

First Draft Umgababa Coastal Management Plan

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1 CMP Definitions

The following section contains a list of terminology definitions that have been used to explain the CMP.

Admiralty Reserve: Narrow strips of State land, seldom more than 200 feet wide, that are dispersed along the coastline above the high water mark.

Biodiversity: The number and variety of species of plants and animals, the genetic variability within species, and diversity of habitats and ecosystems.

Biogeographic zones: Areas that, by virtue of their biophysical characteristics, have developed a distinctive type of flora and fauna easily discernible from others.

Buffer and transition zones: Areas of land in which development is strictly controlled.

Catchment: The boundary that separates different river drainage basins (see Watershed).

Coastal Roles: This refers to the functions that the various sections of the coast perform and have been described in terms of their strategic, economic, social and environmental significance. Understanding the level of significance of various roles helps to make strategic planning decisions and tradeoffs that may be necessary in the study area.

Coastal Features: Coastal Features refers to the natural features of a coastal area. Examples of important features of the area are: coastal waters, coastal dunes, rocky shores, estuaries, dune forests, grasslands.

Coastal Facilities: Coastal Facilities refer to packages of human made infrastructure and / or improvements in the coastal area. Examples of important facilities in the area are: recreational facilities, transport facilities, commercial facilities, waste management facilities, stormwater management facilities.

Coastal Activities: Coastal Activities refers to human activities that take place in the coastal area. Examples of important activities in the area are: recreation, residential and marine resource harvesting.

Coastal hazards: Natural phenomena that can lead to loss of human life and property damage (e.g., storms, cyclones, flooding and erosion).

Coastal resources: Natural and human-produced goods and services that are either dependent on the coast for their existence or whose value is considerably enhanced by their location at the coast.

Cumulative impacts: Impacts that individually are insignificant but together become significant.

Custodianship: A formal or informal process whereby individuals, groups or communities care for a specific locality or natural resource.

Development: refers to the physical establishment of infrastructure or facilities that may be required to ensure effective coastal management. It may also include activities or programmes that empower (i.e. develop) people and communities to contribute to and / or benefit from coastal management.

Downstream industry or activities: Processes that add value to a particular resource (e.g., fish processing).

Ecological integrity: A diverse, healthy and productive natural system.

Ecosystem: A community of plants, animals and organisms interacting with one another and with the non-living components of their environment (see Natural system).

Estuary: A body of water that has a connection with the sea and where fresh water, derived from land drainage, is mixed with sea water.

Habitat: The place or type of place where an organism or community of organisms live.

Hazardous and toxic waste: A discarded substance with the potential to damage people or the environment owing to its dangerous characteristics.

High water mark: The highest point reached by the sea during ordinary storms occurring during the stormiest period of the year, excluding exceptional or abnormal sea-surges.

Indigenous flora and fauna: Plants and animals that have evolved in a specific locality.

Integrated Development Plan: A plan drawn up by local government to prioritise and co-ordinate development activities and investment, and to promote effective use of budgets in terms of the Local Government Transition Act (209 of 1993).

Infrastructure: Permanent physical structures (e.g., roads, electricity lines and bridges).

Integrated coastal management: A holistic, continuous and dynamic process of sustainable use, development and protection of coastal resources.

Lagoon: A coastal body of shallow water characterised by a restricted connection with the sea.

Land Use Management System (LUMS): refers to all the actions required by a municipality to manage land. It includes the SDF, a Scheme, rates system, bylaws, and licensing amongst others.

Land use planning: A process for deciding the best present and future use of each parcel of land in an area.

Low water mark: The lowest point reached by the sea during periods of ordinary spring tides.

Natural resource management: Actions taken to address direct and indirect consequences of human activities in order to maintain ecological integrity.

Natural resource: The products of a healthy ecosystem (e.g., fish and minerals).

Nodal development: Describes the spatial pattern of human settlement and infrastructure that is concentrated around a single point.

Operational Management: refers to the day to day management activities that ensure sustainable coastal ecosystems and human settlements.

Risks and Impacts: These are either inherent natural threats (e.g. coastal erosion) or introduced threats posed by facilities (e.g. waste management facilities) and activities (e.g. coastal recreation) that may compromise the sustainability of coastal ecosystems, opportunities for future economic growth and / or the quality of life for human communities within the study area.

Sand-bypass system: The natural movement and circulation of sand by air and water currents.

Sea-level rise: A rise in the level of the ocean caused by global warming.

Sea: Includes the water of the sea, the seabed and its sub-soil.

Sea shore: The water and the land between the low and high water marks.

Sediment transport: The natural movement and circulation of matter (e.g., sand) by air and water currents.

Sensitive coastal ecosystems: Ecosystems that are particularly vulnerable to disturbances by virtue of their inherent characteristics, or proximity or exposure to potential human or natural hazards.

Set-back line: A prescribed boundary indicating the limit of development activity along an ecologically sensitive or vulnerable area (e.g., wetland), or an area that poses a hazard or risk to humans (e.g., sea-shore).

Species: A group of plants, animals or micro-organisms sharing a most recent common ancestor, with a shared set of uniquely evolved characteristics, and generally only interbreeding with themselves.

State land: Land that is owned by the government.

Subsistence activity: An individual dependent on a particular natural resource to make a contribution to supporting their livelihood.

Sustainability: Ability to continue an activity for a long period of time.

Sustainable coastal development: Describes optimising user benefits, now and into the future, whilst maintaining diverse, healthy and productive coastal ecosystems.

Sustainable livelihood options: Describes long-lasting alternatives that can contribute to the wellbeing of people.

Temperate: The mid-latitude area that typically experiences a mild to cool climate occasionally influenced by sub-tropical and polar air masses.

Territorial waters: The Sea within 12 nautical miles of the low water mark.

Topography: The surface features of land, e.g., hills, valleys, plains.

Traditional resource uses: Time-honoured or customary uses of resources.

Viewshed: Describes a scenic vista unspoilt by inappropriate structure or building design.

Vision: A positive view of the future.

Watershed: The boundary that separates different river drainage basins (see Catchment).

Wetland: Area covered occasionally, regularly or permanently by shallow fresh or salt water.

Strategic Management: refers to both short and long term planning and / or control activities necessary to ensure sustainable coastal ecosystems and human settlements.

1.1 EXECUTIVE SUMMARY:

Udidi was commissioned by the Ethekewini Municipality to undergo a review and extension of the Umgababa Coastal Management Plan (CMP). The new Umgababa CMP has extended from the previous CMP for the area and it now includes the Umkomaas area thus covering the most Southern area of the Ethekewini municipal boundary. The new boundaries now covers; the coastal belt from the southern end of Amanzimtoti in the north to the most southern boundary of eThekewini Municipality at Umkomaas and inland to the N2 highway in the west.

Precinct	Description
Amanzimtoti (Ward 97)	Bordered by the N2 to the west, the low water mark to the east, Amanzimtoti South to the north and Umgababa to the south.
Umgababa (Ward 98)	Bordered by the N2 to the west, the low water mark to the east, Amanzimtoti to the north and Umkomaas to the south.
Umkomaas (Ward 99)	Bordered by the N2 to the west, the low water mark to the east, Umgababa to the north and Umdoni to the south.

The review also includes updating of the existing information and addition of new information into the CMP, with a slight change in legal framework i.e. SEA superseded by the ICM. The current CMP also includes one of the key component of planning which lacked from the previous CMP which is the public participation process this phase included consultation with the Amanzimtoti, Umgababa and Umkomaas public meetings and Meeting with Clansthal conservancy in Umkomaas. The CMP has also been linked to the other CMPs of the Areas above the study area viz; the plan for the *South Durban Basin Area* and the plan for the *Ohlanga - Tongati* area with adopting more or less the similar format by reflecting on issues like, *coastal management precincts, key coastal risks, coastal management interventions, roles of the coastal precincts, application of management guidelines to coastal precincts*. The CMP also includes a catchment analysis study and reflecting on the state of the rivers within the study area.

CONTEXT OF COASTAL MANAGEMENT:

The coastal area is of great significant to our country and contains many environmental assets. However due to many different influences we find that there is much pressure being exerted on our coastal areas with urbanization having a major influence. With this being the case we also find that there is little/ no/ poor coastal planning and management. This phenomenon illustrates a dire need for adopting and implementing a coastal management and planning approach by all relevant stakeholders.

The policy that directs coastal management in South Africa is the White Paper for Sustainable Coastal Development in South Africa. This draft provincial policy in conjunction with the Municipal Systems Act directed municipalities in the province to prepare their own Coastal Management Strategies and in 2005.

We have definitions for coastal management which are taken from the UN report and the ICM:

The UN Report Coastal Management describes it as:

The following definitions are extracts from the Draft KZN Coastal Management Policy and refer to a 1996 United Nations Report (GESAMP, 1996) which defines coastal management as:

“...a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing and integrated plan for the protection and development of coastal ecosystems and resources.”

It states that the goal of coastal management is:

“...to improve the quality of life of human communities which depend on coastal resources, while maintaining the biological diversity and productivity of coastal ecosystems.”

The Integrated Coastal Management (ICM) Bill coastal management describes it as:

“... (a) regulation, management, protection, conservation and rehabilitation of the coastal environment;
(b) regulation and management of the use and development of the coastal zone and coastal resources;
(c) monitoring and enforcing compliance with laws and policies that regulate human activities within the coastal zone;
(d) and planning in connection with the activities referred to above.”

CONTEXT OF THE UMGABABA CMP:

Umgababa is located in close proximity to Durban. The area is of both rural and urban nature. The area used to be a tourist destination popular for its attractiveness; however the area has since been neglected due to different reasons. These issues need to be addressed.

The coastal area is one of South Africa's beach and recreation node. The transport systems within the area includes; railway line, both the old South Coast Road (R102) and the N2 National Freeway traverse. In overall terms this area comprises a combination of undulating countryside as well as coastal dune area, separated by major north-south transport linkages. While a portion of the area is held in private ownership, the majority of the area is held under traditional communal tenure.

The area is identified as coastal corridors with national significance-tourism. Furthermore the area is anticipated to be a future regional corridor.

There are development projects that are anticipated for the area these projects are envisioned to bring about economic development and growth (most of these projects are tourism linked).

The study area especially Umgababa area is not sufficiently serviced and with deficiency in refuse removal, sanitation, and energy source. The availability of these service cannot be viewed as only affecting the lives of the inhabitants solely but it also need to be taken into consideration that the lack of these services compels people to use unviable alternatives which in turn has major detrimental affects to the environment e.g. wood burning as a source of energy has adverse effects to the environment in the sense of pollution etc.

All three precincts of the study area are characterized by features that are more or less similar with the movement systems and vegetation running from Umkomaas up to the Amanzimtoti precinct. Umgababa precinct is dominated by subsistence agriculture and Umkomaas is the precinct with commercial agriculture being evident is with the forestry and the sugar cane plantations. Amanzimtoti is more urbanized and densified. There is illegal sand mining evident in some parts of the study area. There are more informal dwellings in Umgababa than the other two precincts.

KEY COASTAL RISKS

Coastal management is primarily about addressing potential risks and threats to coastal integrity and character in a way that will minimise negative impacts and maximise positive impacts and opportunities. The risks can either be inherent or introduced.

Inherent risks that are evident within the study area include:

- Sea Level Rise Associated with Global Climate Change
- Beach / Coastal Erosion (ongoing natural process, not specifically associated with sea level rise)
- Land Instability

- Poor / Lack of Catchment Management
- Transport Routes: Rail and Road
- Sewage Transfer and Disposal (to groundwater, estuaries and sea).
- Human Access to Coastal Assets
- Industrial and Domestic Pollution
- Dredging Activity
- Uncontrolled Settlement

ROLES OF THE COASTAL PRECINCTS

The Umgababa Local Area Plan has defined a set of roles for the three study area precincts.

These roles are an important factor in directing coastal planning and management. The roles clarify the significance of this section of coastline with respect to municipal economic, social or environmental objectives, and provide guidance with respect to the use of coastal resources. They also assist in the identification of priorities for action by various stakeholders and the levels of investment that would be appropriate in order to protect ecosystems and or enhance the value of the area for its users.

COASTAL MANAGEMENT INTERVENTIONS

The CMP will form part of the eThekweni package of plans and the CMP will fall under the precinct plan / special area plan category.

Effective coastal management will need to occur at both strategic and operational levels, thus strategic management actions and / or programmes will need to be initiated, or reviewed where already in place, and regularly monitored to ensure implementation. The eThekweni Municipality will be the key institution responsible for ensuring that management programmes are drawn up and implemented.

Strategic Management Programmes include:

- eThekweni (Durban) Metro Shore Management Plan
- Catchment Management Plan (CMP)
- Estuary Management Plans (EMPs)
- Safety and Security Plan (SSP)
- Waster Water Treatment Works Management Plan (WWTWMP)
- Landslip Management Plan (LSMP)
- Beach Node Management Plans (BNMP)
- Coastal Water Pollution Management Plan
- Housing Plan
- Coastal ark Management Plan

RISKS FACING THE AREA LINKED TO ACTIVITIES TAKING PLACE WITHIN THE AREA:

- Upstream catchment management: high silt loading, frequent flooding, poor water quality.
- Discharge from WWTW at head of estuary.
- Infrastructure (road bridges) restricting water flows and impacting on estuarine functionality.
- Moderate levels of natural resource harvesting (trees, fish).
- Animal and bird poaching, medicinal plant harvesting.
- Litter.
- Development, agricultural and alien vegetation encroachment into natural assets.
- Loss of Biodiversity asset through mismanagement
- Destabilisation of coastal dunes due to illegal access points
- Sea level rise and associated erosion of the coastline
- Pollution as a result of inadequate catchment management
- Detergent pollution can be toxic to aquatic biota

- Loss of recreational potential as a result of solid waste disposal causing pollution (Illegal dumping).
- Migration barrier
- Damage to infrastructure
- Bank destabilization
- Increased flooding
- Illegal dumping.
- Illegal squatting.
- Harvesting of timber, fire wood and medicinal plant harvesting.

LAND USE ELEMENTS – THE PROPOSED ZONES

- High intensity recreation / tourism zone
- Conservation / low intensity tourism zone;
- Low density development zone;
- Limited Development Zone;
- Conservation / no-development zone;
- Local recreation zones.
- Agricultural Zone
- Utilities and Services

With all the negativities, threats and risks that have been cited within the umgababa coastal area, there are identified interventions programs and plans that are proposed in an attempt to curb current and any future detrimental natural and man made affects.

2 INTRODUCTION

2.1 Coastal Management in South Africa

Coastal areas within South Africa are subject to immense development pressures, particularly those arising as a result of rapidly increasing economic activity and urbanization within the coastal zone. The last few decades have seen exceptional escalation in urbanization and growth of informal settlements, the study area being no exception. The consequences of inadequate coastal planning and management initiatives is evidenced by increasing coastal and associated environmental degradation, including ribbon development parallel to the coastline, leaving large tracts of the South African coastline irreversibly altered and compromised for future generations. It is, therefore, critical that a sustainable and integrated coastal planning and management approach be adopted and implemented by all relevant stakeholders, natural resource users, local residents (incl. rural communities), competent authorities, the private sector and the public generally.

The relevance of the coastal environmental assets includes:

- The coastal zone is home to valuable eco-systems of important bio-diversity
- Coastal features such as dunes, beaches and mangrove forests serve as critical natural defence mechanisms against storms, flooding and erosion
- The coastal area provides the base for all human activities in the ocean, and is often highly sought after by users and populations
- Human activity is often concentrated around coastal lands and flood plains, and because coastal space is a finite resource, conflict amongst competing user groups can arise.

Integrated coastal management planning is, therefore, required to balance human needs, especially physical development (residential, commercial, industrial) and natural resource use (both consumptive and non-consumptive and renewable and non-renewable) with environmental needs, especially to protect bio-diversity and eco-systems for the purposes of ensuring the sustainability of the natural resources and eco-systems in the area.

Coastal management in South Africa is directed by the April 2000 White Paper for Sustainable Coastal Development in South Africa prepared by the National Department of Environmental Affairs and Tourism (DEAT). This white paper directed the preparation of a Draft KwaZulu-Natal Coastal Management Policy in 2004. This draft provincial policy in conjunction with the Municipal Systems Act directed municipalities in the province to prepare their own Coastal Management Strategies and in 2005 eThekweni drafted its own Coastal Management Strategy to support its Integrated Development Plan (EMIDP). This municipal strategy identified the principles under which coastal management in the municipality should occur and identified the need to prepare coastal management plans for its coastal areas.

The principles of these guiding policies and strategies can be accessed via the websites of the Municipality and the KwaZulu-Natal Department of Agriculture and Environmental Affairs.

The Integrated Coastal Management (ICM) Bill was released by DEAT for public comment in 2006. The ICM Bill was signed by the President in 2008 and will be enacted once it has been published in the Government Gazette. When promulgated, this legislation will guide and regulate the development and use of the coastal zone, coastal ecosystems and resources. The Bill includes provisions for the spatial regulation of coastal development and management; estuary management plans; establishment of national, provincial and municipal coastal management programmes; protection of coastal resources; marine and coastal pollution control.

2.2 Definition of Coastal Management

In Terms of the UN Report Coastal Management is:

The following definitions are extracts from the Draft KZN Coastal Management Policy and refer to a 1996 United Nations Report (GESAMP, 1996) which defines coastal management as:

“...a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing and integrated plan for the protection and development of coastal ecosystems and resources.”

It states that the goal of coastal management is:

“...to improve the quality of life of human communities which depend on coastal resources, while maintaining the biological diversity and productivity of coastal ecosystems.”

The eThekweni Municipality has responded to the national and provincial coastal management framework by preparing its own Coastal Management Strategy (currently in draft form). This strategy calls for the development of Coastal Management Plans (CMP's) for all major coastal management areas in the municipal area. The purpose of these CMP's is to ensure responsibility, accountability, consistency and a continual improvement in the standard of coastal operational management. In addition, the CMP's aim to ensure that the wide range of service delivery units responsible for aspects of coastal management integrate and communicate through the application of one agreed management plan. It needs to be noted that significant impacts on the coast originate within the catchments and therefore this element is included.

In terms of the Integrated Coastal Management (ICM) Bill coastal management includes:

“... (a) regulation, management, protection, conservation and rehabilitation of the coastal environment;
(b) regulation and management of the use and development of the coastal zone and coastal resources;
(c) monitoring and enforcing compliance with laws and policies that regulate human activities within the coastal zone;
(d) and planning in connection with the activities referred to above.”

2.3 Context of the Umgababa CMP

In view of its close and easily accessible proximity to Durban, comprising relatively unspoilt beaches and a rural sense of place, the Umgababa area was once a well visited location, popular with local and international tourists alike. In particular, the Umgababa Holiday Resort was a favourite destination for holiday makers, until its attractiveness was severely disrupted by sustained political violence during the late 1980s and early 1990s.

As a result the area, as a whole, has become neglected and the limited recreational physical infrastructure largely derelict. Although the area remains rural in setting and the beaches still largely undisturbed and appealing, the emergence of informal and uncontrolled ribbon development along its borders, especially the coastal zone, has had a severe negative impact and effect on tourism, local economic growth, and investment in the area. This situation has been exacerbated by an increasingly high level of crime and security concerns.

It is submitted, therefore, that these particular debilitating issues need to be appropriately and comprehensively addressed and rectified before any committed and sustainable economic improvements and associated benefits for the area can be realistically contemplated.

The Umgababa Coastal Management Plan (CMP) extends to cover the coastal belt from the southern end of Amanzimtoti in the north to the most southern boundary of eThekweni Municipality at Umkomaas and inland to the N2 highway in the west. The Wards incorporated include:

- Amanzimtoti (Ward 97)
- Umgababa (Ward 98)
- Umkomaas (Ward 99)

A Coastal Set-Back line demarcating an area within which development will be prohibited or controlled, calculated through modeling a 50yr flood line, has been incorporated into the CMP and the area between the set-back line and the N2 Freeway is included in management (e.g. waste management). The Umgababa coastal zone falls outside of the city's urban edge limit.

Umgababa is an informal urban and peri-urban area falling within the jurisdiction of the Rural Area Based Management (ABM) of the eThekweni Municipal area (EMA), and is located on the southern periphery of EMA. This "node" is an area spanning some km along the coastal zone, between the Moss Kolnick interchange (southern boundary of the South Durban Basin ABM) and Ilfracombe in the north. Apart from the railway line, both the old South Coast Road (R102) and the N2 National Freeway traverse the area, north to south, and provide excellent linkages to and from the north and south respectively. Activity in this area relates to some extent to the tourism sector. The node is closely linked to the Shell Ultra City located at Umnini. The Umgababa area is predominantly tribal and is located within the Umnini Tribal Authority area, as well as Ward 98 of the eThekweni Municipality.

In overall terms this area comprises a combination of undulating countryside as well as coastal dune area, separated by major north-south transport linkages. The area has areas of high biodiversity mountains, escarpments etc (these areas are some of the areas that requires management and protection for better usage thus linking them with tourism and recreation).

A number of incisive river valleys running from west to east represent significant physical barriers in the inland part. While a portion of the area is held in private ownership, the majority of the area is held under traditional communal tenure. Densities vary from urban informal to rural, the former substantially located in proximity of major transport routes, limited economic development and, with the exception of the more formal developments, limited access to physical and social support services. Moreover, the area is characterised by traditional housing in the south, and only formal development in the north of the study area.

The largest town within the study area is Amanzimtoti which lies approximately 10km to the north of Umgababa. Umkomaas Town lies just over 5km to the south Umgababa.

Key anticipated drivers of development include:

- Revamping the Umgababa beach area as there are developers who have brought forward some proposals for this development.
- Umnini node development is another development proposed in Umgababa. This development is very much skewed towards tourism (craft in specific) and is expected to boost the economic status of the area creating jobs opportunities and also promoting influx of people from other areas.
- The high quality coastal zone which is attractive for residential and miscellaneous forms of tourism use.
- The Mahlongwa river valley nature reserve (eco tourism) proposed by clansthal.
- The creation of a no take marine reserve within the MPA and the marine boundaries of the Conservancy proposed by clansthal conservancy.
- Development of an appropriate launch site at Umkomaas for dives to the Aliwal Shoal.
- Upgrading of the Umgababa Holiday resort

- Development of a regional shopping centre this centre is likely to be developed either at Umbogintwini (Arbour Town), Amanzimtoti (Estuary) or Winklespruit (South Coast Mall).

In terms of the eThekweni Spatial Development Framework (SDF) (see Figure 2.1 below) Amanzimtoti is identified as a mixed investment node and beach tourism node, Umgababa is identified as a rural investment node and beach tourism node and Umkomaas is identified as a beach tourism node. In addition these three areas are identified as coastal corridors with national significance-tourism. Furthermore the area is anticipated to be a future regional corridor.

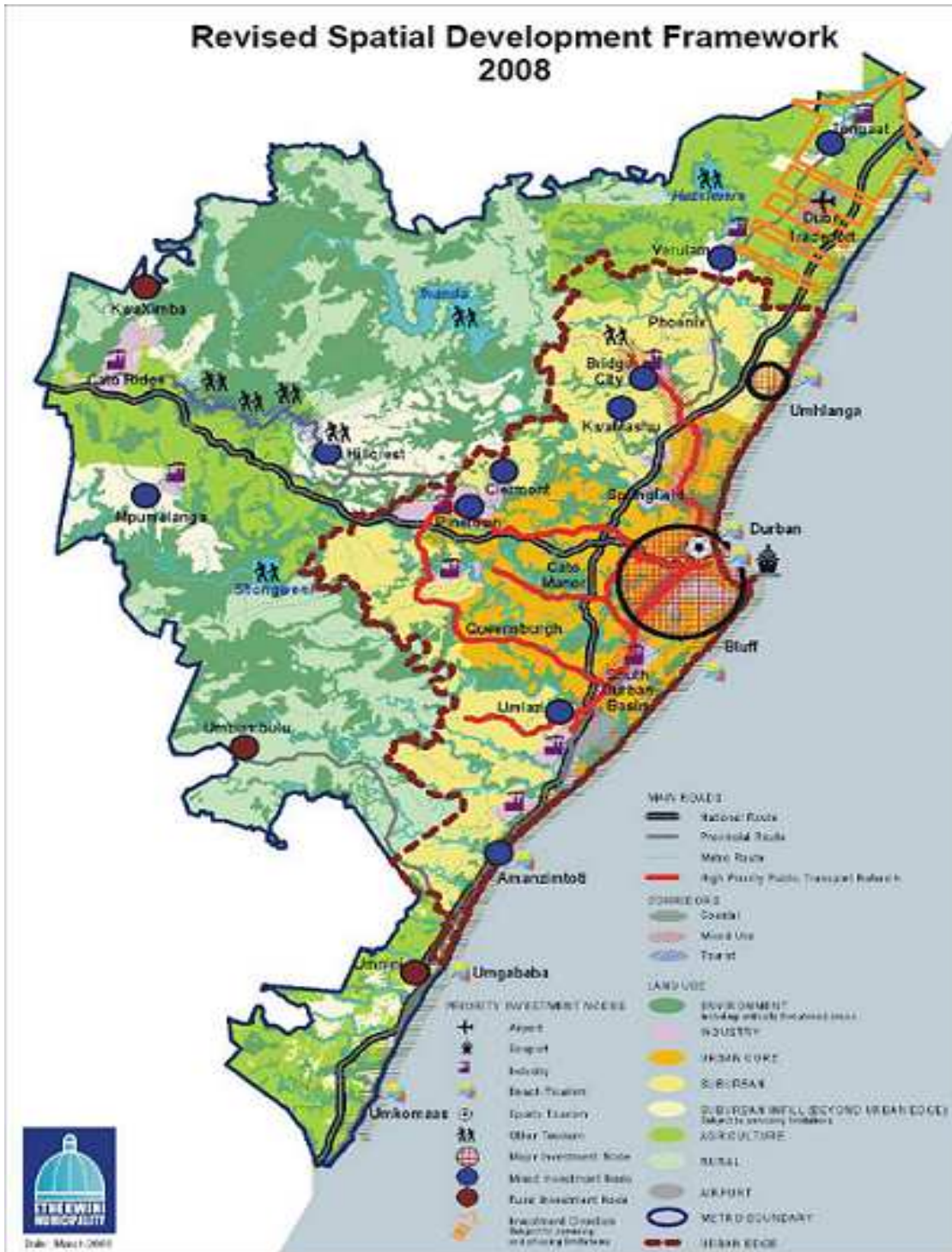


Figure 2.1: Revised eThekweni Municipality Spatial Development Framework 2008

2.3.1 Planning and Policy Frameworks

2.3.1.1 Coastal Tourism Development Plan

The CTDP aims to facilitate sustainable coastal development. This means encouraging and facilitating the interests of development and economic and tourism growth while at the same time ensuring the healthy functioning of our coastal ecosystems. The Umgababa coastal zone (although not part of the development plan in 1999), has the potential to be incorporated in to the primary study area. In broad terms this defined as all areas of relatively intact coastal dune systems, all areas which are visible from the coast and from coastal recreation areas and all estuaries and lagoon systems. This is the area where major pressure for development occurs, but where development has the potential to cause the most damage in terms of ecology, coastal erosion and destruction of the natural visual experience.

The northern portion of the Umgababa CMP coastal study area falls within the CTDP's southern region, and includes the seaside settlements/villages from Amanzimtoti in the north to clansthal in the south. According to the CTDP, this southern region is well-developed and established with little vacant land available for tourism and recreation development further south to clansthal (Umkomaas) the area is also well developed with a large portion of the area used for agricultural purposes i.e. mainly sugar cane farming and forestry. Future development is therefore likely to include redevelopment of existing infrastructure and assets and gradual small-scale infill of pockets of available land.

The CTDP identified a series of smaller, discrete areas within the region, each of which has a distinctive character. These areas were assessed in terms of their development potential and have been classified as one of the following types of development zone. The zones most applicable to the Umgababa coastal zone, are very briefly:

- High intensity tourism precinct/recreation zone (eg Amanzimtoti Estuary, Warner Beach, Doonside Estuary and Winkelspruit);
- Local recreation zones (eg Amanzimtoti Beach, Illovu and Karridene);
- Conservation and low intensity recreation/tourism zone (Umgababa estuary);
- Low density development zone (areas east of the N2).
- Agricultural Zone (areas in the South of Umkomaas)

2.3.1.2 eThekweni IDP

The IDP aims to spell out the municipality's strategic plan of action for the next 5 years. In terms of the city's sustainable development strategy, its focus areas includes:

- Focussing and integrating city delivery to maximise the impact on poverty reduction and job creation within a sustainable framework;
- Co-ordinating with other levels of government to ensure maximisation of the impact on crime and HIV/AIDS;
- Regenerating existing residential and business areas;
- Maximising the usage of existing facilities and infrastructure;
- Developing a financial strategy which balances developmental expenditure with a strategy to grow income; and
- Ensuring local government is more accessible and accountable, assists citizen action and aligns all spheres of government to ensure co-ordinated and integrated delivery. With specific relevance to the Umgababa Coastal Management Plan, the Sustainable Development Plan also aims to:
- Provide a rural and peri-urban development focus. This includes the provision of infrastructure and investment and management frameworks appropriate to the needs and opportunities within and sustainability constraints of rural and peri-urban areas.
- Use the 5 ABM learning areas to demonstrate implementation of the IDP's strategic focus.

However, the area of the eThekweni Municipality has in recent times been substantially extended to incorporate areas of adjacent local municipalities on the northern and southern periphery. The newly incorporated areas are substantially rural and semi-rural in nature and significant portions consist of traditional settlement areas, such as the Umgababa and Umnini areas. The IDP of the eThekweni Municipality has recognised the need for establishing a better knowledge of these newly incorporated areas and the municipality has consequently initiated the Rural Development Framework.

Based on a thorough understanding of the needs and opportunities of the area, it is the purpose of the Rural Development Framework (RDF) to establish guidelines for the areas future development. Consequently the RDF will establish inter alia a Spatial Framework, address institutional, social, economic, land etc issues, ensuring local participation, sustainability, poverty alleviation and the creation of improved living conditions. Within this context it is the intention of the RDF to provide appropriate guidance to Council policy and establish relevant development programmes and projects. In addition, to the above, the IDP identified four rural investment and four mixed investment nodes within the EMA and Umgababa has been identified as one of the Rural Investment Nodes.

2.3.1.3 Rural Development Framework

In addition to the eThekweni IDP, which identifies the following hierarchy for the rural periphery: mixed investment nodes and rural investment nodes, it also suggested that the rural periphery of the EMA including the Umgababa area, be upgraded, whilst still maintaining the unique rural character. Umgababa is identified as a rural investment node, which should provide a local level of service for the surrounding rural communities in terms of social and economic activities, traditional structures facilities etc. It has been identified due to its centrality and accessibility regarding the communities it serves, and an already existing accumulation of activities. In addition, the RDF's spatial development framework suggests that local access between Phakathi and Umgababa as well as Adams and Umgababa be established and reinforced. It goes further to suggest that residential development in the Umgababa area, should be established with semi-rural densities, especially in the periphery of Umgababa.

2.3.1.4 South Local Council Local Development Plan

The Integrated Development Framework for the South Local Council attempts to provide the link between strategic metropolitan area planning and local area planning. The Spatial Development Framework provides the focus of the IDF, and provides a spatial reflection of the physical, economic, social and institutional development potential of the South Local Council. In terms of the South Local Council Spatial Development Framework, Umgababa has been identified as an area falling within a tertiary activity corridor.

2.3.1.5 Umgababa Resort Local Precinct Development Plan

As the Ethekwini IDP and Rural Development Framework both recognised the need for pro-active development at Umgababa, a precinct plan was commissioned whereby detailed design of an identified investment node around the Umgababa Station as well as for the previous holiday resort area of Umgababa. The main purpose of the study was to:

- 1) determine the feasibility of the redevelopment of the Umgababa Holiday Resort area;
- 2) Provide detailed design layouts to guide the future development of the project area, and
- 3) Provide a co-ordinating implementation schedule for both public and private development.

The Precinct Development Plan essentially proposes a mix of complementary land uses at the holiday resort area, ranging from family amusement, commercial/retail, sport and recreation, accommodation and education.

2.3.1.6 Umnini Local Area Development Plan

The specific study (unavailable at the time of preparation of the Status Quo) examines the Umnini area and attempts to establish areas that would be suitable for long-term housing development throughout the tribal area. Naturally, proposals formulated for this development plan will have an impact on the future development of Umgababa, and therefore the following phases of the Coastal Management Plan will incorporate such proposals and their implications.

The development is to take place on both sides of the N2 (West and East) the development is to reduce poverty level within the area as it focuses mainly on economic activities and more so tourism. The tourism realm includes tourism that will be able to incorporate local residents as it supports crafts.

2.3.1.7 South Spatial Development Plan

The South Spatial Development Plan (SSDP) intends to determine the economic, social, residential and *environmental* roles of the Southern Municipal Planning Region (MPR).

The SSDP identifies the capacity of the existing natural and built environment to create sustainable investment and development opportunities and establishes linkages to opportunities for the socio-economically disadvantaged communities of the south.

Broadly the SSDP looks at man made (infrastructure i.e. movement systems etc.) and natural features (environment) and the interaction of them and society in order to benefit the areas inhabitant yet protecting the environment thus producing opportunities for economic and social growth and development and sustainability.

Within this context, the SSDP identifies what development is desirable, where such development should occur and how such development should be facilitated thus taking note of the environmental sensitive and coastal areas.

The main objectives of the SSDP therefore include:

- To establish an understanding of the strategic role of the southern area within the context of the Ethekewini Municipality,
- To ensure alignment of the SSDP with the development plans of the west and north as well as the South Durban Basin Framework in progress,
- To inform the broader eThekwini Spatial Development Framework as well as providing guidance for subsequent local area plans and land use schemes.

The SSDP also acknowledges the importance of having plans in place and amongst these plans the CMP is also highly recognized.

The SSDP links itself to the CMP by linking environmental with economic, development and social sectors.

Key issues from the SSDP that are of great relevance to the CMP

Economic activity levels within the Study area are relatively low thus unemployment levels are very high also a factor contributing to unemployment is accessibility there is little networks connecting the study area with the North and West.

Although the rail alignment along the coast may have been considered as a development barrier, it has in instances prevented the inappropriate usage of the coast and it should be seen as a substantial opportunity for coastal tourism.

There lies major tourism opportunities within the Study area based on it's rural character thus significant potential for the establishment of alternative inland eco / cultural / Africa etc tourism and also linkage of the rural activities and coastal based activities enhancing and creating even more economic transaction through tourism.

With the coastal area being sensitive and requiring protection against densification of unviable development, it would be more appropriate to direct more of residential and residential related developments to the western part of the study area (Across the N2). As stated by the SDP there needs to be identification of appropriate residential densification opportunities.

	Amanzimtoti	Umgababa	Umkomaas
ENVIRONMENTAL STRUCTURING ELEMENTS	The Illovu and Umsimbazi Rivers, as well as its local tributary and a significant hill forming the western boundary, would represent major physical and visual structuring elements, all elements are expected to be appropriately managed and rehabilitated	Utilising the unique local environmental features such as river valleys, coast and hill tops for the creation of a recognisable development structure	
HIERARCHY OF ACCESS CORRIDORS	providing improved direct access from the N2 with linkage to both R102		Linkages to the N2 and slowing down the R102
SAFEGUARDING THE COAST AS PUBLIC AMENITY			Preventing private development in vicinity of the coast, protecting and managing the natural coastal environment, providing appropriate support amenities for the recreational usage of the coast,
PROTECTION OF UNIQUE NATURAL ENVIRONMENTS			appropriately protecting and managing the natural environment of the valleys of the Umkhomazi, Amahlongwa and Amahlongwana Rivers, their tributaries and lagoons, including unique areas identified in the D'MOSS and linking natural areas to each where appropriate, protecting the unique marine environment of the Aliwal Shoal and providing adequate support amenities,

SSDP SUGGESTIONS	<ul style="list-style-type: none"> • The development of the Illovu River valley for a series of appropriate tourism and recreational activities linked to both the coast and the hinterland, relating to both water and nature, • Establishing appropriate linkage to coast and beach, • Establishing tourism and residential development at various densities on both sides of the Illovu River valley, • Protecting, managing and rehabilitating the natural environment of the area. 	<ul style="list-style-type: none"> • The establishment of a rural investment node in the area of the N2 off-ramp / R102, • The establishment of local community nodes at the various local road intersections and at Ilfracombe, • Acknowledging the ongoing coastal residential densification process and allowing for residential densities of up to 20units / ha in the vicinity of the N2 and R102, • Maintaining the agricultural activities in the vicinity of the Umkhomazi River, • Protecting, managing and rehabilitating the coastal areas and the river valleys, • Developing the coastal and inland recreation opportunities. 	<ul style="list-style-type: none"> • Accepting additional residential and associated development in suitable areas between the R102 and the N2 at densities of 15units/ha. • Upgrading the existing Umkomaas town to fulfil its role as local service centre for the surrounding region and as tourism node, providing additional amenities for coastal tourism and activities associated to the Aliwal Shoal, • Developing relevant parts of the coast for recreational activities while safeguarding the sensitive natural environment, • Protecting and appropriately managing natural environment areas indicated, • Appropriately managing the agricultural potential of the area,
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2.4 Project Methodology

The project included the following phases of preparation:

- Phase 1: Inception
- Phase 2: Spatial Development Plan Review - review of the overall spatial development strategies and spatial development proposals. The key elements of this review included: Strategic Spatial Assessment; Setting Roles, Goals, and Objectives; Spatial Development Plan; and Development Guidelines
- Phase 3: Institutional Arrangements Review - Institutional Arrangements Review will be focused on looking at the legal requirements for coastal management and the organizational arrangements for both internal and external stakeholders. The key elements of this review included: Legislative Framework Assessment; Stakeholder Assessment; and Institutional Integration.
- Phase 4: Implementation and Monitoring - The primary focus was on how to make a reality the proposals and implement the Umgababa CMP. More importantly this phase was focused on the monitoring component which focused on ensuring that there is sustainable implementation of proposals and the red flagging of areas of concern. The key elements of this phase included: Priorities and phasing; Sector Strategic Programmes; and Monitoring and Review.

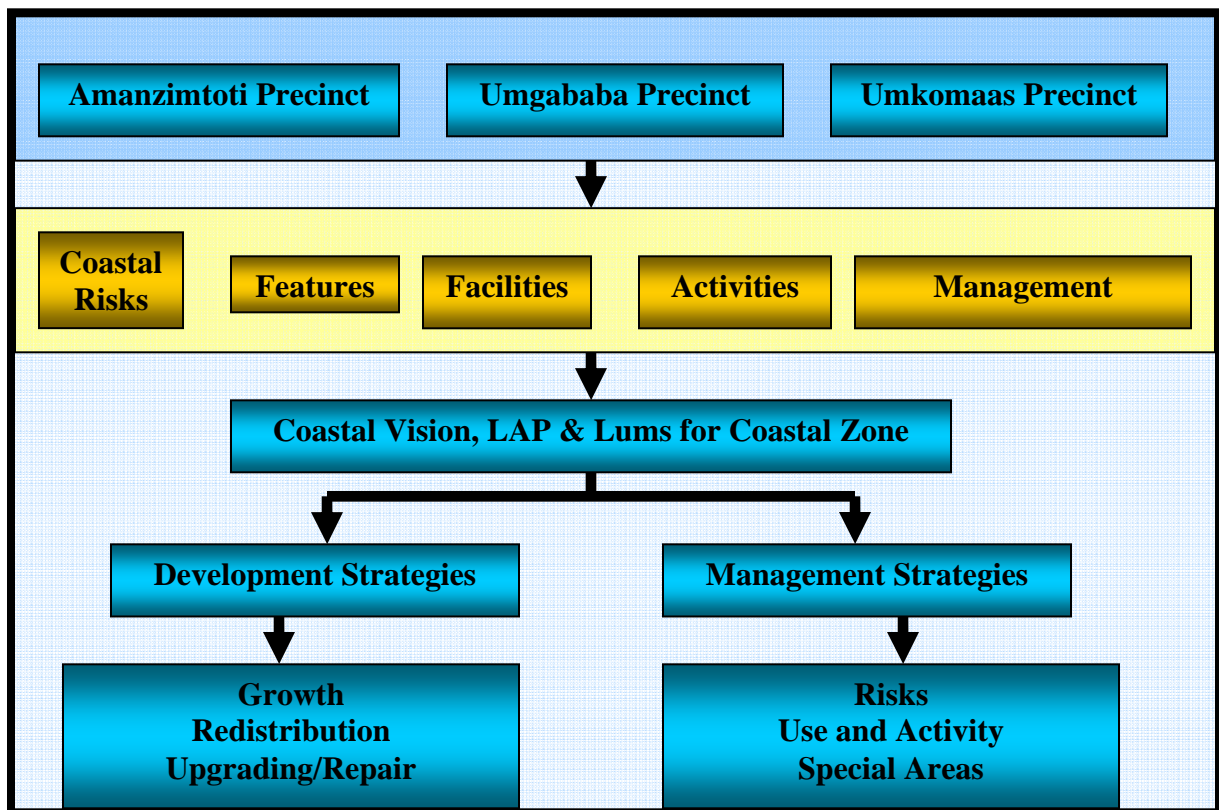


Figure 2.2: the Umgababa Coastal Management Plan Process

3 COASTAL MANAGEMENT PRECINCTS

Whilst Umgababa has traditionally served as a small rural centre servicing the surrounding tribal area, it has the potential to play the role of a more important rural investment node, that has mixed-use development, and that can also accommodate tourism development related to the strong historical and cultural heritage evident in the area. Due to its easy accessibility and high visibility, there is potential to

maximise and exploit existing subregional development opportunities. Another advantage is that parts of Amanzimtoti that fall within the study area are urban areas, similarly Umkomaas is more or less urbanized therefore one finds an interconnectivity between rural and urban society thus promoting diversity of the area.

The Umgababa Local Area is made up of three (3) distinct precincts, each with its own character, roles and potential. It therefore cannot be viewed as a single cohesive area, although the precincts share a common association with the coast or coastal features such as estuaries, which plays a significant part in defining their potential economic and social roles. Accordingly, it is important to ensure that the integrity of the coastal character and its high environmental quality is protected.

The study area does not possess capacity for mass coastal recreation facilities such as Durban's "Golden Mile", but it does provide opportunity for a range of more informal or natural coastal experiences. As such, its various beaches and natural assets must be managed in a manner that enables the general public to access these attributes and experiences without adversely impacting on the ecological systems or on the living environment of the communities already residing in the area. The three coastal precincts are: Amanzimtoti, Umgababa and Umkomaas. These are described in Table 3.1 and depicted in Figure 3.1.

Table 3.1: Description of Precincts of the Umgababa Local Area

Precinct	Description
Amanzimtoti	Bordered by the N2 to the west, the low water mark to the east, Amanzimtoti South to the north and Umgababa to the south.
Umgababa	Bordered by the N2 to the west, the low water mark to the east, Amanzimtoti to the north and Umkomaas to the south.
Umkomaas	Bordered by the N2 to the west, the low water mark to the east, Umgababa to the north and Umdoni to the south.

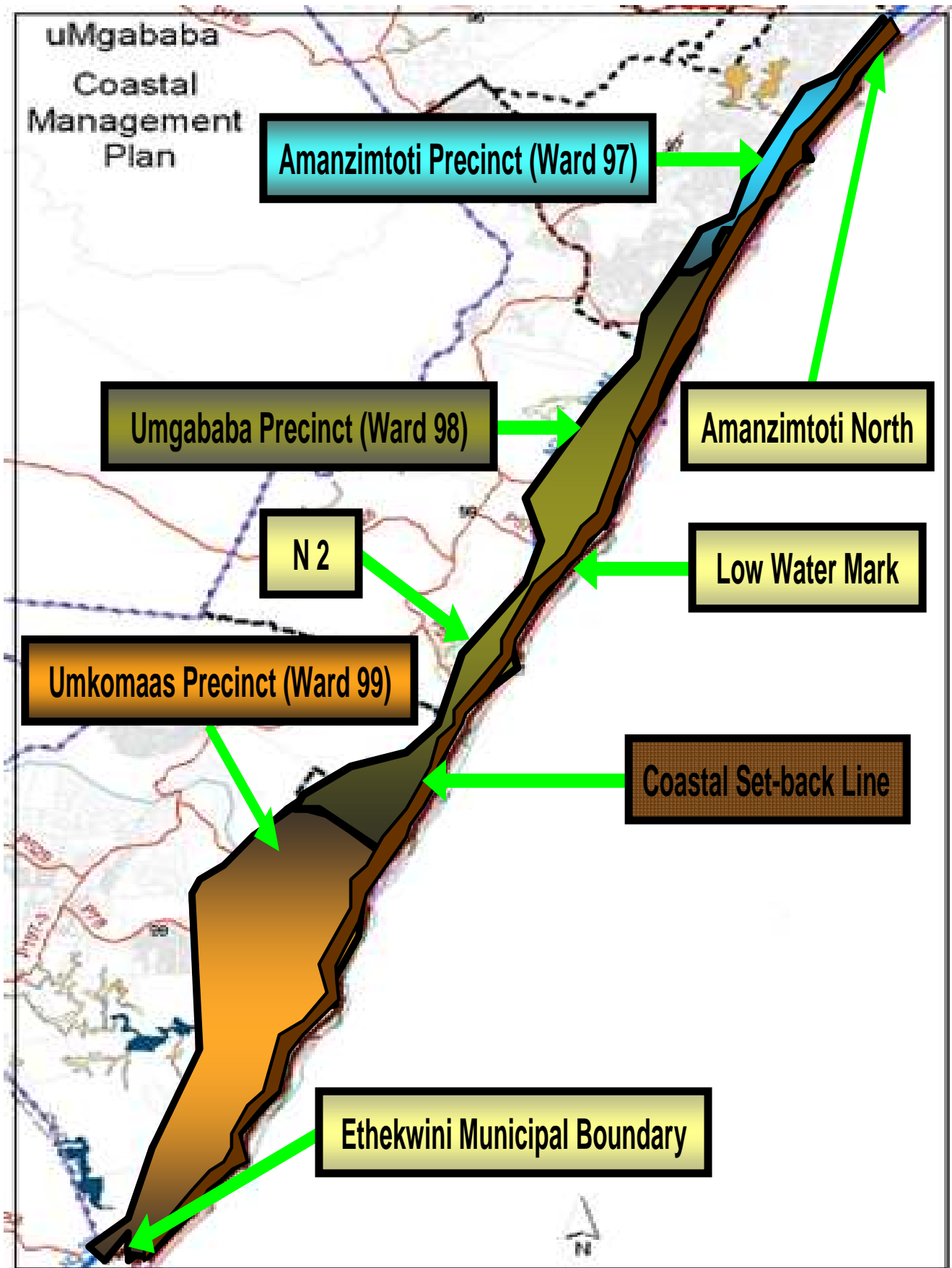


Figure 3.1: Umgababa Coastal Management Plan study area

Service availability is a critical component of every development and sustainable livelihood because it is a good measure of progress of an area and it helps determine the level of productivity of the area. Therefore for this plan it is also critical to analyse the service base of the area.

The refuse removal service is of critical importance as much of the waste disposed of by humans contain toxic substances and since these areas are in close proximity to the coast/sea these substances have great potential of being harmful to the sea as it can be transported or deposited through seepage flow and other forms of deposition/movement of garbage towards the coastal area. Furthermore with regards to the phenomena of pollution the absence of refuse removal services contributes largely to promoting both primary and secondary pollution. Therefore the huge backlog of this service needs to be addressed.

With regards to the toilet facilities there needs to be the provision of a proper sanitation system as lack of thereof poses a threat to the environment.

A vast amount of people source their energy from burning materials (e.g. candles, wood paraffin, coal etc). These energy sources are detrimental to the environment as they cause atmospheric pollution which in turn has an adverse effect on global warming and as well as directly impacting the immediate environment. Table 3.2 below tabulates the statistics of the population within the three wards of the study area utilising various forms of energy sources.

ENERGY SOURCE									
Description	WARD 97			WARD 98			WARD 99		
	Cooking	heating	Lighting	Cooking	Heating	Lighting	Cooking	Heating	Lighting
Electricity	6904	6811	7189	7747	7730	8313	4704	4770	5231
Gas	82	49	17	160	98	8	217	113	30
Paraffin	463	97	17	1235	541	79	1824	982	123
Wood	75	443	331	335	855	-	575	1061	-
Coal	6	12	13	18	44	12	30	107	19
Animal dung	7	4	10	29	26	10	39	15	11
Candles	-	-	331	-	-	1172	-	-	2032
Solar	22	14	-	42	11	-	35	9	-
Other	17	146	-	27	289	-	21	388	-
Not Applicable	0	0	-	0	0	-	0	0	-

Table 3.2: Energy sources utilised within each Precinct

4 KEY COASTAL RISKS

Coastal management is primarily about addressing potential risks and threats to coastal integrity and character in a way that will minimise negative impacts and maximise positive impacts and opportunities.

These risks and threats may either be inherent or introduced:-

- **Inherent:** directly associated with the fact that the coast forms the interface between two major biophysical systems: the land and the sea. For example coastal / beach erosion and sea level rise.
- **Introduced:** directly associated with human activities, built facilities, infrastructure or types of land /ocean use that have associated human or environmental risk. For example harvesting of marine resources and transportation routes through the coastal zone.

Levels and types of inherent risk may vary along the coastline, and over different time periods. For example, sea currents and land form determines where the coastline will be eroding or aggrading at any given time, and this will change throughout hundreds of years as a natural process.

Introduced risk may exist at a macro or micro scale, and thus needs to be managed at the relevant level.

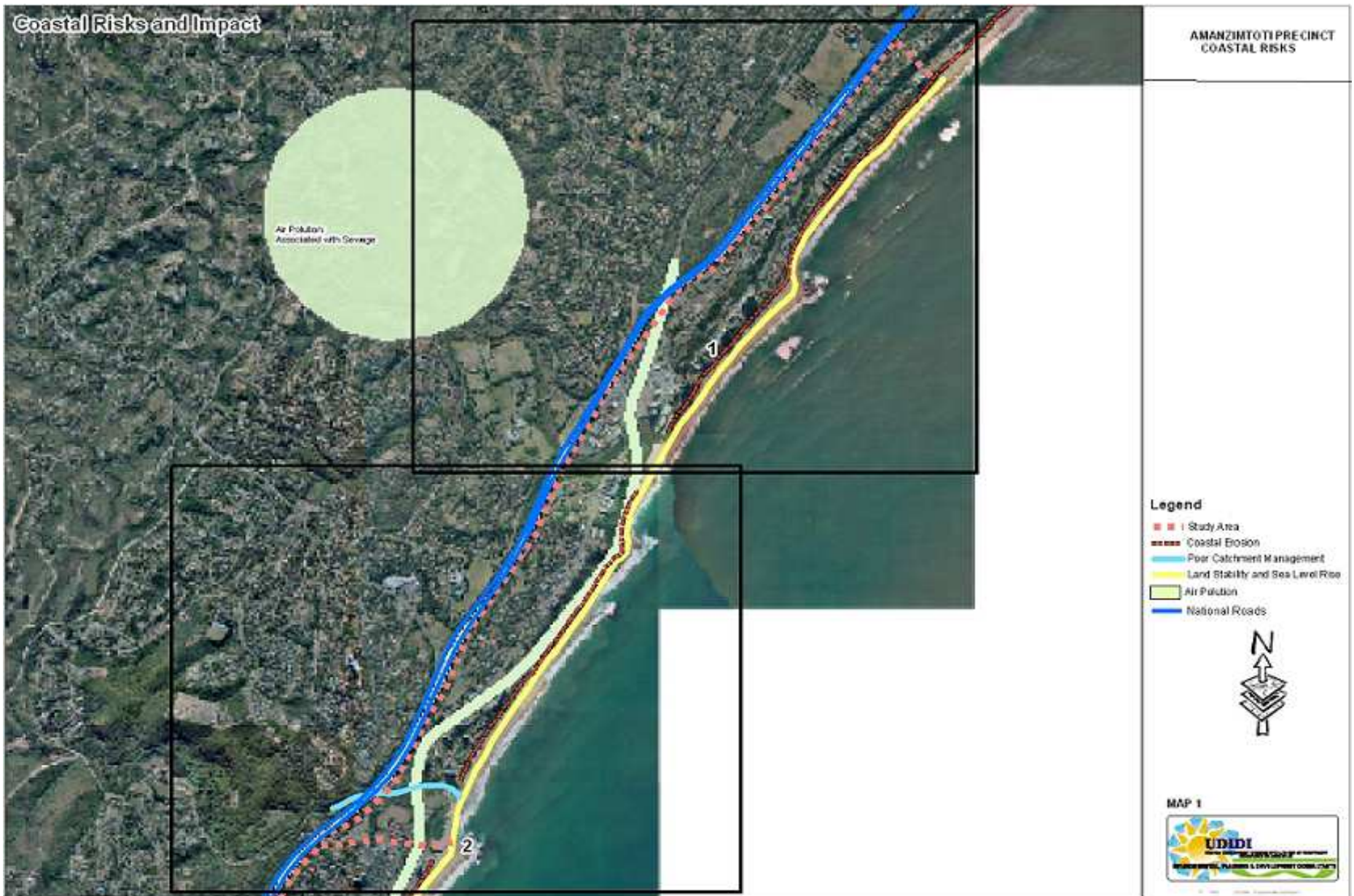
Table 4.1 summarises the main risks that may compromise the sustainability of coastal ecosystems, opportunities for future economic growth and / or the quality of life for human communities. They also provide a strategic summary of the detailed assessments undertaken for each precinct and which are contained in the appendices.

Table 4.1: Summary of the main risks that may compromise the sustainability of coastal ecosystems, opportunities for future economic growth and / or the quality of life for human communities

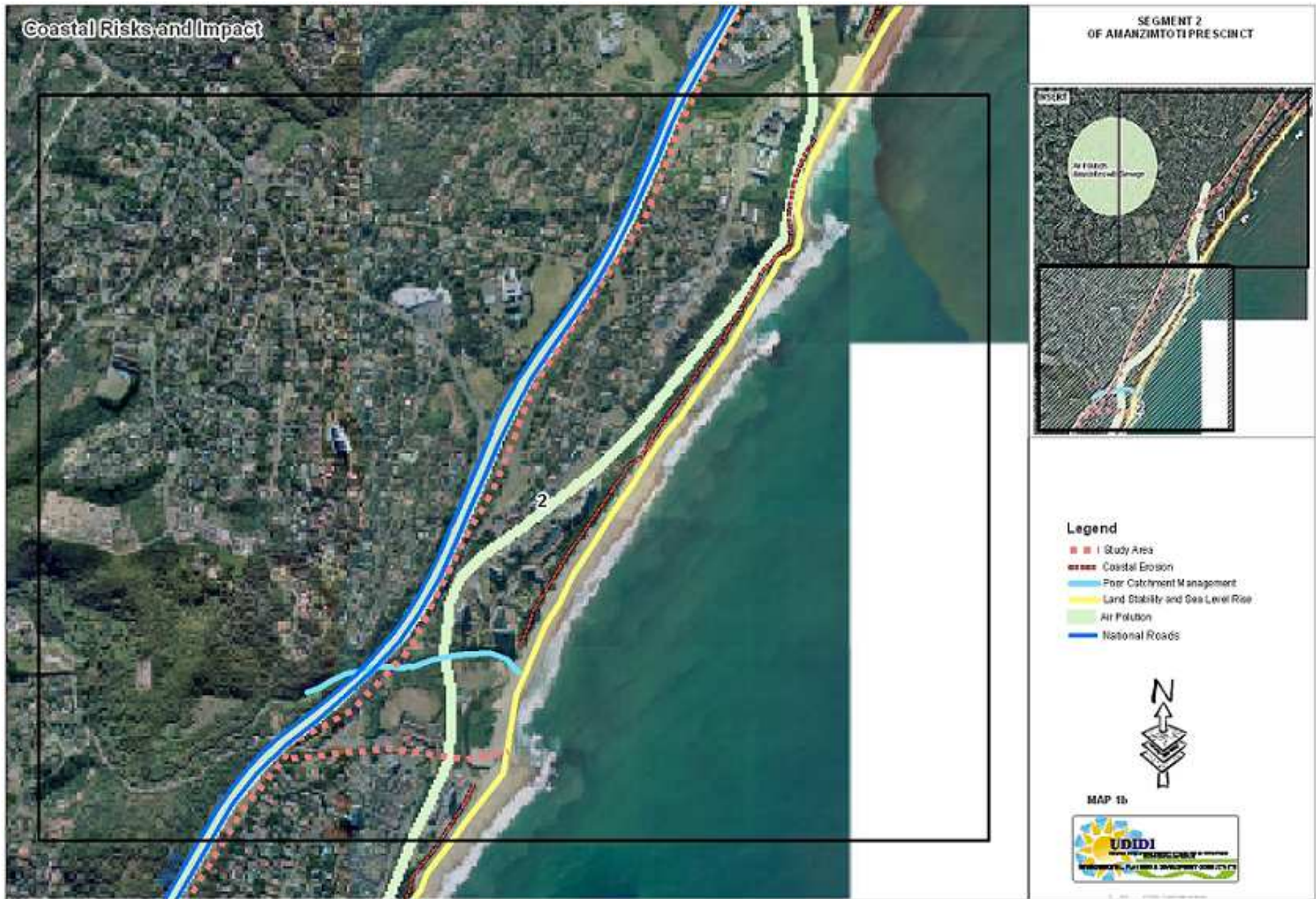
Inherent Risks	Precincts Affected	Specific Threats	Associated Primary Impacts	Associated Secondary Impacts
Sea Level Rise Associated with Global Climate Change	All Precincts	Land Sea interface estuaries / rivers	<ul style="list-style-type: none"> • Increased flood levels in estuaries/ rivers • Flood of low lying areas adjacent beach and estuaries/ rivers • Undercutting of dune system • Undercutting of beachfront facilities and infrastructure 	<ul style="list-style-type: none"> • Loss of facilities, infrastructure and economic investment in flooded / undercut areas. • Loss of development potential in areas at risk. • Change in recreational potential of beaches and estuaries with steepening beaches, eroding dunes and estuary banks. • Loss / damage to environmental assets / biodiversity refuges. • Environmental risk / pollution risk associated with flooding / damage to waste management and stormwater infrastructure.
Beach / Coastal Erosion (ongoing natural process, not specifically associated with sea level rise)	All precincts	Land-sea interface	<ul style="list-style-type: none"> • Undercutting of dune system • Undercutting of beachfront facilities and infrastructure 	<ul style="list-style-type: none"> • Loss of facilities, infrastructure and economic investment in undercut areas. • Ongoing costs of repair / stabilisation. • Environmental risk / pollution risk associated with damage to waste management and stormwater infrastructure. • Change in recreational potential of beaches with steepening beaches & eroding dunes.
Land Instability	All precincts	Primary, secondary & tertiary dune areas	<ul style="list-style-type: none"> • Dune blowouts • Slumps, slips and landslides 	<ul style="list-style-type: none"> • Ongoing costs to remove windblown sand or repair damaged infrastructure. • Environmental risk / pollution risk associated with damage to waste management and stormwater infrastructure. • Loss / damage to environmental assets / biodiversity refuges. • Limited development potential in areas at risk (economic and social impact).

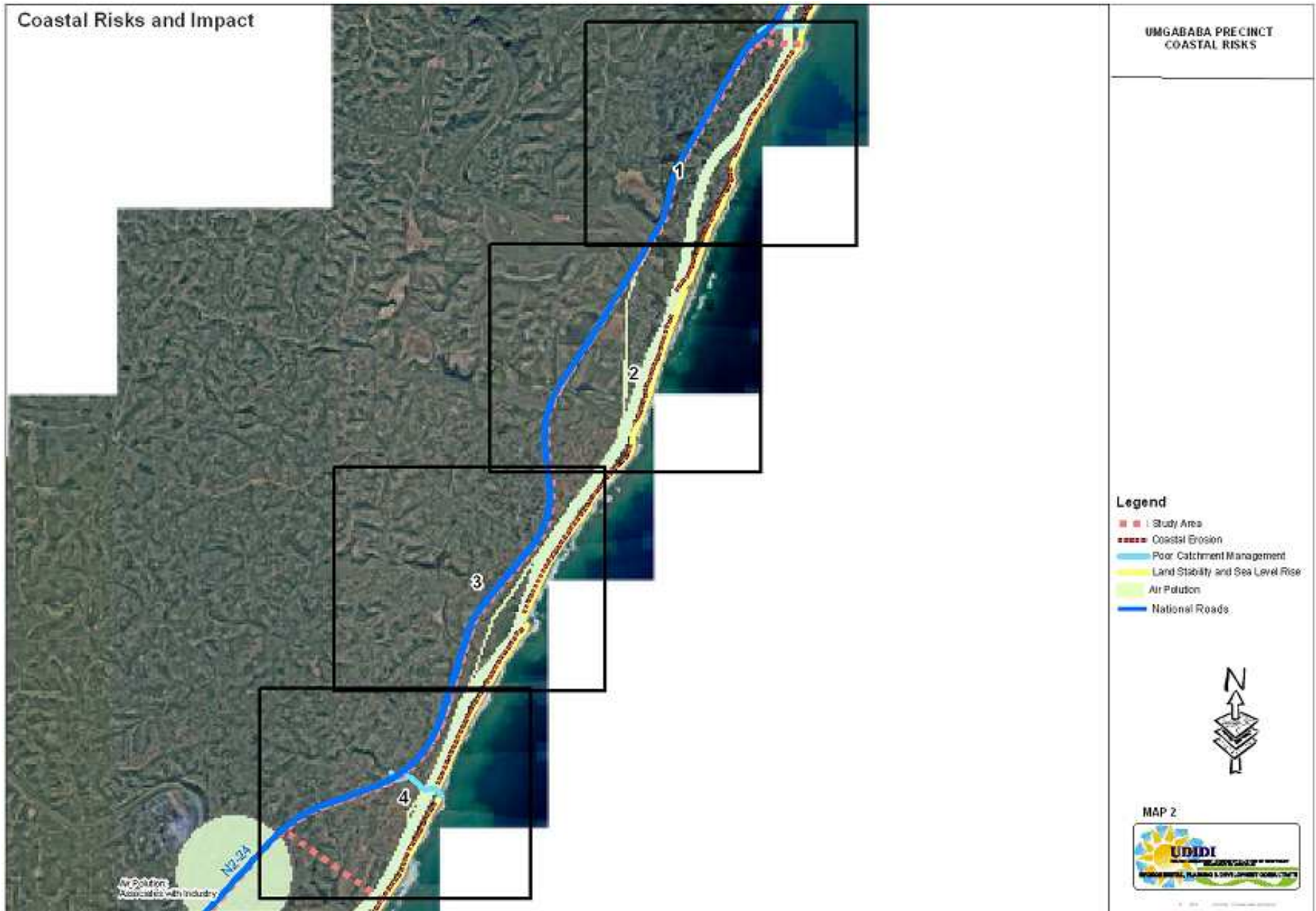
Inherent Risks	Precincts Affected	Specific Threats	Associated Primary Impacts	Associated Secondary Impacts
Poor / Lack of Catchment Management	Amanzimtoti South Umgababa	little Amanzimtoti River Ngane River	<ul style="list-style-type: none"> Uncontrolled and polluted runoff from upstream rural, urban and agricultural land uses into rivers, estuaries and near-shore Ocean. Detergent pollution (Detergents can be toxic to aquatic biota) 	<ul style="list-style-type: none"> Pollution of rivers, estuaries and the near-shore ocean causing reduced recreation value, visual amenity and increasing health risks. Reduction in productivity of riverine, estuarine and marine ecosystems. Increased flooding frequency and intensity, causing risk to coastal infrastructure and reduced estuary / beach / ocean quality.
Transport Routes: Rail and Road	All precincts	N2, R102, Railway	<ul style="list-style-type: none"> Spills from road accidents Air and noise pollution from roads and railways 	<ul style="list-style-type: none"> Health risks and reduced coastal amenity value (beaches, estuaries & ocean). Pollution of marine and estuarine ecosystems.
Sewage Transfer and Disposal (to groundwater, estuaries and sea).	All precincts	<ul style="list-style-type: none"> Wastewater pump stations Wastewater treatment works Residential areas serviced with soak ways 	<ul style="list-style-type: none"> Spills at beach / other sewage pump stations Discharge of sub-standard and / or nutrient-rich sewage effluent to estuaries, polluting surface water resources Odour and visual nuisance Pollution of groundwater resources by soak ways 	<ul style="list-style-type: none"> Localised pollution events with high health risks, reduced usability of water resources for recreation. Reduced recreation and residential amenity and opportunities. Pollution of and destruction of terrestrial and / or estuarine or marine ecosystems. Negative impacts on land values. Increased costs of servicing to protect environmental quality / ecological river reserves.
Human Access to Coastal Assets	All precincts	<ul style="list-style-type: none"> Residential Recreation Tourism Agriculture 	<ul style="list-style-type: none"> Uncontrolled development in the national coastal corridor Access to beach for recreation / events / tourism Uncontrolled marine resource harvesting 	<ul style="list-style-type: none"> Transformation or fragmentation of sensitive coastal ecosystems, introducing instability. Reduced biodiversity, ecological productivity and ecosystem service supply. Pollution of marine and coastal assets. Intrusion into visual quality of coastal area. Reduced recreational amenity. Reduced food supply.

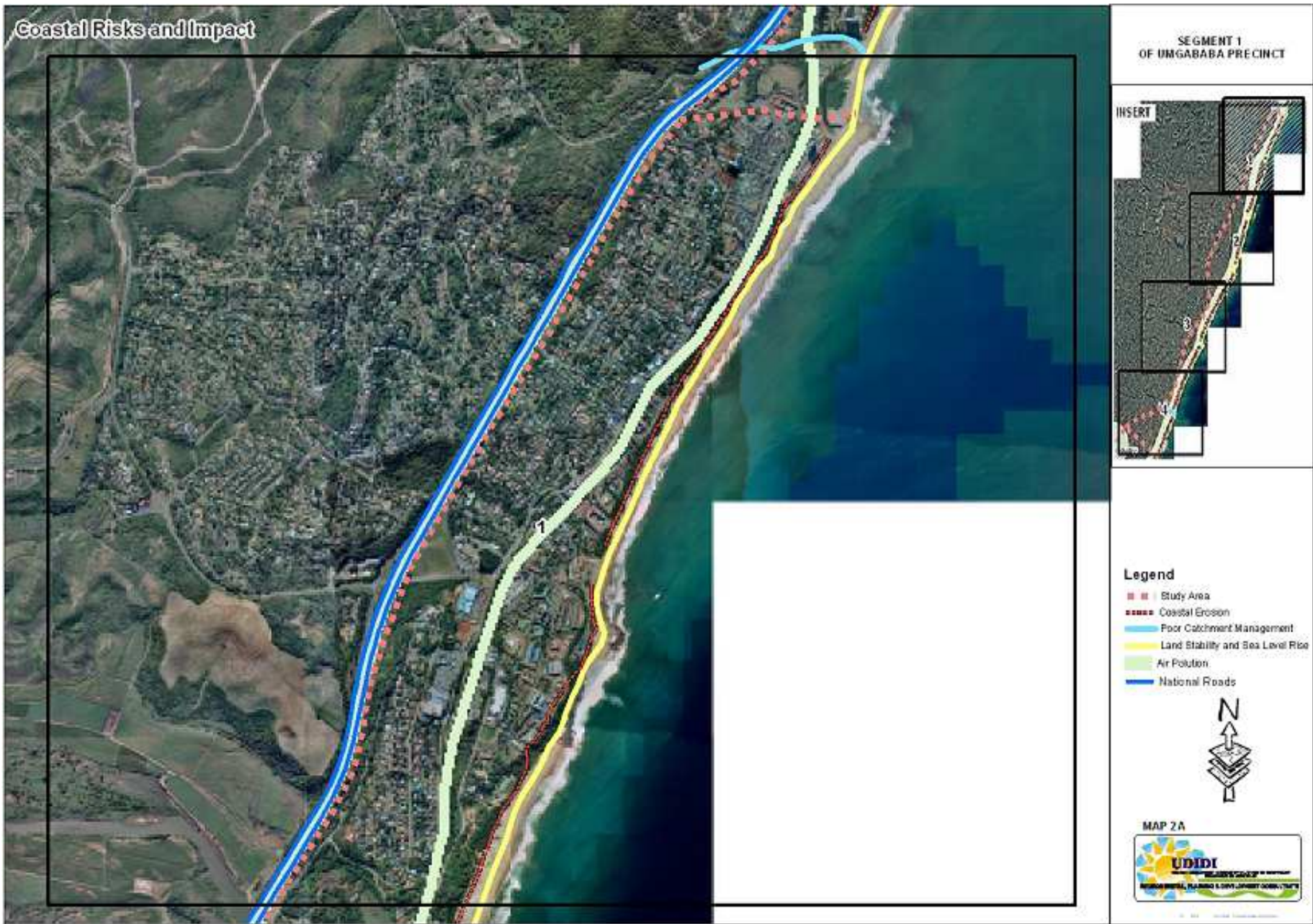
Inherent Risks	Precincts Affected	Specific Threats	Associated Primary Impacts	Associated Secondary Impacts
Industrial and Domestic Pollution	Umkomaas Umgababa	<ul style="list-style-type: none"> • SAPPI/SAICOR paper mill, (cooking) fires and sugar cane burning. • Landfill site • Solid waste disposal 	<ul style="list-style-type: none"> • SAPPI/SAICOR paper mill some 2 km's upstream from the Umkomaas river mouth to the south of the study area, contribute negatively to the air quality of the area. • Smoke caused by domestic (cooking) fires and sugar cane burning also contribute to air pollution along this section 	<ul style="list-style-type: none"> • Negative contribution towards the air quality. • Pollution and loss of recreational potential
Dredging Activity	Umgababa Umkomaas	<ul style="list-style-type: none"> • Bed and channel modification • Modification of natural flows below the Mnini Dam • Sand mining 	<ul style="list-style-type: none"> • Disturbance of Marine Eco System • Marine Pollution. • Loss of Environmental Services • Increased flooding • Bank destabilization • Migration barrier (due to Mnini Dam) • Loss of biodiversity • Damage to infrastructure • Degradation of riparian zones • Loss of ecosystem functioning 	
Uncontrolled Settlement	Umgababa	<ul style="list-style-type: none"> • Visual amenity • Health Risks 	<ul style="list-style-type: none"> • Uncontrolled generation of wastes, destruction of sensitive vegetation. • Intrusion into visual quality of coastal area 	<ul style="list-style-type: none"> • Impact of informal settlements on visual character and amenity of existing established residential areas.







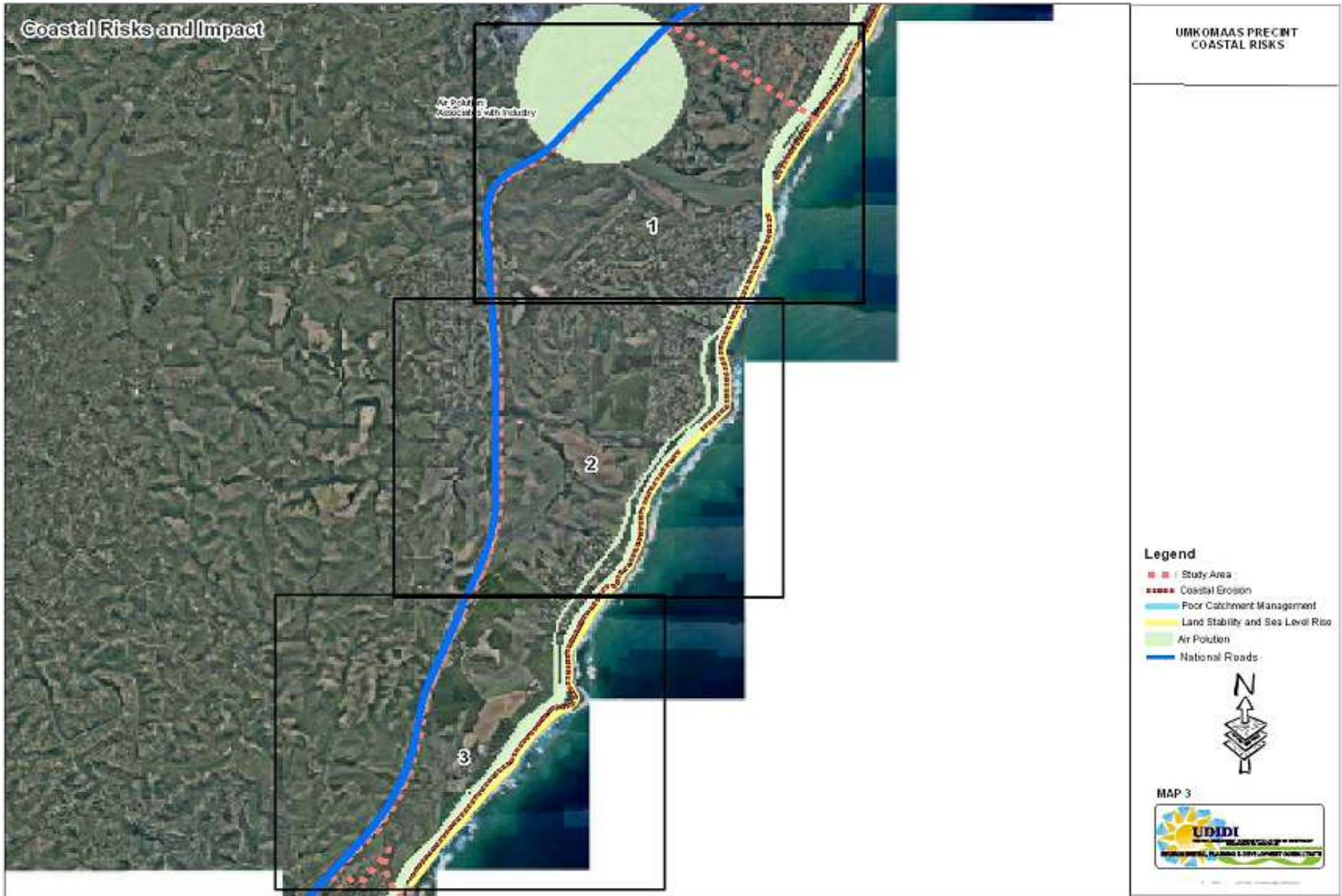


















5 ROLES OF THE COASTAL PRECINCTS

The Umgababa Local Area Plan has defined a set of roles for the three study area precincts.

These roles are an important factor in directing coastal planning and management. The roles clarify the significance of this section of coastline with respect to municipal economic, social or environmental objectives, and provide guidance with respect to the use of coastal resources. They also assist in the identification of priorities for action by various stakeholders and the levels of investment that would be appropriate in order to protect ecosystems and or enhance the value of the area for its users.

Table 5.1 below presents the mosaic of roles identified for the three coastal precincts of the Umgababa Local Area. These roles have been colour coded to reflect the importance of the various precincts as follows:




-  - Roles with International, National, Regional Significance
-  - Roles with Metropolitan Significance
-  - Roles with Local Significance

Table 5.1: Roles identified for the three coastal precincts

Roles	Precincts		
	1. Amanzimtoti	2. Umgababa	3. Umkomaas
STRATEGIC ROLES			
National Biodiversity Corridor	Coastal dune and the near shore ocean is a significant corridor important for sustaining national biodiversity.	Coastal dune and the near shore ocean is a significant corridor important for sustaining national biodiversity.	Coastal dune and the near shore ocean is a significant corridor important for sustaining national biodiversity.
National Key Installations			
Tourism	Beach, terrestrial areas and Accommodation	Beach, terrestrial areas and Accommodation Commercial Facilities, arts and craft/ Traditional assets.	Beach/ Aliwal Shoal/ Marine protected area and Accommodation Traditional Assets
ECONOMIC ROLES			
Economic Driver/Multiplier	Beach Nodes, Bed and Breakfasts along with small hotels are local economic generators.	Beach Nodes, Residential. Tourism development opportunity related to views, cultural, historical and arts and craft.	Beach Nodes, Golf Course, Residential, Commercial, Industry, Agriculture
Employment Generator	Coastal residential areas create limited number of domestic job opportunities.	Coastal residential areas create limited number of domestic job opportunities.	Coastal residential areas create limited number of domestic job opportunities.
Residential Land	Residential areas have high rates value as a result of sea	The area is largely traditionally owned	Residential areas have high rates value as a

Roles	Precincts		
	1. Amanzimtoti	2. Umgababa	3. Umkomaas
Value/Rates	views and coastal proximity.	therefore there are no rates charges.	result of sea views and coastal proximity.
SOCIAL			
Coastal Lifestyle	Residential areas have easy physical access to coastal recreation, coastal environmental experiences and excellent views of the ocean.	Residential areas have easy physical access to coastal recreation, coastal environmental experiences and excellent views of the ocean. The area also has opportunities for cultural, historical and heritage experiences enhance coastal lifestyle character.	Residential areas have easy physical access to coastal recreation, coastal environmental experiences and excellent views of the ocean.
Coastal Recreation	Coastal recreation takes place through out the area Also enhanced by the Boat / Marine slipway.	Recreational potential along the receiving coastline. The ability of hosting festivals at the Umgababa Beach.	Local coastal recreation opportunities related to dunes and beaches also enhanced by the scuba diving capacity (Aliwal Shoal).
Food Resources	Intensive and largely subsistence surf fishing takes places throughout the area.	Intensive and largely subsistence surf fishing takes places throughout the area.	Intensive and largely subsistence surf fishing takes places throughout the area.
Environmental Education		The diversity of coastal resources and rural character/ practices of the area supports/ provides an opportunity for environmental education	Clansthal provides an opportunity for environmental education for biodiversity and wildlife.
ENVIRONMENTAL SERVICES			
Land Stability	Land stability critical for residential areas and for metropolitan beach recreation facilities and infrastructure.	Land stability critical for residential areas and for metropolitan beach recreation facilities and infrastructure.	Land stability critical for residential areas and for metropolitan beach recreation facilities and infrastructure.
Ecosystem regeneration	The natural areas play a regional terrestrial/ marine /estuarine ecosystem regeneration role.	The natural areas play a regional terrestrial/ marine /estuarine ecosystem regeneration role.	The natural areas play a regional terrestrial/ marine /estuarine ecosystem regeneration role.
Waste Assimilation/ Dilution	Local storm water drainage relies on the waste assimilation ability of the sea. Important for water quality of	Local storm water drainage relies on the waste assimilation ability of the sea. Important for	Local storm water drainage relies on the waste assimilation ability of the sea. Important for

Roles	Precincts		
	1. Amanzimtoti	2. Umgababa	3. Umkomaas
	near shore ocean.	water quality of near shore ocean.	water quality of near shore ocean.
Air Pollution Dispersion	Local storm water drainage relies on the waste assimilation ability of the sea. Important for water quality of near shore ocean.	Local storm water drainage relies on the waste assimilation ability of the sea. Important for water quality of near shore ocean.	Local storm water drainage relies on the waste assimilation ability of the sea. Important for water quality of near shore ocean.
Climate Control	Natural assets and ocean regulate metropolitan climatic conditions	Natural assets and ocean regulate metropolitan climatic conditions	Natural assets and ocean regulate metropolitan climatic conditions
Sea Erosion Protection	Dune system provides land/sea barrier and protection for residential areas and associated infrastructure.	Dune system provides land/sea barrier and protection for residential areas and associated infrastructure.	Dune system provides land/sea barrier and protection for residential areas and associated infrastructure.
Visual Amenity	Outstanding Views of Ocean from residential areas.	Outstanding Views of Ocean and vegetation from residential areas.	Outstanding Views of Ocean and vegetation from residential areas.

6 COASTAL VISION

Within the context of development planning, the formulation of a vision should be seen as critical, as the vision provides a crucial link between the understanding of the existing situation and the potential way forward. The purpose of a vision is to articulate an ideal situation, to which an individual or group of individuals strive to achieve. The vision is an integral part of a coastal development plan, which is needed to guide and control development initiatives in an area.

Umgababa has been identified as a rural and local service centre, serving the local population of the central area of ward 98 and the Umgababa subarea of the Mnini tribal authority. The R102 and MR51 serve as important movement corridors within the area and the broader peri-urban periphery of the metropolitan area, connecting areas such as Kingsburgh, Magabeni, Umgababa to Umbumbulu, Folweni and other areas (north) west of the subregion. Whilst limited, the land uses and facilities along this road provide local residents with access to a range of opportunities, and has become an area where people learn and study, work and earn a living, as well as meet, socialise, catch taxis etc.

The Umgababa Local Area is situated in the Southern growth axis identified in the eThekweni Municipal IDP. It is also situated along a stretch of eThekweni’s best quality coastline. These factors place the area in a region that is likely to face heavy development pressure in the coming years.

The Study Area coast has a historical development / land use pattern that in some cases is not ideal thus there has been vivid evidence of detrimental aesthetic quality of the area (built and natural environment).

Development has fragmented the coastal dune cordon in many places and introduced instability and risk into the system. Stormwater and wastewater infrastructure installations have been situated on / close to

the beach, in the foredunes and in zones that may be at risk from sea level rise, beach erosion and land instability. Some of this infrastructure is old, inadequate and prone to failure. Access points onto the beach are in many cases not appropriately designed and managed, and are having an ongoing impact on coastal amenity, ecological stability as well as public and private investment.

The South African coastal zone provides numerous opportunities for investment and economic development due to its aesthetic appeal. This is true for the Umgababa coastal zone as well. In terms of the eThekweni SDF Amanzimtoti is identified as a mixed investment node and beach tourism node, Umgababa is identified as a rural investment node and beach tourism node and Umkomaas is identified as a beach tourism node. All these three areas are also identified as coastal corridors of which they all have national significance.

The area shares both rural (found mostly in Umgababa) and urban character and possess huge agricultural potential and use. Future development of this land can proactively secure, enhance and expand the natural assets that contribute to the creation of attractive coastal amenity and character, and supply critical ecosystem services to local residents and further afield.

The area has great potential for craft work which will promote and support tourism.

The vision for the Umgababa coast is to promote development and livelihood that is sustainable at the same time not compromising the rural nature of the area but integrating both the rural and urban nature of the area thus increasing opportunities that will be created by the interaction between the two natures that co exists.

Thus the vision of is to:

Maximise the opportunities existing within the rural and urban nature of the area;

Protect and preserve environmentally sensitive areas;

Maintain the coastal corridor stature of the area; and

Provide apposite services required in the area

6.1 Land use side and activity zoning

Figures 6.1, 6.2 and 6.3 below show the current land use for the three precincts and highlighting mainly the area along the coast in schematic form. While the CMP must respond to this in terms of managing current use / pressures on coastal resources, the LAP also identifies future development zones that will change the nature and intensity of these pressures. The CMP has therefore been designed to address these increased coastal management needs into the future. Please refer to the Umgababa LAP for future development nodes, transport corridors etc.

7 Coastal Management Interventions

This section of the CMP essentially focuses on the coastal management implementation strategy and programme. It also identifies specific coastal management projects and interventions. It will aim to identify priority interventions and projects to give effect to sustainable coastal management and development, as well as develop concept development proposals for priority interventions/ projects where required. This aspect of the project will focus on institutional, management and operational aspects related to the range of coastal facilities, features and activities in the coastal zone.

The CMP will form part of eThekweni Municipality's "package of plans", which essentially is a series of plans, starting from a more broad strategic level of plan, through the IDP's SDF and down to the lowest level of plan, which is the Land Use Scheme itself.

The CMP is a form of a Precinct Plan. The table below illustrates where and how the CMP fits into the broader picture.

Table 7.1: eThekweni Municipality's Package of Plans (Outer West SDP, 2005: 5)

Plan Type	Scope	Purpose
Long Term Development Framework	Strategic: Economic Social and Environmental Objectives	Strategic Development Direction for the City
IDP	Strategic: Operational Implementation	Strategic Implementation Direction and Imperatives for the Municipality
Spatial Development Framework	Strategic: Spatial Development	Strategic Spatial Development Intentions for the City based on the LTDF and IDP
Spatial Development Plan	Strategic: Spatial Development	Translation of Spatial Development Intentions into Land Use, Transport, Environmental, Infrastructure implications Broad based Land Use Directives to guide Local Area Planning and LUMS, Bulk Infrastructure and Transportation Planning Directives for the Municipality
Local Area Plan (and CMP)	Detailed Physical Plan	Detailed Physical Planning Directives for the City and the Municipality Refining Land Use, Transport, Environment, Infrastructure to a level that informs the preparation of a Land Use Scheme. Also includes Urban Design Directives for Public and Privately owned Land. May include implementation proposals
Precinct Plan / Special Area Plan	Detailed Physical Plan for special areas	Detailed Physical Planning Directives for the City and the Municipality for areas with special environmental, economic, heritage etc characteristics. Detailed Urban Design Directives and / or Proposals. May include implementation proposals
Land Use Scheme	Zoning and Development Control Regulations	Detailed Land Use Management Tool for the Municipality and Allocation of Potential Development Rights to private and publicly owned land.

The limits to development at the sub regional level should not be imposed in a top-down fashion but rather should be managed through a framework that responds to a limit of acceptable change and demand which is demand-driven from the local level. There is however, a need for an overarching structure that mediates in order to achieve economies of scale and an equitable spread of benefits and

costs. In aiming to achieve a balance of built, natural and conservation environments in the coastal zone across the DMA, effort must be put into also achieving a balance within each CMP area.

Monitoring of new opportunities and pressures on the development framework, including the consideration of a reclassification of development zone status, within the CTD, and the introduction of new more appropriate development zones in the traditional areas of the study area, is considered to be necessary in the future.

Effective coastal management will need to occur at both strategic and operational levels, and will require the repair, upgrading and / or development and / or redevelopment of public and private facilities and infrastructure.

Strategic management actions and / or programmes will need to be initiated, or reviewed where already in place, and regularly monitored to ensure implementation. The eThekweni Municipality will be the key institution responsible for ensuring that management programmes are drawn up and implemented (i.e. monitoring the implementation of the programme by the respective agency).

7.1 Strategic Management Programmes

7.1.1 eThekweni (Durban) Metro Shore Management Plan

Title	eThekweni (Durban) Metro Shore Management Plan
Description	A Shoreline Management Plan (SMP) sets out to produce sustainable policies for the coastal defence of our shoreline, taking into account natural coastal processes and issues relating to the environment and human needs.
Strategic Nature	<p>The Shoreline Management Plan will focus and provide four principal policy options for consideration at management unit level.</p> <p>These options relate to the movement of the shoreline and are listed as follows:</p> <ol style="list-style-type: none"> 1. Do nothing 2. Hold the existing line 3. Advance the existing line 4. Retreat <p>This will provide the strategic framework in which all coastal structures and sea defences are evaluated. Currently an ad hoc approach to coastal structures is unsatisfactory. This plan will provide the layperson and the authorities with a clear framework to work within.</p>
Additional Detail	<p>Shoreline Management Plans are undertaken by coastal engineering groups. They are prepared by gathering information and consulting with a wide range of stakeholders/parties. The plan can be divided into stages, with public consultation taking place at these various stages.</p> <p>Specialist studies and monitoring of the shoreline is an essential ongoing element of the SMP. It is a living document and will require reviews.</p>

7.1.2 Catchment Management Plan (CMNP)

Title	Catchment Management Plan (CMNP)
Description	This CMNP will aim to set up a system of procedures, stakeholder interactions and support to prevent/minimize catchment based impacts generated outside the coastal zone from occurring in the coastal zone.
Strategic Nature	<p>Plan will focus on:</p> <ul style="list-style-type: none"> • Identifying sources and extent of existing and potential impacts, Identifying indicators of extent and or improvement of impact effects, Identifying preventative measures to impacts • Notifying respective stakeholders and/or taking appropriate legal action to ensure

	<p>compliance with acceptable impact management standards.</p> <ul style="list-style-type: none"> Facilitating proactive, coordinated, remedial actions through regular interaction between stakeholders Ensuring that infrastructure, facilities, equipment and procedures are in place to prevent potential impacts from occurring. Ensuring an effective system for monitoring, recording and responding to incidents. Identification and allocation of funds to give effect to the plan
Additional Detail	<p>Plans will be initiated by municipality and will necessitate involvement of all catchment stakeholders on an ongoing basis. Nature of activity in the Umgababa requires continual monitoring and continual remedial action.</p> <p>This local level initiative needs to be linked to broader scaled catchment planning and management initiatives and programmes in the municipality and / or province.</p>

7.1.3 Estuary Management Plans (EMPs)

Title	Estuary Management Plans (EMPs)
Description	Estuary Management Plans will aim to set up a system of initiatives, procedures, stakeholder interactions and support to promote estuary functioning that supports the identified roles of the estuary.
Strategic Nature	<p>Plan will focus on:</p> <ul style="list-style-type: none"> Identifying the key roles of the estuary (eg tourism, recreation, pollution assimilation, conservation etc). Ensuring that infrastructure, facilities, equipment and procedures are in place to support the identified roles of the estuary. Identifying sources and extent of existing and potential impacts that interfere with the identified roles of the estuary and identifying appropriate preventative measures. Facilitating proactive, coordinated, remedial actions through regular interaction between stakeholders in support of the identified roles of the estuary. Ensuring an effective system for monitoring and evaluation of the performance of the estuary in relation to the identified roles of the estuary. Identification and allocation of funds to give effect to the plan.
Additional Detail	Plans will be initiated by municipality and will necessitate involvement of all estuary stakeholders in order to define the key roles of the estuary and ensure that competing roles are not identified (e.g. a waste assimilation role generally conflicts with a recreational role because of human health concerns). Stakeholders need to have a clear understanding of the implications of the identified roles of the estuary for their activities in the area. Plans should allocate responsibilities across a range of stakeholder groups who have an interest in the estuary. Estuary management planning needs to be linked to broader scaled catchment planning.

7.1.4 Safety and Security Plan (SSP)

Title	Safety and Security Plan (SSP)
Description	SSP will aim to establish a local environment character that will lead to the reduction in incidents of crime, public disorder, vandalism and environmental degradation in coastal precincts.
Strategic Nature	<p>Plan will focus on :</p> <ul style="list-style-type: none"> Identification of nature, extent and spatial distribution of crime, disorder and environmental degradation. Identification of causes of incidents in terms of infrastructure, facilities, access and management Identification of resources for combating crime Facilitation of coordinated / integrated approach to identification/reporting/monitoring and response to incidents Improvement of, upgrading of, addition of infrastructure and facilities to eliminate incidents.

	<ul style="list-style-type: none"> • Identification of areas where local initiatives can support wider municipal efforts at crime eradication. • Identification and allocation of funds to give effect to the plan
Additional Detail	<p>Plan will be initiated by municipality and will necessitate involvement of all precinct / Umgababa stakeholders on an ongoing basis.</p> <p>The nature of this issue is such that these local initiatives will need to support strategic municipal wide initiatives, programmes and resources relating to root causes crime i.e. employment, education, welfare support etc.</p>

7.1.5 Waster Water Treatment Works Management Plan (WWTWMP)

Title	Waster Water Treatment Works Management Plan (WWTWMP)
Description	The WWTWMP will aim to prevent day to day impacts of the works and avert disasters related to the operation of the WWTW.
Strategic Nature	<p>The plan will focus on:</p> <ul style="list-style-type: none"> • Identification of day to day impacts and potential weaknesses in the current operational characteristics and infrastructure of the WWTW with respect to the causes of potential disasters. • Monitoring of day to day conditions in terms of identified standards. • Ensuring that infrastructure, facilities and equipment and procedures are maintained at prescribed operating levels. • Ensuring that emergency backup support ito of facilities, infrastructure, equipment and manpower is in place during operation of the terminal. • Identification and allocation of funds to give effect to the plan
Additional Detail	This plan will be undertaken by the Municipality in collaboration with authorities responsible for monitoring marine pollution

7.1.6 Landslip Management Plan (LSMP)

Title	Landslip Management Plan (LSMP)
Description	The LSMP should aim to prevent or avert hazards to human life and damage to property as a result of land slip associated with the dune system
Strategic Nature	<p>The plan will focus on:</p> <ul style="list-style-type: none"> • Identify category of land slip danger areas • Alert respective property owners of potential dangers • Prepare protection responses that can be initiated • Communicate response options to land owners • Prepare management plan for landslip eventuality
Additional Detail	Plan should be prepared in close cooperation with affected land owners

7.1.7 Beach Node Management Plans (BNMP)

Title	Beach Node Management Plans (BNMP)
Description	The BNMP's should aim to ensure that beach nodes are able to accommodate a range of events and that they generate a sense of pride and dignity within the community.
Strategic Nature	<p>The plan will focus on:</p> <ul style="list-style-type: none"> • The provision of appropriate levels of infrastructure and facilities to serve local needs. • The identification of sustainable building form and materials that will withstand coastal conditions and "wear and tear". • The provision of sufficient levels of human and financial resources to ensure proper operation of the nodes, user safety and facility maintenance. • Identification and allocation of funds to give effect to the plan.

Additional Detail	This plan should be prepared through inclusive process involving communities of the south of Durban
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7.1.8 Coastal Water Pollution Management Plan

Title	Beach Node Management Plans (BNMP)
Description	The CWMP should aim to manage coastal water pollution to ensure human and environmental health.
Strategic Nature	<ul style="list-style-type: none"> • In co-operation with stakeholder define acceptable levels of coastal pollution • Identify all point and diffuse sources of coastal water pollution • Monitor the levels of coastal water pollution in a variety of locations (both close to the beach and in the deep coastal waters) • Monitor the levels of pollution in fish and seafood species that are harvested from the area • Prevent, manage and control pollution activities that are shown to be harmful to human and environmental health • If necessary identify no-go zones (where swimming and harvesting of food should not take place)
Additional Detail	The Coastal Water Pollution Management Plan would need to be implemented in close association with a wide variety of stakeholder groups in order to management both the legal and illegal forms of pollution of the coastal waters.

7.1.9 Housing Plan

Title	Housing Plan (HP)
Description	The HP should aim to manage housing development to meet the growing needs of the area and ensure sustainable development of the coastal asset.
Strategic Nature	<ul style="list-style-type: none"> • Define housing density levels • Identify areas no development areas, where development will interfere with the identified coastal roles of the relevant precinct • Identify appropriate forms of development for different development areas • Identify Informal Settlements that require relocation • Development an informal settlement relocation strategy
Additional Detail	The Housing Plan should be development and implemented in close association with local stakeholders. The Housing Plan should be implemented in conjunction with the Skyline and Landscape Strategy (SLS).

7.1.10 Coastal Park Management Plan

Title	Coastal Park Management Plan
Description	This plan should aim to ensure that the park is established and that correct management procedures are identified for the various components of the park.
Strategic Nature	<ul style="list-style-type: none"> • Define boundaries of Coastal Park. • Identify ownership of land within the proposed park. • Obtain buy in of landowners to the concept of park • Identify habitats and current status ito legislation (e.g.wetlands, grasslands, shoreline) • Identify environmental services delivery and associated value • Confirm current management practices by owners / custodians • Identify list of affected stakeholders and possible management resources • Create inventory of infrastructure and facilities • Investigate and initiate appropriate rezoning of all land within park • Identify use zones for the various precincts of the park • Identification and allocation of funds to give effect to the recommendations plan
Additional Detail	The establishment of the park should be led by the Municipality and in close cooperation with all land owners and existing and potential users.

7.2 Application of Management Guidelines to Coastal Precincts

7.2.1 Amanzimtoti Precinct

Project Phase	Aspect	Response
Assessment Summary	Key Issues	<ul style="list-style-type: none"> • Catchment issues: water quality, accelerated flooding & high silt loads caused by upstream land uses; discharge of treated wastewater effluent from WWTW at head of estuary impacting on estuary quality, ecology & recreational potential. • Accelerated stormwater run-off & soil erosion from agriculture, future development. • Limited available capacity for additional effluent discharge into estuary as a result of ecological reserve requirements (future development limitation). • Limited and fragmented natural asset – needs to be expanded, enhanced & rehabilitated. • High value agricultural land under pressure for further development. • Noise & air pollution associated with N2, the old main road and railway line.
	Risks	<ul style="list-style-type: none"> • Spills / release of substandard effluent from Amanzimtoti WWTW causing human health risks & ecological impacts, reduced recreational amenity. • Spills at N2 and railway causing ecological impacts to estuary. • Aquatic & terrestrial weed invasions. • Detergent pollution • Solid waste disposal • Siltation / disturbance of estuarine structure or function as a result of catchment land uses / disasters. • Sea level rise causing increased flood levels along estuary frontage.
Coastal Use Vision	Roles	<ul style="list-style-type: none"> • Leisure & entertainment – generating employment & tourism attraction. • Residential & hospitality • Coastal lifestyle opportunities: residential & leisure. • Coastal recreation: estuary and forests. • Environmental education associated with estuary and forests. • Estuarine and marine regeneration. • Wetlands and estuary perform waste assimilation and dilution services. • Estuary & forest areas part of national coastal corridor.
	Use / Activity Guidelines	<ul style="list-style-type: none"> • Control development set-backs from estuary that consider future sea level rise implications & need to protect access to estuary for recreation. • Control development set-backs from wetlands to extend & enhance natural asset base throughout the precinct. • All development to include stormwater detention and stormwater quality management to protect estuary. • Control detergent pollution • Protect forests from development, with appropriate development buffers. • Control use of estuary for recreation: no jetties or reclamation; no motorised craft.

	<ul style="list-style-type: none"> • rubbish removal / waste infrastructure upgrade • storm water management upgrades and repairs 		
Coastal Development and Management Responses	DEVELOPMENT RESPONSES (Key Development Projects / Programmes)		Responsibility
	Wetlands rehabilitation programme to be implemented as part of development roll-out in the precinct.		Landowners / developers
	Establish formalised pedestrian beach access system through forest & dune cordon at Peace Cottage during development of this area.		Landowner / developer
	Implement visual amenity improvement project along Amanzimtoti beaches with planting / artificial dune creation, with priority given to areas where foredunes.		EM (Parks)
	Implement additional / failsafe measures to prevent spillage of sewage from pumpstations to beaches.		EM (Wastewater Management)
	Wetland and forests rehabilitation programme to be implemented as part of development roll-out in the precinct.		Landowners / developers
	Upgrading and repairing storm water systems and the WWW		
	STRATEGIC MANAGEMENT (Urgent and or long term management interventions/actions)		Responsibility
	Investigate sustainable sewage management alternatives for coastal zone that minimise risk of sewage spills & discharge of substandard effluent to coastal zone.		EM (Catchment Management; Wastewater Management; Environmental Management)
	Review / Prepare Sewage Pumpstation Spill Response Plan.		EM (Wastewater Management)
	Investigate alternative / best possible stormwater pipeline / discharge design for beach areas.		EM (Stormwater Management)
	Prepare Strategy for Shoreline Protection.		EM (Drainage & Coastal Engineering; Catchment Management; Parks; Environmental Management)
	Prepare Maintenance Plan for Beach Node Facilities.		EM (Parks)
	Prepare Peak Period Beach Node Management Plans, including provision of parking inland of beach corridor with shuttle service to beaches at peak periods.		EM (Parks)
	Prepare Safety and Security Strategy for Beach Nodes & Corridors.		EM (Metropolitan Police)
	Leverage operational management funding from Working for the Coast for beach clean-up, dune rehabilitation projects, projects to address visual impacts of retaining walls & stormwater outfalls.		EM (Catchment Management, Project Management Unit)
	Prepare Estuary Management Plans for Amanzimtoti estuaries to include: <ul style="list-style-type: none"> • Monitoring of estuary health • Alien plant control programme. • Fire / burning management programme on floodplains. • Recreational use of estuary (no motorised craft, fishing bag limits). • Disaster management plan for spills on N2, R102 and railway that may affect estuary. 		EM (Environment Management; Catchment Management); EKZN Wildlife; DAEA MCM

	<ul style="list-style-type: none"> • Links to Catchment Management Plan (controlling upstream impacts). • Links to upstream Wastewater Treatment Works Disaster Management Plan & Monitoring Programmes. 	
	OPERATIONAL MANAGEMENT (Day to day management activities)	Responsibility
	Alien plant (aquatic & terrestrial) eradication	EM (Parks); Conservancies
	Monitor stormwater discharge to determine appropriate mitigation should impacts arise.	EM (Metro Water Services, Stormwater Management); Landowners
	Community education on river pollution and related health risks	
	Enforcement of national regulations & local bye laws relating to beach driving, littering, vandalism, public disorder, and maintain crime free safe environment for visitors & residents.	EM (Parks; Metro Police)
	Provide and maintain litter bins & public furniture along Beach Road walkway.	EM (Parks)
	Monitor uncontrolled access through dune cordon.	EM (Parks)
	Maintain dune walkways / boardwalks for managed beach access.	EM (Parks)
	Maintain pedestrian pathway along Beach Road walkway.	EM (Parks, Roads)
	Monitor cutting of dune vegetation for views.	EM (Parks)
	Monitor quality of effluent from storm water outfalls.	EM (DMWS: Pollution Control)
	Provide & maintain safety & informational signage along beach promenade & natural asset areas used for recreation.	EM (Parks)
	Maintain firebreaks around forests.	Landowners
	Manage agricultural land for minimised soil erosion / agricultural pollution.	Landowners
	Implement and regularly review Sewage Pumpstation Spill Response Plan.	EM (Wastewater Management)
Monitor harvesting of marine resources.	EKZNW / EM (Parks)	
Provide safe swimming areas and rescue services at all main beaches.	EM (Parks)	





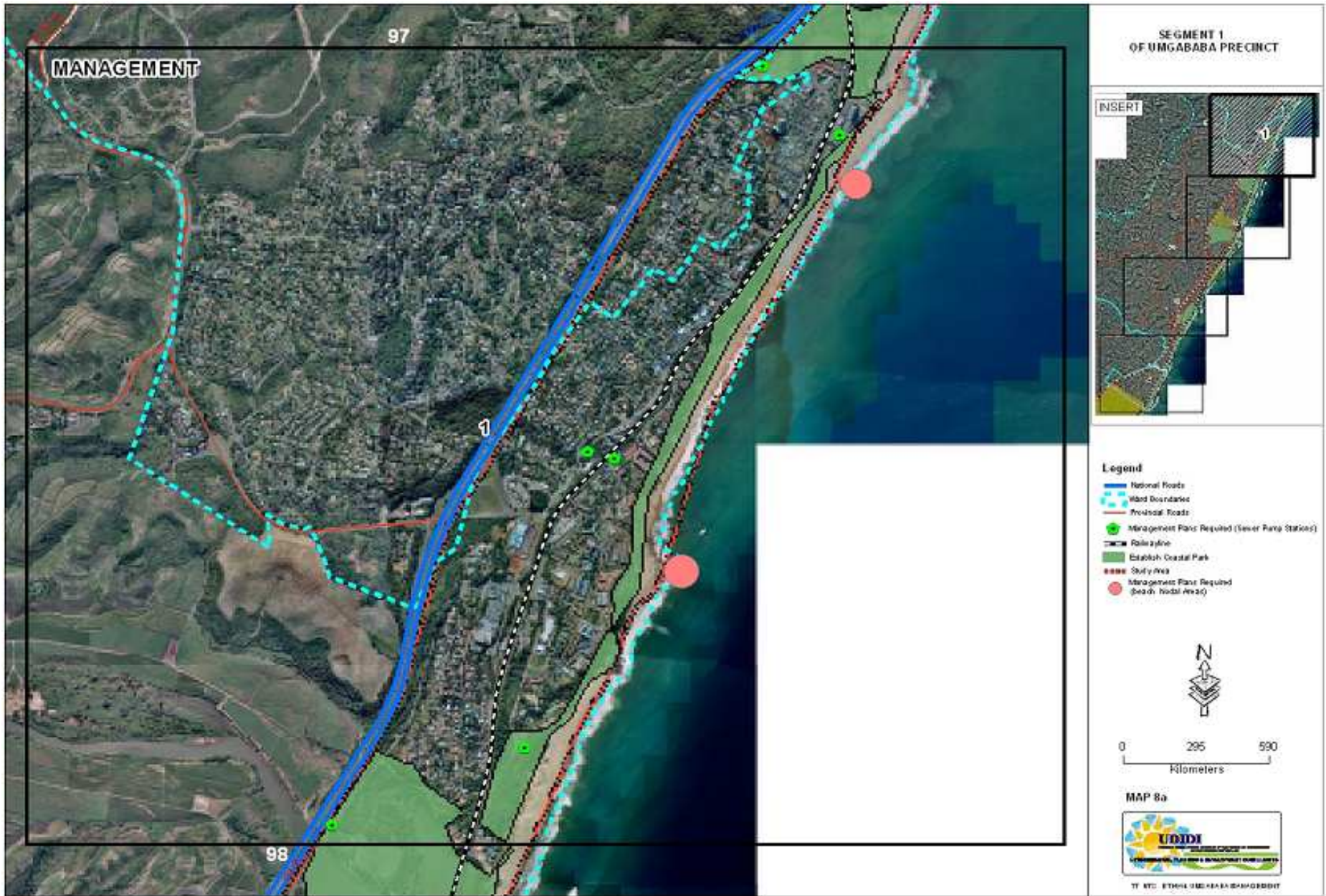


7.2.2 Umgababa Precinct

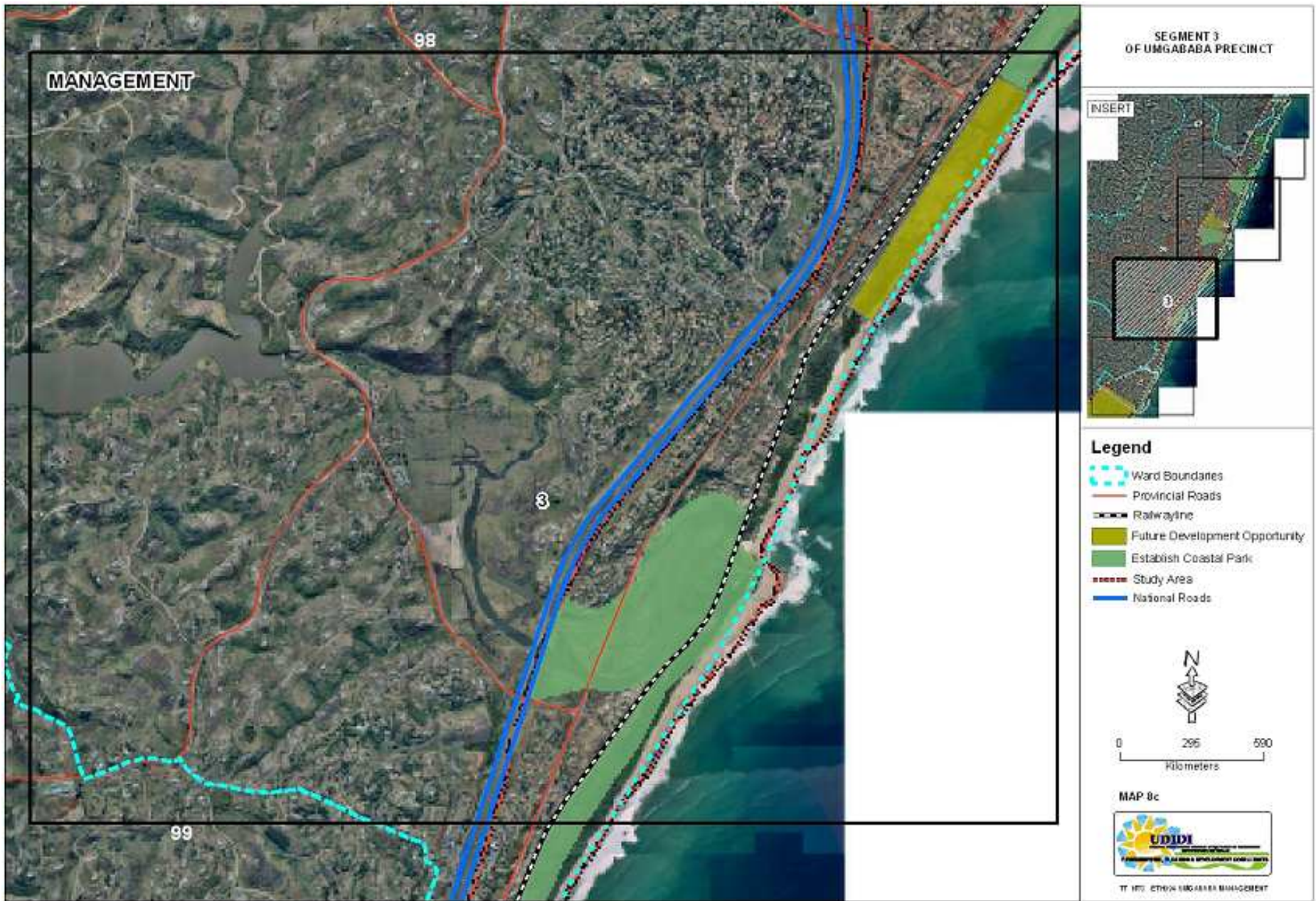
Project Phase	Aspect	Response
<p>Assessment Summary</p>	<p>Key Issues</p>	<ul style="list-style-type: none"> • Catchment issues: water quality, accelerated flooding & high silt loads caused by upstream land uses; discharge of treated wastewater effluent from WWTW at head of estuary impacting on estuary quality, ecology & recreational potential. • Accelerated stormwater run-off & soil erosion from agriculture, future development, causing impacts on Ngane estuary. • Limited available capacity for additional effluent discharge into estuary as a result of ecological reserve requirements (future development limitation). • Limited and fragmented natural asset – needs to be expanded, enhanced & rehabilitated. • High value agricultural land under pressure for further development. • Noise & air pollution associated with N2, R102 and railway line.
	<p>Risks</p>	<ul style="list-style-type: none"> • Spills at N2, R102 causing ecological impacts to estuary. • Aquatic & terrestrial weed invasions. • Uncontrolled fire associated with sugar cane. • Riparian destruction. • Siltation / disturbance of estuarine structure or function as a result of catchment land uses / disasters. • Sea level rise causing increased flood levels along estuary frontage. • Modification of natural flows below the Mnini Dam
<p>Coastal Use Vision</p>	<p>Roles</p>	<ul style="list-style-type: none"> • Significant leisure & entertainment node – generating employment & tourism attraction. • Residential & hospitality associated with Umnini Node. • Coastal lifestyle opportunities: residential & leisure. • Coastal recreation: estuary and forests. • Environmental education associated with estuary and forests. • Estuarine and marine regeneration. • Wetlands and estuary perform waste assimilation and dilution services. • Estuary & forest areas part of national coastal corridor.
	<p>Use / Activity Guidelines</p>	<ul style="list-style-type: none"> • Design in harmony with aesthetic, cultural and biophysical values • Maintain a balance between built, rural and wilderness areas. • Promote opportunities for tourism and recreation. • Traditional resource use practices and cultural activities shall, where appropriate, be protected against the adverse impact of modern practices. • Clearance of indigenous coastal vegetation shall be strictly controlled and minimised. • Provision of urban services shall avoid negative impacts on coastal ecosystems. • Distinct local architectural styles shall be promoted. • Preference shall be given to decreasing building heights towards the sea-shore.

		<ul style="list-style-type: none"> • Viewsheds shall be maintained in as natural a state as possible. • Control development set-backs from estuary that consider future sea level rise implications & need to protect access to estuary for recreation. • Control development set-backs from wetlands to extend & enhance natural asset base throughout the precinct. • All development to include stormwater detention and stormwater quality management to protect estuary. • No further bridging of estuary or extension of road embankments. • Protect forests from development, with appropriate development buffers. • Control use of estuary for recreation: no jetties or reclamation; no motorised craft. • Control and or prevention of illegal sand mining • Mitigation of the migration barrier posed by the causeway constructed for the South Coast Pipeline
Coastal Development and Management Responses	DEVELOPMENT RESPONSES (Key Development Projects/Programmes)	Responsibility
	Wetlands rehabilitation programme to be implemented as part of development roll-out in the precinct.	Landowners / developers
	Establish formalised pedestrian beach accesses through dune cordon throughout the precinct, and close off illegal access points.	EM (Parks)
	Upgrade storm water outfalls along beaches to reduce visual impacts & pollution risk.	EM (Drainage & Coastal Engineering)
	Implement additional / failsafe measures to prevent spillage of sewage from pumpstations to beaches.	EM (Wastewater Management)
	Implement dune rehabilitation at all blow-outs, and areas where foredune has been removed (including beach access parking areas).	EM (Parks)
	Establish additional formal parking areas for beach access behind foredune.	EM (Parks; Roads)
	Wetlands & forests rehabilitation programme to be implemented as part of development roll-out in the precinct.	Landowners / developers
	Relocate or upgrade informal settlements that pose a risk to coastal amenity.	EM (Housing)
	WWW return flows and discharges to be managed to appropriate specifications	EM (Parks; Roads)
	STRATEGIC MANAGEMENT (Urgent and or long term management interventions/actions)	Responsibility
	Prepare Catchment Management Plan for Umgababa, Lovu and Msimbazi Catchments.	EM (Catchment Management); DWAF; DAEA; EKZN Wildlife
	Leverage operational management funding from Working for Wetlands / Poverty Alleviation Fund.	EM (Catchment Management, Project Management Unit)
	Investigate sustainable sewage management alternatives for coastal zone that minimise risk of sewage spills & discharge of substandard effluent to coastal zone.	EM (Catchment Management; Wastewater Management; Environmental Management)
Investigate alternative / best possible stormwater pipeline / discharge design for	EM (Drainage & Coastal Engineering)	

beach areas.	
Identify & delineate coastal wetlands needing to be preserved to maintain coastal integrity.	EM (Environment Management)
Prepare Strategy for Shoreline Protection	EM (Coastal Stormwater & Catchment Management)
Prepare Maintenance Plan for Beach Node Facilities.	EM (Parks, Leisure & Cemeteries)
Prepare Peak Period Beach Node Management Plans.	EM (Parks, Leisure & Cemeteries)
Prepare Safety & Security Strategy for Beach Nodes & Corridors.	EM (Metropolitan Police)
Review / prepare Spill Response Plan for Sewage Pumpstations.	EM (Wastewater Management)
Implement and or enforce Environmental Management Plans (EMP) for legal sand mining operations	
Manage water quality discharge from Magabeni WWW and ensure it falls within the standards recommended by DWAF	
Leverage operational management funding from Working for the Coast for beach clean-up, dune rehabilitation projects.	EM (Catchment Management, Project Management Unit)
OPERATIONAL MANAGEMENT (Day to day management activities)	Responsibility
Manage alien plant invasions (aquatic and terrestrial).	EM (Parks); Landowners
Manage agricultural land for minimised soil erosion / agricultural pollution.	Landowners
Monitor stormwater discharge (quantity & quality) from N2 and R102, and from agricultural lands.	EM (Stormwater Management; DMWS: Pollution Control).
Alien plant (aquatic & terrestrial) eradication.	EM (Parks); Conservancies
Monitor Ilovu estuary health.	EM (Environmental Management; DMWS: Pollution Control)
Monitor stormwater discharge onto beaches (quantity & quality) to determine appropriate mitigation should impacts arise.	EM (Metro Water Services, Stormwater Management)
Enforcement of national regulations & local bye laws relating to beach driving, littering, vandalism, public disorder, and maintain crime-free safe environment for visitors & residents.	EM (Parks; Metro Police)
Monitor uncontrolled access through dune cordon & fencing / vegetation clearing within dunes.	EM (Parks)
Maintain dune walkways / boardwalks for managed beach access.	EM (Parks)
Maintain safe swimming areas & rescue services at main beaches.	EM (Parks)
Maintain firebreaks around forests.	Landowners
Manage agricultural land for minimised soil erosion / agricultural pollution.	Landowners
Implement & regularly review Sewage Pumpstation Spill Response Plan.	EM (Wastewater Management)
Monitor harvesting of marine resources.	EKZNW / EM (Parks)
Rehabilitation of riparian and instream zones	
Provide & maintain safety & informational signage along beachfront & at estuary.	EM (Parks)







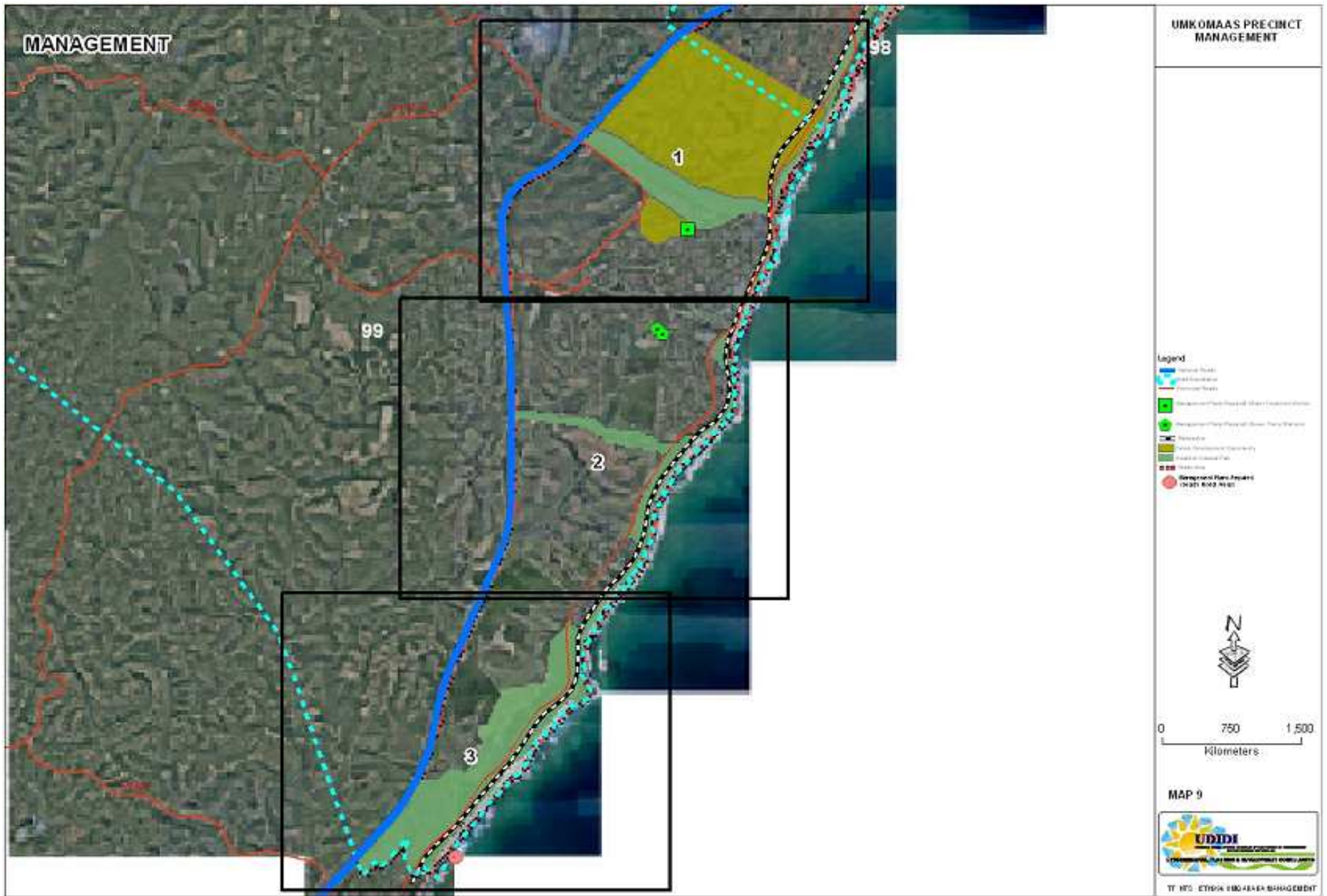


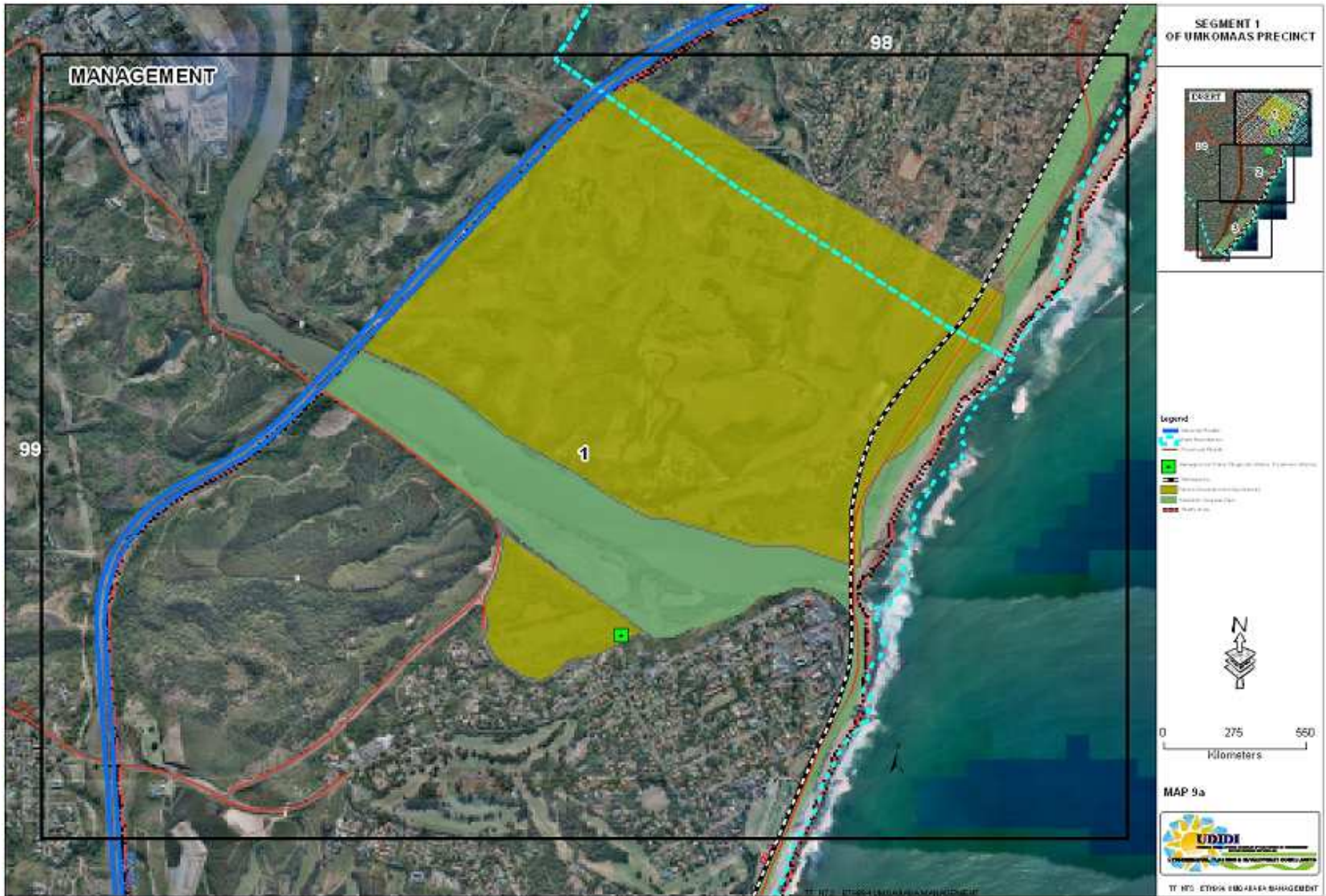
7.2.3 Umkomaas Precinct

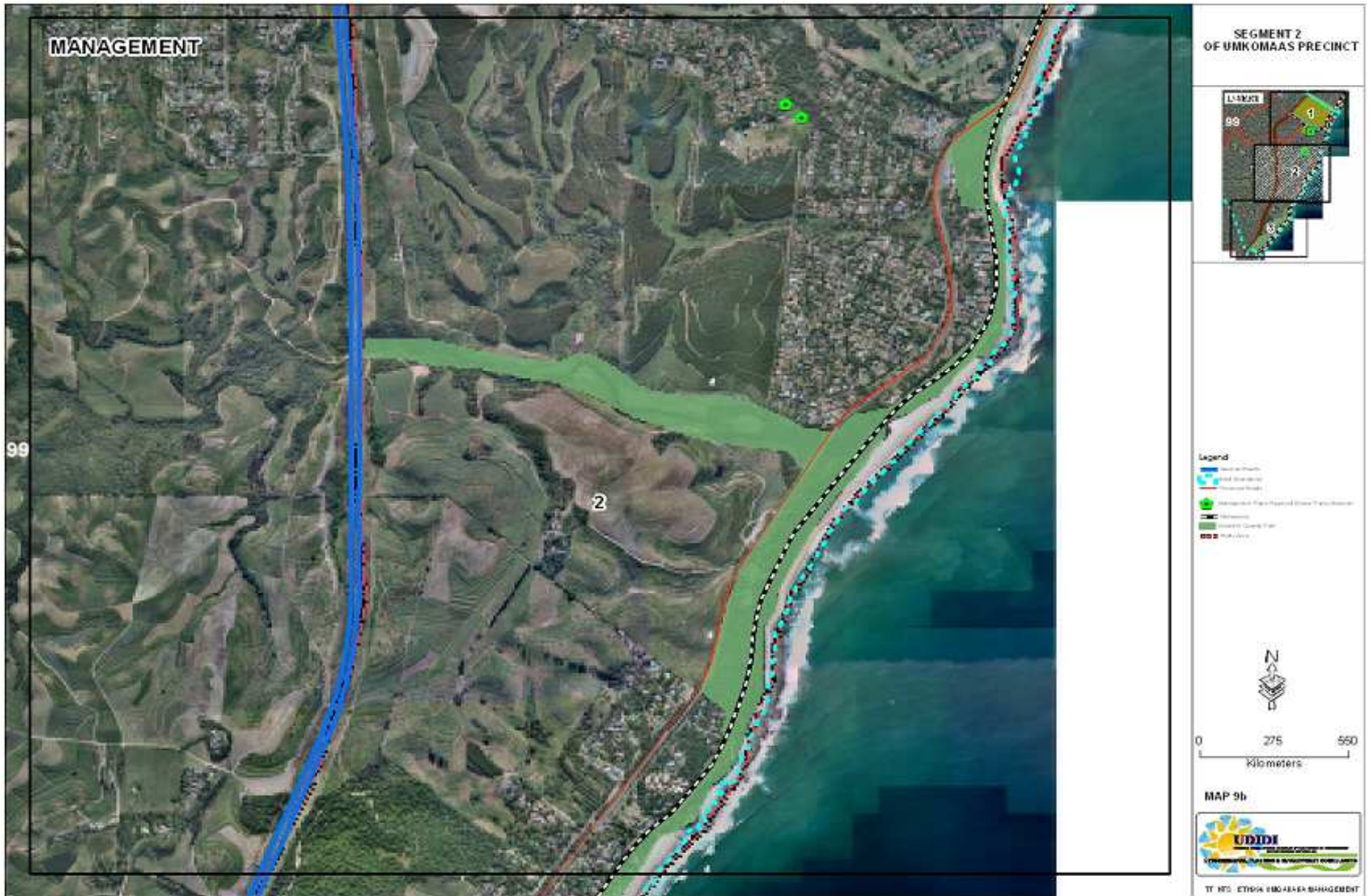
Project Phase	Aspect	Response
<p>Assessment Summary</p>	<p>Key Issues</p>	<ul style="list-style-type: none"> • Catchment issues: water quality, accelerated flooding & high silt loads caused by upstream land uses; discharge of treated wastewater effluent from WWTW at head of estuary impacting on estuary quality, ecology & recreational potential. • Accelerated stormwater run-off & soil erosion from agriculture & future development, causing impacts on Mahlongwana estuary. • Limited available capacity for additional effluent discharge into estuary as a result of ecological reserve requirements (future development limitation). • Limited and fragmented natural asset – needs to be expanded, enhanced & rehabilitated. • High value agricultural land under pressure for further development. • Noise & air pollution associated with N2, R102.
	<p>Risks</p>	<ul style="list-style-type: none"> • Spills / release of substandard effluent from Umkomaas maingate WWTW causing human health risks & ecological impacts, reduced recreational amenity. • Spills at N2 & R102 causing ecological impacts to estuary. • Uncontrolled fire associated with sugar cane. • Siltation / disturbance of estuarine structure or function as a result of catchment land uses / disasters. • Sea level rise causing increased flood levels along estuary frontage. • Degradation of riparian zones (umkomaas catchment) • Sand mining (umkomaas catchment) • Alien invasive plants (Aquatic & terrestrial weed invasions). • SAPPI SAICCOR Barrage •
<p>Coastal Use Vision</p>	<p>Roles</p>	<ul style="list-style-type: none"> • Leisure & entertainment – generating employment & tourism attraction. • Residential & hospitality • Coastal lifestyle opportunities: residential & leisure. • Coastal recreation: estuary and forests. • Environmental education associated with estuary and forests. • Estuarine and marine regeneration. • Wetlands and estuary perform waste assimilation and dilution services. • Estuary & forest areas part of national coastal corridor.
	<p>Use / Activity Guidelines</p>	<ul style="list-style-type: none"> • Control development set-backs from estuary that consider future sea level rise implications & need to protect access to estuary for recreation. • Control development set-backs from wetlands to extend & enhance natural asset base throughout the precinct. • All development to include stormwater detention and stormwater quality management to protect estuary. • No further bridging of estuary or extension of road embankments.

	<ul style="list-style-type: none"> • Protect forests from development, with appropriate development buffers. • Control use of estuary for recreation: no jetties or reclamation; no motorised craft. • Traditional resource use practices and cultural activities shall, where appropriate, be protected against the adverse impact of modern practices. • Clearance of indigenous coastal vegetation shall be strictly controlled and minimised. • Provision of urban services shall avoid negative impacts on coastal ecosystems. • Distinct local architectural styles shall be promoted. • Preference shall be given to decreasing building heights towards the sea-shore. • Viewsheds shall be maintained in as natural a state as possible. 	
Coastal Development and Management Responses	DEVELOPMENT RESPONSES (Key Development Projects/Programmes)	Responsibility
	Wetlands rehabilitation programme to be implemented as part of development roll-out in the precinct.	Landowners / developers
	Establish formalised pedestrian beach accesses through dune cordon throughout the precinct, and close off illegal access points.	EM (Parks)
	Upgrade storm water outfalls along beaches to reduce visual impacts & pollution risk.	EM (Drainage & Coastal Engineering)
	Implement additional / failsafe measures to prevent spillage of sewage from pumpstations to beaches.	EM (Wastewater Management)
	Implement dune rehabilitation at all blow-outs, and areas where foredune has been removed (including beach access parking areas).	EM (Parks)
	Establish additional formal parking areas for beach access behind foredune.	EM (Parks; Roads)
	Wetlands & forests rehabilitation programme to be implemented as part of development roll-out in the precinct.	Landowners / developers
	Relocate or upgrade informal settlements that pose a risk to coastal amenity.	EM (Housing)
	STRATEGIC MANAGEMENT (Urgent and or long term management interventions/actions)	Responsibility
	Prepare Catchment Management Plan for Umkomaas Catchment.	EM (Catchment Management); DWAF; DAEA; EKZN Wildlife
	Leverage operational management funding from Working for Wetlands / Poverty Alleviation Fund.	EM (Catchment Management, Project Management Unit)
	Investigate sustainable sewage management alternatives for coastal zone that minimise risk of sewage spills & discharge of substandard effluent to coastal zone.	EM (Catchment Management; Wastewater Management; Environmental Management)
	Investigate alternative / best possible stormwater pipeline / discharge design for beach areas.	EM (Drainage & Coastal Engineering)
	Identify & delineate coastal wetlands needing to be preserved to maintain coastal integrity.	EM (Environment Management)
	Prepare Strategy for Shoreline Protection.	EM (Coastal Stormwater & Catchment Management)
Prepare Maintenance Plan for Beach Node Facilities.	EM (Parks, Leisure & Cemeteries)	

Prepare Peak Period Beach Node Management Plans.	EM (Parks, Leisure & Cemeteries)
Prepare Safety & Security Strategy for Beach Nodes & Corridors.	EM (Metropolitan Police)
Review / prepare Spill Response Plan for Sewage Pumpstations.	EM (Wastewater Management)
Put EMP's in place for sand mining operation and enforce conditions	
Leverage operational management funding from Working for the Coast for beach clean-up, dune rehabilitation projects.	EM (Catchment Management, Project Management Unit)
OPERATIONAL MANAGEMENT (Day to day management activities)	Responsibility
Manage alien plant invasions (aquatic and terrestrial).	EM (Parks); Landowners
Manage agricultural land for minimised soil erosion / agricultural pollution.	Landowners/ land occupants
Manage effluent discharge standards to reduce nutrients entering the Mahlongwana catchment system	EM (Stormwater Management; DMWS: Pollution Control).
Monitor stormwater discharge (quantity & quality) from N2 and R102, and from agricultural lands.	EM (Stormwater Management; DMWS: Pollution Control).
Alien plant (aquatic & terrestrial) eradication.	EM (Parks); Conservancies
Monitor Ilovu estuary health.	EM (Environmental Management; DMWS: Pollution Control)
Monitor stormwater discharge onto beaches (quantity & quality) to determine appropriate mitigation should impacts arise.	EM (Metro Water Services, Stormwater Management)
Enforcement of national regulations & local bye laws relating to beach driving, littering, vandalism, public disorder, and maintain crime-free safe environment for visitors & residents.	EM (Parks; Metro Police)
Monitor uncontrolled access through dune cordon & fencing / vegetation clearing within dunes.	EM (Parks)
Maintain dune walkways / boardwalks for managed beach access.	EM (Parks)
Maintain safe swimming areas & rescue services at main beaches.	EM (Parks)
Maintain firebreaks around forests.	Landowners
Manage agricultural land for minimised soil erosion / agricultural pollution.	Landowners
Implement & regularly review Sewage Pumpstation Spill Response Plan.	EM (Wastewater Management)
Monitor harvesting of marine resources.	EKZNW / EM (Parks)
Provide & maintain safety & informational signage along beachfront & at estuary.	EM (Parks)









8. APPENDIX ONE: STRATEGIC ASSESSMENT OF THE COASTAL PRECINCTS

8.1 Amanzimtoti Precinct

8.1.1 Overview of features, facilities and activities

Features Summary	Facilities Summary	Activities Summary
<p>Amanzimtoti Estuary:</p> <ul style="list-style-type: none"> Regional feature. Large estuary with significant reedbeds. The estuary is dominated by urban land use / cover The run-off from these areas entering the river along with the waste water works (WWW) servicing the areas are the most likely causes of the nutrient pollution experienced. 52% of the estuary land use is urban and rural thus making it prone to depilation. <p>Forest Complex:</p> <ul style="list-style-type: none"> Large patch of dune scrub and forest between amanzitoti and little amanzimtoti estuary. <p>Land uses along Catchments: Water Source, Crops, Trees, Grass, Urban, Bare sand, Rural dwelling, Plantation</p> <p>Coastal Dune: Some of the significant characteristics of this dune are:</p> <ol style="list-style-type: none"> It is narrow and steep The dune has been impacted by encroachment of residential property. The dune has been impacted by municipal service going across the dune (eg storm 	<p>Sewage Treatment Works: Major sewage treatment works near doonheights.</p> <p>Freeways / roads: N2 and R102</p> <p>Residential homes and associated infrastructure: There are a significant number of residential homes in the precinct along with associated infrastructure such as roads, storm water drainage etc. Residential areas have illegal access points.</p>	<p>Natural and Built environment:</p> <ul style="list-style-type: none"> Formal coasal developmen of green suburban character there are also some high density, high rise coastal developments. <p>Coastal Natural Resources:</p> <ul style="list-style-type: none"> Estuarine fishing (limited), affected to some extent by estuarine water quality. Bait collection (estuary, local). Harvesting of reeds (local). <p>Catchment land use</p> <ul style="list-style-type: none"> Average Percentage of urban and rural land use cover for all the Catchments within the precinct falling under the eThekwini Management Area Rural:- 4.5% Urban:- 49.5% Both the catchments within this precinct are dominated by these two land uses or cover <p>Commercial:</p> <ul style="list-style-type: none"> Commercial activity is significant of limited degree with retail shops. Includes hospitality, conferencing and entertainment. <p>Residential:</p> <ul style="list-style-type: none"> There are few structures very close to the Coast Most permanent structures are near/ along the N2 <p>Water-based recreational activities: Swimming takes place along the coastline. Boat / Marine slipway</p> <p>Walking and hiking: This takes place throughout the precinct.</p>

water systems).
d) It is geologically unstable

8.1.2 Risks

- Upstream catchment management: high silt loading, frequent flooding, poor water quality.
- Discharge from WWTW at head of estuary.
- Infrastructure (road bridges) restricting water flows and impacting on estuarine functionality.
- Moderate levels of natural resource harvesting (trees, fish).
- Animal and bird poaching, medicinal plant harvesting.
- Litter.
- Development, agricultural and alien vegetation encroachment into natural assets.
- Loss of Biodiversity asset through mismanagement
- Destabilisation of coastal dunes due to illegal access points
- Sea level rise and associated erosion of the coastline
- Pollution as a result of inadequate catchment management
- Detergent pollution can be toxic to aquatic biota
- Loss of recreational potential as a result of solid waste disposal causing pollution (Illegal dumping).

8.2 Umgababa Precinct

8.2.1 Overview of features, facilities and activities

Features Summary	Facilities Summary	Activities Summary
<p>Umgababa Estuary:</p> <ul style="list-style-type: none"> • Regional feature. • Large estuary with significant reedbeds. • Protected area. • Borders onto Peace Cottage Forest Complex and Havaan Forest. <p>Forest Complex:</p> <ul style="list-style-type: none"> • Large patch of dune scrub and forest between Lovu and Ngane estuary. <p>Land Use/ Cover Along catchments Water Source, Crops, Trees, Grass, Urban, Bare sand, Rural dwelling, Plantation</p>	<p>Umnini Node (proposed): Major tourism development with potential expansion.</p> <p>Freeways / roads: N2 freeway – major transport route. R102 old main road.</p> <p>Power Station</p> <ul style="list-style-type: none"> • A power station is situated just on the border of boundary road. <p>Dam: There is a dam in Mnini</p>	<p>Natural and Built environment:</p> <ul style="list-style-type: none"> • Poorly built environment <p>Coastal Natural Resources:</p> <ul style="list-style-type: none"> • Estuarine fishing (limited), affected to some extent by estuarine water quality. • Bait collection (estuary, local). • Harvesting of reeds (local). <p>Catchment average land use</p> <ul style="list-style-type: none"> • Average Percentage of urban and rural land use cover for all the Catchments within the precinct falling under the eThekwin Management Area Rural:- 17.5% Urban:- 16.7%

<p>Coastal Waters: a) High-energy coastal waters with strong wave action that places limitations on coastal use and represents a threat to existing infrastructure. b) Northward in-shore current that carries large quantities of sediment necessary for Beach nourishment c) Provides attractive views from land with potential for whale watching</p> <p>Marine Living Resources: a) Accessible to on-shore fishers and harvesters. b) Cannot sustain large commercial operations</p> <p>Settlement: The area is primarily peri-rban</p>	<p>(Mninin Dam) which divides/splits the Umgababa catchment</p> <p>Exceptional lagoons</p>	<ul style="list-style-type: none"> On average the catchments within this precinct are covered and dominated by the grassland. <p>Commercial:</p> <ul style="list-style-type: none"> Umnini Nodes Umgababa Resort Redevelopment <p>Farming:</p> <ul style="list-style-type: none"> There is subsistence agricultural practice within the area around the existing alignment of the N2. <p>Water-based recreational activities: Swimming takes place along the remainder of the coastline.</p> <p>Residential:</p> <ul style="list-style-type: none"> There are few structures very close to the Coast and these structures are between the coast and the railway line Most permanent structures are in between the R102 and the N2 Structures along the N2 are of rural nature <p>Mining:</p> <ul style="list-style-type: none"> There is illegal sand mining along the Lovu catchment water course. There is artisanal and commercial sand mining at the Msimbazi catchment <p>Domestic:</p> <ul style="list-style-type: none"> The Lovu river is used for bathing <p>Informal settlement:</p> <ul style="list-style-type: none"> There are a number of informal settlements in the precinct.
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8.2.2 Risks

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| <ul style="list-style-type: none"> Upstream catchment management: high silt loading, frequent flooding, poor water quality. High soil erosion, siltation and loss of floodplain habitat. Infrastructure (road bridges) restricting water flows and impacting on estuarine functionality. Moderate levels of natural resource harvesting (trees, fish, mud prawn). |
|---|

- Harvesting of timber, fire wood and medicinal plant harvesting.
- Illegal dumping.
- Illegal squatting.
- Litter.
- Development, agricultural and alien vegetation encroachment into natural assets.
- Loss of Biodiversity asset through mismanagement
- Destabilisation of coastal dunes due to illegal access points
- Sea level rise and associated erosion of the coastline
- Pollution as a result of inadequate catchment management
- Increased flooding
- Bank destabilization
- Damage to infrastructure
- Migration barrier

8.3 Umkomaas Precinct

8.3.1 Overview of features, facilities and activities

Features Summary	Facilities Summary	Activities Summary
<p>Mkomaz Estuary:</p> <ul style="list-style-type: none"> • Regional feature. • Large estuary with significant reedbeds. • Protected area. • 80% of the estuary is grassland and trees which makes it maintain a good health • There is a Sappi Saiccor Industry alongside the estuary. <p>Cottage Forest Complex: Large patch of dune scrub and forest between Mkhomazi and Mahlongwa estuary.</p> <p>Land Use/ Cover Along catchments Water Source, Crops, Trees, Grass, Urban, Bare sand, Mining, quarries, erosion, Rural dwelling, Plantation</p>	<p>Sewage Treatment Works: Major sewage treatment works pipes moving along the umkomaas river/ catchment.</p> <p>Heavy INDUSTRY: Sappi Saiccor Heavy industry.</p> <p>Freeways / roads/ railways: N2 – major transport route. R102. Railway line (South Coast Rail)</p> <p>Local Beach Accesses:</p>	<p>Natural and Built environment:</p> <ul style="list-style-type: none"> • Formal coastal development of green suburban character • There are also some high density, high rise coastal developments. <p>Sugar Cane Farming: High value agricultural land. Sugar cane farming takes place on parts of agricultural holdings.</p> <p>Catchment average land use</p> <ul style="list-style-type: none"> • Average Percentage of urban and rural land use cover for all the Catchments within the precinct falling under the eThekweni Management Area Rural:- 16.3% Urban:- 6% • On average the catchments within this precinct are covered and dominated by crops. <p>Coastal Natural Resources:</p> <ul style="list-style-type: none"> • Estuarine fishing (limited), affected to some extent by the loss of sediment • Bait collection (estuary, local).

<p>Coastal Waters:</p> <p>a) High-energy coastal waters with strong wave action that places limitations on coastal use and represents a threat to existing infrastructure.</p> <p>b) Northward in-shore current that carries large quantities of sediment necessary for Beach nourishment</p> <p>c) Provides attractive views from land with potential for whale watching</p> <p>Marine Living Resources:</p> <p>a) Accessible to on-shore fishers and harvesters.</p> <p>b) Cannot sustain large commercial operations</p>	<p>There is very limited beach access routes within the area</p> <p>There are footpaths however there are formalised parking spaces</p> <p>Damage to dunes significant.</p> <p>Beaches: Henderson, Blamely Bay, Mamba Alley</p>	<ul style="list-style-type: none"> • Harvesting of reeds (local). • Sand mining <p>Water-based recreational activities:</p> <ul style="list-style-type: none"> • Swimming takes place along the coastline. • The Aliwal Shoal scuba diving site • Ski Boat launching <p>Residential: There are few structures very close to the Coast and these structures are between the coast and the railway line (beyond the coastal setback line)</p> <p>Forestry: High value agricultural land. Forestry takes place alongside sugar cane.</p>
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8.3.2 Risks

- Upstream catchment management: high silt loading, frequent flooding, poor water quality.
- Discharge from WWTW at head of estuary.
- High soil erosion, siltation and loss of floodplain habitat.
- Local stormwater outflows containing pollutants (sugar cane farms).
- Infrastructure (road bridges) restricting water flows and impacting on estuarine functionality.
- Moderate levels of natural resource harvesting (trees, fish, mud prawn).
- Animal and bird poaching, medicinal plant harvesting.
- Illegal dumping.
- Illegal squatting.
- Litter.
- Development, agricultural and alien vegetation encroachment into natural assets.
- Uncontrolled fire (associated with sugar cane).
- Loss of Biodiversity asset through mismanagement
- Destabilisation of coastal dunes due to illegal access points
- Sea level rise and associated erosion of the coastline
- Pollution as a result of inadequate catchment management
- Degradation of riparian zones

- Loss of ecosystem functioning
- Migration barrier

9 APPENDIX TWO: DETAILED ASSESSMENT OF THE COASTAL PRECINCTS

9.1 Amanzimtoti South

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: AMANZIMTOTI SOUTH			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
NATIONAL ROLES			
Military	-	-	-
Crude Oil Transfer	-	-	-
Airport Operation	-	-	-
National Biodiversity Corridor	The continuous stretch of natural terrestrial and marine assets links the area into South Africa's coastline and adjacent countries (Mozambique) coastlines. The Admiralty Reserve and adjacent areas including dune forests, beaches, rocky shores, estuaries, mangroves, and near-shore ocean are significant assets.	Beach	Use of biodiversity corridor recreation (fishing) at all beaches. Potential use of the corridor for recreational trails (sections were formerly used). Pollution discharges from industry up north and sea outfalls. Continuous pressure for incursions into asset corridor through historic land ownership scenarios where private individuals own sections of the (inter)national corridor.
ECONOMIC ROLES			
Economic Generator/Multiplier	The views of the sea, the natural asset of the coastal dune and exploitable marine resources support tourism. The steep coastal dune limits access points to the coast.	The existing access points to the Warner beach and coastal dune paths support tourism. Poor east west road linkages and only one major road link to the city detracts from coastal tourism.	Beach maintenance activities support tourism. Limited maintenance of the coastal paths detracts from tourism. Air polluting activities outside the area and the coastal study area detract from tourism.

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: AMANZIMTOTI SOUTH			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
Employment Generator		Residential and hospitality (hotels etc) areas provide opportunities for domestic employment.	
Land Value/Rates	<p>The views of the sea, the natural asset of the coastal dune and proximity to the coast support residential land value.</p> <p>The steep coastal dune limits development opportunities.</p>	<p>The Warner beach access point and coastal dune paths support residential land value.</p> <p>Poor east west road linkages and only one major road link to the city detracts from residential land value.</p>	Air polluting activities outside the area and the coastal study area detract from residential land values.
SOCIAL			
Coastal Lifestyle	<p>The views of the sea, the natural asset of the coastal dune and exploitable marine resources support coastal lifestyles.</p> <p>The steep coastal dune limits access points to the coast and detracts from coastal lifestyle.</p>	<p>The Warner beach access point and coastal dune paths support coastal lifestyle. Poor east west road linkages and only one major road link to the city detracts from coastal lifestyle.</p>	Beach maintenance activities support coastal lifestyle. Limited maintenance of the coastal paths detracts from coastal lifestyle.
Coastal Recreation	<p>The natural state of the coastal dune and proximity to the sea support coastal recreation.</p>	<p>The Warner beach access point and coastal dune paths support coastal recreation.</p> <p>Poor east west road linkages and only one major road link to the city detracts coastal recreation.</p>	<p>Life saving and beach maintenance activities support coastal recreation.</p> <p>Limited maintenance of the coastal paths detracts from coastal recreation.</p>
Food Resources	<p>The proximity and productivity of the sea support the exploitation of coastal food resources.</p> <p>The steep coastal dune limits</p>	<p>The Warner beach access point supports exploitation of coastal food resources.</p>	<p>Overexploitation of the marine resource may detract from exploitation of coastal food resources.</p> <p>Wastewater disposal in the broader area may impact on the toxicity of the catch.</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: AMANZIMTOTI SOUTH			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
	access points to the coast and detracts from exploitation of coastal food resources.		
Environmental Education			
ENVIRONMENTAL SERVICES			
Land Stability	Well-vegetated state of the dune slopes protects land stability. However, the slopes are highly unstable and inappropriate activities that damage vegetation will result in a loss of stability.	<p>Legalised and stabilized neighbourhood access points from dunes to beaches with appropriate pathways / roads protect land stability.</p> <p>Multiple access pathways from individual homes / servitudes down steep slopes causing instability and erosion. Pipeline servitudes requiring to be kept clear of trees destabilizing slopes. Storm water discharge from roads destabilizing slopes and causing erosion. Cut and fill for development causing slope destabilization.</p>	Chopping of dune vegetation to achieve better sea views destabilizing dune slopes (adjacent homes, parking lots).
Terrestrial/ Marine/ Estuarine regeneration	A variety of ecological processes operative in Forested / grassy dunes, Amanzimtoti estuary, beaches, rocky shores and the near-shore ocean all contribute to natural regeneration.	<p>Amenity reserve and DMOSS areas protect regenerating processes.</p> <p>Infrastructure, development and illegal pathways that destabilize slopes and change natural assets to other uses threaten regeneration processes.</p>	<p>Unmanaged alien plant invasions, chopping of vegetation for sea views and natural resource harvesting, illegal dumping in natural are, recreational use of the area, air pollution and effluent expelled via the marine pipelines all impact on the regeneration ability of the area.</p> <p>Management activities in natural areas owned by eThekwini are limited because of a lack of funds. Limited incentive for management of land in private ownership containing natural assets. Recreational uses that result in over utilisation of natural resources (e.g. fishing / spear fishing). Access to beaches</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: AMANZIMTOTI SOUTH			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
			through dunes / use of dunes as part of beaches resulting in loss of dune vegetation.
Waste Assimilation/ Dilution	Amanzimtoti estuary and near-shore ocean play a waste assimilation role. The high-energy wave action of the near-shore combined with strong current act to disperse waste quickly.	Amanzimtoti Wastewater Treatment Works discharges upstream of Amanzimtoti estuary. Amanzimtoti Estuary diversion reducing functionality. Air emissions infrastructure in Amanzimtoti that results in pollution outfalls into ocean / natural areas.	eThekwini monitoring programmes for water quality in near-shore ocean and the beaches and monitoring programmes for air quality in the coastal zone help track the waste assimilation ability of the area. Illegal discharges of industrial wastewater into storm water systems and illegal dumping of solid waste dredge spoil offshore that may contain pollutants impact on the waste assimilation potential of the area.
Air Pollution Dispersion	The land and sea breezes of the area help to disperse air pollution	Extended air pollution emissions stacks in Amanzimtoti to reach airflows over dune scrub and forest.	Industrial activity in the northern part of the Amanzimtoti area resulting in air emissions in the area thus the precinct.
Climate Control	Natural assets in the coastal zone inherently play a role in regulating local climate and the climate of adjacent eThekwini area (Near-shore ocean and Forested dune slopes.)		
Sea Erosion Protection	The dune scrub and forest and the coastal forests system large land barrier protecting the area from high-energy seas that can result in coastal erosion. Sediment supply from the near-shore ocean compensates for erosion of	Vegetated dunes protected from development incursions and damage from recreational use. Erosion protection walls (where development in coastal zone requires stabilization).	Use of beaches for recreation and development encroachment into the dunes results in damage to dune vegetation (access and physical use) and destabilization of these erosion protection features.

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: AMANZIMTOTI SOUTH			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
	beaches.		
Visual Amenity	The near-shore ocean, beaches and rocky shores, forested / grassy dune slopes all contribute to the visual amenity of the area.	<p>Residential, commercial and recreational development maximizing use and protection of visual amenity.</p> <p>Recreational facilities with poor visual amenity value (e.g. parking lots, sea erosion protection walls, breakwaters).</p> <p>Infrastructure and development incursions into visual amenity corridors, soil erosion or patches of cleared vegetation.</p>	Development controls limiting building heights and sizes. Forestation of residential properties resulting in screening.

9.2 Umgababa

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
NATIONAL ROLES			
Military	-	-	-
Crude Oil Transfer	-	-	-
Airport Operation	-	-	-
National Biodiversity Corridor	The continuous stretch of natural terrestrial and marine assets links the area into South Africa's coastline and adjacent countries (Mozambique) coastlines. The Admiralty Reserve and adjacent areas including dune forests, beaches, rocky shores, estuaries, and near-shore ocean are significant national and local assets.		Use of biodiversity corridor recreation (fishing) at all beaches. Potential use of the corridor for recreational trails (sections were formerly used). Pollution discharges from industry and sea outfalls.
ECONOMIC ROLES			
Economic Generator/Multiplier	<p>The views of the sea, the natural asset of the coastal dune and exploitable marine resources support tourism.</p> <p>The rural nature of the precinct supports tourism.</p>	<p>Access points onto the beach are in many cases not appropriately designed and managed, and are having an ongoing impact on coastal amenity, ecological stability as well as public and private investment.</p> <p>The tourism node (umnini craft market)</p>	<p>Beach maintenance activities support tourism.</p> <p>Limited maintenance of the coastal paths detracts from tourism.</p> <p>Air polluting activities outside the area and the coastal study area detract from tourism.</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
Employment Generator		Residential and hospitality areas provide opportunities for domestic employment.	
Land Value/Rates	Land is largely traditionally owned and land in these areas usually does not apply rates as they are leased or used under PTO's.	Informal housing structures and poor quality services and facilities detract from residential land value.	Air polluting activities outside the area and the coastal study area detract from residential land values. Waste disposal activities that result in occasional problems in the Estuaries detract from residential land values.
SOCIAL			
Coastal Lifestyle	<p>The views of the sea, the natural asset of the coastal dune and exploitable marine resources support coastal lifestyles.</p> <p>The steep coastal dune limits access points to the coast and detracts from coastal lifestyle.</p>	<p>Access points onto the beach are in many cases not appropriately designed and managed, and are having an ongoing impact on coastal amenity, ecological stability as well as public and private investment, thus reducing the ability of a conducive coastal lifestyle.</p> <p>The access point at Sunlight Beach and coastal paths support coastal lifestyle.</p> <p>Poor quality facilities at the access point detract from coastal lifestyle.</p>	<p>Beach maintenance activities support tourism.</p> <p>Limited maintenance of the coastal paths detracts from coastal lifestyle.</p>
Coastal Recreation	The natural state of the coastal dune and proximity to the sea support coastal recreation.	<p>The Umgababa beach access point and coastal dune paths support coastal recreation.</p> <p>Poor east west road linkages and only one</p>	<p>Beach maintenance activities support coastal recreation.</p> <p>Limited maintenance of the coastal paths detracts from coastal recreation.</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
		major road link to the city detracts coastal recreation.	
Food Resources	<p>The proximity and productivity of the sea support the exploitation of coastal food resources.</p> <p>Subsistence agricultural activities support the exploitation of food resources</p> <p>The steep coastal dune limits access points to the coast and detracts from exploitation of coastal food resources.</p>	The umgababa beach access point supports exploitation of coastal food resources.	<p>Overexploitation of the marine resource may detract from exploitation of coastal food resources.</p> <p>Wastewater disposal in the broader area may impact on the toxicity of the catch.</p> <p>Waste disposal activities that result in occasional problems in the Umgababa Estuary detract may impact on the toxicity of the catch at this key point for exploitation activities.</p>
Environmental Education	The estuaries within Umgababa, and natural dune system supports Environmental Education.		
ENVIRONMENTAL SERVICES			
Land Stability	<p>Well-vegetated state of the dune slopes protects land stability.</p> <p>However, the slopes are highly unstable and inappropriate activities that damage vegetation will result in a loss of stability.</p>	<p>Legalised and stabilized neighbourhood access points from dunes to beaches with appropriate pathways / roads protect land stability.</p> <p>Multiple access pathways from individual homes / servitudes down steep slopes causing instability and erosion.</p> <p>Pipeline servitudes</p>	Chopping of dune vegetation to achieve better sea views destabilizing dune slopes (adjacent homes, parking lots).

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
		<p>requiring to be kept clear of trees destabilizing slopes. Storm water discharge from roads destabilizing slopes and causing erosion. Cut and fill for development causing slope destabilization.</p> <p>Uncontrolled residential development leads to building in unsuitable land</p> <p>Development has fragmented the coastal dune cordon in many places and introduced instability and risk into the system</p> <p>Stormwater and wastewater infrastructure installations have been situated on / close to the beach, in the foredunes and in zones that may be at risk from land instability</p>	
Terrestrial/ Marine/ Estuarine regeneration	A variety of ecological processes operative in Forested / grassy dunes, estuary, beaches, rocky shores and the near-shore ocean all contribute to natural regeneration	<p>Amenity reserve and DMOSS areas protect regenerating processes.</p> <p>Infrastructure, development and illegal pathways that destabilize slopes and change natural assets to other uses threaten</p>	<p>Unmanaged alien plant invasions, chopping of vegetation for sea views and natural resource harvesting, illegal dumping in natural are, recreational use of the area, air pollution and effluent expelled via the marine pipelines, sand mining all impact on the regeneration ability of the area.</p> <p>Management activities in natural areas owned by eThekwini are limited because of a lack of funds.</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
		regeneration processes.	Limited incentive for management of land in private ownership containing natural assets. Recreational uses that result in over utilisation of natural resources (e.g. fishing / spear fishing). Access to beaches through dunes / use of dunes as part of beaches resulting in loss of dune vegetation.
Waste Assimilation/ Dilution	Umgababa estuary and near-shore ocean play a waste assimilation role. The high-energy wave action of the near-shore combined with strong current act to disperse waste quickly.	Umgababa Wastewater Treatment Works discharges upstream of Umgababa estuary. Umgababa Estuary diversion reducing functionality. Air emissions infrastructure in Umgababa that results in pollution outfalls into ocean / natural areas.	eThekwini monitoring programmes for water quality in near-shore ocean and the beaches and monitoring programmes for air quality in the coastal zone help track the waste assimilation ability of the area. Illegal discharges of industrial wastewater into storm water systems and illegal dumping of solid waste dredge spoil offshore that may contain pollutants impact on the waste assimilation potential of the area. Illegal solid waste dumping
Air Pollution Dispersion	The land and sea breezes of the area help to disperse air pollution. Steep dune scrub and forest slopes create "sink"/basin which limits air movement and associated pollutants between sea and land.	Secondary air pollutant emitted reaches airflows over dune scrub and forest.	Vehicles utilising the N2 and R102. Industrial emissions caused by the nearby SAPPI/SAICCOR paper mill some 2 km's upstream from the Umkomaas river mouth. Localised smoke from informal and peri-urban settlement.
Climate Control	Natural assets in the coastal zone inherently play a role in regulating local climate and the climate of adjacent eThekwini area (Near-shore ocean and Forested dune slopes.)		
Sea Erosion Protection	The dune scrub and forest and the coastal forests system large land barrier protecting the	Stormwater and wastewater infrastructure installations have been	

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
	<p>area from high-energy seas that can result in coastal erosion.</p> <p>Sediment supply from the near-shore ocean compensates for erosion of beaches.</p>	<p>situated on / close to the beach, in the foredunes and in zones that may be at risk from beach erosion</p>	
<p>Visual Amenity</p>	<p>The near-shore ocean, beaches and rocky shores, forested / grassy dune slopes and the rural character of the precinct all contribute to the visual amenity of the area.</p>	<p>Residential, commercial and recreational development maximizing use and protection of visual amenity.</p> <p>The old main rd (R102) and the railway line run parallel to the coast and within 200m of the high water mark, which poses a negative visual impact. The informal settlement development incorporating shack dwellings and make shift ablution facilities are sporadically spread out along most of the area, bordering both the primary and secondary dune systems, and are mostly situated within 500m of the high water mark. The derelict and dilapidated Umgababa Resort, and associated outbuildings, also creates a negative visual intrusion on the area and surrounding landscape.</p>	<p>Development controls limiting building heights and sizes. Forestation of residential properties resulting in screening.</p> <p>Historical development / land use pattern that in some cases is not ideal thus there has been vivid evidence of detrimental aesthetic quality of the area (built and natural environment)</p> <p>The abandoned and dilapidated Umgababa resort area poses as a negative visual intrusion to the surrounding landscape.</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMGABABA			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities

9.3 Umkomaas

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMKOMAAS			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
NATIONAL ROLES			
Military	-	-	-
Crude Oil Transfer	-	-	-
Airport Operation	-	-	-
National Biodiversity Corridor	The continuous stretch of natural terrestrial and marine assets links the area into South Africa's coastline and adjacent countries (Mozambique) coastlines. The Admiralty Reserve and adjacent areas including dune forests, beaches, rocky shores, estuaries, and near-shore ocean are significant national and local assets.	Golf course/ Beach along with infrastructure, (Roads and storm water pipelines) fragmenting the coastal corridor.	Use of biodiversity corridor recreation (fishing) at all beaches. Potential use of the corridor for recreational trails (sections were formerly used). Pollution discharges from industry and sea outfalls. Continuous pressure for incursions into asset corridor through historic land ownership scenarios where private individuals own sections of the (inter)national corridor.
ECONOMIC ROLES			
Economic Generator/Multiplier	The views of the sea, the natural asset of the coastal dune and exploitable marine resources support tourism. The rural nature of the precinct supports tourism.	The access point at Blamey Bay , and coastal paths support tourism. Poor east west road linkages and only one major road link to the city detracts from coastal tourism.	Beach maintenance activities support tourism. Limited maintenance of the coastal paths detracts from tourism. Air polluting activities outside the area and the coastal study area detract from tourism.

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMKOMAAS			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
Employment Generator		Residential and hospitality areas provide opportunities for domestic employment.	
SOCIAL			
Coastal Lifestyle	<p>The views of the sea, the natural asset of the coastal dune and exploitable marine resources support coastal lifestyles.</p> <p>The steep coastal dune limits access points to the coast and detracts from coastal lifestyle.</p> <p>Underutilised sea front.</p>	<p>The access point to the Blamey Bay and coastal dune paths support coastal lifestyle.</p> <p>limited linkage Umkomaas – sea front</p> <p>Access to Aliwal Shoal</p>	<p>Beach maintenance activities support tourism.</p> <p>Limited maintenance of the coastal paths detracts from coastal lifestyle.</p> <p>Back front structuring and management of development pressures</p>
Coastal Recreation	<p>The natural state of the coastal dune and proximity to the sea support coastal recreation.</p>	<p>The Blamey Bay access point and coastal dune paths support coastal recreation.</p> <p>Poor east west road linkages and only one major road link to the city detracts coastal recreation.</p>	<p>Beach maintenance activities support coastal recreation.</p> <p>Limited maintenance of the coastal paths detracts from coastal recreation.</p>
Food Resources	<p>The proximity and productivity of the sea support the exploitation of coastal food resources.</p> <p>The steep coastal dune limits access points to the coast and detracts from exploitation of coastal food resources.</p>	<p>The Blamey Bay access point supports exploitation of coastal food resources.</p>	<p>Overexploitation of the marine resource may detract from exploitation of coastal food resources.</p> <p>Wastewater disposal in the broader area may impact on the toxicity of the catch.</p> <p>Waste disposal activities that result in occasional problems in the Umkomaas Estuary detract may</p>

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMKOMAAS			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
			impact on the toxicity of the catch at this key point for exploitation activities.
Environmental Education	The estuaries within Umkomaas, and natural dune system supports Environmental Education.		
ENVIRONMENTAL SERVICES			
Land Stability	Well-vegetated state of the dune slopes protects land stability. However, the slopes are highly unstable and inappropriate activities that damage vegetation will result in a loss of stability.	Legalised and stabilized neighbourhood access points from dunes to beaches with appropriate pathways / roads protect land stability. Multiple access pathways from individual homes / servitudes down steep slopes causing instability and erosion. Pipeline servitudes requiring to be kept clear of trees destabilizing slopes. Storm water discharge from roads destabilizing slopes and causing erosion. Cut and fill for development causing slope destabilization.	Chopping of dune vegetation to achieve better sea views destabilizing dune slopes (adjacent homes, parking lots).
Terrestrial/ Marine/ Estuarine regeneration	A variety of ecological processes operative in Forested / grassy dunes, beaches, rocky shores and the near-shore ocean all contribute to natural regeneration.	Amenity reserve and DMOSS areas protect regenerating processes. Infrastructure, development and illegal pathways that destabilize slopes and change natural assets to other uses threaten regeneration processes.	Unmanaged alien plant invasions, chopping of vegetation for sea views and natural resource harvesting, illegal dumping in natural are, recreational use of the area, air pollution and effluent expelled via the marine pipelines, sand mining all impact on the regeneration ability of the area. Management activities in natural areas owned by eThekwini are limited because of a lack of funds. Limited incentive for management of

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMKOMAAS			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
			land in private ownership containing natural assets. Recreational uses that result in over utilisation of natural resources (e.g. fishing / spear fishing). Access to beaches through dunes / use of dunes as part of beaches resulting in loss of dune vegetation.
Waste Assimilation/ Dilution	The near-shore ocean plays a waste assimilation role. The high-energy wave action of the near-shore combined with strong current act to disperse waste quickly.	Umkomaas maingate wastewater discharges upstream of Umkomaz estuary. Air emissions infrastructure in Umkomaas that results in pollution outfalls into ocean / natural areas. Sea outfalls allow effluent to be expelled in the near shore environment. Air emissions infrastructure in the Umkomaas area results in pollution outfalls into ocean / natural areas.	eThekwini monitoring programmes for water quality in near-shore ocean and the beaches and monitoring programmes for air quality in the eThekwini Management Area and coastal zone help track the waste assimilation ability of the area. Illegal discharges of industrial wastewater into storm water systems that may contain pollutants impact on the waste assimilation potential of the area.
Air Pollution Dispersion	The land and sea breezes of the area help to disperse air pollution. Steep dune scrub and forest slopes create "sink"/basin which limits air movement and associated pollutants between sea and land.	Secondary air pollutant emitted stacks in Umkomaas to reach airflows over dune scrub and forest.	Vehicles utilising the N2 and R102. Industrial emissions caused by the nearby SAPPI/SAICOR paper mill some 2 km's upstream from the Umkomaas river mouth. The landfill site.
Climate Control	Natural assets in the coastal zone inherently play a role in regulating local climate and the climate of adjacent eThekwini area (Near-shore ocean and Forested dune slopes.)		

SITUATIONAL ASSESSMENT OF THE PERFORMANCE OF THE PRECINCT: UMKOMAAS			
Precinct Area Roles	Features	Facilities and Infrastructure	Activities
Sea Erosion Protection	<p>The dune scrub and forest and the coastal forests system large land barrier protecting the area from high-energy seas that can result in coastal erosion.</p> <p>Sediment supply from the near-shore ocean compensates for erosion of beaches.</p>		
Visual Amenity	<p>The near-shore ocean, beaches and rocky shores, forested / grassy dune slopes, bays and estuaries, the agricultural all contribute to the visual amenity of the area.</p>	<p>Residential, commercial and recreational development maximizing use and protection of visual amenity.</p> <p>The old main rd (R102) and the railway line run parallel to the coast and within 200m of the high water mark, which poses a negative visual impact. The town area moving towards the R102 has dilapidating buildings which also creates a negative visual intrusion on the area and surrounding landscape.</p>	

9.4 Engineering Assessment

9.4.1 Introduction

The purpose of this report is to comment on the availability of engineering services, such that the appropriate land usage may be identified for the proposed broader area planning as well as the other facilities and development opportunities.

A comprehensive site visit / inspection was undertaken, in order to physically assess the current status quo. The area covered was between the Illovu River and the Umkomaas River in the south of the eThekweni Municipality.

9.4.2 Existing Infrastructure

9.4.2.1 Roads & Stormwater Control

The study area can be accessed via the N2 south bound carriageway, Provincial Route R102, the Metropolitan Route M51 towards Magabheni. These roads are asphalt surfaced with stormwater manholes, catchpits and headwalls. High volumes of traffic use these primary roads.

Secondary roads are existing gravel roadways that are maintained by the Department of Transport/Traditional Authority. These roads have low volumes of traffic. Stormwater control is in the form of local V-drains discharging into existing localised valley lines.

The metropolitan route M51 has been upgraded as part of the Consolidated Municipal Infrastructure Programme.

eThekweni Transport Authority has indicated that the draft Integrated Transport Plan is in the process of being compiled.

9.4.2.2 Water Reticulation

The existing reservoirs and water mains has been installed by Umgeni Water. Water supply to the households is in the form of 200 l ground tanks, with metered connections. The water mains vary between 50mm dia to 150mm dia HDPVC piped networks. House connections vary between 15mm dia to 25mm dia polycop pipes. The study area between Amanzimtoti and Kingsburgh is serviced by metered connections and is unlikely to affect or impact on the coastal management plan, as the area is built up.

9.4.2.3 Sewer Reticulation

There is no evidence of piped water borne sewer reticulation within the study area. The toilet facilities are in the form of eThekweni's ventilated pit latrine and urine diversion tanks or self constructed septic tanks. The study area between Amanzimtoti and Kingsburgh is serviced by piped sewer connections and is unlikely to affect or impact on the coastal management plan, as the area is built up.

9.4.2.4 Electricity

The Illovu - Geogedale powerline carries 275KV for distribution to the 11 KV power line and then onto the consumer line. This is operated and maintained by eThekweni Electricity Department. The existing households within the Umgababa portion of the study area have electricity in the form of the pre paid card system. Eskom Powerline servitudes cross the study area from Umkomanzi in the north to Amanzimtoti in the south. This powerline, carries 275 KV of power for distribution to the 11 KV power

line and then onto the consumer line. The built up study area between Amanzimtoti and Kingsburgh has full supply.

9.4.2.5 Geotechnical

The soil profiles indicated appear to be satisfactory for development.

Portions of the study area appear to be potentially unstable and have poor drainage qualities, which would discourage the use of soak-aways.

Geotechnical Engineer's assessment is recommended.

9.4.2.6 Telecommunications

Telkom services are available in most parts of the study area. These services are provided in the form of overhead cables and, in certain instances underground fibre optic cables. Mobile networks, however, appear to be preferred.

9.4.3 Summary Report of Infrastructural Elements

9.4.3.1 Roads & Stormwater Control

An Integrated Transport Plan for the study area is in the draft format and will become available from the eThekweni Transport Authority.

9.4.3.2 Water Reticulation

Bulk Water is not immediately available in the traditional areas of the coastal zone. Construction of Reservoirs and bulk water supply line to the Umbumbulu Region is expected to be completed in 2006. However, in the northern portion of the study area, Bulk Water, in most of the areas is readily available.

9.4.3.3 Sewer Reticulation

Piped waterborne sewer reticulation is not available in the southern portion of the coastal zone. The preferred method appears to be the ventilated improved urine diversion pit. However in the northern more urban areas, there is full waterborne sewerage.

9.4.3.4 Electricity

Available infrastructure to be upgraded and relocation of existing infrastructure is to be to the developer's account.

9.4.3.5 Geotechnical

A detailed geotechnical evaluation would have to be conducted. Geotechnical Engineer's assessment is recommended.

9.4.3.6 Landfill

A landfill site is located near the SAPPI / SAICOR Industrial Complex. Development in these areas is not recommended.

9.4.3.7 Telecommunications

Available. Infrastructure to be upgraded, as per TELKOM requirements.

9.4.4 Conclusion

The assessment revealed that the Umgababa coastal area is relatively well serviced, except for sanitation. This remains a problem and will need to be addressed in the subsequent phases, as it is a serious constraint for future development.

9.5 Tourism Assessment

9.5.1 Introduction and Report Objective

This study provides an assessment of tourism on the Umgababa section of coastline, including:

- Details of existing tourism related businesses and facilities,
- An overview of tourism organizational structures, and
- Description of tourism development opportunities.

9.5.2 Security Status

The biggest challenge to tourism development in this area is the high level of crime. The commonly held perception is that this is a high crime area. A number of newspaper articles referring to the Umgababa area have highlighted the crime problem (Daily News 23.08.2004 "Umgababa 'hell run' still unsafe", Sun News 21.01.05 "Hijack highway a haven for thugs"). Discussions with the Umkomaas SAPS detectives revealed that a satellite SAPS office had been established at the Ultra City to service the Umgababa area, however, they did confirm that crime is still a serious problem.

This study, in identifying possible tourism development opportunities assumes that the crime situation will be satisfactorily addressed.

9.5.3 Existing Tourism Businesses and Facilities

9.5.3.1 Umgababa Holiday Resort

Character Description:

- The site is situated 1 Km South of the Msimbazi River
- The site is flat, vegetated and approximately 1.3 Km long and 0.25 Km wide with the space to expand to the north
- The site was originally a titanium sand mine closed in the 1970's and developed into a holiday resort in the 1980's by the KwaZulu Finance Corporation
- During the 1980's this was a very popular holiday destination
- As a result of political tensions in the 1990's a large proportion of the facilities were vandalized, however, the central recreational centre remains standing albeit in poor condition. The swimming pool has recently been upgrade by the Municipality

Problems and Constraints:

The mix of informal and formal housing, combined with a general lack of infrastructure surrounding the site, will influence the selection of the target market at which the development is aimed. The service demands of the target market will then guide the nature of the development.

Opportunities and Potential:

- Large spectacular site

- Site is flat and vegetated
- Excellent beaches that are swimming friendly
- Rail Transport link on hand
- Shark nets in place
- Full time life-guards

9.5.3.2 Umnini Craft Market

Character Description:

- The site is located approximately 4 Km from the Mzimbazi River adjacent to the bridge over the Umgababa River
- The craft centre was developed in 1981 by the KwaZulu Finance Corporation
- There are a total of 160 stalls, with 23 active stall operators
- The craft centre stalls are in poor condition with the majority of craft traders moving to the Ultra City's purpose built craft stores – there are approximately 80 stalls on the N2 North bound side
- The crafters are represented by chairperson Happy Ngobese

Problems and Constraints:

- Business is infrequent and slow
- Perception of crime situation prevents tourists from stopping
- Poor signage
- The crafters are not affiliated to any tourism association and do not receive any external financial or technical assistance

Opportunities and Potential:

The craft centre is positioned at a narrowing of the R102 and N2 and can be clearly viewed from both N2 and R102 roads providing substantial visual exposure

9.5.3.3 Umnini Beach Camp

Character Description:

- Located on the South Bank of the Ngane River on the coastal side of the R102 positioned on the secondary dune overlooking the ocean
- Privately owned accommodation facility consisting of free standing chalets and a central catering facility, providing for both catered and self-catering options. Capacity 120 beds
- Targets the budget market at R160.00 per person per night all inclusive of accommodation and meals; currently operates at a 15% occupancy
- Target market: church groups, government departments and schools

Problems and Constraints:

- No shark nets, life-guards, or lighting
- Poor security
- Gravel road link in poor condition
- Owner has struggled to get assistance from Ethekweni Municipality

Opportunities and Potential:

The only service provider offering catering and self-catering accommodation in the study area

9.5.3.4 Ilfracombe Home-Stays

Character Description:

- Located in Ilfracombe, there are 23 home-stays, in the Ilfracombe Home-stay Association providing accommodation and basic catering

- The home-stay concept was facilitated by Inhlansi, a CBO, as a development programme initiated with a R700,000.00 grant provided by DEAT's poverty relief programme in 1997 (Inhlansi facilitator Lucky Msebeni)
- On average, 30 people are hosted per month. Bed and breakfast is charged at R160.00 per person with 10% of the value going to the Home-stay Association for administrative and marketing costs
- Inhlansi CBO, in conjunction with Blue Print consultants in Durban, have submitted a funding proposal to DEAT for further funding of tourism initiatives. They are currently waiting on a response

Problems and Constraints:

- Access to market
- Limitations of existing accommodation facilities
- No shark nets or life-guards

Opportunities and Potential:

- Linkages with Umkomaas and Umdoni Tourism Associations may improve access to market
- Additional grant funding to assist with skills development and marketing cost
- Linkages to skills development programmes with SETA

9.5.4 Tourism Organisational Structures

Although technically falling under the Amanzamtoti Tourism Association, operationally the study area falls within the Umkomaas Tourism Association who in turn form part of the larger Umdoni Tourism Association. The two tourism businesses operating in the area are registered with KZN Tourism, however, they have received little support. Umnini Beach Camp and Lodge are currently establishing links with Umkomaas Tourism Association.

9.5.5 Tourism Development Opportunities

It is recommended that tourism development be clustered in one area, i.e the Umgagaba holiday resort site. This approach will:

- Assist with focusing marketing efforts on a one-stop destination to ensure a critical mass of tourist numbers to support financial sustainability
- It creates a more appealing destination for the tourist with a variety of entertainment, activities and services in close proximity
- It allows for more effective security and safety management
- It improves the tourist perception of security and safety
- May reduce operational costs through economies of scale with individual attractions sharing key management and support service cost centres

The proposal focuses on the following three product offerings:

- Redevelopment of the Umgagaba holiday resort
- Redevelopment of the Umnini craft centre into a cultural and craft centre including a tavern/restaurant combination
- Backpacker/watersport activities lodge (Umgababa River Point)

The proposed developments would be enhanced by the marketing of the R102 as a mini tourism route. This scenic section of R102 and its rural setting have the potential to be an attraction in itself. Increased traffic flow would improve tourism visitor numbers to the destination area supporting financial sustainability and creating additional tourism opportunities.

9.5.5.1 Redevelopment of the Umgababa Holiday Resort

This site location, with its substantial size, scenic vistas, beach proximity, transport links and limited environmental impact for redevelopment (as it is a disturbed site), make it the prime development opportunity.

Option 1: Tourism accommodation and entertainment facility in conjunction with a purpose designed tourism skills training facility.

The facilities would include:

- Self-catering aimed at the middle-income family market
- Catered hotel aimed at the middle-income market that would serve as a hospitality skills training facility with NQF accreditation
- Activities orientated entertainment complex focusing on needs of residence while doubling as a tourism skills training facility with NQF accreditation
- An audit of tourism skills and support services would need to be conducted on the South Coast to ensure relevant skills training provision

Option 2: Tourism accommodation and entertainment facility, including:

- Self-catering accommodation aimed at the middle-income family market
- Catered hotel aimed at the middle-income market
- Large entertainment complex providing activities and shopping experience targeting residences and day visitors

Option 3: Redevelopment as per Umgababa Resort Precinct Development Plan

9.5.5.2 Redevelopment of the Umnini Craft Centre into a Cultural Village

The existing craft centre site lies within 0.5 Km of the south boundary of the Umgababa holiday resort, an easy walking distance. The site has a highly visible location from both the N2 and R102. Its close proximity to the high grade Msimbazi River offers additional nature based tourism opportunities.

A strong sentiment was expressed by the Umkomaas tourism operators for additional activities to offer to their captive client base. They are seeking to improve the marketability of the general area by increasing the product offering. A need was expressed for an interactive cultural village, including crafters and tavern/restaurant, offering stylish African cuisine and entertainment.

9.5.5.3 Development of a Backpackers and Watersport Activities Lodge

The natural beauty of this section of coast, combined with the geological shape of the Umgababa point, make this an ideal watersport destination. The target market would include local watersport enthusiasts, primarily surfers, kitesurfers and the young foreign independent traveller. The site location needs further evaluation, however, it is envisaged that it would be placed just south of the Umnini craft village, within easy walking distance of both the craft village and the Umgababa holiday resort. The accommodation would include self-catering and catered chalets with a central entertainment facility.

9.5.6 Tourism in Umkomaas

Tourism in Umkomaas is primarily driven by the scuba diving industry, a more adventurous market segment than that of the Illovo and Karridene Beach areas to the North. The primary gateway to Umkomaas is through Durban which requires passing through the Umgababa area either on the N2 or R102. This scuba diver market can provide additional tourist volume.

9.5.6.1 Brief Description of the Scuba Diving Industry in Umkomaas

The representative body of the scuba diving industry is the Aliwal Shoal Charter Boat Owners Association (ASCBOA). The following has been established from representative members

- Aliwal Shoal is a top ten ranked dive site in the world
- The Aliwal Shoal Boat Owners Association was formed in 2003 to serve as forum for addressing operational and strategic issues for the Umkomaas diving industry
- There are approximately 10 dive companies employing 50 people
- Approximately 18 000 divers make 32 000 paid dives annually
- It has been established that only a third of what the divers spend goes directly to dive companies, two thirds being a downstream spend

9.5.7 SSDP Tourism Suggestions with regards to the Study Area

- Feasibility study into upgrading existing tourism facilities in the South and creating a range of both *coastal* and inland opportunities.
- Providing guidance for and encouraging private investment in the range of tourism opportunities and developing appropriate support mechanisms.
- Where relevant providing appropriate support amenities.
- Supporting and guiding in particular the development of a range of tourism and recreational opportunities in the Umgababa and Umkomaas areas with appropriate reference to environmental issues.

9.5.8 Concluding Statement

The importance of addressing the high crime rate in the study area cannot be overstated if tourism is to be a realistic development option. The challenge is not only to significantly improve the general security of the area, but to change the generally held public perception of the N2 and R102 as being crime riddled and dangerous.

9.6 Conclusion – Key Issues

The central principle of sustainability entails the balance of economic, ecological and social concerns in addressing quality of life for those residing within the study area. This synopsis shows that the key issues relate to economic growth, institutional dynamics and environmental concerns.

There is a clear need for economic growth; employment within the southern portion of the area is low, incomes are small and tourism development, as a potential lead sector, is relatively undeveloped. Yet, an enabling framework is necessary to ensure that development does not compromise the livelihoods of future generations. There are a number of critical issues in this regard; uncontrolled development and allocation procedures in some places as well as the need to protect valuable environmentally sensitive areas. Clearly investment and economic development need to be encouraged but not at the expense of the natural assets and population livelihoods in the area. This requires an enabling institutional framework whereby development is controlled and facilitated. Unfortunately capacity is uneven, with the institutional framework for development limited. On the one hand, uncontrolled (illegal) development in some instance threatens the amenity of the area, on the other, some development is needed for future growth. Thus a strong development regulatory framework is required to oversee and direct investment. To achieve this, some certainty is required with regards to development on tribal (Ingonyama Trust) land, in order to address investor confidence.

Little or no control of building standards in existing areas and lack of enforcement of policy has resulted in proliferation of unauthorized developments. The natural assets of the area require firm hands-on

management but this has strong institutional implications, especially for local government bodies vested with relevant decision-making powers, and implementing authority. Capacity for Integrated Coastal Management is beginning to slowly emerge. Land use management in the coastal zone currently needs to include multi-institutional participation and engagement incl. traditional leadership structures, local communities, eThekwini municipality, DAEA, DWAF etc. A framework is therefore required for management of land use throughout the study area. The following part of this report outlines the many elements of the coastal development plan, in response to some of these issues.

Key development issues and influences

<p>Key issue / challenge The what is?</p>	<p>Implications So what does that mean?</p>	<p>Possible solutions The “how”</p>
<p>Legal</p> <ul style="list-style-type: none"> • Terminology: The terminology used to describe and demarcate certain areas of land of particular environmental significance are not always consistent when comparing environmental law per se with that of planning law • Admiralty Reserve: It has been established for these purposes that an admiralty reserve does exist within the study area, which was originally surveyed in December 1857, under Farm name: <i>Umnini Location No. 1788</i>. under Crown Grant in favour of the Amatuli Tribe (and their successors) • Subsistence Harvest rights and zones: S 18 of Ch 3 of the Marine Living Resources Act 18 of 1998 (MLRA) provides for the granting of certain local fishing and harvesting rights, while S 19 provides for the provision of subsistence fishing licenses and permits, and allows the Minister to establish areas or zones where subsistence fishers may fish. 	<ul style="list-style-type: none"> • Certain legislation and policy which is exclusively of a planning and physical development nature has very limited application in terms of environmental considerations <i>per se</i>, e.g. The Town Planning Ordinance, NO 27 of 1949 • Accordingly, in the absence of an appropriate ‘statutory planning’ zone, a ‘conservation/no development’ zone has been introduced and proposed for certain zones within the study area • For all planning purposes, the admiralty reserve area remains state land, in favour of the Umnini Trust, which itself falls under the authority of the Ingonyama Trust Board. Although this Reserve area is also protected from development by requiring the permission of the Minister of DEAT for any proposed development purposes in terms of the Sea-Shore Act, the current status of the Reserve area cannot be altered without the consent of the Umnini Trust, the local tribal authority and the Ingonyama Trust Board, and neither can it be used for any purpose without this necessary consent. • It is unlikely that this Reserve area can or will ever be used for any other purpose other than as a protected area for the benefit of natural resources and eco-systems. • A total number of 282 subsistence fishing licenses/permits have been granted to individual members falling under the Umgababa Tribal Authority between the Umgababa river in the north and the Ngane river in the south from 2004 to date. In addition, the Minister intends to shortly declare a Subsistence Harvest Zone in terms of the MLRA between the Msimbazi river in the north and the Ngane river in the south. • This does not substantially impact on planning and 	<ul style="list-style-type: none"> • It is, therefore, important to take cognisance of the differences in ‘zoning’ terminology when preparing any integrated coastal management plan containing both important planning and environmental considerations. This is especially important to ensure consistency in terms of accurately capturing the intentions of the various disciplines involved in contributing to an integrated plan. • The ‘conservation/no development’ zone will ensure a) no residential, commercial or industrial development, (b) potential for protected area status viz. application for and declaration as a nature reserve in terms of both the National Environmental Management: Protected Areas Act 57 of 2003, and KwaZulu-Natal Nature Conservation Act 9 of 1997, (c) potential for eco-tourism initiatives, including walking trail (possible board walk), bird-watching, environmental education, (d) controlled beach access through demarcated paths and (e) continuation of recreational fishing activities and subsistence fishing rights in the inter-tidal zone • The National White Paper for Sustainable Coastal Development in South Africa states that: “the State shall retain, effectively

	<p>development options for this demarcated area, provided that the rights of the subsistence fishers is not impeded or negatively impacted on in any way.</p> <ul style="list-style-type: none"> • However, Section 19 (1) (b) (iii) of the MLRA provides that the Minister may declare any other fishing or related activity or the exercise of any other right in that area or zone to be prohibited. • Section 15 (1) of the Act provides that the Minister may declare any area of SA waters to be a 'fisheries management area' for the management of species, which will entail the approval of a plan for the conservation, management and development of the fisheries. 	<p>manage, reinstate and endeavour to extend the Admiralty Reserve", while the National Environmental Management: Integrated Coastal Management Bill provides that "all admiralty reserve land that is owned by the State at the date of commencement of that Act, will become "coastal public property" and enjoy the same level of protection as the sea-shore.</p> <ul style="list-style-type: none"> • It is still being established whether or not the Minister has or in fact intends to prohibit "any other rights" to the said area in the foreseeable future. Such a prohibition, if formally imposed by the Minister, may have a significant impact on proposed planning and development options for the area. • It is still being established whether or not the Minister has or in fact intends to prohibit "any other rights" to the said area in the foreseeable future. Such a prohibition, if formally imposed by the Minister, may have a significant impact on proposed planning and development options for the area. • The formalisation of a fishery management area in this location is likely to have important consequences for future planning and development in the area, particularly in so far as public use and access rights are concerned.
<ul style="list-style-type: none"> • Under the SA Constitution: Act 108 of 1996 the three traditional spheres of government - national, provincial and local – are considered as three distinctive, independent and interrelated spheres of government 	<ul style="list-style-type: none"> • Local government's functions and powers are required to be considered and in certain instances tailored in terms of the local tribal authority's power & influence in the study area. 	<ul style="list-style-type: none"> • The Municipality, therefore, encompasses additional powers of regional administration and traditional/tribal authority – see <i>the Traditional Leadership and</i>

<ul style="list-style-type: none"> Local government must be considered as a distinctive sphere of government and not a function of national or provincial government Most of the land comprising the study area falls under the custodianship, management and control of Ingonyama Trust Board (as owners of the Ingonyama Trust land), on behalf of the tribal authority representing the local rural communities of the study area 	<ul style="list-style-type: none"> The Trust is responsible for administering this land for the material benefit and social-well being of the individual members of the communities. The Board functions as a 'landowner-in-law' to deal with day-to-day land tenure and use matters until such time as land has been formally transferred to communities. 	<p><i>Governance Framework Act 41 of 2003 (supra)</i> – which leaders are required to be consulted regarding any proposed development project falling within their traditional/tribal area of control</p> <ul style="list-style-type: none"> Applications for development and use rights in the study area, and all related land tenure issues, are required to be received and processed by the Ingonyama Trust Board. The Board will no doubt ensure that it has the additional consent of the local tribal authority before taking any decisions in this regard. All decisions taken by the Board will, however, still be required to be in compliance with all relevant environmental and inter-related land legislation and policy set out in annexure A hereto.
<p>Land Tenure and related Use Rights</p> <ul style="list-style-type: none"> south of Karridene and north of Ilfracombe is tribal and/or Ingonyama Trust land and all land tenure and use rights to property in this area is effectively governed by the IPILRA and the new LRA (see annexure A hereto). 	<ul style="list-style-type: none"> all land tenure applications and/or land use proposals need to be dealt with in accordance with the functions and powers afforded to the Ingonyama Trust Board (see 2.6. above), and in consultation with the local tribal authority and the eThekweni municipality. The land in the southern region of the study area cannot, therefore, be alienated (it effectively belongs to the state through DLA and the Ingonyama Trust Board) 	<ul style="list-style-type: none"> All physical development applications and/or proposed land use rights are required to comply with the IPILRA, the LRA and developing Ingonyama Trust Board policy. In addition, all proposed development in this area will be required to adhere to and comply with all relevant provincial planning law, as well as all applicable environmental law (see Annexure A). The current policy is not sell off any land in this southern region of the study area, but rather to negotiate temporary land tenure and land use authority in the form of leases, permissions, or rights to use – possibly with an attaching

		<p>monetary value for the benefit of the tribal authority - bearing in mind that the issuing of Permissions To Occupy (PTOs) in this area will no longer be entertained by the relevant authorities. All natural resource use rights, both in the north and the south of the study area will require permission from the relevant environmental authorities such as DEAT (MCM), DAEA (incl. Ezemvelo KwaZulu-Natal Wildlife), and DWAF depending on the exact nature of the use right being applied for.</p>
<p>Public participation Dedicated PP was undertaken in all precincts of the Umgababa LAP (and in Umgababa the meeting was governed by the local tribal authority)</p>	<ul style="list-style-type: none"> All final decisions taken in respect of this planning process and all proposed new physical development in the area, will require the input and contribution of the local tribal authority, the communities themselves and the Ingonyama Trust Board 	<ul style="list-style-type: none"> It is important for these communities to properly understand the planning and development proposals for their respective areas, so that they can provide constructive input and contributions, and experience a realistic sense of involvement in all future decision-making affecting their areas of residence.
<ul style="list-style-type: none"> Land use planning / management much of the rural periphery (Umgababa & surrounds) has a traditional settlement background and consequently settlement is taking place in a dispersed traditional manner. this relates to both residential development / subsistence activities as well facilities and local economic activities, low density traditional settlement have however experienced significant growth and densification, much of which has taken place in a quasi informal manner with little forward planning or management. 	<ul style="list-style-type: none"> there exist significant differences in standards within the area in terms of planning, development and management relating substantially to the historical racial separation; the potential continued densification of the traditional settlement pattern will result in the continued deterioration of the natural environment and its natural and economic resources and if not managed appropriately. 	<ul style="list-style-type: none"> Identify the components of a natural environmental system and its resources and introduce a management and rehabilitation system which includes the communities affected, Identify and promote nodes of local economic development integrated into a wider submetropolitan network, eg Umgababa as a main node & Ilfracombe & Illovu as minor nodes. Introducing and establishing appropriate land use planning and

		<p>management guidelines to the rural periphery which can be integrated into relevant metropolitan systems,</p>
<p>Economic</p> <ul style="list-style-type: none"> Limited economic development in the southern portion of the study area; Affordability and unemployment levels are low within the southern portion. High levels or perceived high levels of crime is affecting local economic development. 	<ul style="list-style-type: none"> Facilitate and promote sustainable livelihood opportunities by building on existing assets; Focus public and private investment in key areas. Promote job creation and poverty alleviation through a range of projects including community road construction and maintenance projects, verge and grass cutting, parks and recreation facilities development and maintenance, feeding schemes, and skills development support; Promote local economic development through supporting agricultural projects, self-help initiatives, community based tourism development and SMME development. Encourage and promote more visible policing and police presence to foster a sense of safety. Create and improve linkages between the established tourism sector in the northern (so-called urban core) portion of the study area and the emerging sector in the rural areas further south. 	<ul style="list-style-type: none"> Build on the strong existing cultural and historical heritage of the area, in order to foster and strengthen the eco-tourism base; Use Umgababa as a base for economic and eco-tourism activities, by strengthening its role as a primary investment node. Locate satellite police stops along R102 and at entrances to potential tourism sites/centres. Provide a spatial plan/framework to be used a guide for public and private investment. (The CMP one such tool). Educate the community of the potential positive impact of tourism development on the economy of a specific area – especially in southern portion of study area. Identify key flagship projects that will strengthen existing and promote future tourism and employment opportunities. E.g. blue flag beach at Karridene.
<p>Tourism</p> <ul style="list-style-type: none"> Southern portion of the study area presents ideal opportunities for tourism development through its existing natural resource assets (estuarine and coastal assets) as well as existing tourism sites. As access is so good, there is sufficient passing trade to support local tourism initiatives. Perception of crime is still a problem. 	<ul style="list-style-type: none"> Focus marketing efforts on a one-stop tourism destination to ensure a critical mass of tourists and thereby support financial sustainability; Identify key tourist facilities and infrastructure for upgrade and further investment. Foster linkages with the Umkomaas and Umdoni Tourism Associations for support. Improve the marketability of the area by increasing products on offer. Need to Address the crime issue for tourism to 	<ul style="list-style-type: none"> Strengthen the Umgababa Holiday Resort area at the key tourist destination. Upgrade other established areas and infrastructure to include strategically located information kiosks, curio sales points, rest rooms, view sites etc. Upgrade and redevelop the Umnini Craft Market Centre by including a

<ul style="list-style-type: none"> • Tourism organizational structures exist. 	<p>be realistic economic opportunity.</p>	<p>tavern/restaurant facility.</p> <ul style="list-style-type: none"> • Consider nature-based tourism opportunities at the Mzimbazi River. • Create a blue-flag beach at Illovu Beach (Karridene) • Obtain additional grant funding to assist with marketing and skills development.
<p>Environmental</p> <ul style="list-style-type: none"> • Coastal areas within South Africa are subject to immense development pressures, particularly those arising as a result of rapidly increasing economic activity and urbanization within the coastal zone. The last few decades have seen exceptional escalation in urbanization and growth of informal settlements, the study area being no exception. 	<ul style="list-style-type: none"> • The consequences of inadequate coastal planning and management initiatives is evidenced by increasing coastal and associated environmental degradation, including ribbon development parallel to the coastline, leaving large tracts of the South African coastline irreversibly altered and compromised for future generations. • Accessibility of these areas will result in increased eco-tourism, which will be of economic benefit to the area. Developments will have to be carefully managed by the Local authorities, particularly in sensitive environments such as the banks of estuaries. Increased recreational activities e.g. recreational fishing may cause greater fishing pressure as well as the disruption of nursery areas and habitats when these areas are used for boating. • Development in the littoral active zone, including breakwaters or buildings impedes the natural movement of sediment along the shore, as well as between the dune, beach and surf zone. Artificially stabilising dunes with vegetation or flattening the foredunes for development removes the reservoir that supplies sand to the beach during periods of erosion. • New structures shall be designed and located in a manner that retains the visual beauty, wilderness character and associated benefits 	<ul style="list-style-type: none"> • Critical that a sustainable and integrated coastal planning and management approach be adopted and implemented by all relevant stakeholders, natural resource users, local residents (incl. rural communities), competent authorities, the private sector and the public generally. • Of particular relevance in areas where red data book species are found; disturbance to the system can ultimately result in loss of biodiversity. Development in these areas therefore should follow precautionary measures to avoid excessive impacts. • Development in the littoral active zone to be avoided. • Design and management of coastal settlements and structures are to be in harmony with local and regional aesthetic, amenity, biophysical and cultural opportunities and constraints of coastal localities and regions. decreasing building heights towards the sea-shore. • Provision of urban services shall avoid negative impacts on coastal ecosystems.

	<p>of undeveloped coastal areas.</p> <ul style="list-style-type: none"> • Viewsheds shall be maintained in as natural a state as possible. • Preference shall be given to decreasing building heights towards the sea-shore. • Distinct local architectural styles shall be promoted. • Provision of urban services shall avoid negative impacts on coastal ecosystems. • Preference shall be given to setting major roads back from the sea-shore, and to orienting minor roads perpendicular to the sea-shore at suitable locations. • • Alterations to landforms in highly dynamic areas shall be avoided or at least minimised. • Clearance of indigenous coastal vegetation shall be strictly controlled and minimised. • Traditional resource use practices and cultural activities shall, where appropriate, be protected against the adverse impact of modern practices. • Promote opportunities for tourism and recreation. • Promote statutory 'protected areas' status in highly sensitive and unspoilt coastal forest and estuary areas • Maintain a balance between built, rural and wilderness areas. • Design in harmony with aesthetic, cultural and biophysical values • Alien plant control required within coastal dune strip 	<ul style="list-style-type: none"> • Preference shall be given to setting major roads back from the sea-shore, and to orienting minor roads perpendicular to the sea-shore at suitable locations. • Clearance of indigenous coastal vegetation shall be strictly controlled and minimised. • Traditional resource use practices and cultural activities shall, where appropriate, be protected against the adverse impact of modern practices. • Limit effects from coastal development on natural processes and reduce exposure from natural hazards • Preserve and protect significant coastal sites • No greenfield development within DMOSS, wetlands or 1:100 year floodline zones • No in-situ upgrades within within wetlands/wetland buffer or 1:100 year floodline zone • Development within coastal strip areas to be supported by adequate sanitation facilities to protect surface/groundwater systems • Stormwater systems within coastal zone to be efficiently designed to prevent pressure on rivers/estuarine systems. • Mitigatory measures which will significantly reduce potential impacts on aquatic systems include: The use of existing infrastructure (i.e. roads and bridges as far as possible) The avoidance of wetlands and
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		<p>estuaries The appropriate design of roads, bridges, culverts etc. avoiding disturbance of the riverine systems</p>
<p>Infrastructure / engineering services</p> <ul style="list-style-type: none"> • Southern portion of the study area (traditional areas) have severe services backlogs as well as insufficient service infrastructure. • Northern portion of the study area (within urban edge) fully serviced, no service backlogs. 	<ul style="list-style-type: none"> • There is a need to address this as it impacts on the capacity of existing services to accommodate proposed developments in the area. • Future proposed developments in the study area can be serviced as there is capacity for expansion. 	<ul style="list-style-type: none"> • Upgrade sewerage system to waterborne sanitation. • Introduce upgraded beach/public facilities (ablution blocks), car parks, etc.

10 APPENDIX THREE: IDENTIFICATION OF MANAGEMENT ROLES

The table below summarises the various organisations that play a role in the management of the coast in the Umgababa Local Area. They have been categorised into public organisations (i.e. all spheres of government and parastatals) and civil society (i.e. business, NGO's and CBO's). The table identifies the role that each category of organisation plays or could play with respect to the management of the coast.

	<i>Public</i>							<i>Civil Society</i>
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Key Stakeholders	Development Planning and Management Parks, Leisure and Cemeteries	DAEA EKZN Wildlife	DEAT DWF SANDF	Eskom, Croc World, natal sharks board	ENGEN SAPPI/ SAICCO	Universities, ORI, Traditional Authority	Wessa, Coast Watch	Residential Associations; Conservancies
Policy	A coastal strategy is being established in-line with provincial and national policy by the GIPO.	In process on establishing provincial coastal policy inline with national policy. No authority to set marine policy.	Coastal and Marine policies in place.					
Regulatory Instruments	Durban Sea-Shore regulations in terms of the SSA allow EM to exercise considerable control over the Sea-Shore area. EM also has by-laws however these are not specific to the coast. The Municipality is updating these bylaws and it is intended that coastal specific by-laws be put in place.	No coastal laws Or regulations exist as yet.	SSA, MLRA, CZMB is in process. Off-road vehicle regulations in terms of NEMA and EIA regulations in terms of ECA are also used for coastal management					

	<i>Public</i>							<i>Civil Society</i>
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Planning	Six levels of planning: IDP, SDF, SDP, Precinct Plan, Local Area Plan, Site Plan. Coastal Management Plans are intended at Precinct Plan level for all Coastal Management Units. Management plans are also intended for each estuary.							
Enforcement	EM enforces its by-laws and Durban Sea-Shore Act regulations. Enforcement done by grouping ranging from the Building Inspectorate, Health Inspectorate to Department of Parks, Recreations, Cemeteries and Culture	EKZNW enforces MLRA. DAEA Enforces delegated authority for the EIA regulations.	MCM component of DEAT plays a role in Marine enforcement. SAPS also assists in enforcement of off-road vehicle regulations.			Traditional Authorities terms adherence	Wessa Reports infringements to relevant authorities.	

	Public							Civil Society
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Monitoring	EM conducts annual IDP review State of Environment Report. Specific coastal monitoring includes annual aerial survey to track beach width, sediment build and coastal development; monitoring water quality of rivers/estuaries, outfalls, and storm water systems, monitoring of coastal water quality at blue flag beaches, coastal water quality study on impact of outfalls on marine life and water quality.	EKZN Wildlife monitors marine environment and biodiversity.				ORI monitors the marine environment.	Wessa manages the adopt-a-beach programme in the area that involves low level monitoring of the beach. Clansthal monitors marine and land based conservation.	
Education and Awareness	GIPO, Coastal Engineering and Environmental Branch undertake some limited education and awareness activities.	DEAE and EKZN Wildlife plays a general role education and awareness on the coast.	DEAT has the coastcare campaign and promotes coastal management capacity building				WESSA undertakes coastal education and awareness.	
Capital Development								

	<i>Public</i>							<i>Civil Society</i>
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Beach Facilities	EM establishes recreational facilities on beaches.			Natal Sharks Board Establishes shark nets.				
Transport	EM builds municipal roads.	Department of Transport builds provincial roads	Department of Transport builds National Roads					
Services Infrastructure	EM establishes infrastructure for service delivery.							
Industrial Infrastructure					Business develops Industrial infrastructure			
Operation and Maintenance								

	<i>Public</i>							<i>Civil Society</i>
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Infrastructure	Operation and maintenance of all infrastructure including beach, transport and service infrastructure.	Operation and maintenance of infrastructure	Operation and maintenance of infrastructure	Operation and maintenance of infrastructure	Operation and maintenance of infrastructure			
Natural Areas	Parks, Recreations, Cemeteries and Culture maintain natural areas.		DEAT funds working for the coast projects clean up beach and coastal areas.		SAPREF maintains and rehabilitates the dune between it and the sea.		Clansthal regenerates and manage the biodiversity and wildlife of existing natural areas specifically declared key natural resources.	
People Management	Parks, Recreations, Cemeteries and Culture manages the usage of the beach and sea to the shark net line by people and provides facilities such as life saving.					Traditional Authority		
Advice		DAEA intends to establish a coastal help desk	DEAT provides ad hoc advice.				Clansthal intends to build relations with stakeholders, communities, land owners, and residents.	

	<i>Public</i>							<i>Civil Society</i>
	EThekwini Municipality	Provincial Government	National Government	Parastatals	Business & Industry	Institutions	NGOs	CBOs
Funding								
Watchdog and Lobbying							Yes	Yes

11 Draft Coastal Development Framework Plan

11.1 Towards A Vision And Concept For The Umgababa Coastal Zone

The following section presents the role and vision for the Umgababa coastal zone, and further presents the generic principles used to guide the generation of a land use concept, which is related to the role of the area/zone.

The South African coastal zone provides numerous opportunities for investment and economic development due to its aesthetic appeal. This is true for the Umgababa coastal zone as well. Along the Durban coastline there is a fine balance between natural conserved coastal areas and nodal development areas. Any declared/protected areas have prevented ribbon development and ensured the maintenance of a coastal green belt, which serves to protect the flora and faunal species within the area. However, increasing demand for coastal property as well as the associated infrastructure poses a threat to the protection of coastal diversity as well as future sustainable economic use through tourism ventures. In order to ensure that the integrity of the Umgababa coastal zone is maintained, appropriate protection of the resources and zonation of the coastal zone is required.

11.1.1 The Need For A Vision, Concept and Development Plan For The Coastal Zone

There are currently various spatial development frameworks and plans for the southern area of the eThekweni municipal area. In terms of the Municipal Systems Act, these SDFs become statutory plans once approved by Council, and are used to guide and inform all spatial development decisions. These plans outline the proposed areas for different types of development and for public and private sector investment. However, the coastal zones have not previously received any dedicated and detailed environmental input into the coastal spatial planning component. The recent increase in demand for coastal property and influx of applications for development to the authorities as highlighted the need for a dedicated coastal spatial development plan.

The aim of this document and this section, in particular, is to provide guidance on spatial planning in the Umgababa coastal zone through the demarcation of highly sensitive ecological areas as well as possible development areas. Within the context of development planning, the formulation of a vision should be seen as critical, as the vision provides a crucial link between the understanding of the existing situation and the potential way forward. The purpose of a vision is to articulate an ideal situation, to which an individual or group of individuals strive to achieve. The vision is an integral part of a coastal development plan, which is needed to guide and control development initiatives in an area.

More specifically, the development plan should be used to identify, initiate and enable the effective implementation of a range of projects, which will meet the needs of the local community and surrounding inhabitants as well as the broader community of Durban.

11.1.2 Role and Vision for the Umgababa Coastal Zone

Umgababa has been identified as a rural and local service centre, serving the local population of the central area of ward 98 and the Umgababa subarea of the Mnini tribal authority. The R102 and MR51 serve as important movement corridors within the area and the broader peri-urban periphery of the metropolitan area, connecting areas such as Kingsburgh, Magabeni, Umgababa to Umbumbulu, Folweni and other areas (north) west of the subregion. Whilst limited, the land uses and facilities along this road provide local residents with access to a range of opportunities, and has become an area where people learn and study, work and earn a living, as well as meet, socialise, catch taxis etc.

In light of this, the vision for the node as perceived by the local community could be viewed as being “A place/centre for people that is both safe and secure, offering a wide range of basic services that are easily accessible and affordable for all. *A place where sporting and recreational activities can be accommodated and enjoyed, in close proximity to a rich cultural and historical heritage.*”

With this forming the basis of a concept, the following strategic objectives have been identified for spatial planning and development within the coastal zone, and which assist in formulating a development framework is presented below.

- To provide guidelines for appropriate types of development;
- To eliminate inappropriate development and fragmentation of ecosystems along the coastline;
- To zone the coast for different levels of development;
- To develop guidelines for municipal infrastructure development;
- To generate baseline information and develop indicators that can be used to monitoring coastal development.

11.1.3 Summary of Key issues to be addressed in the coastal development plan

The following issues are considered key to understanding the context in which the spatial development plan needs to be formulated and provides the basis for the spatial strategies that form the basis of the spatial plan for the coastal strip.

1) **Procedural issues**

This includes both the co-ordination, or lack thereof, of decision-making between the eThekweni Municipality and the Ingonyama Trust Board – there appears to be an incomplete planning and decision-making framework for the coast – decisions very difficult, as well as the need to incorporate traditional land decision-making practices into land use management.

In addition, there appears to be tensions around the type and scale of development desired for each area;

2) **Substantive issues**

Access and equity

The White Paper for Sustainable Coastal Development establishes the principles that:

- 1) the coast is to be retained as a national asset, the public has rights to access and benefit from its opportunities; and
- 2) coastal economic development opportunities are to be optimised to meet society’s needs and promote the well-being of coastal communities.

The application of these principles has particular relevance to the Umgababa coastline, where in order to maintain the quality which establishes the environment as a tourism drawcard, new development and the enjoyment of the coast’s amenity need to be managed and, in some instances, curtailed or restricted. Tourism development is essential, but needs to be controlled within the framework of sustainability.

Controlling urban creep

There is no shortage of potential tourism development sites within the study area’s coastal strip. Estuaries occur regularly at 1-2km intervals in many parts, and uncontrolled “eco-tourism” development could lead to a “string of pearls” form of development which is more akin to ribbon development than it is to nodal development. In order to maintain the characteristics that represents the tourism drawcard of

the Umgababa coastline, facilities need to be separated by sizeable stretches of undeveloped coastline that are uninterrupted by infrastructure.

The coastal frontage represents a valuable asset for the municipality only insofar as the direct economic benefits that it generates for the population and the institution. The spatial distribution of “no development zones” along the coast must acknowledge and address the need for equitable distribution of development opportunities.

Conservation

In coastal areas, the most vulnerable and underprotected features are dunes and estuaries. In biodiversity terms, the most significant habitat conservation gaps in South Africa are grasslands and estuaries, as well as mangroves.

11.1.4 Key coastal zone planning / management principles

All developments are to comply with Coastal Zone Management Principles and sensitive coastal ecosystems need to be protected from further degradation. Ideally, the framework should prescribe that development must not be permitted in environmentally sensitive areas such as:

- Forests (state);
- Dunes and estuaries;
- Within 30m of water courses;
- Along major rivers;
- Nature sanctuaries;
- Slopes steeper than 1:6;
- Heritage sites with tourism potential; and
- Wetland areas.

11.2 The Spatial Development Framework For The Coastal Zone

11.2.1 An overview of what is contained in the coastal development plan

The SDF follows the analysis of the key issues (presented in Part One) and is informed by coastal management principles. The following components comprise the framework:

- **Development Strategies** that respond to the key issues and conform to the principles;
- The **spatial concept** that outlines the components and the relationships between them;
- **Elements** that form the spatial building blocks of the framework and provide the basis for future land use management;
- The **movement systems** that enable linkages between the various elements and connect them to elements outside of the study area;
- **Directives for future development** that deal specifically with expansion of nodal areas and inform future management of land use.

The spatial concept, elements and movement systems are informed by the provisions of the Coastal Tourism Development Plan, the eThekweni Coastal Zone Management Strategy as well as the Ethekweni Rural Development Framework, which represent the framework within which the spatial development plan for the coastal strip is being prepared.

11.2.2 Development Strategies

The following strategies form the conceptual basis for the SDF and its intentions.

1) Promote economic growth

The SDF seeks to support economic growth through the identification of potential growth areas and strategic, catalytic public sector investment projects.

2) Protect coastal assets

Identification of development limits ensures protection of sensitive coastal environments and the asset that underpins the growth sector. This involves containing development within certain nodes, where the extent of the development area is determined. A key aspect is the definition of “no development zones”

3) Create an enabling framework

In order to attract investment and inspire confidence, this strategy entails the development of nodes which are administered by legitimate authorities. This will enable municipalities to expand their rates base and improve their level of service delivery. The improvement of infrastructure is also a contributing factor to this strategy.

4) Make markets work for poor people

The SDF seeks to support interventions which optimize opportunities and improve poor people’s access to markets. It seeks to create the conditions wherein livelihood strategies can be diversified whilst at the same time providing the institutional structure that is needed in order to establish an environment that enables economic growth.

In addition to the above broad strategies, the following development strategies, which form the basis of the CTDP, are also presented. These strategies attempt **to direct future physical development** in a manner which integrates the imperatives for coastal tourism development with the need to ensure the protection and development of coastal resources and thereby to contribute to the creation of an efficient, equitable and sustainable metropolitan area. The strategies most applicable to the Umgababa coastal zone are listed below:

(i) consolidate existing and establish new identifiable coastal tourism “villages” and recreation nodes

The establishment of a number of identifiable “villages” or recreation nodes along the coast is proposed to:

- **define and establish an edge to urban development** and to **protect the natural habitats** from being eroded and diminished by insensitive sprawl;
- create a number of diverse and small scale urban settlements which provide an alternative environmental experience and support base to that provided in the central and traditional tourist precinct of Durban;
- to ensure the efficient use of infrastructure and scarce development land along the coast;

These villages should be established at various locations, and should begin to develop an identifiable character, and “sense of place” which responds to their particular location along the coast. The CTDP indicates that there is potential to establish a new village at **Illovu/Karridene**, and this report recommends that another village be established at **Umgababa**.

(ii) improve the gateways into the KZN region and metropolitan area, and establish high quality tourism routes through the DMA

The coast contains the major air, ocean and rail transportation terminals of the KZN region and DMA, and is traversed by and served by a number of regional and metropolitan road and rail

routes/corridors. These terminals and routes introduce or expose the visitor to the character and quality of the DMA and they should be upgraded to:

- enhance the gateway experiences to the KZN region and the DMA;
- create and enhance the visual experiences of the DMA and its attributes;
- create visual and physical connections between key tourist districts and attractions.

Within the study area, a gateway has been identified at the Illovu Bridge, and it is recommended in this CMP that two additional gateways be proposed at the Ngane and Umgababa River bridges.

The strategies work in tandem with one another, and relate to the principles provided by the conceptual framework/spatial plan.

11.2.3 Spatial Concept

The proposed spatial development policy for the coastal strip is to concentrate development in defined nodes and settlements, linked to each other and surrounding areas by a hierarchy of movement networks. Outside of these nodes, rivers, estuaries and sensitive coastal dunes, conservation is prioritized.

Land use elements define the areas for land use management whilst directives for future development provide some guidelines for future growth. The institutional implications for the land use form an essential part of the concept as they provide the basis for land use decision making, and together with the directives, assist decision-making in future.

11.2.4 Land Use Elements – The Proposed Zones

The main elements of the broad land use scheme, as illustrated earlier, are applied to the study area are:

- High intensity recreation / tourism zone
- Conservation / low intensity tourism zone;
- Low density development zone;
- Limited Development Zone;
- Conservation / no-development zone;
- Local recreation zones.
- Agricultural Zone and
- Utilities and Services

The latter two zones are “new” zones which have been introduced due to the nature of the southern portion of the study area.

The definition and intent for each of these elements are provided in the sections that follow.

1) High intensity recreational/tourism zones

These zones include areas:

- Where there is existing tourist infrastructure and where further development can occur without severe environmental impact;
- That are already severely impacted in one way or another and are in need of significant rehabilitation or coastal stabilization works;
- That are already major recreation/tourism nodes but have capacity for expansion and or improvement;
- Where sensitive development would allow the establishment of new high intensity nodes.

The criteria for the location of these zones include:

- The absence of sensitive ecological zones;
- Good regional and local access;
- The availability of facilities and services;
- Availability of public and/or private land.

In terms of the study area, these areas are located predominantly in the northern portion of the coastal strip, more specifically at:

- Amanzimtoti Estuary;
- Warner Beach;
- Doonside Estuary;
- Winkelspruit.

2) Conservation and low intensity recreation/tourism zones

These areas include sensitive ecological assets such as dunes, forests and estuaries and currently act as green “wedges” which break up urban sprawl. These areas have been identified as having high potential for DMOSS and they should be protected, retained and managed sensitively to ensure the viability of the metropolitan area’s open space system and ecological asset base.

They are also valuable for education and low intensity tourism and recreational uses, such as view sites, bird sanctuaries, and nature trails. The determinants for the location of these areas include:

- Areas which have high ecological value and which fall within the DMOSS;
- Areas or elements which function as links between ecological systems and/or assets;
- Areas which have high quality visual and scenic attraction.

These areas in the context of the study area, include:

- All estuaries in the upper portion of the study area (Doonside, Amanzimtoti);

3) Local recreation nodes

These areas would be suitable for development of facilities to cater for local recreational needs and for reasons relating to access or existing land use and settlement are not suitable or attractive for regional recreation/tourism development. The determinants for the location of these areas are:

- Areas where regional and/or local access is constrained;
- Areas where the coastal or “back of the coast” land use would preclude short to medium term redevelopment as a major recreation/tourism node. This includes areas such as residential and industrial development;
- The absence of sensitive ecological zones;
- Areas which do not have good swimming beaches or facilities.

The areas within the study area include:

- Illovu;
- Karridene; and
- Umgababa

4) Low density development zones

These areas are suitable for future permanent residential development infill between the primary study area boundary and the secondary study area boundary (ie the N2 freeway). They are likely to be developed during the course of the general growth and expansion of the metropolitan area, but may

also be influenced by major development projects or programmes (airport, port etc). These areas include the area inland of Illovu/Winkelspruit and include the Larnaco development between the R102 and N2.

5) Limited Development Zone

- Limited Development Zone refers to areas where there can only be low intensity, environmentally and culturally sensitive development.
- Development should protect and promote cultural and landscape integrity.
- Limited and regulated tourism activities,
- Small accommodation facilities that are low-key, low-impact and in harmony with the natural environment;
- Controlled traditional residential housing development;
- Subsistence agricultural activities;
- Infrastructure other than eco-tourism facilities and traditional residential (such as schools, shops and offices) to be discouraged, especially outside nodes;
- Eco-tourism and soft-adventure activities encouraged;
- Any further proposed development will be required to adhere to strict Integrated Environmental Management Planning processes and procedures in accordance with national environmental legislation, more particularly the NEMA, and its new regulations pertaining to prescribed EIA requirements.

6) Conservation / no development zone

- Essentially a “No physical Development” zone — to protect & conserve biophysical environment, as well as to preserve areas of outstanding natural beauty/scenery/ sense of place;
- No residential, commercial or industrial development
- Potential for protected area status viz. application for and declaration as a nature reserve in terms of both the National Environmental Management: Protected Areas Act 57 of 2003, and KwaZulu-Natal Nature Conservation Act 9 of 1997;
- Potential for eco-tourism initiatives, including walking trail (possible board walk), bird-watching, environmental education • Controlled beach access through demarcated paths;
- Continuation of recreational fishing activities and subsistence fishing rights in the inter-tidal zone

7) Agricultural Zone

- Agricultural zone refers to the usage of an area for agricultural purposes
- In general the subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposes should only be allowed if:
 - The land has already been subdivided to a size which renders it agriculturally unviable.
 - Where the land has already been developed for non agricultural purposes
 - The proposed development does not compromise the primary agricultural activity of the property;
 - The proposed development comprises a secondary activity to supplement a landowners income;

11.2.5 Framework for spatial planning and land use management in the Umgababa CMP study area

Area	Development zone *	Rationale *
Amanzimtoti - Illovu Beach/Karridene conurbation	High intensity recreation / tourism	Series of existing major tourism / recreation / tourism nodes (or local recreation nodes) strung together, with good access, limited or no sensitive ecological zones & availability of private/public land.
Amanzimtoti / Little Amanzimtoti (Doonside) & Illovu Estuaries	Conservation / low intensity tourism	Sensitive ecological assets (dunes, forests, estuaries etc) which break up urban sprawl.
Illovu West/Winklespruit (Larnaco)	Low density development	Future permanent residential development infill
Msimbazi Estuary	Conservation / low intensity tourism	Sensitive ecological assets (dunes, forests, estuaries etc) which break up urban sprawl.
Umgababa north	Low density development	permanent traditional residential development infill
Umgababa "coastal" area	Limited development zone	Area between railway line and R102, for limited development, moratorium to be placed on further development.
Umgababa Estuary & coastal dune strip	Conservation / no development zone	To be conserved and protected for further physical development. Strict limitations as to type of activities / developments permitted.
Umgababa node	Local recreation zone	No good swimming beaches; coastal land use precludes short-medium redevelopment as a major recreation/tourism node
Ngane Estuary	Conservation / low intensity tourism	Sensitive ecological assets (dunes, forests, estuaries etc) which break up urban sprawl
Ilfracombe (Dangana)	Low density development	Future permanent residential development infill
Umkomaas South	Agricultural Zone	Good agricultural land already being used for crop farming and forestry

11.2.6 Movement

At present, the main spines which provides access to the towns, nodes and settlements in the study area is provided by both the R102 and the more fast-moving, limited-access N2, which connects Amanzimtoti in the northern part of the study area through Doonside, Warner Beach, Kingsburgh, Illovu/Karridene, to Umgababa, Ilfracombe and Umkomaas (Craigieburn) in the southern portion. The CTDP identifies the R102 as the South Coast Suburban Corridor which is regarded as a high speed route in the development plan. With the N2 and the railway line, these transportation routes assist in creating visual and physical connections between the various tourist attractions. Several roads link these coastal assets to the hinterland. All the roads in the study area serve as major structuring elements in formulating a concept for future spatial planning in the coastal strip.

11.2.7 Other key issues

1) Coastal setback lines

Conservation areas should be used to determine and demarcate the coastal set back line (when the Coastal Bill is promulgated) for the Umgababa CMP coastline. Coastal setback lines can be

demarcated by any coastal management programme, coastal zoning scheme or a municipal zoning scheme and should assist in:

- The protection of coastal public property;
- The protection of the coastal buffer zone;
- The maintenance and preservation of the aesthetic values of the coastal zone.

In term of the Draft Coastal Management Bill (October 2004), no person may erect, place, alter or extend a structure that is wholly or partially seaward of a coastal set-back line unless the prescribed permission has been obtained. Demarcation of coastal setback lines will therefore assist in management and regulatory control within these areas.

2) “Sense of place”

Although the term “sense of place” is a very subjective concept, few would argue that this section of Ethekwini’s coastline has a very special sense of place, and that this sense of place is characterised *inter alia* by:

- A feeling of remoteness (in certain sections);
- The pleasures of spectacular visual landscapes;
- The fascination of persisting traditional (African) cultures;
- The strong historical heritage attached to the Umgababa area especially its holiday resort.

The implications of this for tourism planning in coastal planning and management, are profound and in essence they are as follows:

- Any development, usage or people activities that detract from this “sense of place may detract from the competitive advantage or “unique selling point” of the Umgababa as a tourist destination
- Consequently the maintenance of the scenic, and unspoilt nature of the area must be **central** to and given priority consideration in all future planning, policy and legislation initiatives related to the area
- Accordingly, tourism planning and policy must thus strive to maintain this “sense of place” through:
 - Innovative zonation and positioning of development nodes that precludes “ribbon development” along the coastline;
 - Limiting the magnitude of development within approved nodes and sites and ensuring that permitted development is as unobtrusive as possible;
 - Limiting visitor numbers and ensuring that permitted activities are in harmony with the desire to maintain the characteristics and qualities of the area; and
 - Rehabilitating any past developments and usages that are in conflict with the area’s sought after sense of place.

11.3 Coastal Land Use Management Guidelines

11.3.1 Introduction

This section sets out guidelines that will assist in the formulation of the Coastal Land Use Management Scheme (LUMS). They are based on the each of the broad land use/zoning categories defined earlier in Section Two. These land use categories/development zones include:

- High intensity recreation / tourism zone
- Conservation / low intensity tourism zone;
- Low density development zone;
- Limited Development Zone;
- Conservation / no-development zone;
- Local recreation zones.
- Agricultural Zone
- Utilities and Services

11.3.2 The Intention of These Guidelines

Planning policy as set out in the White Paper on Spatial Planning and Land Use Management (2001), the MSA and the National Land Use Bill intend that Land Use Management Guidelines required as part of an SDF are implemented through the preparation of wall-to-wall schemes for each Local or Metropolitan Municipality. Land Use/Planning Schemes are an efficient and effective legal mechanism to manage land use development, manage conflict between land uses and protect the environmental characteristics that gives the study area its sense of place and tourist potential.

The preparation of these schemes would be informed by the eThekweni IDP's SDFs, local area plans for the relevant portions of the study area, and other more detailed planning exercises undertaken by the municipality and its ABMs. The intention of these guidelines is therefore to:

- To guide the Rural ABM and South Local Operational Entity with the preparation and/or revision of the relevant planning schemes;
- To assist the relevant authorities with land use decision-making whilst schemes are being prepared and approved.

11.3.3 The Nature of These Land Use Management Guidelines

Given the scale at which the spatial development framework for the coastal zone/strip has been prepared, the guidelines presented in this section are **broad** in nature and will need to be developed and refined in the preparation of the SDFs, any more detailed frameworks as well as the LUMS, actions plans etc, affected by this CMP.

In line with the vision and development strategies for the study area, the guidelines (and management that arises from them) need to be both **regulatory** to protect and conserve sensitive and important environments and mitigate negative externalities, as well as **proactive or developmental** to promote appropriate development that will enhance economic opportunities for local communities.

These guidelines are based on a review and synthesis of the guidelines contained in the CTDp as well as guidelines contained in other planning documents.

11.3.4 Approach To The Preparation Of Guidelines To Manage Land Use

Within the legal framework that exists in the study area, there is not single approach to preparing guidelines for land use management for a municipality. Moreover, different approaches may be used for different areas within a scheme. These approaches may vary from a simple to a more complex scheme. Since a large portion of the study area falls within Ingonyama Trust and/or Traditional Authority area, a simple approach will be presented with broad policy guidelines.

11.3.5 Proposed Land Use / Zoning Typology and Guidelines

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
<p>High intensity recreation / tourism</p>	<p>Amanzimtoti to Karridene, for example</p> <ul style="list-style-type: none"> • Doonside Beach & residential; • Winkelspruit; • Winkelspruit beach & residential; 	<ul style="list-style-type: none"> • Existing tourist infrastructure and where further development can occur without severe environmental impact; • Are already severely impacted in one way or another and are in need of significant rehabilitation or coastal stabilization works; • Major recreation / tourism nodes but have capacity for expansion and or improvement; • Where sensitive development would allow the establishment of new high intensity nodes. 	<ul style="list-style-type: none"> • Provision of full range of facilities and services for local and visiting communities; • Promote tourism and encourage the development of a greater diversity of tourism product, facilities and enterprises; • Protect biodiversity and sensitive ecological environments. 	<p>Land uses: Residential, business, industrial, public service, infrastructure, sport, leisure and recreation, tourism facilities including higher order tourism and recreation facilities, and a full range of tourism accommodation, including hotels, resorts, beds and breakfast accommodation, backpacker lodges, camp sites and caravan parks, walking and hiking/horse trails.</p> <p>Boat launching sites may be considered subject to a full EIA and full involvement of DWAF, DEAT and their relevant divisions and agencies including marine and coastal management and the city's coastal policy/management unit.</p> <p>Level of infrastructure and services: Water: Municipal water reticulation; Sanitation: full waterborne sewerage or septic tanks; Solid waste: municipal collection to a solid waste disposal site; Road access: fully surfaced (tar); Electricity: full reticulation; Telecommunications – full telecommunication and cellular network; Off-site impacts of all infrastructure development must be considered in any development application (power lines, roads, sewer lines, solid waste transportation and disposal, telecommunication lines and masts)</p> <p>Built form / aesthetic / design guidelines:</p> <ul style="list-style-type: none"> • Special attention to be given to the beachfront areas, which is ecologically sensitive and one of the major attractions of the area; • In preparing or revising schemes, attention must be given to the height of buildings near the beachfront to ensure that views are retained. Consider step-back approach, where buildings near to the beach are single storey with the height rising as development occurs further away from the beachfront. <p>Other:</p> <ul style="list-style-type: none"> • Development must not impact on any special features or symbols of the area and should not limit access to these

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
Local recreation	<ul style="list-style-type: none"> • Illovu north residential • Karridene; • Umgababa 	<p>Areas would be suitable for development of facilities to cater for local recreational needs and for reasons relating to access or existing land use and settlement are not suitable or attractive for regional recreation / tourism development.</p>	<p>The determinants for the location of these areas are:</p> <ul style="list-style-type: none"> • Areas where regional and/or local access is constrained; • Areas where the coastal or “back of the coast” landuse would preclude short to medium term redevelopment as a major recreation/tourism node. This include areas such as residential and industrial development; • The absence of sensitive ecological zones; • Areas which do not have good swimming beaches or facilities. 	<p>features;</p> <p>Land uses: Limited residential, business, infrastructure, sport, leisure and recreation, tourism facilities including lower order tourism and recreation facilities, and a limited range of tourism accommodation, including B & Bs, backpacker lodges, camp sites and caravan parks, walking and hiking/horse trails.</p> <p>Level of infrastructure and services: Water: Municipal water reticulation; Sanitation: full waterborne sewerage or septic tanks; Solid waste: municipal collection to a solid waste disposal site; Road access: semi to fully surfaced; Electricity: full reticulation; Telecommunications – full telecommunication and cellular network; Off-site impacts of all infrastructure development must be considered in any development application (power lines, roads, sewer lines, solid waste transportation and disposal, telecommunication lines and masts)</p> <p>Built form / aesthetic / design guidelines:</p> <ul style="list-style-type: none"> • Special attention to be given to the beachfront areas, which is ecologically sensitive and one of the major attractions of the area; • In preparing or revising schemes, attention must be given to the height of buildings near the beachfront to ensure that views are retained. Consider step-back approach, where buildings near to the beach are single storey with the height rising as development occurs further away from the beachfront. <p>Other: Development must not impact on any special features or symbols of the area and should not limit access to these features;</p>
Conservation / low intensity tourism	<ul style="list-style-type: none"> • Amanzimtoti, Doonside & Illovu estuaries; • Amanzimtoti Beach & residential; 	<ul style="list-style-type: none"> • Areas include sensitive ecological assets such as dunes, forests and estuaries and currently act as green “wedges” which break up urban sprawl. These areas have been identified as having high potential for 	<p>The determinants for the location of these areas include:</p> <ul style="list-style-type: none"> • Areas which have high ecological value and which fall within the DMOSS; • Areas or elements which function as links between 	<p>Land uses: Limited residential, business, infrastructure, sport, leisure and recreation, tourism facilities including lower order tourism and recreation facilities, and a limited range of tourism accommodation, including B & Bs, backpacker lodges, camp sites and caravan parks, walking and hiking/horse trails.</p> <p>Level of infrastructure and services:</p>

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
	<ul style="list-style-type: none"> • Ilfracombe 	<p>DMOSS and they should be protected, retained and managed sensitively to ensure the viability of the metropolitan area's open space system and ecological asset base.</p> <ul style="list-style-type: none"> • They are also valuable for education and low intensity tourism and recreational uses, such as view sites, bird sanctuaries, and nature trails. 	<p>ecological systems and/or assets;</p> <ul style="list-style-type: none"> • Areas which have high quality visual and scenic attraction. 	<p>Water: Municipal water reticulation; Sanitation: full waterborne sewerage or septic tanks; Solid waste: municipal collection to a solid waste disposal site; Road access: semi to fully surfaced; Electricity: full reticulation; Telecommunications – full telecommunication and cellular network; Off-site impacts of all infrastructure development must be considered in any development application (power lines, roads, sewer lines, solid waste transportation and disposal, telecommunication lines and masts)</p> <p>Built form / aesthetic / design guidelines:</p> <ul style="list-style-type: none"> • Special attention to be given to the beachfront areas, which is ecologically sensitive and one of the major attractions of the area; • In preparing or revising schemes, attention must be given to the height of buildings near the beachfront to ensure that views are retained. Consider step-back approach, where buildings near to the beach are single storey with the height rising as development occurs further away from the beachfront. <p>Other: Development must not impact on any special features or symbols of the area and should not limit access to these features;</p>
<p>Low density development zone</p>	<p>Areas between R102 to N2, eg:</p> <ul style="list-style-type: none"> • Illovu West; • Tribal areas inland of R102, stretching from Ilfracombe to Illovu in the north. 	<ul style="list-style-type: none"> • Areas are suitable for future permanent residential development infill between the primary study area boundary and the secondary study area boundary (ie the N2 freeway). • They are likely to be developed during the course of the general growth and expansion of the metropolitan area, but may also be influenced by major development projects or programmes (airport, port, SAICCOR etc). 	<ul style="list-style-type: none"> • Status quo can continue; • Includes areas in traditional authority, not close to ecologically or sensitive areas; • Area can accommodate larger developments (shopping centres, petrol filling stations, industries etc) that are space extensive; 	<p>Land uses: Existing residential, business, public service (schools, churches, etc), infrastructural, recreation, sports and leisure, tourism facilities, camp sites and caravan parks etc.</p> <p>Level of infrastructure and services: Water: Boreholes & communal standpipes, full water reticulation within urban edge; Sanitation: VIPs (& septic tanks), and waterborne sewerage within urban edge; Solid waste: municipal collection to a solid waste disposal site; Road access: fully and semi-surfaced (tar & gravel); Electricity: full reticulation; Telecommunications – full telecommunication and cellular network; Off-site impacts of all infrastructure development must be</p>

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
				<p>considered in any development application (power lines, roads, sewer lines, solid waste transportation and disposal, telecommunication lines and masts)</p> <p>Built form / aesthetic / design guidelines: In preparing schemes, attention must be given to the height of buildings to ensure that views are retained. Heights not to exceed 2 stories.</p> <p>Other:</p> <ul style="list-style-type: none"> • Development must not impact on any special features or symbols of the area and should not limit access to these features; • Urban edge/limit to development of each node needs to be determined through more detailed planning; • Interface area around nodes needs to be determined and managed to protect adjacent important areas of biodiversity and ecologically sensitive areas; <p>Emphasis should be on clustering development within nodal areas and maximising natural open space provision.</p> <p>Other:</p> <ul style="list-style-type: none"> • Development must not impact on any special features or symbols of the area and should not limit access to these features; • Urban edge/limit to development of each node needs to be determined through more detailed planning; • Interface area around nodes needs to be determined and managed to protect adjacent important areas of biodiversity and ecologically sensitive areas; • Emphasis should be on clustering development within nodal areas and maximising natural open space provision.
<p>Limited Development Zone (LDZ)</p>	<p>Areas between R102 and railway line, eg:</p> <ul style="list-style-type: none"> • From Ngane to Msimbazi Rivers 	<ul style="list-style-type: none"> • Limited Development Zone refers to areas where there can only be low intensity, environmentally and culturally sensitive development. Development should protect and promote cultural and landscape integrity. 	<ul style="list-style-type: none"> • Limited and regulated tourism activities, • Small accommodation facilities that are low-key, lowimpact and in harmony with the natural environment; • Controlled traditional residential housing 	<p>Land uses: Existing residential, recreation, tourism facilities (backpacker lodges, B&Bs, camp sites), walking and hiking/bird trails.</p> <p>Level of infrastructure and services: Water: Boreholes & communal standpipes; Sanitation: VIPs & septic tanks; Solid waste: municipal collection to a solid waste disposal site; Road access: fully and semi-surfaced (tar & gavel);</p>

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
		<ul style="list-style-type: none"> • Moratorium to be placed on further inappropriate residential development. • Land use in this zone must be compatible with the relevant environmental assessment provisions of the NEMA and ECA. Therefore LDZs currently encompass the area between the railway line and R102 and should act as a buffer zone between low density development zones and No development zones/areas. 	<p>development</p> <ul style="list-style-type: none"> • Subsistence agricultural activities; • Infrastructure other than eco-tourism facilities and traditional residential (such as schools, shops and offices) to be discouraged, especially outside nodes; • Eco-tourism and soft-adventure activities encouraged; • Any further proposed development will be required to adhere to strict Integrated Environmental Management Planning processes and procedures in accordance with national environmental legislation, more particularly the NEMA, and its new regulations pertaining to prescribed EIA requirements. 	<p>Electricity: full reticulation; Telecommunications – full telecommunication and cellular network;</p> <p>Built form / aesthetic / design guidelines: In preparing schemes, attention must be given to the height of buildings to ensure that views are retained. Heights not to exceed 2 stories.</p> <p>Other:</p> <ul style="list-style-type: none"> • Development must not impact on any special features or symbols of the area and should not limit access to these features; • Urban edge/limit to development of each node needs to be determined through more detailed planning; • Interface area around nodes needs to be determined and managed to protect adjacent important areas of biodiversity and ecologically sensitive areas; • Emphasis should be on clustering development within nodal areas and maximising natural open space provision.
<p>Conservation Zone (no development)</p>		<ul style="list-style-type: none"> • Essentially a “No physical Development” zone — to protect & conserve biophysical environment, as well as beauty/scenery/ sense of place; • No residential, commercial or industrial development • Potential for protected area status viz. application for and declaration as a nature reserve in terms of both the National Environmental Management: Protected Areas Act 57 of 2003, and KwaZulu-Natal Nature Conservation Act 9 of 1997. • Potential for eco-tourism 	<ul style="list-style-type: none"> • Protect bio-diversity, sites of historical, cultural and social significance, special resources areas, and sites that represent the essence of the Umgababa coastal zone; • Expansion of traditional settlement areas should be discouraged. • Regulated through co-management arrangements and EMPs. • Controlled subsistence harvesting in line with EMP and MCM permit conditions; • No permanent physical structures; 	<p>Land uses:</p> <ul style="list-style-type: none"> • All developments must be of a temporary nature that could potentially be dismantled and taken away once the concession period or lease period is complete. Overnight accommodation, day trip facilities, tourism walking and horse-riding trails. These temporary developments could be termed “nature tourism development sites” in a LUMS. • No other land uses/developments permitted (eg shops, residential structures etc). • The establishment of an education centre either within or adjacent to this zone (careful site selection must be ensured) would also add value to the conservation and educational potential of these areas. <p>Other:</p> <ul style="list-style-type: none"> • Development must not impact on any special features or symbols of the area and should not limit access to these features;

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
		<p>initiatives, including walking trail (possible board walk), bird-watching, environmental education</p> <ul style="list-style-type: none"> Controlled beach access through demarcated paths Continuation of recreational fishing activities and subsistence fishing rights in the inter-tidal zone 	<ul style="list-style-type: none"> Eco-tourism and soft-adventure activities encouraged. 	<ul style="list-style-type: none"> Use of natural/local material where possible, blending in with the natural environment. 1 storey only. Minimal development/building footprint to be enforced. All services managed locally, on site, with the exception of solid waste disposal. No clearing of coastal forests or disturbance of dunes or dune vegetation should be permitted. <p>Building code:</p> <ul style="list-style-type: none"> Temporary wilderness camp facilities only (limited footprint). Use of natural/local material where possible, blending in with the natural environment. 1 storey only. Minimal development/building footprint to be enforced. Cut and fill levelling of sites should not be permitted.
Agricultural Zone	The area between P88 to the North Mahlongwana river to the South, N2 to the West and the existing residential areas and DMoss areas to the East	<ul style="list-style-type: none"> proportion of this land has a good production potential The subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposes is discouraged. 	<ul style="list-style-type: none"> Development or subdivision of this land should only be allowed if; <ul style="list-style-type: none"> The land has already been subdivided to a size which renders it agriculturally unviable. Where the land has already been developed for non agricultural purposes The proposed development does not compromise the primary agricultural activity of the property; The proposed development comprises a secondary activity to supplement a landowners income 	<p>Land uses:</p> <ul style="list-style-type: none"> All development should be compliant with the stipulated key issues/ priorities. No other land uses/developments permitted (eg shops, residential structures etc). <p>Other:</p> <ul style="list-style-type: none"> Development must not impact on any special features or symbols of the area and should not limit access to these features; Use of natural/local material where possible, blending in with the natural environment. 1 storey only. Minimal development/building footprint to be enforced. All services managed locally, on site, with the exception of solid waste disposal.
Utilities and Services	The area next to Umkomaas river on the eastern	<ul style="list-style-type: none"> This land is reserved for community services and no permanent building 	<ul style="list-style-type: none"> This land shall not be subdivided. 	<p>Land uses:</p> <ul style="list-style-type: none"> All development should be compliant with the stipulated key issues/ priorities.

Land use type / development zone	Place / area name	Statements of intent	Key issues/priorities	Land use management guidelines
	part of the N2 (Close to the N2) and not too far from the Sappi SAICCO site.	should be constructed on this area		<ul style="list-style-type: none">• No other land uses/developments permitted (eg shops, residential structures etc).

12 APPENDIX FOUR: PUBLIC PARTICIPATION RECORD

A comprehensive public participation (PP) process is not only compulsory in terms of environmental impact assessment legislation and associated regulations (i.e. under the ECA and NEMA), but is also extremely important when considering new planning and physical development initiatives, especially in rural areas. Therefore considering public participation there was extensive participation of the public as public meetings were held in all three precincts viz, Amanzimtoti, Umgababa and Umkomaas. The feedback and needs of the public are detailed below.

12.1 Amanzimtoti Community Meeting

MINUTES

Venue: Amanzimtoti Civic Centre
Date: 02 – 12 – 2008
Time: 17:30
Participants: Community members, eThekwini Municipality, UDIDI Consultants
Purpose of Meeting: Identify issues and comments from the Public for inclusion in the CMP

PARTICIPANTS

<u>Udidi (PT/PMT)</u>	<u>eThekwini Durban Municipality:</u>	<u>Public / Residents</u>	
Mark Faku Tammy Jones Khulekani Ndlovu	Peter Gilmore Andrew Mather	Keith Wallers Maureen + Noray Babcock Keith + Ann Watson A van de Watt A Pienaar D Malan Malcolm Gardner	Erica Malan Rudy Malan Andrew Young George Bateman John Sibisi Craig Glenister Menzi Ngcobo

The meeting was structured along the following agenda:

1 Opening and Welcome	Everyone present was welcomed by Peter Gilmore.
2 Presentation/ Background	Mark Faku Introduced the project team. Tammy Jones conducted the presentation
3 Questions/Comments	The list of questions is attached below.
4 General	Members of the public/residents were asked to email any further comments and queries to the project team.
5 Closure	Mark Faku thanked everyone for attending the meeting and the meeting was declared closed at 19:15pm

List of questions/comments that arose from the meeting:

Question/Comment	Response
With regards to implementation what is the set time frame (i.e. when will this CMP be implemented)	We have six months to do this project but with regard to implementation it will be an ongoing process. For now we are looking at documenting the plan

	The CMP is looking at managing human activities, therefore it will be looking at managing people by that we will look at planning regulations such as how far a person can construct a building from the shoreline.
The study area is depicted from the low water mark to the east and the N2 to the west but there are other areas further up/inland which have estuaries and rivers which also need to be managed and there is also a need to incorporate the sewerage treatment area as it also has an impact.	In terms of extending the study area that point will be noted. The CMP will not cover everything therefore there are other plans which will be done (i.e. storm water management plan, sewerage management plan, catchments management plan).
As a member of the public I am not sure of what kind of input you require from us.	We are looking for input like the one raised of extending the study area boundary We are looking mostly for input of things that you are also not satisfied with as we are trying to get a strategic view of how we are looking at developing our coastline in the next 30yrs and this is basically information of what you want.
There is no proper erosion management.	Noted
Will the railway line be moved as said?	Noted
There is a lack of facilities as the level of road infrastructure is not satisfactory.	The plan has to manage these kinds of issues.
People coming to Toti have little beach space as there's no area for having fun, braai etc. Also the buildings like the Happy Days are not in good condition and these are buildings which are used for accommodation mainly for tourists. There is also little security in Toti and the safety on beaches need to be increased.	Noted
If the water level rises as it will rise what will happen to the Toti Centre because even if there was an option to move it I do not see any land available.	Noted
Infrastructure is getting worn out and it is not being maintained.	Noted
The municipality must set out proper road system leading to the beach as there have been many accidents. This problem does not only exist within the coast but also inland.	Noted
We should acknowledge the good things about our area and not only focus on the negative because there have been some positive developments taking place.	Noted
The Toll Road in Toti is in a totally inappropriate area. It should be somewhere in Umkomaas and not Kingsway.	Unfortunately we are not responsible for those roads.
The road signage on the freeway is not maintained well, there are trees hanging over them.	Noted
We as Toti people need to come together and work together towards our goals and manage our problems thus we will be able to be competitive because I have lost my trust on	Noted

Councillors.	
It is not easy for us as people to come together as it is also evident with the poor attendance today despite the ample advertisement.	People thought that this meeting would only be of concern to people living within the coastal areas.
Can you tell us as residents as to what we can do with regard to erosion.	This is the issue that the CMP will attempt to address.
At Warner Beach there have been developments taking place. We are looking at the bigger picture but we are leaving out the small area.	There are developments which will have to take place and in terms of Warner Beach there have been no buildings which are erected in an area which is not suitable. There are a set of regulations which are followed.
A lot of the erosion is due to the taking away of the natural environment by people.	Noted.
Can we have the details of the people that will be dealing with coastal management.	The notes of the meeting will be circulated and the contact details will be attached and can you please pass it around to other people who are not present today.
Can the plan stretch or spread our beaches like Umhlanga and Durban?	There is a plan which was done before which excluded some areas which will be included in this plan. In terms of nodes, Toti is categorised to be at the same level as Umhlanga therefore it should be developed to that level.

12.2 Umkomaas Community Meeting

MINUTES

Venue: Umkomaas Hall

Date: 04 – 12 – 2008

Time: 17:30

Participants: Umkoomas Community members, eThekwini Municipality, UDIDI Consultants

Purpose of Meeting: Identify issues and comments from the Public for inclusion in the CMP

PARTICIPANTS

<u>Udidi (PT/PMT):</u>	<u>eThekwini Durban Municipality:</u>	<u>Public / Residents:</u>	
Mark Faku Tamaryn Jones Khulekani Ndlovu	Peter Gilmore Andrew Mather	Dianne White A Edgson C Schwegman K Jones M Harrison J Macbeth J Griffith J Pereira D Smith C Oosthezuizen Mick Clarke QV Mann RB Crankshaw K Cunningham Sizwe Mbhele Werner Holtzhausen	Mfanafuthi Mkhize Sbusiso Nongoma Mduduzi Mbutho Wiseman Mthembu Londani Zuke Wendy T Hlangu BM Mahlaba Mduduzi Boyeni M Pillay J Reynolds JA Cooke CML Zondi S Thompson Bryan Vivier Charles

The meeting was structured along the following Agenda:

Opening and Welcome	Everyone present was welcomed by Mr. Peter Gilmore.
Presentation/ Background	Mark Faku Introduced the Project Team. Tamaryn Jones conducted the presentation.
Questions/Comments/Issues	The list of questions/comments/issues raised is attached below.
General	Members of the public/residents were asked to email any further comments and queries to the project team. It was noted that the minutes of the meeting would be circulated via email to all attendees. A request was also made for attendees to forward the minutes to people that are affected or would be interested in the project so as to receive as much input from the public as possible.
Closure	Mark Faku thanked everyone for attending the meeting and the meeting was declared closed at 18:30.

List of questions/comments/issues that arose at the meeting

Question/Comment/Issues	Response
How does this plan interact with the SDF?	The municipality is doing many sector plans which are incorporated into the IDP and it will also be incorporated and inform the SDF and it will be reviewed annually as with the SDF.
What is the time frame for this project?	For us as consultants we have to do it with in 6 months and until the Bill is promulgated then this plan will be implemented
The SDF has not even been finalized, yet eThekwini is allowing other developments to take place. Will the SDF now have to also wait for this plan to be finalised?	The SDF does not depend on this plan to be finalised. Once this plan is complete the SDF can be amended.
The SDF propose a development of water borne sewerage (septic tanks) close to the coast and this will cause pollution.	These are the kind of the issues that the plan will address and these are exactly the kind of issues we need to hear.
How will this be done? Will it be done by these kinds of meetings?	For now we will convene meetings until our contract is over and afterwards the public will have to communicate with the Municipality
The water borne sewerage, will it be pumped into the sea?	That question goes hand in hand with the one that has already been raised. We will engage with the people concerned with the proposed septic tank developments and present the feedback to the council.
Wimpy has been upgraded but there has been nothing done to the road.	Noted.
Umkomaas is probably the area where the Municipality spends the minimum.	Noted.
Does eThekwini have the money for all this development as this planning looks appealing?	The Municipality has realised that there is a need for this plan but then the availability is another issue.
There was an excuse made by the Municipality that there is no money available, but now the province has announced that it has dished out money to Municipalities therefore we need to see service delivery.	We will note that comment and raise it with the Municipality, and then the Municipality will come and engage with you.
The urban development framework has identified things yet they have not implemented anything which was identified.	Noted.
Will the CMP entail the same work that was done on the UDF?	To a certain extent but the CMP goes beyond by identifying areas which need to be preserved
Are the areas between Amahlongwa and Amahlongwana rural or urban? If the area is considered to be rural then that means there will be limited development there.	The area will be considered to be rural
Some of the questions we have for you are technical and we cannot ask them here so is there anyone we can contact?	Yes you can contact us, the consultants, or the Municipality.
What will be done about the rivers? Will they be considered in this plan?	There will be a catchment/estuary management plan coming out of this plan.
Do you have a copy of the eThekwini catchments which were identified by a guy in Pietermaritzburg?	No, but we can try and get hold of it

Will this plan form part of the SDF	Yes
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Subsequent to the public meeting held in Umkomaas a synopsis of the Clansthal Conservancy and comments were received, see below.

12.3 Umgababa Community Meeting

MINUTES

Venue: Danganye School

Date: 15 – 02 – 2009

Time: 10:00

Participants: Umgababa Community members, Councillor (eThekwini Municipality), UDIDI Consultants

Purpose of Meeting: Identify issues and comments from the Public for inclusion in the CMP

PARTICIPANTS

<u>Udidi (PT/PMT) :</u>	<u>eThekwini Durban Municipality:</u>	<u>Public / Residents:</u>	
Mark Faku Khulekani Ndlovu	Councillor: Mduduzi Boyeni	Isaac Bongani Mthembu Dolcas Masuku Wiseman Mthembu M.V. Mthembu Senzo Mthembu Moses Khuzwayo F.T. Mbambo O Sibisi Wiseman Cele James Msane B.E. Mbuyisa Thokozani Luthuli Annastasia Khomo Busisiwe Dube Zinhle	Busisiwe Msomi N.D. Mthembu Thandiwe Ngqondo Zipindile Magubane Bashuntshile Msomi Norrah Maphumulo Vincent Msomi Thulisile Msomi Thembukwenzani Ndimande T. Ngcondo

The meeting was structured along the following Agenda:

1. Opening and Welcome	Everyone present was welcomed by the Councillor.
2. Presentation/ Background	Mark Faku Introduced the Project Team and conducted the presentation.
3. General (Questions/Comments/Issues)	Upon the meeting it was agreed to that questions and comments will be forwarded by the community members to the Councillor and the Councillor will forward the comments to the consultants since there were other presentations that were due to be held.

With regards to comments that were to be forwarded by the Umgababa community there was no feedback from the community after the meeting besides a lady that called to commend the study that was presented to them (CMP)

12.4 Meeting with Clansthal Conservancy

MINUTES

Venue: eThekwini Offices

Date: 30 – 01 – 2009

Time: 09:00

Participants: Clansthal Conservancy, eThekwini Municipality, UDIDI Consultants

Purpose of Meeting: Identify issues and comments from the Clansthal Conservancy for inclusion in the CMP

PARTICIPANTS

<u><i>Udidi (PT/PMT)</i></u>	<u><i>eThekwini Durban Municipality:</i></u>	<u><i>Clansthal Representative</i></u>
T Jones	A Mather E Dubbeld Z Mazibuko	R Crankshaw

Issues and Comments Raised

- The Clansthal conservancy is on land where there is a chance for restitution
- The Clansthal conservancy is part of the Aliwal Shoal protected areas which stretches from the Umkomaas to Umzomai Rivers
- There is no lighting on the 2 good beaches of the area
- The Mposini Nature Reserve could possibly be connected with the green belt
- Large housing estates are being proposed and developed which will have a negative impact on the marine/estuarine resources
- The existing Marine Protected Area Management Plan could be extended to a no take zone with the Clansthal Conservancy playing a role in conserving it
- eThekwini are attempting to have as little development to the south as possible
- Umkomaas to Scottburgh has good potential for economically viable tourism/agriculture etc.
- Tourism role of Umkomaas would be for e.g. Eco-tourism whereas Scottburgh is more seasonal tourism with a synergistic relationship needed
- There is a launch site on the northern banks of Umkomaas

13 APPENDIX FIVE: DETAILED CATCHMENT ANALYSIS

Introduction

Udidi is revising the Umgababa Coastal Management Plan for the southern portion of the eThekweni Municipal Area. As part of this revision process Udidi are required to consider the state of the catchment systems and the water quality of these catchments. Udidi approached GroundTruth to undertake this part of the process based on the experience and data acquired by GroundTruth while compiling State of the Rivers reports (SoR) for eThekweni Municipality. The SoR covered all of the major rivers that flow through the municipal boundary on their way to the coast, including the main rivers that drain the catchments found within the boundaries of the areas to be incorporated in the Umgababa Coastal Management Plan (CMP). For the SoR reporting a suite of parameters were measured to provide an integrated assessment of the health or condition for the rivers draining the eThekweni Municipal Area (EMA). Water quality and aquatic bioindicators were used for their ability to integrate upstream catchment conditions and activities and hence provides some sort of summary of the catchment ecological state. This information along with catchment land use coverage formed the basis for the following report on catchment conditions and water qualities within the Umgababa CMP.

Methods

For the Umgababa CMP the relevant rivers and their associated data (Figure 1) were extracted from the GroundTruth (2007) SoR report and their ecological condition, risks, impacts and management priorities summarized in Table 1. In addition, as indicators of catchment condition, the land use coverage for the respective river catchments as a whole, as well as that land use for respective catchments within the boundary of the EMA, were derived from the provincial land cover database developed by Ezemvelo KZN Wildlife (EKZNW) (Appendices 1, 2 and 3).

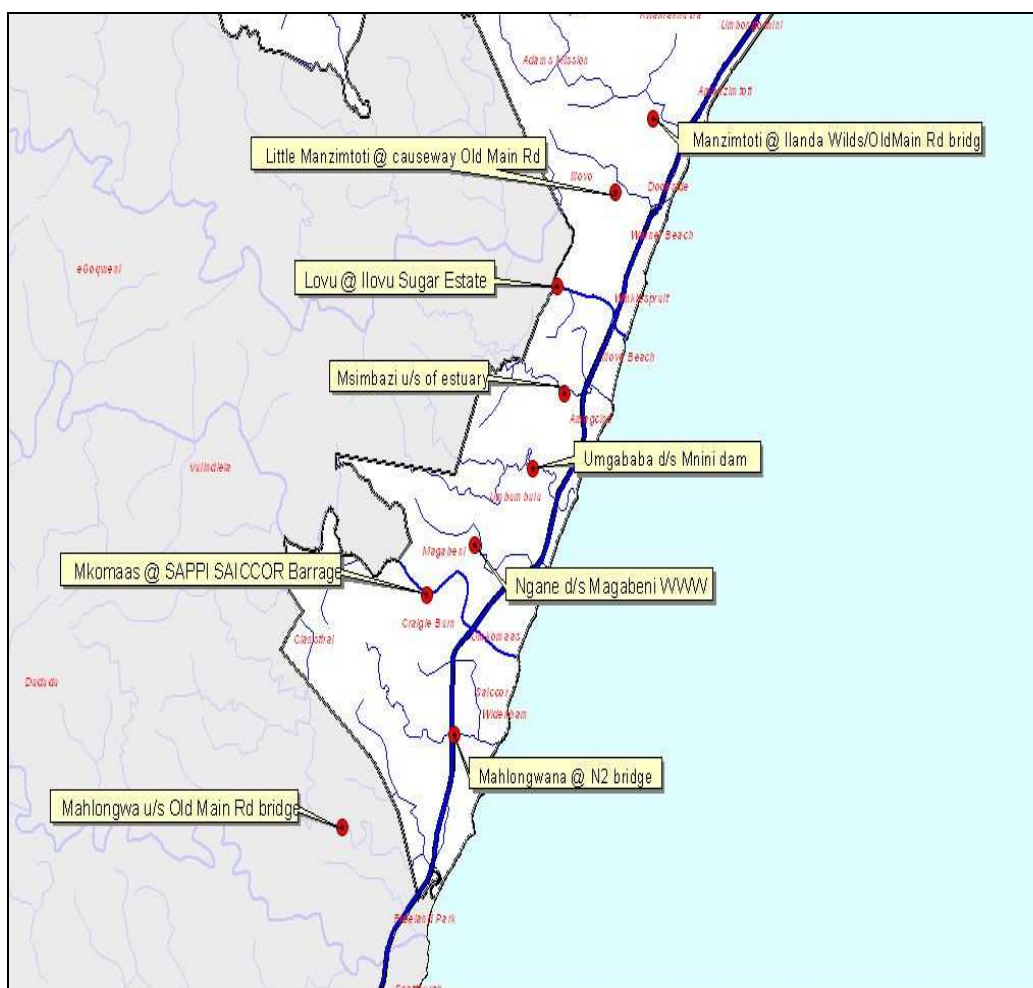


Figure 1: Location of sites in the southern eThekweni Municipal Area used for the determination of the water quality and catchment states falling within the Umgababa Coastal Management Plan boundary.

The biological indicators for the health of these respective rivers/catchments were obtained by using aquatic invertebrates (the SASS5 method, Dickens and Graham, 2002) and benthic diatoms (Taylor 2007) (with ancillary measures of habitat availability generated by the Integrated Habitat Assessment System (IHAS version 2) of MacMillan (1998)). A comprehensive Habitat Integrity Assessment (or Index of Habitat Integrity – IHI, Kleynhans, 1999) was done for all sites. Bacteriological and selected chemical and physical parameter measurements were conducted according to the methods used by the eThekweni Water and Sanitation laboratories.

Results

A summary of the catchments within the Umgababa CMP boundaries and their summarized ecological health status, are shown in Table 1. The environmental and health/recreational risks for each catchment, their associated impacts and relevant management priorities are also included. A more detailed description of each of the catchments, their land use coverage, impacts and management suggested priority interventions is provided in Appendix 4.

Table 1: Summary of catchments within the Umgababa CMP boundaries

Catchment	Summarized ecological health status	Risks identified within respective catchment	Impacts associated with the risks identified within catchments	Management priorities for dealing with risks to catchment condition.
Manzimtoti	Fair	Environmental: <ul style="list-style-type: none"> Elevated Soluble Reactive Phosphates (SRP) 	<ul style="list-style-type: none"> Excessive algal and aquatic macrophyte growth 	<ul style="list-style-type: none"> Identify nutrient sources and reduce volumes of nutrients entering the system
		Health/Recreational: <ul style="list-style-type: none"> Elevated E. coli levels 	<ul style="list-style-type: none"> Contraction of various gastrointestinal diseases 	<ul style="list-style-type: none"> Locate and reduce sources of E. coli
Little Manzimtoti	Poor	Environmental: <ul style="list-style-type: none"> Nutrient enrichment Detergent pollution 	<ul style="list-style-type: none"> Excessive algal and aquatic macrophyte growth Detergents can be toxic to aquatic biota 	<ul style="list-style-type: none"> Locate and reduce nutrient enrichment Control detergent pollution
		Health/Recreational: <ul style="list-style-type: none"> Nutrient enrichment Solid waste disposal 	<ul style="list-style-type: none"> Excessive growth of both algae and aquatic macrophytes Pollution and loss of recreational potential 	<ul style="list-style-type: none"> Locate and reduce nutrient enrichment Community education on river pollution and related health risks
Lovu	Fair	Environmental: <ul style="list-style-type: none"> Bed and channel modification Riparian destruction. 	<ul style="list-style-type: none"> Increased flooding Bank destabilization Increased sedimentation 	<ul style="list-style-type: none"> Control and or prevention of illegal sand mining Rehabilitation of riparian and instream zones

		Health/Recreational: <ul style="list-style-type: none"> Faecal contamination 	<ul style="list-style-type: none"> Contraction of various gastrointestinal diseases 	<ul style="list-style-type: none"> Locate and reduce the source of faecal contamination
Msimbazi	Fair	Environmental: <ul style="list-style-type: none"> Sand mining Alien plant invasion 	<ul style="list-style-type: none"> Increased flooding Bank destabilization Increased sedimentation Alien plant invasion 	<ul style="list-style-type: none"> Identify illegal sand mining Implement and or enforce Environmental Management Plans (EMP) for legal sand mining operations Implement control measures for alien plants
		Health/Recreational:		
Umgababa	Fair	Environmental: <ul style="list-style-type: none"> Modification of natural flows below the Mnini Dam Alien invasive aquatic weeds Reduced integrity of riparian zone 	<ul style="list-style-type: none"> Migration barrier (due to Mnini Dam) Loss of biodiversity Damage to infrastructure Aquatic alien plant invasion further reduces biodiversity Alien terrestrial plant invasion Loss of sediment loads necessary for estuarine functioning 	<ul style="list-style-type: none"> Implement some form of environmental flow release from dams Remove/control alien invasive terrestrial and aquatic weeds
		Health/Recreational: <ul style="list-style-type: none"> Alien invasive aquatic weeds 	<ul style="list-style-type: none"> Reduction of recreational potential 	<ul style="list-style-type: none"> Remove/control alien invasive terrestrial and aquatic weeds
Ngane	Poor	Environmental: <ul style="list-style-type: none"> Slightly elevated SRP levels 	<ul style="list-style-type: none"> Aquatic weed blooms 	<ul style="list-style-type: none"> Locate and reduce nutrient pollution and E. coli from above the WWW Manage water quality discharge from Magabeni WWW and ensure it falls within the standards recommended by DWAF
		Health/Recreational: <ul style="list-style-type: none"> Elevated E. coli levels 	<ul style="list-style-type: none"> Contraction of various gastrointestinal diseases Reduction in recreational potential 	<ul style="list-style-type: none"> Put measures in place to reduce E. coli entering the system

Mkomazi	Good	Environmental:	<ul style="list-style-type: none"> • Alien invasive plants • Detergent pollution • Sand mining • SAPPI SAICCOR Barrage 	<ul style="list-style-type: none"> • Degradation of riparian zones • Loss of biodiversity • Increased sedimentation • Migration barrier 	<ul style="list-style-type: none"> • Put EMP's in place for sand mining operation and enforce conditions • Control alien plants • Implement some form of fish ladder or other avenue to allow migratory biota access between estuary and river
		Health/Recreational:	<ul style="list-style-type: none"> • Elevated E. coli levels 	<ul style="list-style-type: none"> • Contraction of various gastrointestinal diseases • Reduced recreational potential 	<ul style="list-style-type: none"> • Locate and reduce source of E. coli
Mahlongwana	Good	Environmental:	<ul style="list-style-type: none"> • Nutrient enrichment • Alien invasive plants • Migration barrier 	<ul style="list-style-type: none"> • Loss in biodiversity • Bank destabilization • Loss of ecosystem functioning 	<ul style="list-style-type: none"> • Manage effluent discharge standards • Implement alien plant control • Implement measures to allow for migratory biota movement
		Health/Recreational:	<ul style="list-style-type: none"> • Nutrient enrichment • Alien invasive plants 	<ul style="list-style-type: none"> • Reduced recreational potential 	<ul style="list-style-type: none"> • Manage effluent discharge standards to reduce nutrients entering the system
Mahlongwa	Fair	Environmental:	<ul style="list-style-type: none"> • Minor sedimentation 	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil
		Health/Recreational:		<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • Nil

References

Dickens CWS and Graham PM (2002). The South African Scoring System (SASS) version 5 Rapid Bioassessment Method for Rivers. *African Journal of Aquatic Sciences*. 27: 1-10.

GroundTruth (2007), Final Summary Report eThekweni Municipality State of Rivers Report.

Kleynhans CJ and Hill, L (1999). Ecoregional Typing. Resource Directed Measures for Protection of Water Resources: River Ecosystems. Version 1. Department of Water Affairs and Forestry, Pretoria, South Africa.

2008 KZN Province land-cover mapping, version 2.0 (from SPOT 2/4 Satellite imagery 2005 – 06), for KZN Agriculture and Environmental Affairs, and Ezemvelo KZN Wildlife.

McMillan PH (1998). An Integrated Habitat Assessment System (IHAS version 2) For The Rapid Biological Assessment of Rivers and Streams. CSIR Report

Taylor JC, Prygiel J, Vosloo A & De La Rey PA (2007). Can diatom-based pollution indices be used for biomonitoring in South Africa? A case study of the Crocodile West and Marico water management area. *Hydrobiologia*. 592 455-464

Appendices

The details of the land use cover found in EKZMW report were deemed to be too detailed for the CMP and as such many of the specific land cover classes were consolidated into broader land use groups. This has been summarized in Appendix 1. These broader groups were used to graphically illustrate land use coverage proportions within their respective catchments (Appendix 4).

Appendix 1: New land use names and include EKZMW land use names

New land use groups	Original EKZMW land use classes
Water Source	Natural Fresh Water
	Wetlands
	Wetlands-mangrove
	Dams
	Estuarine Water
	Marine Water
Crops	Permanent orchards (banana, citrus) irrigated
	Permanent orchards (cashew) dryland
	Permanent pineapples dryland
	Sugarcane - commercial
	Sugarcane - emerging farmer
	Subsistence (rural)
	Annual commercial crops dryland
	Annual commercial crops irrigated
Trees	Forest
	Dense bush
	Bushland
	Woodland
	Degraded forest
	Degraded bushland (all types)
	Old cultivated fields - bushland
Grass	Golf courses
	Grassland / bush clumps mix
	Grassland
	Degraded grassland
	Old cultivated fields - grassland
	Smallholdings - grassland
	Alpine grass-heath
Urban	Urban
	Bare rock
	KZN national roads
	KZN main & district roads
Bare sand	Bare sand
	Coastal sand and rock
Mining, quarries, erosion	Mines and quarries
	Erosion
Rural dwelling	Rural dwellings
Plantation	Plantation
	Plantation clear felled

A summary of the land use coverage percentages for each catchment can be viewed in Appendix 2 and the percentage land use coverage for the portion of the catchments falling within the EMA can be viewed in Appendix 3.

Appendix 2: Land cover (as summarized in Appendix 1) for respective catchments, expressed as a percentage of the total catchment area

	Manzimtoti	Little Manzimtoti	Lovu	Msimbazi	Umgababa	Ngane	Mkomazi	Mahlongwana	Mahlongwa
Water source	1.92	0.53	0.61	1.79	1.85	1.57	0.71	4.67	1.79
Crops	5.76	6.50	29.93	21.22	8.44	5.05	5.59	49.52	21.22
Trees	11.43	12.31	28.60	19.04	14.46	13.06	20.68	8.85	19.04
Grass	29.77	23.47	13.63	37.88	53.86	28.71	55.04	5.44	37.88
Plantation	0.10	0.01	20.24	1.32	0.06	0.00	12.75	3.15	1.32
Urban	44.42	53.06	3.09	8.25	11.52	29.76	2.55	23.92	8.25
Mining, quarries, erosion	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00
Rural dwelling	6.33	3.21	3.86	10.03	8.83	20.39	2.45	3.65	10.03
Bare sand	0.27	0.91	0.04	0.47	0.98	1.45	0.01	0.66	0.47
Total	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00

Appendix 3: Land cover (as summarized in Appendix 1) for respective catchments, expressed as a percentage of the catchment area found within the EMA boundary

	Manzimtoti	Little Manzimtoti	Lovu	Msimbazi	Umgababa	Ngane	Mkomazi	Mahlongwana	Mahlongwa
Water source	1.92	0.55	2.91	1.50	3.19	4.87	5.14	4.68	0.82
Crops	5.77	5.66	26.65	34.97	7.44	0.00	4.31	49.64	51.09
Trees	11.45	12.30	27.07	12.14	13.95	7.09	42.25	8.86	16.92
Grass	29.80	23.78	18.86	17.75	45.28	34.04	23.61	5.42	10.74
Plantation	0.10	0.01	1.18	0.03	0.00	0.00	1.71	3.15	5.36
Urban	44.41	54.44	10.00	20.67	16.00	32.33	17.31	23.83	8.57
Mining, quarries, erosion	0.00	0.00	0.03	0.00	0.00	0.00	0.09	0.15	0.00
Rural dwelling	6.32	2.52	13.14	12.32	12.72	20.52	4.38	3.65	4.98
Bare sand	0.23	0.74	0.16	0.62	1.43	1.15	1.20	0.62	1.52
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Appendix 4 Detailed summaries of catchment conditions

The proportional land use cover for the respective catchments, (as well as the proportion of cover within the EMA boundary) is displayed in Appendix 4.

The ecological health class of the catchments, along with identified risks in the catchments, the impacts these risks can have and the management priorities needed to deal with these risks, are indicated in respective catchment summaries.

Manzimtoti

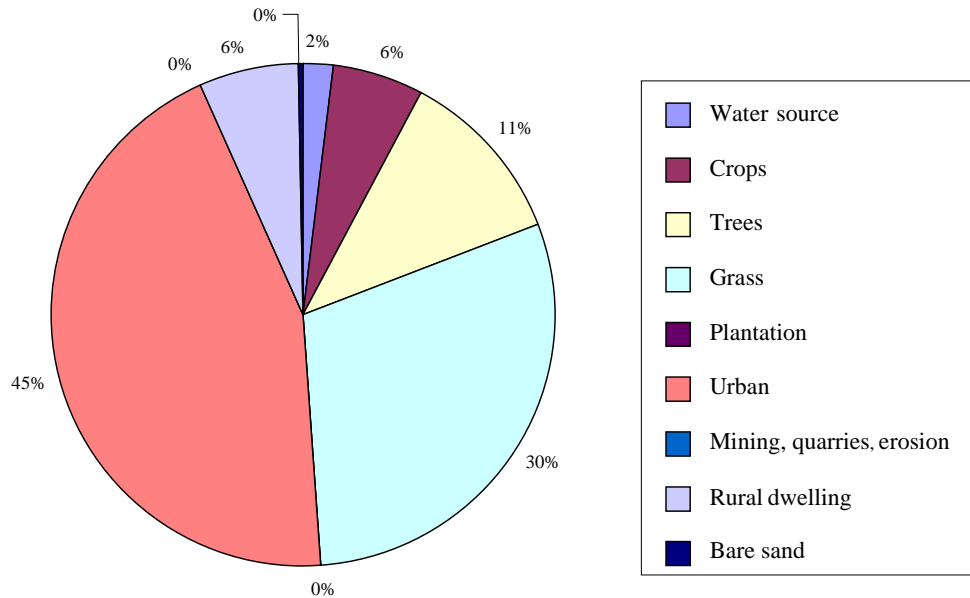


Figure2: Chart indicating the percentage land use cover for the entire the Manzimtoti Catchment

As indicated in Figure 2 the Manzimtoti Catchment, all of which falls within the eThekwini Municipal Area (EMA), consists mostly of urban areas (46%) and rural dwellings (6%). The run-off from these areas entering the river along with the waste water works (WWW) servicing the areas are the most likely causes of the nutrient pollution experienced in this catchment. There are elevated levels of Soluble Reactive Phosphates (SRP) and *Escherichia coli* (*E. coli*) in the system. The nutrient pollution generate from the aforementioned areas has the potential to result in excessive aquatic alien plant growth, this in turn can interfere with the flow of the water and reduces sediment loads vital to the functioning of estuaries downstream. When the estuaries are not functioning properly, this leads to a decrease in fish numbers, which in turn will lead to a decrease in the recreational activities associated with fish along the coast. The habitat integrity of the Manzimtoti River is in natural condition, while the water quality is only in a fair condition.

Management priorities would include upgrading and repairing storm water systems and the WWWW.

Little Manzimtoti

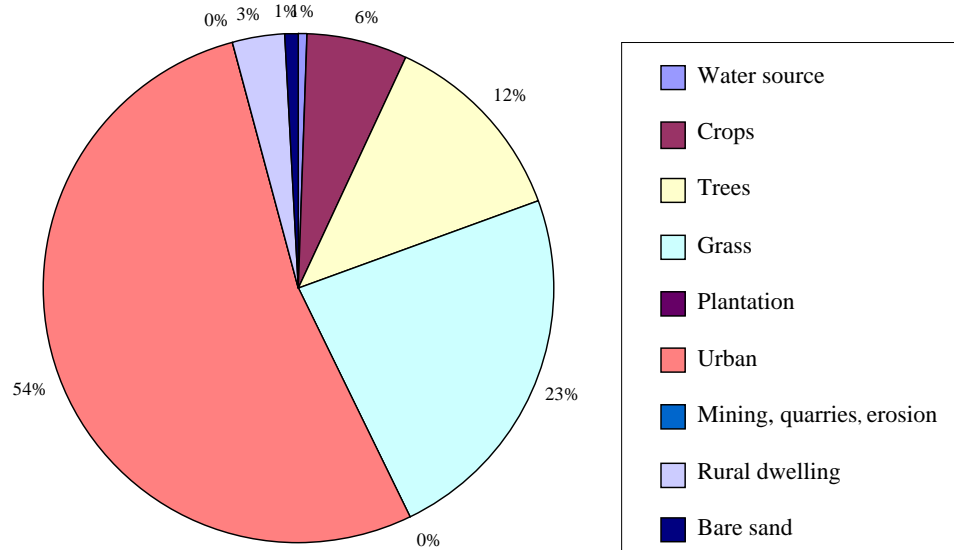


Figure 3: Percentage land use cover for the entire Little Manzimtoti Catchment

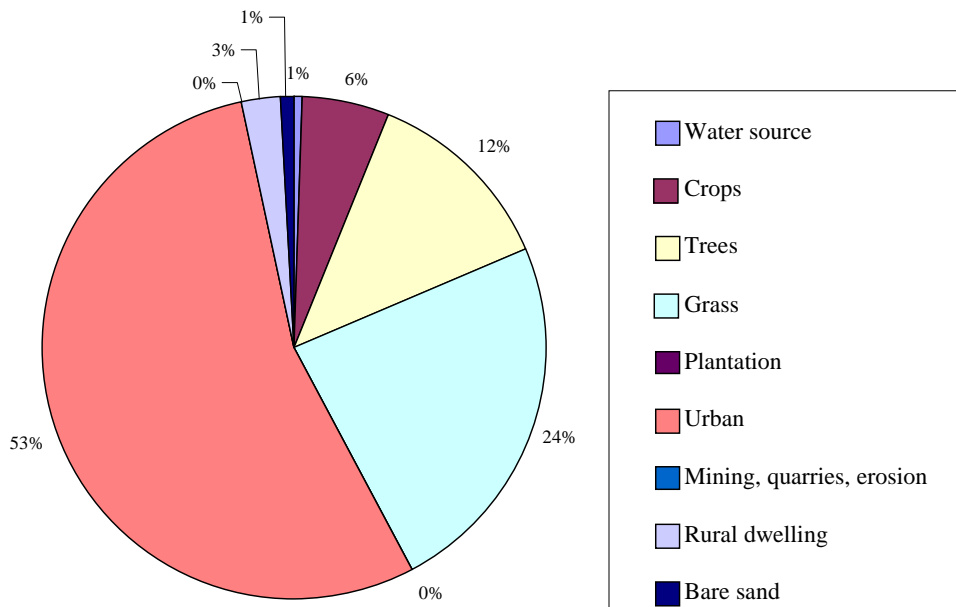


Figure 4: Percentage land use cover of the Little Manzimtoti falling within the EMA

The habitat integrity of the Little Manzimtoti is in good condition, while the water is in poor condition. More than half of this catchment (56%) is under urban and rural settlements as indicated in Figure 4. The run-off from these surfaces and solid waste dumping instream are the most likely causes of the

poor water quality in this catchment along with the use of detergents used for the washing of clothes in the rural areas. Solid waste entering the river leads to pollution along the beaches. This along with the loss of biodiversity through nutrient enrichment and associated ecological changes affecting fish and other estuarine species can lead to a loss of recreational potential on the coast.

Management priorities for this catchment would include storm water management upgrades and repairs, rubbish removal / waste infrastructure upgrade and public education on pollution and river health.

Lovu

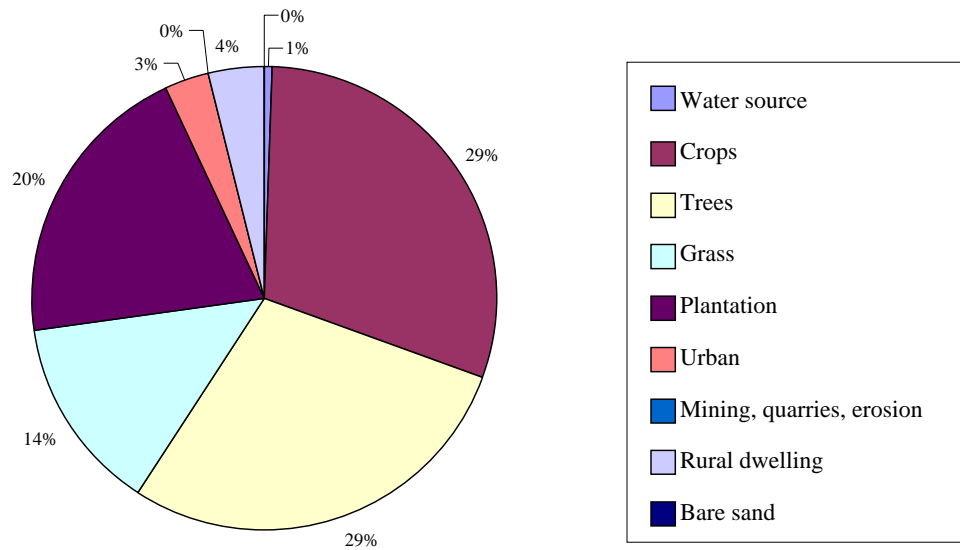


Figure 5: Percentage land use cover for the entire Lovu Catchment

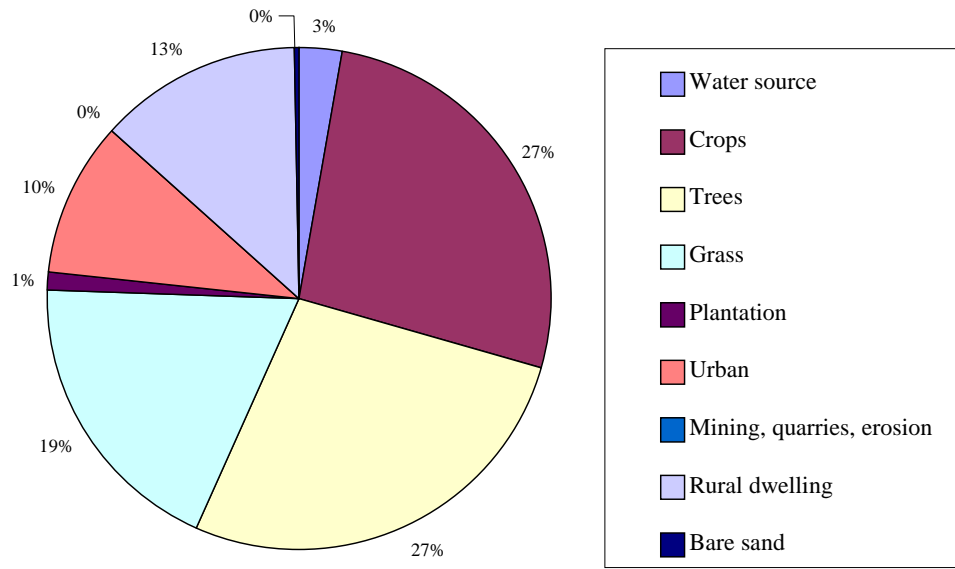


Figure 6: Percentage land use cover of Lovu Catchment falling within EMA

There is illegal sand mining taking place along the water course, which compromises the riparian habitat integrity. The loss of riparian habitat increases the chance of sediments entering the river which may lead to a loss of biodiversity in the river and in the estuaries downstream. There is also an increased chance of flooding due to the transformation of the bank structure. The main sand mining operation was stopped between 2005 and 2007 which resulted in an improvement of the aquatic biodiversity. There was some faecal contamination at the site. This is a potential health risk as the river is used for bathing and other recreational and religious purposes. Faecal contamination and excessive sedimentation will most likely reduce the recreational potential along the coast. The water quality in the Lovu Catchment is in fair condition, while the habitat integrity varies from poor to fair.

Management recommendations are that the river be rehabilitated to restore more of the main channel and riparian vegetation functionality. The implementation of policing of illegal sand mining and measures put in place to reduce the faecal pollution entering the river.

Msimbazi

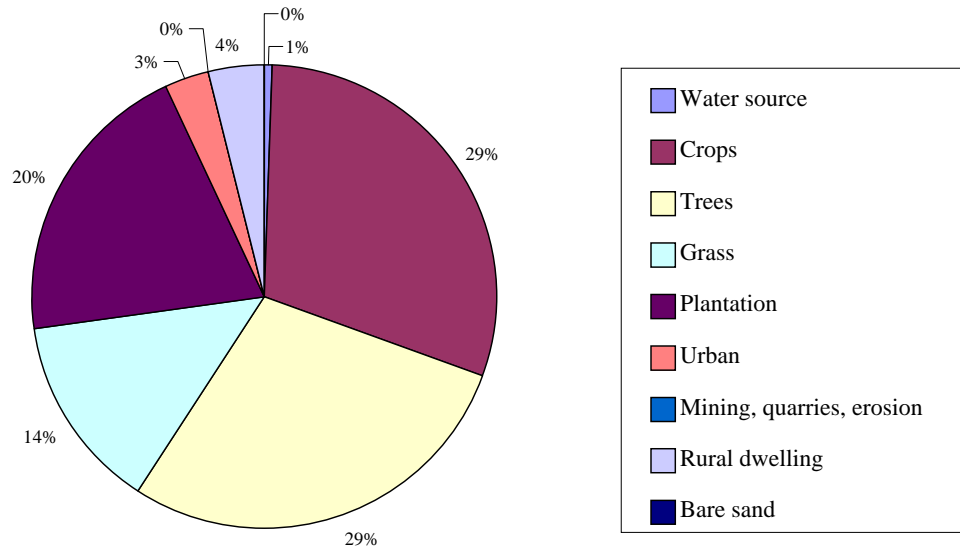


Figure 7: Percentage land use cover for the entire Msimbazi Catchment

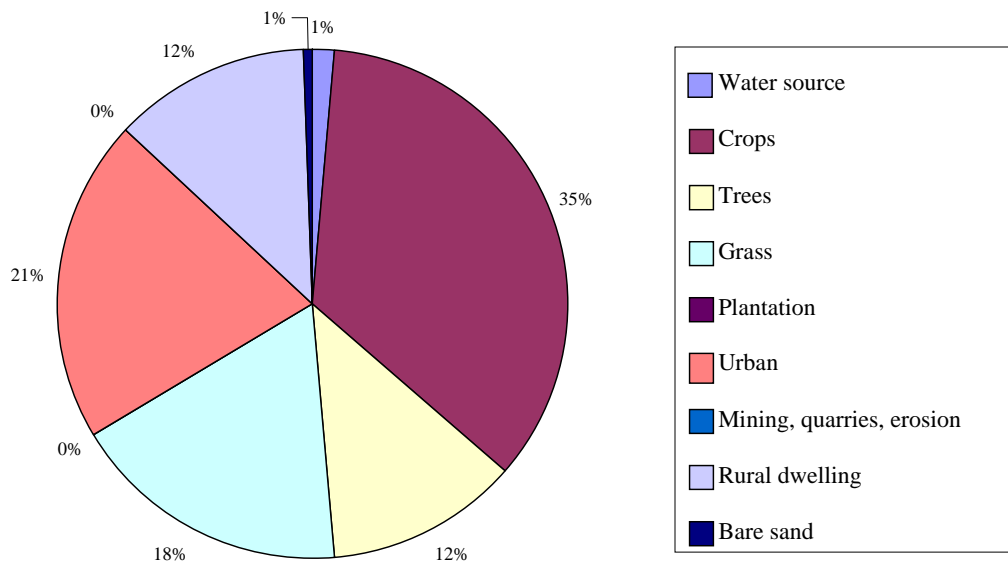


Figure 8: Percentage land use cover of the Msimbazi Catchment falling within EMA

The Msimbazi Catchment water quality and habitat integrity are in fair condition. The main factor affecting this stretch appears to be the artisanal and commercial sand mining that is occurring in the area. Not only is there the potential for extensive alien terrestrial weed invasion in these disturbed areas, as well as continued degradation of the riparian and instream habitats, but excessive

sedimentation can have detrimental affects on estuarine functioning, which in turn lowers the recreational potential of the receiving coastline.

Management priorities would include the determination of the legality of the mining operations and enforcement of or implementation of environmental management plans for these operations. This should include the continued control and exclusion of alien weeds.

Umgababa

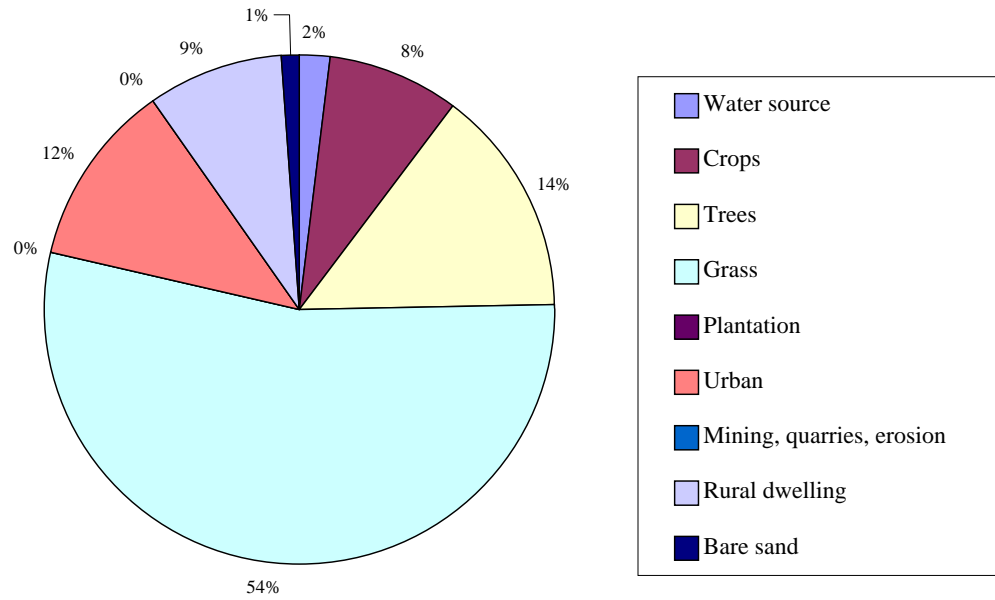


Figure 9: percentage land use cover for the entire Umgababa Catchment

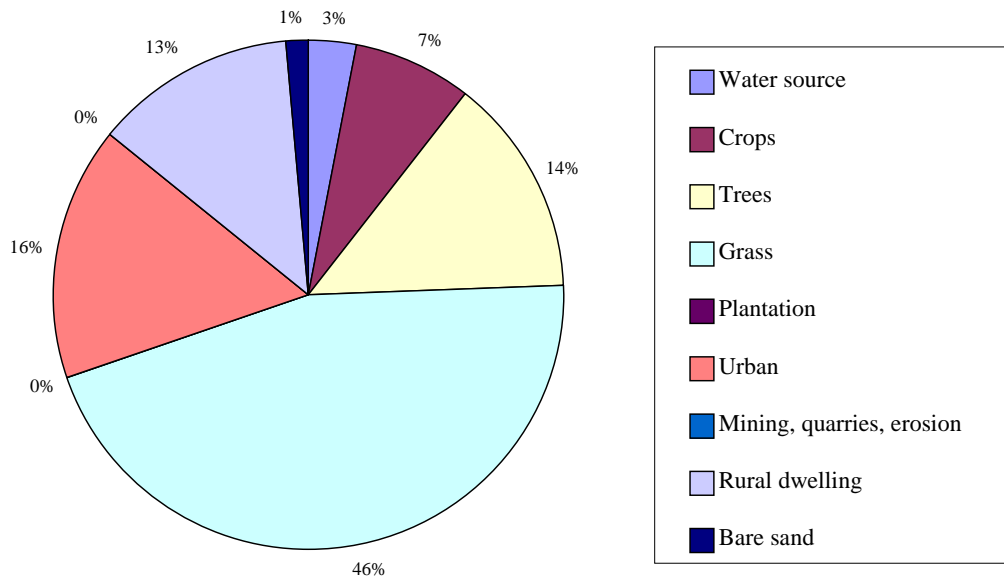


Figure 10: percentage land use cover of the Umgababa Catchment falling within the EMA

The Umgababa Catchment is in a fair condition overall. This catchment is split by the Mnini Dam. Above the dam the habitat integrity is in good condition and the only noticeable impact is that of invasion by Triffid Weed (*Chromolaena odorata*). Below the dam there has been a decline in the riparian habitat integrity and SASS scores. The reduced SASS score can be accounted to the modified instream flows as a result of the dam. There is also some concern with regard to Water Hyacinth (*Eichhornia crassipes*) which is also compromising the sites integrity. The alteration in stream flow and the weed growth are potential factors affecting estuarine ecosystem functioning, which in turn will alter the recreational potential along the receiving coastline.

Management priorities for the catchment would be the implementation of some sort of environmental flow release strategy to allow for more natural functioning of the Umgababa stream and a control program for the Water Hyacinth.

Ngane

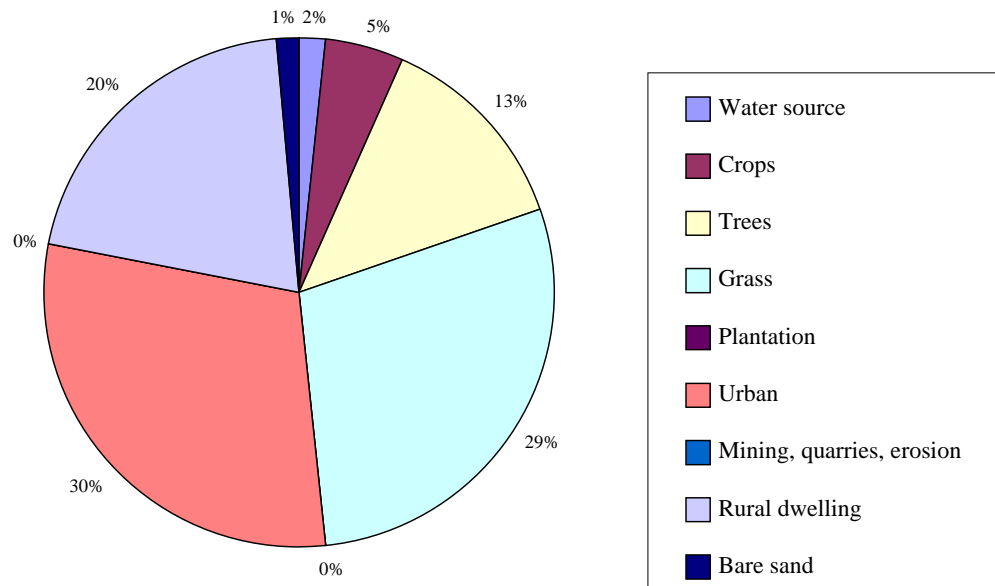


Figure 11: Percentage land use cover for the entire Ngane Catchment

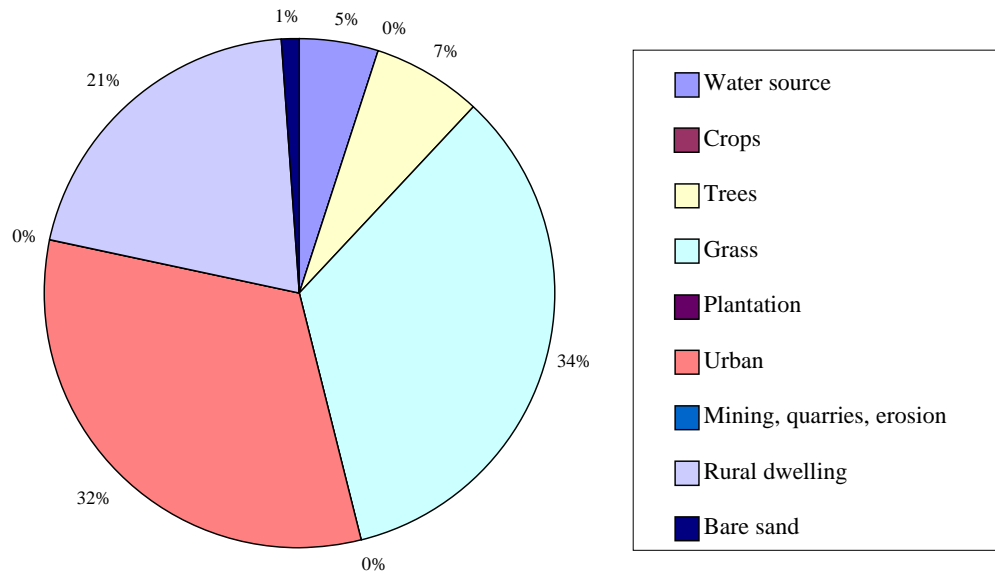


Figure 12: Percentage land use cover of the Ngane Catchment falling within the EMA

The water quality in the Ngane Catchment is in poor condition. Over half of the catchment is under rural dwelling and urban land use. There is nutrient enrichment occurring in the river which is being caused by diffuse faecal contamination entering the river above the Magabeni WWWW. The Magabeni WWWW which is not conforming to effluent discharge standards is also leading to the increased eutrophication of this system and poses a health risk due to elevated E. coli levels, which present the risk of

contracting various gastrointestinal diseases both along the river and coastline. Thus limiting the possibility for household use and the recreational potential of the river and receiving coastline.

Management priorities for this catchment would be to ensure that the WWW operates within prescribed effluent discharge standards and locating and mitigating the sources of the diffuse faecal contamination entering the river above the WWW.

Mkomzai

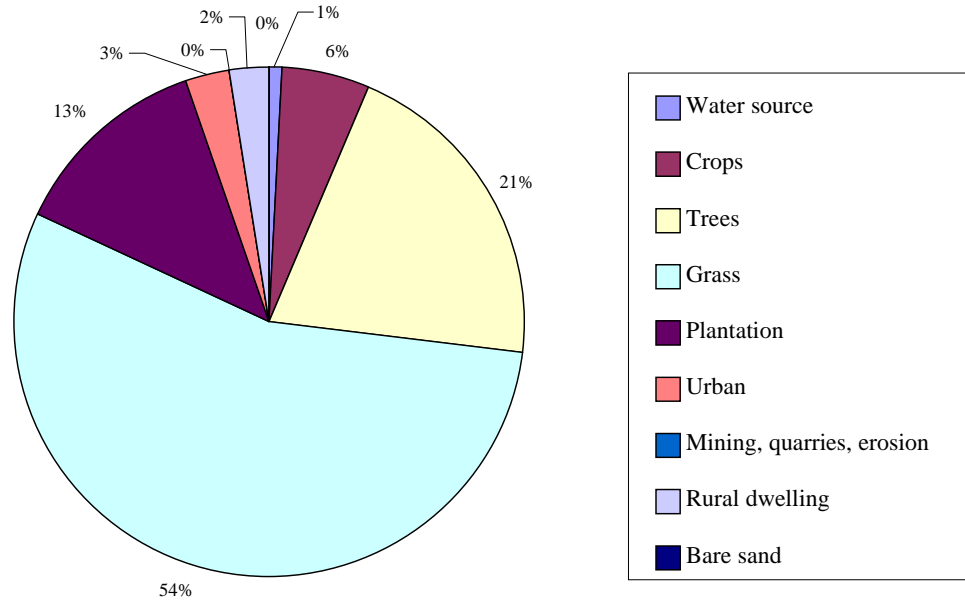


Figure 13: Percentage land use cover for the entire Mkomzai Catchment

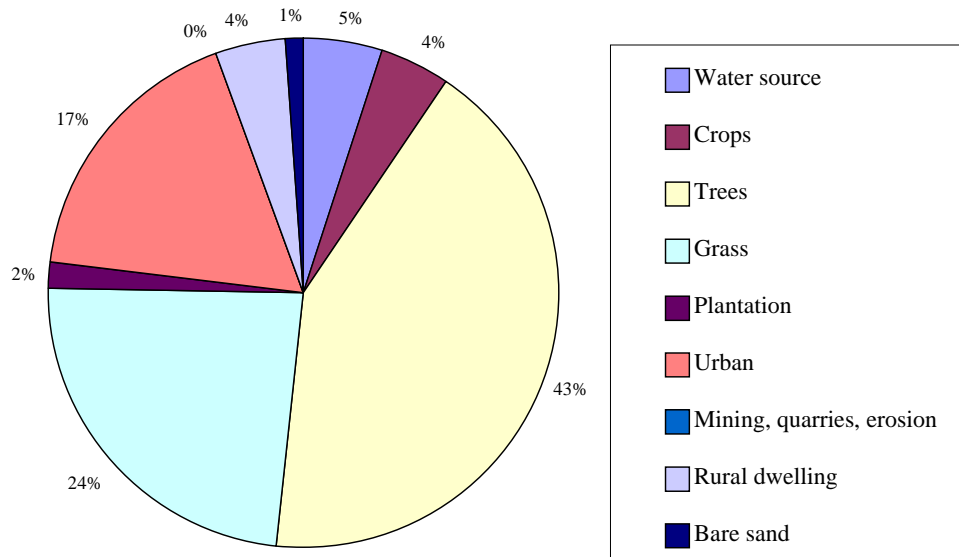


Figure 14: percentage land use cover of the Mkomazi Catchment falling within the EMA

The Mkomazi Catchment within the EMA is in good condition. The Mkomazi at Shozi Weir, which is found just upstream of the EMA boundary, is in natural condition. This natural condition can be accredited to the fact that over 80% (Figure 13) of the catchment is under grasslands and trees with little interference from urban or commercial enterprise. The only minor concerns for this area are slightly raised E. coli and soluble reactive phosphate levels. The difference between the catchment above Shozi Weir and that within the EMA is most likely due to the increased urbanization within the EMA and the flow regulation from the Goodenough and SAPPI SAICCOR barrages. There is also extensive sand mining occurring upstream of the estuary that has caused massive destruction of the riparian zone. This loss not only poses a threat in terms of alien terrestrial weed invasion to the disturbed areas but also in that it limits the habitat available for aquatic biota, especially those dependant on migration between the estuary and the river. The sand mining also poses a threat to the functioning of the estuary through excessive sedimentation.

Management priorities for this catchment should include the policing of the sand mining operations and ensuring environmental management plan's (EMP) are in place and being adhered too, the implementation of an alien weed control programme and a sound EMP in and around the SAICCOR Barrage for the maintenance and management of the instream flow requirements, rehabilitation of the riparian zone and some sort of plan to allow for migratory aquatic species to be able to cope with the SAICCOR Barrage.

Mahlongwana

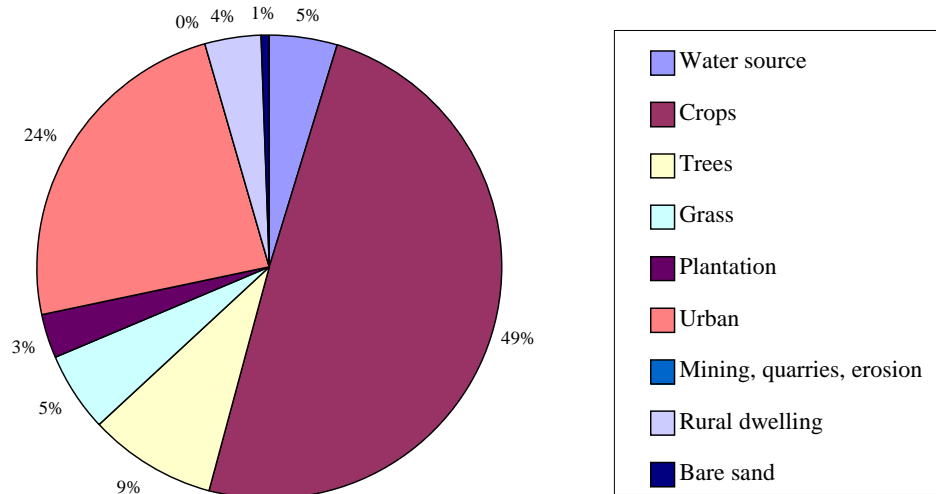


Figure 15: Percentage land use cover in the entire Mahlongwana Catchment

The entirety of the Mahlongwana Catchment falls within the EMA and is in a good condition. There is some concern over nutrient enrichment with the site having soluble reactive phosphate levels 16 times greater than the target water quality range ascribed by DWAF. High levels of nutrient enrichment lead to the potential of aquatic weed invasion, which can lead to a loss of biodiversity along the river and estuary. Excessive aquatic weed growth can lead to the prevention of necessary sediment loads

reaching the estuary. This loss of sediment in turn limits the habitat availability of fish spawning in the estuary, thus affecting the fishing potential along the coast.

Management priorities for this catchment should involve alien weed control, mitigation of the migration barrier posed by the causeway constructed for the South Coast Pipeline and ensuring that the WWWW return flows and discharges are managed to appropriate specifications.

Mahlongwa

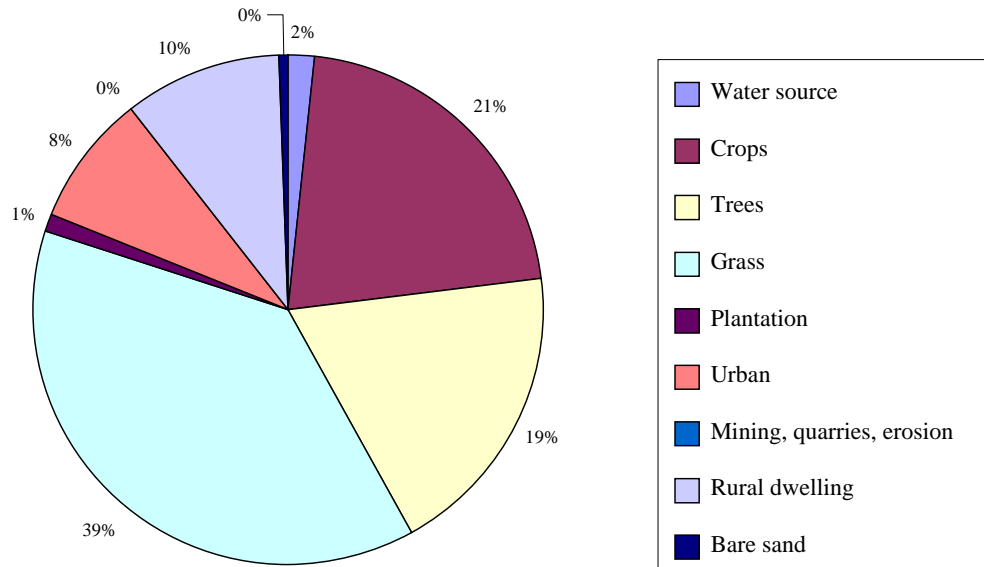


Figure 16: Percentage land use cover in the entire Mahlongwa Catchment

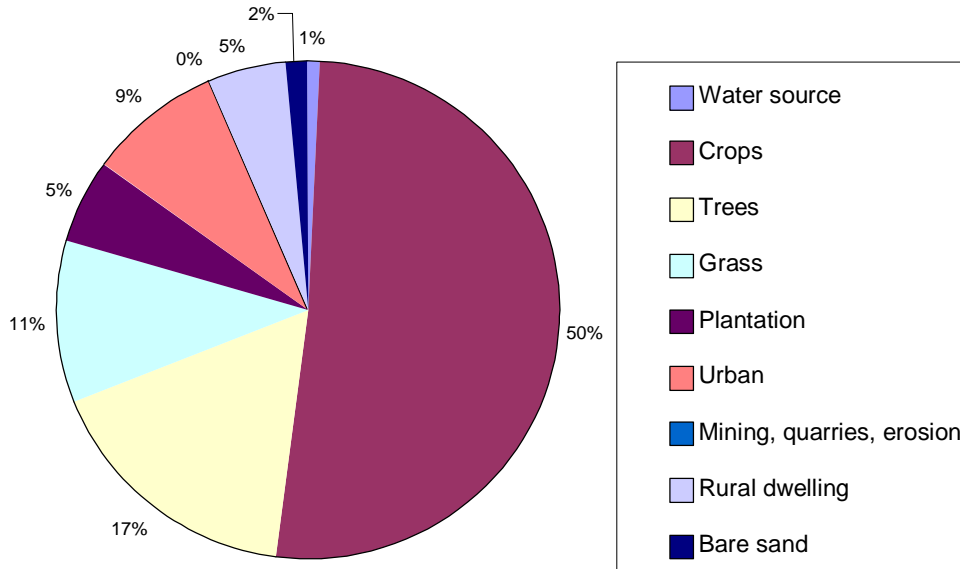


Figure 17: Percentage land use cover of the Mahlongwa Catchment falling within the EMA

There are minimal impacts related to light rural utilization of this resource and some minor sedimentation. The habitat and instream integrity of the Mahlongwa Catchment is in natural condition while the water quality is in fair condition. This relatively unimpacted river has no management requirements at this time and is a good reference for what coastal rivers could look like if not overly impacted.

The SASS5, diatom and Index of habitat integrity (IHI) data used in determining the ecological health status (a.k.a. Ecostatus) of the catchment in the Umgababa CMP are summarized in Appendix 5.

Appendix 5: SASS5, diatom, IHI classes and subsequent ecostatus of rivers in the Umgababa CMP area

Report site name	Invert class	IHI Instream Class	IHI Riparian Class	Diatom Classification	Ecostatus
Manzimtoti @ Ilanda Wilds/OldMain Rd bridge	Good	Natural	Natural	Poor	Fair
Little Manzimtoti @ causeway Old Main Rd	Fair	Good	Good	Poor	Fair
Lovu @ Ilovu Sugar Estate	Good	Fair	Poor	Fair	Fair
Msimbazi u/s of estuary	Good	Fair	Fair	Fair	Fair
Umgababa d/s Mnini dam	Fair	Good	Fair	Not classified	Fair
Ngane d/s Magabeni WWW	Poor	Fair	Good	Poor	Poor
Mkomaas @ SAPPI SAICCOR Barrage	Good	Fair	Poor	Good	Good
Mahlongwana @ N2 bridge	Good	Natural	Natural	Fair	Good
Mahlongwa u/s Old Main Rd bridge	Fair	Natural	Natural	Fair	Fair

The chemical and physical water quality data sampled in each of the catchments falling within the Umgababa CMP is shown in Appendix 6. The values that are highlighted in red indicate sites where the target water quality ranges, as ascribed by DWAF, have been exceeded.

Appendix 6: Chemical and physical water quality data for sites in the Umgababa CMP

Catchment Area	Sample/Site Description	Date	Lab pH	Field pH	Temp (°C)	Field Cond (mS/m)	Lab Cond (mS/m)	DO (mg O ₂ /L)	SRP (mgP/L)	NO ₃ + NO ₂ (mgN/L)	Sulphate (sol) (mgSO ₄ /L)	NH ₃ (sol) (mgN/L)	Unionized NH ₃ (mgN/L)	Total N (mgN/L)	TKN (mgN/L)	E.coli (counts/100mL)	Total Coliforms (counts/100mL)	GI illness rate (*) (per/100 000 persons)	Calcium (mg/L)	COD (mgO ₂ /L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Turbidity (NTU)	Clarity (cm)
Amanzimtoti	Manzimtoti @ Ilanda Wilds/OldMain Rd bridge	2007/04/16	6.82	6.9	23.4	30.0	32.7	10.69	0.13	1.41	14.5	0.69	0.002	2.21	0.80	1500	19999	1195	9.3	31	8.8	5.0	38.9	14.4	30
Little Amanzimtoti	Little Manzimtoti @ causeway OldMain Rd	2007/05/16	7.12	7.0	23.3	41.1	43.8	10.82	0.15	2.16	15.0	0.11	0.001	2.38	0.20	0	38000		12.1	31	11.3	2.2	50.0	7.1	31
Lovu	Lovu @ Ilovu Sugar Estate	2007/05/16	5.18	6.9	22.4	19.0	20.1	10.33	0.03	0.19	11.7	0.08	0.000	0.56	0.37	500	8000	993	5.1	25	5.2	1.0	17.2	13.6	26
Umzimbazi	Msimbazi u/s of estuary	2007/04/10	7.29	6.8	23.1	39.6	43.9	7.96	0.05	0.27	21.8	0.09	0.001	0.47	0.20	0	3000		7.4	31	9.4	0.0	46.0	40.3	28
Umgababa	Umgababa d/s Mnini dam	2007/05/31	7.90	6.9	16.8	27.8	31.0	6.86	0.05	0.24	21.0	<0.50		0.59	<0.50	0	8000		6.9	34	9.3	3.8	37.0	26.8	37
Ngane	Ngane d/s Magabeni WWWW	2007/05/15	7.75	7.0	19.5	52.0	59.9	7.50	0.51	1.48	20.3	0.10	0.002	1.65	0.10	500	21500	993	14.3	35	18.0	4.2	83.0	9.9	19
Mkhomazi	Mkomaas @ SAPPI SAICCOR Barrage	2007/05/15	8.40	7.1	21.2	14.4	15.0	8.78	0.04	0.01	6.3	0.05	0.005	0.07	-0.03	0	3000		2.8	18.6	2.6	7.9	8.7	15.1	29
Mahlongwana	Mahlongwana @ N2 bridge	2007/05/15	7.65	7.1	19.0	46.3	51.2	9.17	1.59	2.04	35.4	0.05	0.001	2.24	0.20	0	16000		12.6	27	12.0	3.4	69.3	3.1	45
Mahlongwa	Mahlongwa u/s Old Main Rd bridge	2007/04/10	7.54	6.8	22.4	31.0	37.2	10.62	0.04	0.50	16.8	0.08	0.001	0.74	0.24	0	1000		9.1	39	10.5	4.8	52.3	30.4	40

14 APPENDIX FIVE: LEGISLATIVE FRAMEWORK

14.1 The Admiralty Reserve:

It is important to note that within the study area exists an Admiralty Reserve situated in the coastal zone of the study area, as evidenced by Deed of Grant dated November 1857. An Admiralty Reserve is essentially a narrow strip of land anywhere between 120 – 200 feet wide, although in this particular case the Reserve width has been measured at 45.72 meters, running parallel to and adjoining the landward side of the high water mark of the study area. It has been contended that the original purpose of an Admiralty reserve is obscure, but it is known that it had its origins in the original grants of land made along the coastlines of both the Natal and Cape Colonies in the 19th century. It has been proposed that the orthodox view is that the Admiralty Reserve is Crown land and therefore today would be considered State land, although it has been argued by some that this is not always the case and in certain instances the Reserve may be in the nature of a public servitude.

It should be noted, however, that the National *White Paper for Sustainable Coastal Development in South Africa* states that: “the State shall retain, effectively manage, reinstate and endeavour to extend the Admiralty Reserve”, while the National Environmental Management: Integrated Coastal Management Bill provides that “all admiralty reserve land that is owned by the State at the date of commencement of that Act, will become “coastal public property” and enjoy the same level of protection as the sea-shore. The current definition of “admiralty reserve” in the Bill reads as follows: “admiralty reserve” means any strip of land parallel to and adjoining the inland side of the high-water mark and which, when this Act took effect, was reserved or designated on an official plan, deed of grant, title deed or other document evidencing title or land-use rights as “admiralty reserve”, “government reserve”, “beach reserve”, “coastal forest reserve” or other similar reserve, regardless of who owns the land;” Determining whether or not an admiralty reserve still applies to a specific portion of land therefore necessarily requires the original deed of grant and subsequent deeds of transfer to be interpreted. This requires a case-by-case analysis of the evidence. It has, however, also been argued that the Admiralty Reserve exists along the entire KwaZulu-Natal coastline.

Unfortunately, however, the Reserve is not mapped out, and its existence is usually only discernable by examining the original deed of grant of the property concerned (Glazewski@312). It has been established for these purposes, however, that an admiralty reserve does in fact exist within the study area, which was originally surveyed in December 1857, under Farm name: *Umnini Location No. 1788*. Under Crown Grant in favour of the Amatuli Tribe (and their successors). The reserve was then revised under Gov gazette no. 1560 dated 24 Dec 86 to vest in the name of the Gov. of Kwazulu-Natal in trust for the Umnini Trust/Tribe (“for the use, benefit, and advantage of the people of the Amatuli tribe”), and is currently held under title deed T57631/2001 in favour of the Ingonyama Trust (see details below). The grant itself fortunately contains an attaching diagram with relevant coordinates under diagram deed no. G1788/1858 (North: Uzimbazi river; East: Government reserve; South: Government ground; West: Mission property and open land). However, it should be noted for these purposes that the high water mark in the study area has no doubt changed significantly over the past 150 years, along with the bordering land and physical coastal features. It may, therefore, be difficult to determine precisely where the Reserve boundary commenced and where it ended based on its location in 1857. Nonetheless, for all planning purposes, the admiralty reserve area remains state land, in favour of the Umnini Trust, which itself falls under the authority of the Ingonyama Trust Board. It should for these purposes, still be zoned ‘*Admiralty Reserve*’. The Reserve area can only be alternatively zoned or used with the consent of the Umnini Trust and relevant tribal authority, with the additional approval of the Ingonyama Trust Board.

14.2 Land rights, use and tenure

The northern section of study area viz. north of the Karridene River is predominantly private land and land owners in this area have full title to their property and, therefore, have the right to deal with their property as the titled owners thereof, subject to all relevant property, planning and environmental legislation and policy. The Umkomaas area is also dominated by privately owned properties which are predominantly of residential use.

However, most land in the mid southern region of the study area (within Umgababa) viz. south of Karridene and north of Ilfracombe is tribal and/or Ingonyama Trust land and all land tenure and use rights to property in this area is effectively governed by the IPILRA and the new LRA. Accordingly all land tenure applications and/or land use proposals need to be dealt with in accordance with the functions and powers afforded to the Ingonyama Trust Board, and in consultation with the local tribal authority and the eThekweni municipality.

The land in the mid southern region of the study area cannot, therefore, be alienated (it effectively belongs to the state through DLA and the Ingonyama Trust Board), and all physical development applications and/or proposed land use rights are required to comply with the IPILRA, the LRA and developing Ingonyama Trust Board policy. In addition, all proposed development in this area will be required to adhere to and comply with all relevant provincial planning law, as well as all applicable environmental law.

The current policy is not sell off any land in the umgababa region of the study area, but rather to negotiate temporary land tenure and land use authority in the form of leases, permissions, or rights to use – possibly with an attaching monetary value for the benefit of the tribal authority - bearing in mind that the issuing of Permissions To Occupy (PTOs) in this area will no longer be entertained by the relevant authorities. All natural resource use rights, both in the north and the south of the study area will require permission from the relevant environmental authorities such DEAT (MCM), DAEA (incl. Ezemvelo KwaZulu-Natal Wildlife), and DWAF depending on the exact nature of the use right being applied for.

14.3 Comprehensive Legal Framework

Relevant Legislative Policy	Primary purpose and objectives relevant to coastal management zone issues generally	Management planning and decision making relevance in relation to the coastal zone generally	Implications for and legal responsibility of the eThekweni Municipality as the competent local government authority for the Umgababa coastal plan	Specific relevance for the eThekweni Municipality in relation to the preparation of a coastal management plan for the study area
A. General				
1. The Common Law	<ul style="list-style-type: none"> The underlying common law principle applicable to the coastal zone is that the owner of the land is also the owner of the space above and below the surface of the land 	<ul style="list-style-type: none"> In the event that statute law is silent on a particular coastal zone issue the common law will prevail and has particular bearing in terms of use of property rules of nuisance and the control and management of things generally 	<ul style="list-style-type: none"> Municipalities are governed by the common law in the absence of applicable relevant legislation 	<ul style="list-style-type: none"> Not applicable
B. Institutional & Administrative (Including Planning and Physical Development)				
2. The Constitution: Act 108 of 1996	<ul style="list-style-type: none"> Establishes a bill of rights Requires equality of legal protection Supreme law of South Africa Requires improved quality of life especially for previously disadvantaged societies Establishes an environmental right Ensures sovereignty All legislation and policy to be consistent with and conform to it All the rights, including the property clause and the right of access to information have a bearing 	<ul style="list-style-type: none"> Establishes the right to use and occupy property exclusively or within others Provides that no one may be deprived of property except in law of general application and that no law may permit arbitrary deprivation of property Promotes secure ecologically sustainable development and use of natural resources through reasonable legislative measures Advocates the prevention of pollution and ecological degradation Promotes justifiable economic and social 	<ul style="list-style-type: none"> Requires local government to provide democratic and accountable government including social and economic development for local municipalities (S152) Ensures right of public to administrative action that is lawful, reasonable and establishes an environmental right (S24) especially the need to secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development Sets out a national legislative process especially relating to bills publication Acts (S73) 	<ul style="list-style-type: none"> Municipalities must familiarise themselves with and take cognizance of the extent of their control and jurisdiction in terms of the listed scheduled activities which may occur in the coastal zone The municipalities must engage provincial government in relation to these activities to ensure cohesion and to avoid any overlapping confusion A municipality may wish to consider

Relevant Legislative Policy	Primary purpose and objectives relevant to coastal management zone issues generally	Management planning and decision making relevance in relation to the coastal zone generally	Implications for and legal responsibility of the eThekweni Municipality as the competent local government authority for the Umgababa coastal plan	Specific relevance for the eThekweni Municipality in relation to the preparation of a coastal management plan for the study area
		<p>development</p> <ul style="list-style-type: none"> Requires that local government provides services to communities in a sustainable manner Advocates the need for secure tenure or to comparable redress on behalf of rural communities 	<ul style="list-style-type: none"> Sets out the presidency and national executive structures (ch 5) and assignments of functions. Note: A cabinet member may assign any power of function to be performed in terms of an act of parliament to a municipal council upon certain conditions being met Provides for provincial legislatures and legislative authority and powers including the executive authority of the provinces. Note: A member of an executive council of a province may assign any power or function in terms of an act of parliament to a municipal council under certain conditions (S126) S139 provides for provincial intervention in the affairs of a municipality when a municipality cannot or does not fulfill an obligation in terms of legislation Ch7 deals with local government and defines and describes municipalities, objects of local government - especially the need to 	<p>passing relevant by-laws in order to ensure effective implementation of its coastal management policy as incorporated into its IDP</p>

Relevant Legislative Policy	Primary purpose and objectives relevant to coastal management zone issues generally	Management planning and decision making relevance in relation to the coastal zone generally	Implications for and legal responsibility of the eThekweni Municipality as the competent local government authority for the Umgababa coastal plan	Specific relevance for the eThekweni Municipality in relation to the preparation of a coastal management plan for the study area
			<p>promote social and economic development and promote a safe and healthy environment. Note: a municipality has executive authority in respect of and has the right to administer the following relevant local government matters listed in Part B of schedule 4 and Part B of schedule 5 (S156 (1) (a) and (b):</p> <ul style="list-style-type: none"> • Building regulations • Local tourism • Municipal planning • Municipal public works • Pontoons, ferries, jetties, piers, harbours • Storm water management systems in built up areas • Potable water supply systems and domestic waste water and sewage disposal systems • Beaches and amusement facilities • Billboards and display of advertisements in public places • Fencing and fences • Licensing and control of undertakings that sell food to the public 	

Relevant Legislative Policy	Primary purpose and objectives relevant to coastal management zone issues generally	Management planning and decision making relevance in relation to the coastal zone generally	Implications for and legal responsibility of the eThekweni Municipality as the competent local government authority for the Umgababa coastal plan	Specific relevance for the eThekweni Municipality in relation to the preparation of a coastal management plan for the study area
			<ul style="list-style-type: none"> • Municipal parks and recreation • Municipal roads • Public places • Refuse removal, refuse dumps and solid waste disposal • Street lighting and trading, traffic and parking <p>Note: other specific areas of control and jurisdiction may be assigned to a municipality by national and provincial government if it is deemed that the matter would be most effectively administered locally and that the municipality has the capacity to administer it.</p> <ul style="list-style-type: none"> • A municipality may make and administer bylaws for the effective administration of matters which it has the right to administer. 	
<p>3. Local Government: Municipal Systems Act 32 of 2000 (as amended by Act 44 of 2003)</p>	<ul style="list-style-type: none"> • Schedule 3 of the act amends certain sections of the municipal structures act (<i>infra</i>) • The act enforces the constitutional provision (<i>supra</i>) that municipalities must give priority to the basic needs of the local 	<ul style="list-style-type: none"> • S11 (3) highlights the need for municipalities to exercise their legislative authority by <i>inter ilia</i>: <ul style="list-style-type: none"> - Developing and adopting policies plans strategies and programmes including setting targets for delivery 	<ul style="list-style-type: none"> • Municipalities must ensure that all local communities at least have a minimum level of basic services which are required to be environmentally sustainable • The act provides that municipalities must exercise their executive and legislative 	<p>S25 of the act provides that:</p> <p>“Each municipal council must within a prescribed period after the start of its elected term adopt a single inclusive and strategic plan for the development of the municipality which-</p>

Relevant Legislative Policy	Primary purpose and objectives relevant to coastal management zone issues generally	Management planning and decision making relevance in relation to the coastal zone generally	Implications for and legal responsibility of the eThekweni Municipality as the competent local government authority for the Umgababa coastal plan	Specific relevance for the eThekweni Municipality in relation to the preparation of a coastal management plan for the study area
	<p>community (S16 community participation) and promote the development thereof.</p> <ul style="list-style-type: none"> Provides for the processes and procedures to be followed for the passing of by laws Chapter 5 provides specifically for integrated development planning 	<ul style="list-style-type: none"> Promoting and undertaking development Implementing applicable national and provincial legislation and its bylaws 	<p>authority within the constitutional system of co operative government envisaged in terms of S41 of the constitution (supra)</p> <ul style="list-style-type: none"> S12 requires that a bylaw must be made by a decision taken by a municipal council upon certain conditions being met S13 requires that bylaws passed by a municipal council must be published in the provincial gazette 	<ul style="list-style-type: none"> Links integrates and coordinates plans and takes into account proposals for development of the municipality Aligns the resources and capacity of the municipality with the implementation of the plan Forms the policy framework and general basis on which annual budgets must be based Is compatible with national and provincial development plans and planning requirements binding on the municipality in terms of legislation"
<p>4. Local Government: Municipal Structures Act 117 of 1998 (as amended by Act 1 of 2003)</p>	<ul style="list-style-type: none"> Importantly for these purposes the act categorises the various municipal jurisdiction powers and functions it defines each category and distinguishes between district (category C) and local (category B) municipalities. 	<p>See proceeding column details</p>	<ul style="list-style-type: none"> Ch 5 sets out the functions and powers of the municipalities as assigned in terms of S156 and S229 of the constitution (supra) S84 (1) sets out the powers and functions of district municipalities which are <i>inter alia</i> include (relevant to the coastal zone): 	<ul style="list-style-type: none"> The CMP to be consistent with and integrated with the provisions of this act

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	<ul style="list-style-type: none"> • A district municipality is defined as “a municipality that has a municipal executive and legislative authority in an area that includes more than one municipality.” • A local municipality is defined as “a municipality that shares a municipal executive and legislative authority in its area with a district municipality within whose area falls.” 		<ul style="list-style-type: none"> - Integrated development planning for the district municipality as a whole taking into account the IDPs of local municipalities - The bulk supply of: water electricity and sewage purification works - Solid waste disposal sites - Municipal roads - Fire fighting services - Promotion of local tourism - Municipal public works - Imposition and collection of taxes and levies • Although S84 (3) does not preclude a local municipality from performing functions in its area and exercising powers in its area in terms of those falling under district functions and powers (above) and also allows the MEC to adjust the division of functions and powers between a district and local municipality S84 (2) states that local municipalities have specific functions and powers assigned to them in terms of S156 and S229 of the constitution (supra) which therefore although overlapping with those of the district municipalities include: 	

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			Part B of schedule 4 and part B of schedule 5 as previously set out in table point 2 hereof (above)	
<p>5. The Traditional Leadership and Governance Framework Act No 67 of 1995 (DFA)</p>	<ul style="list-style-type: none"> The act provides Norms and standards to inform provincial legislation on traditional leadership and governance issues 	<ul style="list-style-type: none"> The various provinces are in the process of drafting provincial legislation in accordance with the act 	<ul style="list-style-type: none"> Municipalities will be required to take cognizance of the relevant provincial provisions once relevant provincial provisions once drafted 	<ul style="list-style-type: none"> Such provisions to be incorporated into the CMP
<p>6. The Development Facilitation Act 67 of 1995 (DFA)</p>	<ul style="list-style-type: none"> The act sets out the overall framework and administrative structures for planning throughout the country The overall purpose of the act which is to introduce extraordinary measures to facilitate and speed up the implementation of programmes in relation to land A general feature is its incorporation of environmental ecological and sustainable development considerations through its content 	<ul style="list-style-type: none"> The act establishes administrative non political tribunals in each of the provinces to implement the act's principles and policies Introduces a "mini bill of rights" in relation to land development policies and principles Introduces land development procedures in both the urban rural contexts which operate parallel to existing procedures It includes various measures to accelerate land development and to overcome delays The act serves to discourage the illegal occupation of land urban sprawl and encourages the development of more compact towns and cities It further encourages 	<ul style="list-style-type: none"> Land development objectives (LDOs) are to be formulated for all local government areas and include <i>inter alia</i>: <ul style="list-style-type: none"> - Services and facilities relating to public transport water health and education - Objectives relating urban and rural growth - Development strategies of the local authority It sets out the procedure for land development applications 	<ul style="list-style-type: none"> Any proposed physical development for the study area should take into account the fast track provisions of the DFA although applications for development approvals may still be pursued at this time under the <i>KwaZulu Natal Planning and Development act 5 of 1998</i> (infra) in the alternative

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		environmentally sustainable land development practices and processes as well as promoting the sustained protection of the environment		
<p>7. Kwazulu Natal Planning and Development Act 5 of 1998</p>	<ul style="list-style-type: none"> Schedule 1 of the act repeals the previous Town Planning Ordinance (Natal) 27 of 1949 and several other pieces of legislation dealing with planning and development in the province 	<ul style="list-style-type: none"> Ch 1 provides for general principles for planning and development promoting a comprehensive as opposed to ad hoc approach to development It further promotes an environmental ethic of sustainable use and provides the minister with numerous powers and available measures in terms of the environmental controls impact assessments and the like It establishes the substance of and responsibility for integrated planning and development throughout the province Importantly it requires conformity with all relevant development plans and schemes 	<ul style="list-style-type: none"> Although the act effectively repeals the Town Planning Ordinance (Natal) 27 of 1949 development applications are still largely authorized by the municipality under the latter statute 	<ul style="list-style-type: none"> Any proposed physical development falling within the study area may therefore be brought under either the Ordinance the act of the DFA as the case maybe
C. Community Rights & Land Tenure				
<p>8. The Interim Protection of Informal Land Rights Act 31 of</p>	<ul style="list-style-type: none"> The act is implemented by the national department of land affairs which has empowered the provincial 	<ul style="list-style-type: none"> Applications for transfer of land title are not currently being transferred at least until such time as the 	<ul style="list-style-type: none"> It is important for municipalities to ensure that they are familiar with the legal status of their 	<ul style="list-style-type: none"> CMP to ensure reciprocal compatibility with DLA land tenure policy particularly in so far as

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<p>1996 (IPILRA)</p>	<p>department to make decisions in relation to its provisions but which decisions are required to be formally endorsed by the national department</p> <ul style="list-style-type: none"> • Passed to comply in the interim with the constitutional requirement that people are entitled to secure tenure in terms of an act of parliament although its relevance for these purposes is largely limited to the Wild Coast region of the province <ul style="list-style-type: none"> - Protects existing rights of community and granted if their existing rights are to be changed or taken away - Such permission is usually recorded in the form of a “Community resolution” which is required to be facilitated and confirmed by a representative of provincial or regional DLA - No person may be deprived of any informal right to land without his or her consent 	<p>Communal Land Right Act (<i>infra</i>) has commenced</p> <ul style="list-style-type: none"> • Development applications for secure land tenure are therefore in respect of medium to long terms lease agreement • Community trusts registered under the trusts property control act identified and accepted as the most appropriate legal entities through which communities can formally represent their needs and rights both in terms of land tenure agreements and business initiatives in their respective areas • Application is to the provincial department of Land Affairs (DLA) and must include the following supporting documentation: <ul style="list-style-type: none"> - Community entity registration document e.g. deeds of trust - Community resolution - Business/ management plan - Environmental approval (ROD) including a decree permission - Land survey 	<p>constituent communities along with all land tenure issues</p> <ul style="list-style-type: none"> • It should also ensure that it is familiar with and kept informed of all development applications and proposed joint venture arrangements on behalf of the local communities from both funding organizations and the private sector alike 	<p>community rights within specific municipal jurisdiction are concerned</p> <ul style="list-style-type: none"> • More particularly in order for community to enter into any joint venture agreements with either government (e.g. co-management) and/or private sector in respect of proposed developments for the study area it will be required to ensure that it is formed and registered as an appropriate legal entity so as to acquire the necessary legal status to legitimately contact with third parties.

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	<ul style="list-style-type: none"> - Decision in respect of communal land therefore require a community resolution before any action can be taken 	<ul style="list-style-type: none"> • DLA has developed an approach to assist rural and tribal communities whose land has not yet been transferred to them to enter into business partnerships with investors through the “back to black” lease model. • Minister DLA to co-sign lease agreement with investors and tenure reform beneficiary community 		
<p>9. The Communal Land Rights Act No 11 of 2004 (CLARA)</p>	<ul style="list-style-type: none"> • The main aim of the Act is to deal with issues relating to traditional land rights • Although this statute has now been enacted it has not yet formally commenced and therefore the interim arrangements in terms of Act 31 of 1996 (<i>supra</i>) will continue to apply in the interim • The Act seeks to secure land rights for traditional communities and in certain circumstances facilitate the formal transfer of land presently owned by the government and the South African Development Trust to 	<ul style="list-style-type: none"> • The contents of the Act impose fresh obligations and responsibilities on community to ensure accountability for land use decisions in terms of environmentally management issues generally • The shift is away from exclusive government governance and control and redirected at community empowerment albeit that such use remains curtailed and restricted by relevant environmental and inter related legislation and policy including the bill of rights to the constitution • In this regard the act 	<ul style="list-style-type: none"> • As with the IPILRA above 	<ul style="list-style-type: none"> • As with the IPILRA above

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	<p>these communities</p> <ul style="list-style-type: none"> It will also regulate tenure redress such as the provision of subsidies to communities to purchase land and the provision of alternative land to those unable to acquire the land to which they hold traditional land rights It provides that ownership and administration powers will vest in traditional leaders and their councils It grants land allocation land administration and ownership powers and functions to “traditional councils” created by the Traditional Leadership and Governance Framework Bill – Infra 	<p>recognizes the juristic personality of the community defined as “group of persons whose rights to land are derived from shared rules determining access to land held in comm. By such group” and provides for security of tenure</p> <ul style="list-style-type: none"> It allows communities to register and transfer communal land into freehold ownership for the first time Importantly it allows for the making and registration of “community rules” which it is submitted should include firm environmental management and land use provisions 		
D. Environmental (Including Natural Heritage, Marine & Protected Areas)				
<p>10. The National Heritage Resource Act 25 of 1999</p>	<ul style="list-style-type: none"> The is governed by the national department of Arts and Culture Its purposes is to introduce an integrated and interactive system for the management of the national heritage resource of South Africa 	<ul style="list-style-type: none"> It is important for any potential investor, developer or concession applicant to ensure that the area of land to be developed not affected in a way by the prohibitions imposed by the act 	<ul style="list-style-type: none"> A local authority (municipality) may with the approval of the provincial heritage resources authority make bylaws regulating places protected under the act the protection and management of heritage areas and providing 	<ul style="list-style-type: none"> Many areas of the coastal zone stand to be protected under this act and it is important for municipalities to be aware of these areas and devise ways in which to ensure their

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	<p>which would obviously include important heritage areas in and around the coastal zone</p> <ul style="list-style-type: none"> - These would include: places building structures and equipment of cultural significance places to which oral traditions are attached and are associated with living heritage historical settlements and natural townscapes landscapes and natural features of cultural significance geological sites of scientific and cultural importance archeological and palaeontological sites graves and burial grounds - Sets out principles for management as well as responsibilities and competence of heritage resources authorities and local authorities for identification and management of national estate <p>Note: local level</p>	<ul style="list-style-type: none"> • If the act has relevance the prescriptive conditions contained therein are required to be addressed 	<p>incentives for the conservation of protected places under the act.</p>	<p>protection and proper management</p> <ul style="list-style-type: none"> • Provision should be made in the CMP to incorporate and comply with this legislation prior to any renewed physical development taking place in this study area.

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	<p>functions are the responsibility of local authorities. local authorities are accountable for their actions and decisions and the performance of functions under the three tier system (S8)</p> <ul style="list-style-type: none"> - A local authority is responsible for the identification and management of grade 3 heritage resources which are deemed to fall within their competence in terms of this act - Deals with protected areas, permits, offences and penalties 			
<p>11. The National Environmental Management Act 107 of 1998 (NEMA)</p>	<ul style="list-style-type: none"> • The act is governed by the national department of Environmental Affairs and tourism • It is important to note that the following amendments have been recently promulgated: <ul style="list-style-type: none"> - NEMA first amendment act No. 46 of 2003: this is the amendment to chapter 7 and 9 of NEMA - NEMA second 	<ul style="list-style-type: none"> • Should be regarded as the cornerstone legislation for all environmental management activities • Its sections on resource conservation and exploitation; pollution control and waste management; and land use planning and development should be studied in relation to all proposed coastal zone activities 	<ul style="list-style-type: none"> • Every organ of the state including local government and municipalities must exercise every function it may have or that has been assigned or delegated to it by or under any law and that may significantly affect the protection of the environment substantially in accordance with the environmental management plan prepared submitted and adopted the national 	<ul style="list-style-type: none"> • This particular act in conjunction with the constitution should form the basis for all environmental considerations for CMP preparation purposes • The municipality must ensure that the CMP is keeping with national and provincial environmental management plans

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	<p>amendment (Chapter 5): this is the amendment to Chapter 5 of NEMA</p> <ul style="list-style-type: none"> ▪ Provides for co operative environmental governance re: environmental affairs ▪ Provides for institutions to promote and co ordinate co operative governance ▪ Sets out important environmental management principles especially the need for sustainable development equitable access to environmental resources participation of all interested and affected parties requires open and transparent decision making ▪ Focus is placed on improving the lives of the previously disadvantaged people ▪ Makes provision for the national environmental advisory forum and procedures for co operative governance ▪ Makes provision for environmental implementation plans and 	<ul style="list-style-type: none"> • Chapter 5 entitled “Integrated Environmental Management” is especially important for development and planning particularly when referring to coastal zone it provides that “sensitive, vulnerable, highly dynamic, and stressed eco systems, such as coastal shores estuaries require specific attention in management and planning procedures” • This is particularly relevant in so far as the mining of coastal dunes and estuaries is concerned. 	<p>and provincial government (S16)</p> <ul style="list-style-type: none"> • Each provincial government must ensure that the relevant provincial environmental management plan is complied with by each municipality within its province and it must ensure that all municipalities adhere to the relevant environmental implementation and management plans and land development objectives (S16) • However municipalities per se are not obligated in law to produce their own environmental management and implementation plans • Municipal councils are bound by the provisions relating to fair decision making and conflict management clauses of the act (S17) • The minister and every MEC and municipality may enter into environmental management co operation agreements with any person or community for the 	<p>which are required to comply with the letter and the spirit of this Act generally and specifically in relation to those clauses affecting local government directly as highlighted herein</p>

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	<p>environmental management plans which is the responsibility of the national and provincial government</p> <ul style="list-style-type: none"> ▪ Provides for fair decision making and conflict management 		<p>purpose of promoting compliance with the principles set out in the act (S35)</p> <ul style="list-style-type: none"> • In so far as OVRs are concerned proposed amendments to the ORV regulations were recently published: these amendments include the deletion of regulation 10 (that authorizes the provincial authorities to delegate its power to local authorities) 	
<p>12. The Environmental Conservation Act 73 of 1989 (ECA)</p>	<ul style="list-style-type: none"> • The act is governed by the national department of environmental affairs and tourism • The assessment of the EIA application delegated to its provincial department DEAET - Provides for both the protection of the environmental and the exploitation of the environmental in keeping with sustainable development generally - Provides for the protection of eco 	<ul style="list-style-type: none"> • It is important for the development (excluding mining specifically) in the coastal zone that the regulations under section 21 of the act viz. “identified activities” are followed to ensure that appropriate environmental impact assessment (EIAs) area carried out prior to construction taking place • The KZN department of agriculture and environmental affairs is competent authority to assess EIAs and authorize a record of 	<ul style="list-style-type: none"> • Much of the act has been repealed by NEMA although it retains its importance in terms of S21 (until the new regulations commence) which provides for compulsory environmental impact assessment (EIA) in anticipation of certain listed activities along with various principles rules and regulations <p>Note: the EIA regulations are established in terms of this section and are supported by the provincial EIA guidelines series dated September 2000</p>	<ul style="list-style-type: none"> • Both S21 (especially the listed activities) and S31A of the Act requires cognizance in terms of the CMP and any proposed physical development activities in the study area will be compelled to comply with its provisions

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	<p>systems and the natural systems and bio-diversity including proposed mining sites</p> <ul style="list-style-type: none"> - Promotes sustainable natural resources utilisation 	<p>decision (ROD) which may or may not have attaching conditions which need to be complied with prior to development taking place</p> <ul style="list-style-type: none"> • The ROD is required to be submitted to DLA for the purposes of applications for land tenure rights such as leases (<i>supra</i>) • It is important to note that although the national department of mineral and energy may be of the opinion that DAEA does not have jurisdiction through the ECA to prescribe EIAs in relation t mining and sand winning activities in the study area the fact that such mining activities will have a collective effect on the inter related and surrounding natural resources of the area must be taken into account. • It is important t note however that the regulations have recently been amended by the NEMA (<i>supra</i>) 	<ul style="list-style-type: none"> - The EIA regulations affect and impact on all proposed physical development plans and/or land use changes contemplated by municipalities in the coastal zone indirectly including mining - S31A of the act has not yet been repealed by the NEMA and is important for municipalities in that its empowers inter alia local government to take specific and prescribed action against any person or group of persons performing any activity which as a result of which the environment is or may be seriously damaged endangered or detrimentally affected 	
<p>13. The National Forests Act 84 of</p>	<ul style="list-style-type: none"> • The act is governed by the national department of 	<ul style="list-style-type: none"> • It is important that any development in and around 	<ul style="list-style-type: none"> • Chapter 6 of the Act allows the minister to 	<ul style="list-style-type: none"> • Small pockets of the coastal forest

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<p>1998 (NFA)</p>	<p>water affairs and forestry (DWAF)</p> <ul style="list-style-type: none"> • EIA assessment of proposed activities in relation to the act is undertaken by the regional office and general management is undertaken by the provincial <ul style="list-style-type: none"> - The act which replaces the 1984 forest act provides a detailed procedure for declaring protected areas (a forest nature reserve, a forest wilderness area and “any type of protected area which is recognized by law and practice”) and sets out the effect of such declaration which includes a prohibition on cutting, disturbing or removing forest produce from such a protected area unless it is in conformity with certain stipulated rules and conditions - The act emphasizes the promotion of sustainable forest management and 	<p>the coastal zone takes into consideration the possibility that the land in question may fall under DWAF jurisdiction</p> <ul style="list-style-type: none"> • The land itself may not appear as being a forest area as such but it may still be a demarcated state forest • It is therefore important to check with the DWAF regional office whether the land falls either entirely or part within DWAF boundaries • Once established the NFA processes and procedures will be required to be complied with 	<p>assign and delegate certain powers and duties</p> <ul style="list-style-type: none"> • The minister may also delegate and assign any powers and duties in terms of the act to other organs of the state • The act defines “organs of the state” to include local government 	<p>currently exist around the coastal dunes and river systems situated in the study area</p> <ul style="list-style-type: none"> • These forest areas will be governed by the provisions of the act and it will therefore be important for the municipality to engage with DWAF and DAEA (where already delegated or assigned) in order to assess the extent to which such managerial powers can be delegated and/ or assigned to them, which arrangements should be reflected in the CMP

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	<p>the development of forests for the benefit of all i.e. for environmental, economic, educational, recreational, cultural, health, and spiritual purposes</p>			
<p>14. The Kwazulu Natal Nature Conservation Management Act 9 of 1997</p>	<ul style="list-style-type: none"> The act provides for the KwaZulu Natal Nature Conservation board and the declaration and management of provincial protected areas in the province. 	<ul style="list-style-type: none"> The relevance of the act for the project purposes would be in the event that certain natural areas situated in the study area require formal nature conservation protection 	<ul style="list-style-type: none"> Application for the protection of any area falling within the study area would be to the Nature Conservation Board and requiring endorsement by the municipality 	<ul style="list-style-type: none"> It is situated that the Umgababa river and wetland area may well require formal conservation protection status under this act in due course
<p>15. The National Water Act 36 of 1998</p>	<ul style="list-style-type: none"> The act is governed by the national department of water affairs and forestry (DWAF) EIA assessment of proposed activities set out in this act is undertaken by the regional office and general management is undertaken by the provincial office - As per the act's preamble the aim of water resource management is to achieve the sustainable use of water for the 	<ul style="list-style-type: none"> Any development proposed in and around the coastal zone is subject to the provisions of water act, water pollution from mining being an important consideration In particular, its relevance is highlighted in terms of flood plain limitations its use viz. extracting, storing, impeding and reducing – discharge through pipes, canals, sewers, sea outfalls and other conduits, disposing of waste – alterations of beds and banks, protecting aquatic and associated eco 	<ul style="list-style-type: none"> Importantly for these purposes, chapter 7 provides for the establishment by the ministers of “catchment management agencies” The purpose of these agencies is to delegate water resource management to the regional or catchment level and to involve local communities, within the framework of the national water resources strategy 	<ul style="list-style-type: none"> It is important for municipalities to enquire and establish whether the department has established or is planning to establish any “catchment management agency”, in their respective areas The use, control and management of water in the coastal zone is governed y this act, and therefore, it is crucial that municipalities make

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	<p>benefit of all users</p> <ul style="list-style-type: none"> - In this regard the act aims to ensure that the protection of the quality of water resources necessarily ensures sustainability of the nations water resources in the interest of all water users - It recognizes the need for the integrated management of all aspects of water resources including mining impacts and management functions to a regional or catchment level so as to enable everyone to participate - In short sustainability – protection of aquatic and associated eco system and their biological diversity through inter alia the reduction and prevention of the pollution and degradation of water resources – and equality - Promoting equitable access to water through 	<p>systems and their biological diversity</p> <ul style="list-style-type: none"> • Its scope of application expressly provides for the need for EIAs to be undertaken • It also prescribes specific processes and procedures in terms of existing lawful water uses, general authorizations and licenses, and responsible authorities, including local government 		<p>the necessary provision for the incorporation of these issues in the CMP</p>

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	<p>a redress of past racial and gender discrimination and the facilitation of social and economic development are identified as central guiding principles in the protection, use, development, conservation, management and control of water resources</p>			
<p>16. The Water Services Act 108 of 1997</p>	<ul style="list-style-type: none"> • The act's objectives, read together with the national water act (<i>infra</i>) is to provide for: <ul style="list-style-type: none"> - The right of access to basic water supply and the right to basic sanitation - The setting of tariffs in respect of water services - The preparation and adoption of water services development plans by water service authorities 	<ul style="list-style-type: none"> • The act provides a regulatory framework for local authorities to supply water and sanitation services in their respective areas of jurisdiction 	<ul style="list-style-type: none"> • The contents of the act be noted by the municipality 	<ul style="list-style-type: none"> • It is submitted that the contents and provisions of the act will be required to be assessed by the municipality in terms of future infra-structural services required for the area
<p>17. Integrated Coastal Management Bill</p>	<ul style="list-style-type: none"> • This act supersedes the sea shore act 21 of 1935. • The act is governed by 	<ul style="list-style-type: none"> • The act makes it a legal requirement for planning entities that are located on or along the coast thus making it a legal 	<ul style="list-style-type: none"> • Chapter 11 of part 1: the minister makes the regulations to facilitate implementation of this act. 	<ul style="list-style-type: none"> • This provisions of the act forms a critical part of the CMP as it forms a guiding tool for Coastal Management.

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	<p>Environmental Affairs and Tourism</p> <ul style="list-style-type: none"> - The act seeks to establish a system of integrated coastal and estuarine management in the country, including norms, standards and policies, in order to promote the conservation of the coastal environment, and maintain the natural attributes of coastal landscapes and seascapes, and to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable; to define rights and duties in relation to coastal areas; to determine the responsibilities of organs of state in relation to coastal areas; to prohibit 	<p>requirement for preparation of coastal management plans.</p>		

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	<p>incineration at sea; to control dumping at sea, pollution in the coastal zone, inappropriate development of the coastal environment and other adverse effects on the coastal environment; to give effect to South Africa's international obligations in relation to coastal matters; and to provide for matters connected therewith</p>			
<p>18.The Marine Living Resources Act of 1998</p>	<ul style="list-style-type: none"> The Act is governed by the national government Environmental Affairs and Tourism through its marine and coastal management department (MCM). <ul style="list-style-type: none"> - The Act incorporates certain clear objectives and principles. - The Minister and any organ of State in exercising any power under the MLRA, IS obliged to 	<ul style="list-style-type: none"> Although the Act is primarily concerned with LIVING marine resources, any proposed development in the coastal zone, including mining activities, will be obliged to consider the conservation principles embodied in the Act, and in particular, ensure that development/mining activities do not impact negatively on the bordering marine environment e.g. liquid and solid waste; water run off; encroachment; aquatic pollution etc. 	<ul style="list-style-type: none"> There is an extensive list of specific matters contained in the Act on which the minister is expected to make regulations concerning conservation and exploiting of marine living resources, including prescribing fisheries management and conservation measures. It is significant for these purposes to note that the minister may also delegate his or her powers to authorities in the local sphere of government. 	<ul style="list-style-type: none"> It is submitted that this Act, should form an important part of the CMP, especially when one considers that the living marine resources of the Kwazulu Natal coastline are an extremely valuable asset, and currently under threat through variety of development factors. In addition, the fact that the Aliwal Shoal Marine Protected Area

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	<p>take into account the following objectives and principles.</p> <ul style="list-style-type: none"> • The need to achieve optimum utilisation and ecologically sustainable and ecologically sustainable development of marine living resources; • The need conserve marine living resources for both present and future generation; • The need to apply precautionary approaches in respect of the management and development of marine living resources; • The need to utilise marine living resources to achieve economic growth, human resource development, capacity building within fisheries and mariculture branchies, employment creation and a sound ecological balance consistent with the development objectives of the national government ; • The need to protect the 	<ul style="list-style-type: none"> • In addition, it would be advisable for developers to devise parallel marine conservation and education initiatives to lend support of the Act e.g. the development of a watch dog and monitoring committee (from community ranks) for the surrounding development area. • It should be noted that the Act forms the basis for local subsistence rights issues and any subsistence fishing right authorisation is granted in terms of its provisions. • In addition, any application for the declaration of marine protected areas, conservancies and the like, are required to be applied for and processed in terms of the provisions of this Act and its complementary regulations. • It is important to note that the Act must be read with its accompanying regulations (the Regulations). • The minister of Environmental Affairs and Tourism is ultimately 	<ul style="list-style-type: none"> • Section 78 allows the minister to assign powers to the executive authority of a province • Section 79 (1) (b) allows the DG to delegate any power conferred upon him or her in terms of the Act, excluding the power to make regulations, to an authority in the local government. 	<p>is situated immediately south of the study area is significant for these purposes and its provisions should be respected in terms of all development and planning initiatives proposed for the study area.</p>

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	<p>ecosystem as a whole, which would for these purpose specifically include the contemplation of mining impacts on the living marine environment, including species which are not targeted for exploitation;</p> <ul style="list-style-type: none"> • The need to preserve marine biodiversity; • The need to minimise marine pollution, including that arising from sand winning activities in an area. 	<p>responsible for administering the Act and has powers to make regulations concerning a wide variety of matters.</p> <ul style="list-style-type: none"> • The chapters in the regulations include: administrative matters; rights of access; closed seasons and closed areas; use of gear; species restrictions; mariculture; landing; transportation and marketing; compliance and control; permits; fishing equipment; transporting fish; fines and penalties; and all aspects of fisheries law. 		
<p>19. THE NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS Act 57 Of 2003</p>	<ul style="list-style-type: none"> • DEAT will be the competent authority for the implementation of this bill once enacted • The Act provides for the continued existence of the South African National Parks, the declaration and management of protected areas in South Africa and cooperative governance in such declaration and management of protected areas 	<ul style="list-style-type: none"> • The Act forms part of a suite of legislation established to manage the environment • The framework is provided for in the National Environmental Management Act (NEMA – supra), where environmental management principles are set out and sections common to the other legislation in the suite are located. 	<ul style="list-style-type: none"> • S42 & 43 provides that nature reserves may be declared by either the minister, a MEC or a municipality • In particular, local protected areas are required to be managed by the municipality itself or assigned to a municipal entity assigned in terms of S 59 • Municipalities are required to produce management plans for such areas, 	<ul style="list-style-type: none"> • Such management plans should be appropriately reflected in the relevant CMP

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			including biodiversity issues, with performance indicators for monitoring purposes to be submitted to the MEC for approval (S 60 (2))	
<p>E. Policy Documents (Including White Papers, Bills & Conventions)</p>	<ul style="list-style-type: none"> The various bills and policy documents (inc. conventions) set out below are mentioned here for the purposes of easy reference, however because they still remain in the development phase and are still susceptible to change prior to finalisation and or enactment it is simply be noted at this stage and not necessarily relied on as any real authority 	<ul style="list-style-type: none"> These policy documents and bills are important for development purposes and provide firm management guidelines in the absence of statutory directives 	<ul style="list-style-type: none"> Municipalities should simply note the existence of these bills and monitor their continued development as an interim guideline to the proposed way forward. 	<ul style="list-style-type: none"> It is submitted that until such time as these bills are finalized and preferably enacted into legislation, they should be regarded simply as guideline documents and noted with interest. It is recommended that until promulgation takes place, Municipalities should rather focus on the legislation currently in existence and ensure that their proposed CMPs within the IDPs , conform and comply herewith
<p>20. THE NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY Act 10 Of 2004</p>	<ul style="list-style-type: none"> The Act was promulgated in June 2004, and most of its provisions came into force and effect in September of that year. Provisions to be 	<ul style="list-style-type: none"> National provincial and local government are regarded as the competent authorities for the control of alien species or a listed invasive species 	<ul style="list-style-type: none"> All organs of state, including municipalities must prepare an incisive species monitoring, control and eradication plan for land under their control 	<ul style="list-style-type: none"> Municipalities are required to ensure that EMPs/ IDPs and therefore importantly for CMP preparation purposes, are:

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	<p>implemented by DEAT</p> <ul style="list-style-type: none"> • The Act provides for : <ol style="list-style-type: none"> i. The management and conservation of the biological diversity of South Africa ii. The sustainable use of our biological resources iii. And the fair and equitable sharing of benefits arising from the use and application of genetic resources and material • The act provides for the establishment of a national biodiversity institute (NBI), through provision of criteria for the selection and appointment of the governing board 	<ul style="list-style-type: none"> • Bio-regional plans may be produced by the minister at the request of either a province or a municipality 	<ul style="list-style-type: none"> • This plan is to be included in municipal IDPs and EMPs as the case may be 	<ul style="list-style-type: none"> - Aligned with the national biodiversity framework - Incorporate its provisions - Demonstrate the manner of implementation by the municipality
<p>21. The 1982 United Nations Convention On The Law Of The Sea (UNCLOS)</p>	<ul style="list-style-type: none"> • The convention entered into force in November 1994 and was ratified by South Africa on 23rd December 1997 	<ul style="list-style-type: none"> • The convention recognises a sovereign right of coastal states over territorial waters and more specifically it codifies certain important maritime zones as follows: • Internal waters: The normal baseline for measuring the various maritime zones is the low-water mark and all water land-ward of this line is considered internal 	<ul style="list-style-type: none"> • Municipalities should be aware that South Africa is a signatory to this convention 	<ul style="list-style-type: none"> • This report proposes that the low water mark be considered as the eastern boundary of the study area (as opposed to the twelve nautical mile territorial sea boundary as suggested in certain comparative studies over the years), and accordingly all water

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		<p>waters over which states enjoy sovereignty</p> <p>1) Territorial sea: coastal states also exercise sovereignty over their territorial sea which they have the right to declare up to a limit not exceeding twelve nautical miles from baseline</p>		<p>landward of this mark would be considered internal waters falling under the control of the state and more particularly the marine and coastal branch of the national department of Environmental affairs and Tourism (DEAT) The municipality as a local government structure, does however have certain specific powers and functions including roles and responsibilities in relation to this area (supra)</p>
<p>22. 1971 Convention On Wetlands International Importance Especially As Waterfowl Habitat (Ramsar)</p>	<ul style="list-style-type: none"> South Africa acceded to the convention in 1975 and has designated a number of wetlands over the years. 	<ul style="list-style-type: none"> The Ramsar convention provides the framework for international protection and co-operation for the conservation of certain identified and designated wetland habitats considered to be of particular significance and importance. It affords such wetlands international conservation status, and covers a wide variety of 	<ul style="list-style-type: none"> Municipalities should be aware that South Africa is a signatory to this convention 	<ul style="list-style-type: none"> It has been noted that the Umgababa river and wetland system has considerable provincial conservation significance and value. It may well be that the relevant authorities viz, the marine & coastal branch of DEAT and the provincial department

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		<p>wetland habitats including rivers and coastal waters as well coral reefs.</p>		<p>of Water Affairs and Forestry (DWAF) may wish to extend the protection status of the river and wetland system through Ramsar in time. Certainly such international status would act as a significant draw-card for future tourism in the area, with a variety of inter-related tourism spin-offs being possible. It is submitted, therefore, that such options should be further investigated and recommendations made in the final CMP.</p>
<p>23. The White Paper On Local Government</p>	<ul style="list-style-type: none"> Requires that local government commits itself to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improves the quality of their lives. 	<ul style="list-style-type: none"> This primary objective should encapsulated in all relevant municipal environmental management planning initiatives 	<ul style="list-style-type: none"> The paper should be read with all other relevant legislation and policy set out in this table, particularly in order to compliment the local government obligations set out in the constitution (supra) 	<ul style="list-style-type: none"> CM to demonstrate awareness of this developing process
<p>24. National Waste</p>	<ul style="list-style-type: none"> The strategy was published subsequent to 	<ul style="list-style-type: none"> The emphasis is therefore on waste minimisation as 	<ul style="list-style-type: none"> The issue of integrated waste management and 	<ul style="list-style-type: none"> Considering the rural and informal nature of

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<p>Management Strategy For South Africa</p>	<p>the white paper and sets out the objectives of integrated pollution and waste management and covers the prevention, generation, collection, transportation, treatment and final disposal of waste</p>	<p>opposed to integrated pollution control</p>	<p>related services falls squarely within the responsibility of local government municipalities</p>	<p>the settlement areas within the study area, it is submitted that the implications of this strategy will become particularly significant in terms of the provision of waste management services in due course</p>
<p>25. The White Paper For Sustainable Coastal Development In South Africa April 2000 Note: A Draft Coastal Management Has Been Prepared But Has Not Been Promulgated</p>	<ul style="list-style-type: none"> • The paper is governed by the national department Environmental Affairs and Tourism through its marine and coastal management department (MCM). • The aim of the paper was initially to produce a policy which would guide the development and management of the whole SA coast • It is anticipated that the paper will inter alia: • Result in a broadly acceptable National Coastal Act which could effectively be implemented. • Promote environmentally friendly development which will contribute to economic development 	<ul style="list-style-type: none"> • The white paper should be regarded simply as a guideline document at this stage until such time as its provisions are transformed into a binding statutory arrangement 	<ul style="list-style-type: none"> • Of particular significance for municipalities; the paper makes provision for: <ul style="list-style-type: none"> - Public participation, partnerships, co-responsibility - Awareness, education and training dedicated approach to coastal planning and management which must necessarily include mining considerations - Physical access and equitable access - Historical and cultural heritage - State responsibility - Coastal economic development - Alleviation of coastal poverty - Design and management coastal settlement 	<ul style="list-style-type: none"> • It is submitted that the general provisions and principles set out in the paper will be incorporated into a proposed new coastal management act and therefore municipalities would be well advised to use the contents of the paper as an important guideline in the preparation of the CMP

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	<p>and enhance the quality of life of coastal communities;</p> <ul style="list-style-type: none"> • Reduce the cost of coastal land-use • Enhance the capacity of communities local and regional authorities to effectively participate in coastal management policy formulation and implementation. • Contribute to the development of coastal zone managers with an improved knowledge of coastal management issues and a commitment to coastal management 		<ul style="list-style-type: none"> - Risk and natural hazards - Coastal eco-systems - Renewable resource use - Non Renewable resource use - Rehabilitation especially mining related impacts • Pollution control and waste management 	
<p>26. The National Environmental Management: Coastal Management Bill</p>	<ul style="list-style-type: none"> • Provision to be managed by DEAT • The bill has been drafted and submitted to the minister of environmental affairs and tourism for his consideration • The bill aims to give legal effect to the principles and objectives of the white paper for coastal management • The bill incorporates the Sea Shore Act and current 	<ul style="list-style-type: none"> • Primary function is to provide for effective coastal zone management and collective decision-making 	<ul style="list-style-type: none"> • The bill provides for local authority managerial powers as follows: <ul style="list-style-type: none"> - To demarcate maintain and sign-post land used by the public for access to beaches - To manage in accordance with the coastal management principles areas of coastal land and beaches swimming and other recreational uses of 	<ul style="list-style-type: none"> • The local government managerial powers set out in this bill should be reflected in the CMP

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	marine pollution legislation		<p>coastal waters adjacent to the sea shore unless the activity in question is already regulated by another organ of state and</p> <ul style="list-style-type: none"> - Promote the establishment of co-management initiatives and public private partnerships that contribute to sustainable coastal management ▪ It goes on to empower local authorities to: <ul style="list-style-type: none"> - Prepare and adopt municipal coastal management programmes and publish by laws for the implementation and enforcement of the programme - Establish coastal zoning schemes where in certain areas are reserved and used for specific purposes only - Issues abatement notices restoration notices and repair and removal of structures notices and - Be responsible for issuing integrated permits 	

