal planning	
<p style="text-align: center;"><b>Objectives</b></p> <ul style="list-style-type: none"> <li>To promote the diversity, vitality and long-term viability of coastal economies and activities, giving preference to those that are distinctly coastal or dependent on a coastal location.</li> <li>To alleviate coastal poverty through proactive coastal development initiatives that generates sustainable livelihood options.</li> <li>To maintain an appropriate balance between built, rural and wilderness coastal areas.</li> <li>To design and manage coastal settlements to be in harmony with local and regional aesthetic, amenity, biophysical and cultural opportunities and constraints.</li> <li>To plan and manage coastal development so as to avoid increasing the incidence and severity of natural hazards and to avoid exposure of people, property and economic activities to significant risk from dynamic coastal processes.</li> </ul>	
<p style="text-align: center;"><b>Overview</b></p> <p>The promotion of appropriate coastal planning and development is geared towards protecting coastal communities and infrastructure from the hazards associated with dynamic coastal processes and the projected effects of global climate change and sea level rise. A further consideration of promoting appropriate coastal planning in KwaDukuza is to ensure the continuance of public access to coastal public property and the benefits associated with this access. Lastly, coastal planning in KwaDukuza needs to make allowances for the maintenance of coastal wilderness and open space within the coastal area, both for ecological function and aesthetic purposes.</p>	
<p style="text-align: center;"><b>Implementation steps</b></p> <ul style="list-style-type: none"> <li>Formal adoption of the Development Planning Tool (DPT) component of the KwaDukuza CMP and integration thereof with the municipal IDP and LUMS.</li> <li>Implement Coastal Management Programme.</li> <li>Links to IDP.</li> <li>Appropriate coastal development to be promoted (Nodal development (PRECINCT), balance between developed and undeveloped, conservation, agriculture).</li> <li>Identification of dynamic coastal processes and provision of services in harmony with them – do not remove and rehabilitate indigenous vegetation, do not approve disposal of waste through a septic tank and soak away system, manage storm water run off – treat excess run off on site – fix blow outs – access coast over dunes via elevated boardwalks - rehabilitate and retain continuous vegetated dune cordon.</li> </ul>	
<p style="text-align: center;"><b>C1.1. Formal adoption of the Development Planning Tool (DPT) component of the KwaDukuza CMP and integration thereof with the municipal IDP and LUMS (see also C1.4)</b></p>	
<b>Where?</b>	The entire extent of the KwaDukuza coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Submission of DPT to Council.</li> <li>Formal adoption.</li> <li>Implementation and integration with LUMS.</li> <li>Training of municipal officials in the use and interpretation of the DPT.</li> </ul>
<b>Indicators</b>	Short-term:

	<ul style="list-style-type: none"> <li>• DPT integrated with LUMS; and</li> <li>• Implementation in respect to development applications.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Consistency in planning approval and recommendations; and</li> <li>• Improved coastal planning.</li> </ul>
<b>Budget required</b>	As part of KwaDukuza CMP.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	Within 6 months of the adoption of the KwaDukuza CMP.

### **C1.2. Implement of the KwaDukuza Coastal Management Programme**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Initiate first ICM cycle by implementing initial recommendations of KwaDukuza CMP – underway.</li> <li>• Obtain and allocate funding required for implementation.</li> <li>• Review after five years.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Implementation of recommended projects and actions.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Improvement in the success with which the coastal zone is managed.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, DBSA, PPPs.
<b>Timeframe</b>	Phased approach.

### **C1.3. Links to IDP**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, IDP Manager, appointed service provider (where applicable).
<b>Specific actions</b>	Integration of coastal management issues, goals and recommendations into IDP budget recommendations. Integrated Coastal Management related issues should take precedence in respect to this coastal municipal IDP and should influence most decisions taken
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Improved coastal management component in the IDP; and</li> <li>• Improved coastal management linkages in the IDP.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Improved budget allocations for CMP recommended projects.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	The next IDP review cycle.

**C1.4. Appropriate coastal development to be promoted (Nodal development (or precincts), and the balance between developed and undeveloped, conservation, agriculture)**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, relevant town planners and decision-makers, coastal landowners and stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Formal adoption and implementation of the DPT.</li> <li>• Integration of the DPT with KwaDukuza LUMS.</li> </ul>
<b>Indicators</b>	<p>It is noted that the adoption of a precinct approach is in keeping with current development planning thinking and the KwaDukuza LUMS and SDF</p> <p>Short-term:</p> <ul style="list-style-type: none"> <li>• Improved/more stringent coastal development controls; and</li> <li>• Reduction in inappropriate coastal development.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Endurance of open space/conservation areas; and</li> <li>• Instatement of 'green lungs' and linked open space system.</li> </ul>
<b>Budget required</b>	No – forms part of KwaDukuza CMP.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	As soon as possible.

**C1.5. Identification of dynamic coastal processes and provision of services in harmony**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Identification of dynamic coastal processes.</li> <li>• Moratorium on removal of indigenous vegetation.</li> <li>• Rehabilitation of indigenous vegetation where necessary.</li> <li>• Moratorium on approval of disposal of waste through a septic tank and soak away system.</li> <li>• Manage storm water runoff (treat excess run off on site).</li> <li>• Fix 'blow outs'.</li> <li>• Access coast over dunes via elevated boardwalks.</li> <li>• Rehabilitate and retain continuous vegetated dune cordon.</li> <li>• Commission of a further specialist study in terms of potential sea level rise hazard and resilience of the KwaDukuza coastline.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Development of a position document outline municipal responses in terms of dynamic coastal processes.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Evidence of designing and developing 'with coastal processes';</li> <li>• Continued maintenance of natural erosion protection – dune cordons and vegetation; and</li> </ul>

**Budget required**  
**Potential funders**  
**Timeframe**

- Reduction in the effects of coastal erosion.
- Yes.  
KwaDukuza Municipality, DBSA.  
A.S.A.P (urgent).

## STRATEGIC PROGRAMME C2. Coastal economic development

Objective	
To promote the diversity, vitality and long-term viability of coastal economies and activities, giving preference to those that are distinctly coastal or dependent on a coastal location.	
Overview	
The unique lifestyle and development opportunities afforded by the coastal area needs to be protected and enhanced by development and economic activity that is appropriate for such a unique, complex and sensitive environments.	
Implementation steps	
<ul style="list-style-type: none"> <li>• Promote long term economic potential and coast specific economic development activities that are dependant on a coastal location.</li> <li>• Adequate and accessible public facilities – see previous activity.</li> <li>• Promotion of appropriate tourism and recreational activities.</li> <li>• Management of boat launch sites.</li> <li>• Investigation into potential accommodation co-operation scheme.</li> <li>• Investigation into projects to capitalise on the new airport in respect to Ballito’s status as an “edge city”.</li> </ul>	
C2.1. Promote long-term economic potential and coast specific economic development activities that are dependant on a coastal location	
<b>Where?</b>	Areas of the KwaDukuza coast which are deemed appropriate for economic development.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Assess status of coastal dependent economic activity in KwaDukuza (e.g. coastal tourism initiatives).</li> <li>• Undertake pre-feasibility assessments of all new economic development applications in conjunction with DPT and risk of damage from projected sea level rise and coastal erosion.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Appropriate coastal economic development initiatives in place.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Increased municipal GDP and economic development, and reduction in poverty.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	Ongoing.

## C2.2. Adequate and accessible public facilities

**Where?**  
**Roleplayers?**

Areas identified for additional recreation/beach nodes and areas.  
KwaDukuza Municipality, coastal landowners and stakeholders.

<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Assess requirements of additional beach nodes in terms of public facilities.</li> <li>• Obtain funding for construction and maintenance.</li> <li>• Develop TOR for upgrade/construction of public facilities based on above findings.</li> <li>• Appoint service provider.</li> <li>• Monitor and maintain facilities.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Appropriate capacity to accommodate residents and seasonal visitors.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>•</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	Upon identification and confirmation of additional beach/recreational nodes.
<b>Where?</b>	<b>C2.3. Promotion of appropriate tourism and recreational activities</b> Areas identified as appropriate for sustainable tourism initiatives by the tourism strategy.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders, appointed tourism related service providers.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Integration of coastal management issues/goals into existing tourism strategy.</li> <li>• Establishment of tourism PPPs where appropriate (e.g. Tongaat Long Beach).</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Diverse, sustainable coastal tourism in KwaDukuza.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Increased number of special coastal events;</li> <li>• Increased tourism revenue and visitor numbers; and</li> <li>• Increased business opportunities based on increased popularity of KwaDukuza beaches.</li> </ul>
<b>Budget required</b>	Yes (accounted for).
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	A.S.A.P.
<b>Where?</b>	<b>C2.4. Management of municipal and other boat launch sites</b> Sites which are registered boat launch sites and/or are in the process of applying for boat launch site licenses.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Monitor boat launch sites to ensure compliance with conditions of licenses. Sites licenses renewed and private site licenses issued in 2009.</li> <li>• Reapply for licences after 5 year period.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Functional and compliant boat launch sites with adequate capacity both in-season and out of season; and</li> <li>• Completed catch and launch registers.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>•</li> </ul>



<b>Budget required</b>	Yes – licence fees.
<b>Potential funders</b>	KwaDukuza Municipality (MTEF).
<b>Timeframe</b>	Ongoing.
<b>C2.5. Investigation into potential accommodation co-operation scheme (links with ongoing tourism strategy)</b>	
<b>Where?</b>	Coastal areas identified by ongoing study as appropriate for sustainable tourism initiatives.
<b>Roleplayers?</b>	Appointed tourism service providers, KwaDukuza Municipality, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Integration and feedback between KwaDukuza CMP and tourism strategy.</li> <li>• Alignment of coastal tourism related goals and objectives.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Co-ordination of coastal tourism activities/initiatives and absence of initiatives which conflict with guidelines and recommendations of KwaDukuza CMP (specifically the DPT).</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Increased recognition for KwaDukuza as an “easy”, convenient and all inclusive holiday destination.</li> </ul>
<b>Budget required</b>	No.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	Ongoing.
<b>C2.6. Investigation into projects to capitalise on the new airport and Ballito’s status as an “edge city”</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders, iLembe DM, airport companies.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR for specialist study in terms of creating linkages with the new airport and the KwaDukuza coastal area.</li> <li>• Obtain funding.</li> <li>• Commission of specialist study (appoint service provider).</li> <li>• Integration of above study with ongoing tourism study (coastal aspects).</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Strategy document for the development of initiatives associated with airport and edge-city.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Sustainable tourism and development initiatives arising out of linkages with the new airport.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, DBSA.
<b>Timeframe</b>	Within 6 months.

<b>STRATEGIC PROGRAMME C3. Coastal poverty alleviation</b>	
<b>Objective</b>	
To alleviate coastal poverty through proactive coastal development initiatives that generate sustainable livelihood options.	
<b>Overview</b>	
Provision for the basic needs of all South Africans is a fundamental goal of the Constitution and many other legislative instruments, and remains a major policy thrust at all three levels of government. The reliance of poor rural communities on resources derived from the coastal area is extensive along many parts of South Africa's coastline. Any coastal management intervention that does not account for coastal poverty alleviation is thus incomplete.	
<b>Implementation steps</b>	
Support for the Working for the Coast programme. Sustainable Livelihoods projects – diversify opportunities for poor coastal communities.	
<b>C3.1. Support for the Working for the Coast programme</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	Working for the Coast (WFTC) programme, KwaDukuza Municipality, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Alignment of WFTC projects in KwaDukuza with goals and objectives of KwaDukuza CMP.</li> <li>• Integration of local WFTC representative into KwaDukuza LCC.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Increased number of people employed by WFTC; AND</li> <li>• Increased cooperation and mutual feedback between WFTC and KwaDukuza LCC.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Increased number of start-up enterprises as a result of individual capacitated through WFTC programmes.</li> </ul>
<b>Budget required</b>	No.
<b>Potential funders</b>	N/A.
<b>Timeframe</b>	Ongoing.

### **C3.2. Sustainable Livelihoods projects – diversify opportunities for poor coastal communities**

<b>Where?</b>	Areas of KwaDukuza coast where poor communities rely on coastal resources for their livelihood.
<b>Roleplayers?</b>	KwaDukuza Municipality, PPPs.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR for sustainable livelihoods assessment of the KwaDukuza coastal area.</li> <li>• Obtain funding for study.</li> <li>• Appoint service provider.</li> <li>• Implement recommendations.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Improved suite of employment opportunities; and</li> <li>• Improved livelihood options for poor coastal communities in KwaDukuza.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Improved engagement of poor coastal communities with first economy.</li> </ul>

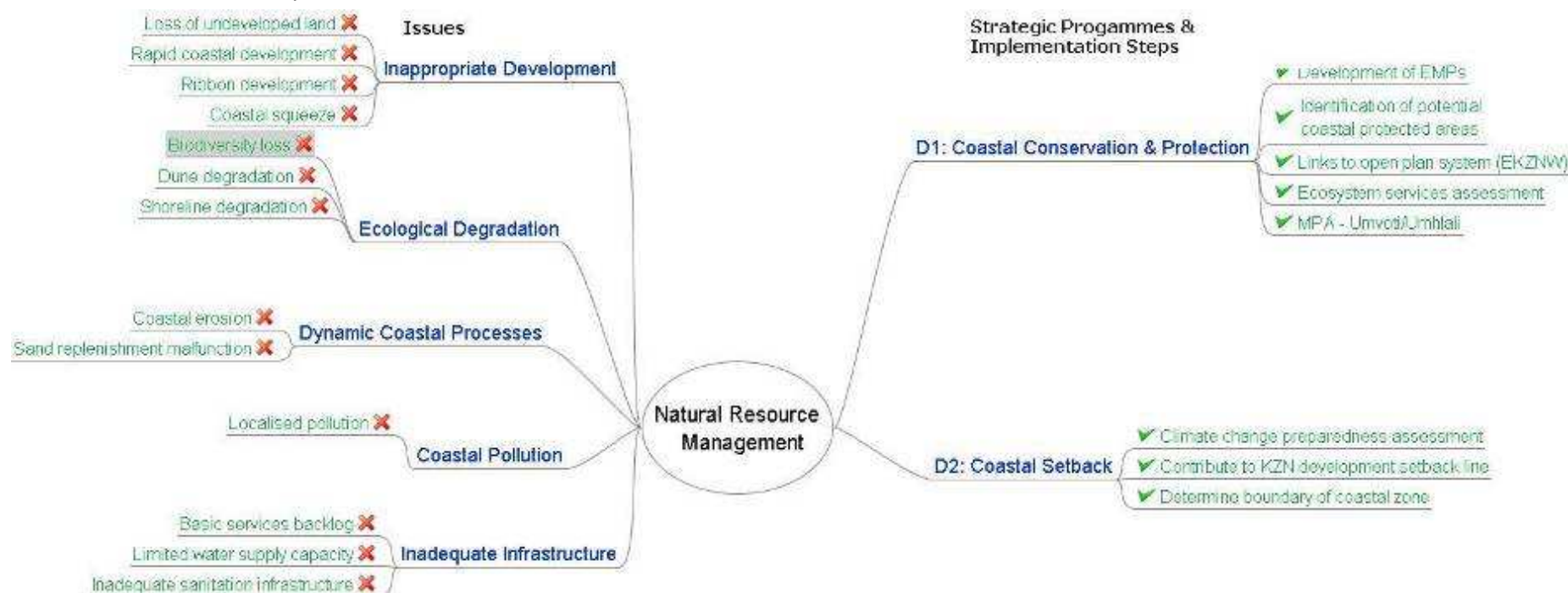
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, DBSA.
<b>Timeframe</b>	Within 12 months.

#### 5.1.4 Theme D: Natural Resource Management

##### 5.1.4.1 Features of this theme:

- (i) Need to maintain and protect natural environment;
- (ii) Need to be mindful of dynamic coastal processes – develop and maintain natural buffer; and
- (iii) Natural corridor (linked open space system).

##### 5.1.4.2 Issues addressed by Theme D



##### 5.1.4.3 Strategic programmes in Theme D.

STRATEGIC PROGRAMME D1. Coastal conservation and protection
Objective
Sustained and improved diversity, health of coastal ecosystems, habitats and species.

<b>Overview</b>	
The coastal area of KwaDukuza contributes an enormous amount of tangible and intangible benefits to residents and visitors. These benefits cannot be measured in purely economic terms, and the protection, conservation and continued ecological function of the KwaDukuza coastal environment is an asset to the municipality and the country beyond measure. It is thus critically important that the natural functioning of the KwaDukuza coastal system is allowed to continue with minimum anthropogenic interference and that its coastal environmental assets are preserved and protected at all costs.	
<b>Implementation steps</b>	
Development of estuary management plans. Identification of potential coastal protected areas. Protection of coastal corridor and links to an open plan system and EKZNW systematic conservation plan. Ecosystems services assessment. MPA – Umvoti/Umhlali?.	
<b>D1.1. Development of estuary management plans</b>	
<b>Where?</b>	<p>All estuaries located within KwaDukuza Municipality:</p> <ul style="list-style-type: none"> <li>• Tongati (Commitment from THD to rehabilitate estuary as part of Zimbali Lakes development);</li> <li>• Umhlali;</li> <li>• Seteni;</li> <li>• Umvoti;</li> <li>• Mdlotane;</li> <li>• Nonoti; and</li> <li>• Zinkwazi.</li> </ul>
<b>Roleplayers?</b>	KwaDukuza Municipality, DEA, appointed service provider.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop KwaDukuza specific TOR for EMPs based on best practice (National Estuarine Management Protocol, C.A.P.E estuaries programme, other KZN EMPs, etc).</li> <li>• Obtain funding and commitments for future funding.</li> <li>• Appoint service provider(s).</li> <li>• Undertake EMPs.</li> <li>• Implement recommendations of EMPs.</li> <li>• Review EMPs in terms of the ICM Act.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Development of a strategy document towards EMPs for KwaDukuza estuaries.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Existence of EMPs for all KwaDukuza estuaries. (EMPs need to be prepared within a period of three years from adoption of a National protocol).</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, DEA, DWARD.
<b>Timeframe</b>	A.S.A.P (urgent).

### **D1.2. Identification of potential coastal protected areas**

<b>Where?</b>	Select portions of the KwaDukuza coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, Ezemvelo KZN Wildlife.
<b>Specific actions</b>	<ul style="list-style-type: none"><li>• Initial identification of potential areas as part of CMP.</li><li>• Further investigation in respect to viability of areas (Agreement and co-operation with Ezemvelo KZN Wildlife deemed essential).</li><li>• Funding accessibility.</li><li>• Implementation / purchase of land.</li></ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"><li>• Publication of a study on the potential for coastal protected areas in KwaDukuza.</li></ul> Long-term: <ul style="list-style-type: none"><li>• Improved acceptance of protected areas in order to improve human well-being through the provision of ecosystem services.</li></ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KZN, DEARD.
<b>Timeframe</b>	Within 2 years.

### **D1.3. Protection of coastal corridor and links to an open space system and EKZNW systematic conservation plan**

<b>Where?</b>	Areas identified by DPT component of KwaDukuza CMP.
<b>Roleplayers?</b>	KwaDukuza Municipality, Ezemvelo KZN wildlife.
<b>Specific actions</b>	<ul style="list-style-type: none"><li>• Liaison with Ezemvelo KZN Wildlife Conservation Planning in terms of establishment and integration of coastal corridor.</li></ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"><li>• No further development encroachment in “critically” endangered or irreplaceable habitats; and</li><li>• The publication of a open space system.</li></ul> Long-term: <ul style="list-style-type: none"><li>• Improvement in the biodiversity status of KwaDukuza;</li><li>• Improved ecosystem system services; and</li><li>• Inception and sustained function of coastal protected corridor.</li></ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	Ezemvelo KZN Wildlife, DEA, KZN, KwaDukuza Municipality, PPPs.
<b>Timeframe</b>	Within 2 years.

### **D1.4. Ecosystems services assessment**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, appointed service provider, IDP manager.
<b>Specific actions</b>	<ul style="list-style-type: none"><li>• Develop a TOR for ecosystem goods and services assessment on the KwaDukuza coastal area.</li><li>• Obtain funding for undertaking an ecosystem goods and services assessment.</li><li>• Appoint service provider.</li></ul>

	<ul style="list-style-type: none"> <li>Integrate findings of assessment into IDP review.</li> <li>Utilise 'Rands and cents' values to secure political buy-in for coastal management and associated projects and activities.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Undertaking of an ecosystem services assessment for KwaDukuza coastal area.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Improved understanding of the value of ecosystem services in the IDP; and</li> <li>Listing of ecosystem services and their benefits (in Rand replacement value) in the IDP.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	A.S.A.P (extremely urgent – most projects identified by CMP contingent upon this).
<b>D1.5. Marine Protected Area for Umvoti-Umhlali</b>	
<b>Where?</b>	Umvoti and/or Umhlali.
<b>Roleplayers?</b>	KwaDukuza Municipality, Ezemvelo KZN Wildlife, coastal landowners.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Integrate with existing initiatives in terms of establishing these MPAs and provide support where appropriate.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>Initiation of a public participation process; and</li> <li>Preparation of submission.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>Establishment of a MPA in KwaDukuza; and</li> <li>Improvement in the abundance and availability of coastal and marine resources.</li> </ul>
<b>Budget required</b>	Yes, Management and maintenance budget.
<b>Potential funders</b>	PPP.
<b>Timeframe</b>	Within 12 months.

STRATEGIC PROGRAMME D2. Coastal setback	
Objective	
To protect the coastal environment from the impacts of inappropriate development while simultaneously shielding coastal development from the anticipated effects of sea level rise, coastal erosion and other dynamic coastal processes.	
Overview	
Recent extreme events along the KwaZulu-Natal coastline have highlighted the vulnerable position of much development along the coast in the context of global climate change and sea-level rise. In order to mitigate the catastrophic effects associated with extreme coastal events, coastal planning and disaster management needs to occur in a co-ordinated and integrated manner with appropriate funding and political support. Care must be exercised not to fall into the trap of 'event amnesia' once the effects of March 2007 have been repaired and forgotten, as with the effects of global climate change, events such as these will become more and more frequent and it is vital that KwaDukuza and its neighbours are adequately forward thinking and prepared in this regard. The international best-practice in terms of preparing for climate change and sea level rise is a managed retreat, and all coastal	

development needs to be viewed in this light.	
<b>Implementation steps</b> <ul style="list-style-type: none"> <li>• Climate change preparedness strategy and risk assessment.</li> <li>• Confirmation of coastal erosion line and contribution to KZN coastal development setback determination – can amend coastal protection zone.</li> <li>• Boundary of coastal zone.</li> </ul>	
<b>D2.1. Climate change preparedness strategy and risk assessment</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders, appointed service providers.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Develop TOR for KwaDukuza climate change preparedness strategy incorporating a risk assessment– ensure integration with CMP and any EMPs and IDP.</li> <li>• Ensure integration with broader coastal disaster projects at local, district and provincial level.</li> <li>• Access funding for development of CC preparedness strategy.</li> <li>• Appoint service provider.</li> <li>• Implement recommendations and integrate with CMP, IDP and EMPs.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Inception and adoption of a KwaDukuza CC preparedness strategy and risk assessment.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Development of a budget that is sensitive to climate change issues; and</li> <li>• Reduced incidences of damage to public infrastructure and private residences.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality.
<b>Timeframe</b>	A.S.A.P (urgent).

#### **D2.2. Confirmation of sea-level rise projection, coastal erosion line and contribution to KZN coastal development setback determination**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, KZN DAE&RD.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Incorporation of coastal erosion line into planning decisions (DPT).</li> <li>• Interaction with Province in terms of defining KwaDukuza coastal setback line (see above).</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Publication of projected sea-level rise; and</li> <li>• Engaging with KZN&amp;RD in terms of setback lines.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Incorporation of coastal erosion and setback lines into all planning and development decisions.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KZN, DEA..
<b>Timeframe</b>	Within 12 months, contingent on Province.

#### **D2.3. Establishment of the coastal zone boundary**



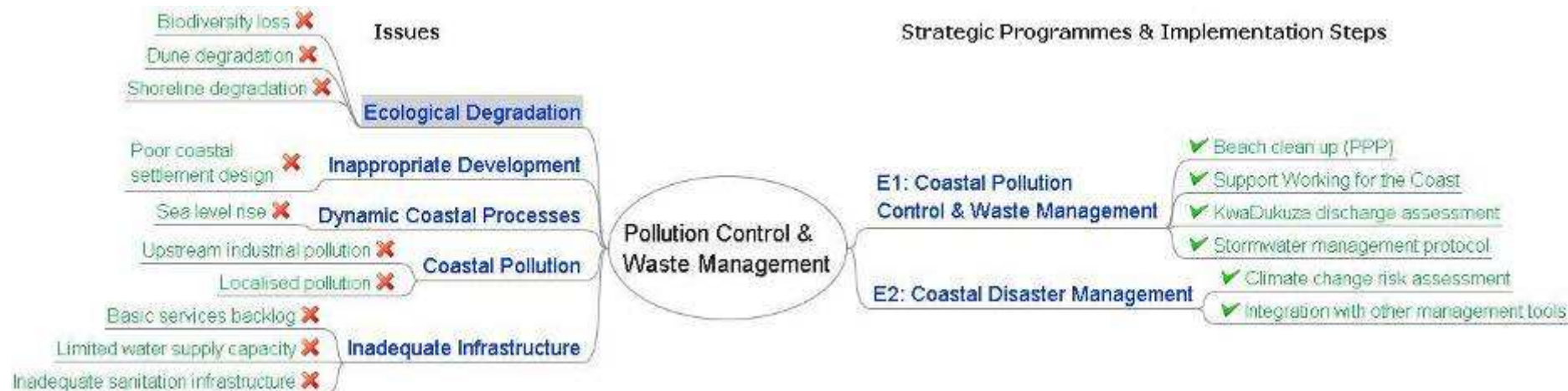
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, KZN DAE&RD, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Investigate implications and efficacy of 'default' coastal zone as defined by the KwaDukuza CMP and the ICM Act.</li> <li>• Liaising with Provincial Government in terms of best practice of defining coastal zone.</li> <li>• Include public participation process in formal definition of the coastal zone.</li> </ul>
<b>Indicators</b>	<p>Short-term:</p> <ul style="list-style-type: none"> <li>• Initiation of process to define coastal zone;</li> <li>• Instatement and formal adoption of the KwaDukuza coastal zone boundary; and</li> <li>• Demarcation of coastal zone on planning maps.</li> </ul> <p>Long-term:</p> <ul style="list-style-type: none"> <li>• Improved spatial awareness of the extent of coastal management.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KZN DAE&RD, KwaDukuza Municipality, DEA.
<b>Timeframe</b>	A.S.A.P (urgent).

### **5.1.5 Theme E: Pollution Control and Waste Management**

#### **5.1.5.1 Features of this theme:**

- (i) Need to manage pollution and waste in the coastal area; and
- (ii) Impact of pollution on natural asset and goods and services.

### 5.1.5.2 Issues addressed by Theme E



### 5.1.5.3 Strategic programmes in Theme E

STRATEGIC PROGRAMME E1. Coastal pollution control and waste management	
<b>Objective</b> <ul style="list-style-type: none"> <li>To implement pollution control and waste management measures in order to prevent, minimise and strictly control harmful discharges into coastal ecosystems.</li> <li>To manage polluting activities to ensure that they have minimal adverse impact on the health of coastal communities, and on coastal ecosystems and their ability to support beneficial human uses.</li> </ul>	
<b>Overview</b> <p>Coastal areas often bear the brunt of activities associated with pollution upstream of their location. For this reason, it is critically important that wastes and pollution associated with coastal development and day-to-day activities in KwaDukuza do not compromise the prospects for sustainable coastal development.</p>	
<b>Implementation steps</b> <ul style="list-style-type: none"> <li>Beach clean up and the establishment of Public Private Partnerships (PPPs).</li> <li>Support the Working for the Coast (WFTC) programme.</li> <li>Assessment of discharge into KwaDukuza Coastal environment, recommendations and plan of action for management.</li> <li>Storm water management.</li> </ul>	
E1.1. Beach clean-up and PPPs	
<b>Where?</b>	All beaches in KwaDukuza which require a degree of rehabilitation.
<b>Roleplayers?</b>	KwaDukuza Municipality, local business community, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Develop beach cleanup strategy and associated implementation plan.</li> </ul>

	<ul style="list-style-type: none"> <li>Secure funding/sponsorship for roleplayers (local schools, civic organisations, NGOs, etc).</li> <li>Integrate with education and awareness building strategies/projects.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>Clean beaches and associate facilities.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>Improved visitor and tourism revenue; and</li> <li>Improved media reviews of KwaDukuza beaches and facilities.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	PPPs, KwaDukuza Municipality, WFTC programme.
<b>Timeframe</b>	A.S.A.P.
<b>E1.2. Support the Working for the Coast programme</b>	
<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, WFTC, coastal stakeholders.

**Specific actions**

- Liaison with WFTC with respect to pollution matters.
- Integration with and support of existing WFTC pollution mitigation/rehabilitation measures.

<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>Increased and consistent deployment of WFTC teams; and</li> <li>Less litter in the coastal area.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>Coordinated, effective pollution prevention/remediation strategy.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	DEA, KwaDukuza Municipality, PPPs.
<b>Timeframe</b>	Ongoing.

**E1.3. Assessment of discharge into KwaDukuza Coastal environment, recommendations and plan of action for management**

<b>Where?</b>	All outfalls along the KwaDukuza coast.
<b>Roleplayers?</b>	KwaDukuza Municipality, DWA.

**Specific actions**

- Develop TOR for marine discharge assessment and management assessment.
- Obtain funding.
- Liaise with DEA/DWA.
- Appoint service provider.
- Implement findings/recommendations.
- Integrate findings/recommendations with other management tools (CMP, EMPs, IDP, etc).

<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>Develop and inventory of coastal and marine outfalls; and</li> </ul>
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	<ul style="list-style-type: none"> <li>Develop a management strategy for compiling and reporting on monitoring information.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>Managed and ICM Act compliant marine discharges.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	DEA, DWA, KwaDukuza Municipality.
<b>Timeframe</b>	Within 2 years.

#### **E1.4. Storm water management strategy**

<b>Where?</b>	The entire municipal coastal area.
<b>Roleplayers?</b>	KwaDukuza Municipality, coastal landowners, coastal stakeholders.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>Manage and maintain existing Municipal storm water system.</li> <li>Develop a operational guideline for maintenance of storm water outlets on private land.</li> <li>Implement and enforce operational guideline.</li> <li>Consolidate separate storm water outfalls into single outfall to reduce erosion.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>Adoption of an operational guideline.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>Increased performance of storm water system; and</li> <li>Reduced erosion on beaches and ecological impacts.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, Extended Public Works Programme.
<b>Timeframe</b>	A.S.A.P (urgent).

### **STRATEGIC PROGRAMME E2. Coastal disaster management**

#### **Objective**

Ensure that effective responses to potential coastal disasters are integrated into local, district and provincial disaster management plans.

#### **Overview**

Preparedness in terms of the anticipated effects of global climate change and sea level rise is critical in contributing to the resilience of the coastal area. Natural buffers such as sandy beaches and healthy dune systems need to be maintained at all costs in order to ensure protection against natural coastal hazards.

#### **Implementation steps**

- Risk assessment.
- Integration with other management tools (see climate change preparedness strategy).

#### **E2.1. Coastal risk assessment**

<b>Where?</b>	The entire municipal coastal area.
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<b>Roleplayers?</b>	KwaDukuza Municipality, coastal stakeholders, service providers.
<b>Specific actions</b>	<ul style="list-style-type: none"> <li>• Integrate with climate change and sea level rise risk assessments.</li> <li>• Integrate findings into IDP, CMP, EMPs and other relevant documentation/management instruments.</li> <li>• Development of a coastal disaster management section within KwaDukuza as well as a plan and code of conduct.</li> </ul>
<b>Indicators</b>	Short-term: <ul style="list-style-type: none"> <li>• Updated, holistic coastal disaster management strategy.</li> </ul> Long-term: <ul style="list-style-type: none"> <li>• Increased reaction time and improved allocation of specific disaster management functions; and</li> <li>• Increased safety of people and property.</li> </ul>
<b>Budget required</b>	Yes.
<b>Potential funders</b>	KwaDukuza Municipality, iLembe District Municipality, Provincial Disaster Management Agency.
<b>Timeframe</b>	As soon as possible.

## 5.2 SUMMARY AND PRIORITY OF THEMES, STRATEGIC PROGRAMMES AND ACTIVITIES.

The implementation priorities of strategic programmes, and specific activities or projects, under each theme are presented in the table below (Table 6).

**Table 6. Implementation priorities of the strategic programmes to address the coastal issues and opportunities of the KwaDukuza municipal area.**

<b>THEME A: GOVERNANCE AND CAPACITY BUILDING</b>	<b>Implementation Priority</b>
A1. Coastal public participation and partnerships	
A1.1. Attendance at meetings and cooperation with the iLembe District Coastal Committee	<b>1</b>
A1.2. Establishment of a KwaDukuza MCC	<b>1</b>
A1.3. Establishment and implementation of operational guidelines (applicable to the MCC)	<b>1</b>
A2. Coastal management education and training	
A2.1. Municipal Training Programme	<b>1</b>
A2.2. Design and Implement KwaDukuza Education and Awareness Campaign	<b>2</b>
A3 Dedicated coastal responsibility	
A3.1. Specific ICM activities and key performance indicators built into performance agreements	<b>1</b>
A3.2. Required integration between sectors in respect to implementation	<b>1</b>
A3.3. Development of a Development Planning tool(s)	<b>1</b>
A4. Review of products and processes (cycle of coastal management)	
A4.1. KwaDukuza CMP	<b>1</b>
A4.2. Inception of CMP review cycle	<b>1</b>
<b>THEME B: OUR COASTAL ASSETS</b>	

B1. Coastal infrastructure	
B1.1. Apply for Blue Flag status	3
B1.2. Identify and develop additional beach recreational nodes	1
B1.3. Identify and develop additional parking facilities	1
B1.4. Identification of potential tidal pools	1
B1.5. Long-term collection of coastal tourism and recreational statistics	3
B2. Coastal access (physical and equitable)	
B2.1. Assessment of physical access	1
B2.2. Management and facilitation of public access servitudes (ICM Act)	1
B2.3. Maintain Ballito promenade	1
B2.4. Resolve conflicting and/or historically granted rights	3
B2.5. Reinstatement and protection of coastal public property	3
B2.6. Capitalise on historical and cultural resources	2
B3. Coastal safety and security	
B3.1. Public Private Partnerships for security	1
B3.2. Maintenance of access points	1
<b>THEME C: COASTAL PLANNING</b>	1
C1. Coastal planning	
C1.1. Formal adoption of the Development Planning Tool (DPT) component of the KwaDukuza CMP and integration thereof with the municipal IDP and LUMS (see also C1.4)	1
C1.2. Implement of the KwaDukuza Coastal Management Programme	1
C1.3. Links to IDP	1
C1.4. Appropriate coastal development to be promoted (Nodal development (or precincts), and the balance between developed and undeveloped, conservation, agriculture)	2
C1.5. Identification of dynamic coastal processes and provision of services in harmony	2
C2. Coastal economic development	
C2.1. Promote long term economic potential and coast specific economic development activities that are dependant on a coastal location	2
C2.2. Adequate and accessible public facilities	1
C2.3. Promotion of appropriate tourism and recreational activities	2
C2.4. Management of municipal and other boat launch sites	1
C2.5. Investigation into potential accommodation co-operation scheme (Links with ongoing tourism strategy)	3
C2.6. Investigation into projects to capitalise on the new airport and Ballito's status as an "edge city"	2
C3. Coastal poverty alleviation	
C3.1. Support for the Working for the Coast programme	1
C3.2. Sustainable Livelihoods projects – diversify opportunities for poor coastal communities	2

<b>THEME D: NATURAL RESOURCE MANAGEMENT</b>	
D1. Coastal conservation and protection	
D1.1. Development of estuary management plans	2
D1.2. Identification of potential coastal protected areas	3
D1.3. Protection of coastal corridor and links to an open space system and EKZNW systematic conservation plan	1
D1.4. Ecosystems services assessment	2
D1.5. Marine Protected Area for Umvoti-Umhlali	2
D2. Coastal setback	
D2.1. Climate change preparedness strategy and risk assessment	1
D2.2. Confirmation of sea-level rise projection, coastal erosion line and contribution to KZN coastal development setback determination	1
D2.3. Establishment of the coastal zone boundary	3
<b>THEME E: POLLUTION CONTROL AND WASTE MANAGEMENT</b>	
E1. Coastal pollution control and waste management	
E1.1. Beach clean-up and PPPs	1
E1.2. Support the Working for the Coast programme	1
E1.3. Assessment of discharge into KwaDukuza Coastal environment, recommendations and plan of action for management	1
E1.4. Storm water management strategy	1
E2. Coastal disaster management	
E2.1. Coastal risk assessment	1
E2.2. Integration with other management tools	1



## 6. Development Management Tool Précis





SSI Engineers and Environmental Consultants (SSI), assisted by HELENA JACOBS Town Planners were appointed by KwaDukuza Municipality to undertake a Coastal Management Programme (CMP) for KwaDukuza in the interests of ensuring compliance with the Integrated Coastal Management Act, 2008 (ICM Act).

From the Terms of Reference prepared by the KwaDukuza Municipality, and the confirmation of scope of work as it is reflected in the CMP Inception Report prepared by SSI (June 2009), the KwaDukuza CMP proposes to, inter alia, investigate and develop a development management tool which will provide input into the preparation of the Land Use Management System. The CMP must inform planning and management decisions of the Municipality and therefore must address specific areas of the coastline in keeping with the Coastal Management Vision for each portion of the coastline.

In accordance with the long title of the ICM Act 2008, the purpose of this component of the CMP is to provide KwaDukuza Municipality with a 'Development Management Tool' as an integral part of the CMP that will facilitate the establishment of an integrated coastal and estuarine management system that will:

- Promote conservation and rehabilitation of natural attributes;
- Promote sustainable use of natural resources;
- Ensure appropriate development and re-development in the coastal zone; and
- Ensure continued access to the coast and the social, economic and environmental benefits that it offers.

The 'Development Management Tool' is proposed to take the form of a 'Planning By-law for the Coastal Zone' and is one of the outputs of the third and final phase in the development of the KwaDukuza CMP. The Development Framework, which informs the planning tool, takes full cognisance of the situational analysis, coastal opportunities, coastal issues and public input received during phase 2 of the process. The development of a planning tool as one of the strategic coastal management tools is therefore considered to be one of the CMP Strategic Programmes that can be implemented with immediate effect by aligning it with and inclusion thereof into other relevant statutory plans, such as the Integrated Development Plan (IDP), Spatial Development Framework (SDF) and Land Use Management System (LUMS) for KwaDukuza. The KwaDukuza Municipality explicitly stated that the CMP proposed must investigate and develop a development management tool which will provide input into the preparation of the Land Use Management System. The CMP in its entirety, inclusive of the 'Planning Tool' must be an element of the Municipality's IDP and located at a level between the Spatial Development Framework (SDF) and the Land Use Management System (LUMS). The CMP must inform planning and management decisions of the Municipality and therefore must address specific areas of the coastline in keeping with the Coastal Management Vision for each portion of the coastline. The 'Development Management Tool' must inform the Planning Framework in so far as zonation of activities in each area of the coastline, the development setback lines and development controls appropriate for the coastal location is concerned. Being part of the CMP, which, in turn will form part of the KwaDukuza IDP as a sector plan, will enjoy the same legal / statutory status as the rest of the CMP. The procedures for preparation and adoption of a Municipal CMP are prescribed in Section 48 of the ICM Act. In this regard the CMP can either be prepared or adopted as:

- A Sector Plan (The Coastal Management Programme Sector Plan) in the Municipal IDP and SDF; or
- An independent 'Coastal Management Programme By-law' with its own associated implementation, administration and enforcement provisions.

KwaDukuza wishes to include the CMP, together with the 'Planning Framework' as an element / sector plan in the Municipality's IDP. It is envisaged that the 'Planning Tool' will be located at a level between the Spatial Development Framework (SDF) and the Land Use Management System (LUMS) for the KwaDukuza Municipality.

As a result of its inclusion as a sector plan in the IDP and SDF for KwaDukuza, the CMP, must include priorities and strategies that will have specific planning- and development policy directives and related implications to:-

- (i) Address the high percentage of vacant plots and the low occupancy levels of residential dwellings;
- (ii) Equitably designate zones for the purpose of mixed cost housing and taking into account the needs of previously disadvantaged individuals; and
- (iii) Deal with issues relating to access to the coast.

The KwaDukuza CMP, as a sector plan in the IDP, and as a Statutory Plan in its own right, therefore includes explicit policy and planning direction for the zonation of activities in each area of the coastline, the development setback lines and development controls appropriate for the coastal location in each of the areas.

## 7. Conclusion



This document, in concert with the recent enactment and subsequent enforcement of the ICM Act, represents the formal starting point for a cycle of integrated coastal management in KwaDukuza. In keeping with this, it is the intention of the authors that this be treated as a 'living document', and not as merely another policy document whose usefulness will soon be outdated. This CMP has been designed with a cyclical review process firmly in mind, a process which allows for amongst others, a reassessment of local conditions and priorities in respect to implementation steps, and the identification of further issues if so required. The ICM Act requires that municipal CMPs be reviewed at least once every five years, but this period may of course be shortened if deemed appropriate.

In terms of the way forward for coastal management in KwaDukuza, this document and the associated development management tool as prepared by Helena Jacobs Town Planners, needs to be presented to the KwaDukuza Municipal Council for formal approval, adoption and the associated allocation of financial resources.



## 8. References





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