

PROTECTED AREA MANAGEMENT PLAN
MKAMBATI NATURE RESERVE
2018-2028



ADVENTURE PROVINCE
Eastern Cape
PARKS & TOURISM AGENCY

Executive Summary

Eastern Cape Parks and Tourism Agency (ECPTA) as a protected area management authority is required under the National Environmental Management: Protected Areas Act (NEM:PAA), 2003 to compile and review management plans for protected areas under its management. The previous management plan compiled for Mkambati Nature Reserve was approved in 2010, but the plan required a review in order to align the plan with the new national protected area management plan guidelines and regulations.

According to the National Environmental Management Act (NEM:PAA) (Act 57 of 2003), the management of the nature reserve needs to be in line with the purpose for declaration. However, the declaration of the reserve was not specific in relation to the purpose for declaration and as such the reserve management defined the reserve specific purpose of the nature reserve in line with applicable legislation, the reserve concept and ECPTA values. The main purpose of Mkambati Nature Reserve is:

“To conserve the representative unique biodiversity of the Pondoland Centre of Endemism and the associated heritage features”.

The agency has adopted the “Recreational Reserve” concept for the Mkambati Reserve. The adopted concept implies the reserve will focus primarily on offering eco-tourist activities such as hiking, birding, canoeing, game viewing, fishing etc. However, the concept has no restriction on secondary activities that support the “Recreational Reserve” concept. The reserve is and will continue generating most of its revenue from offering these activities to visitors.

The important departure point for the development of this management plan was the compilation of the reserve desired future state. The desired future state outlines the desired future for the nature reserve and this is reflected under the reserve vision and objectives (section 5). The vision of the Mkambati Nature Reserve is:

“An internationally recognized model of community-owned natural resources managed in partnership with conservation authorities”.


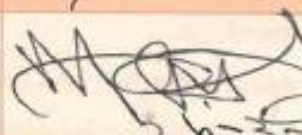

The reserve has five high level objectives and the management actions for the reserve are defined as per these objectives and the associated lower level objectives. These high level objectives for the reserve are:

- To conserve the representative natural and cultural heritage of the Pondoland area through the restoration of the heritage as well as adopting sound conservation principles and implementing appropriate management actions.
- To enhance cooperative management and socio-economic beneficiation through interaction with the Mkambati Land Trust, local authorities, communities and other key stakeholders for the long term persistence of the nature reserve
- To realise economic returns through the promotion of responsible tourism within the Pondoland area of the Wild Coast.
- To increase reserve revenue through the management and promotion of public-private partnerships.
- To ensure effective and efficient management of the reserve through the provision of adequately resourced support services to achieve the reserve objectives.

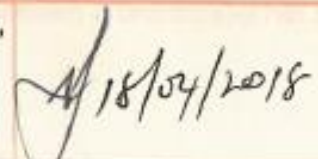
The high level objectives as well as their associated sub-objectives guide the action plans for the next ten years. The implementation of the plan will be through the incorporation of action plans into the Annual Operational Plan (AOP) of the reserve and an annual review process will be carried out to monitor progress and necessary adjustments will be made if required. For this planning period, the reserve management will seek to improve the activities offered in the reserve as well as well as increase revenue through the management of the current concession agreement as well as formulating new public-private partnerships. The plan is for the period 2018-2028 and it comes into effect once signed by the MEC.

Section 1: Authorisations

The Protected Area Management Plan for Mkambati Nature Reserve was developed in an inclusive and consultative process with key stakeholders and was recommended and adopted by:

Title and Name	Signature and Date
Eastern Cape Parks and Tourism Agency Chief Executive Officer V. Dayimani	 19/03/2018
Eastern Cape Parks and Tourism Agency Acting: Chairperson of the Board S. Mgxaji	 26-3-2018
Department of Economic Development, Environmental Affairs and Tourism Head of Department B. Gxilishe	 16/4/2018

Approved by:

Title and Name	Signature and Date
MEC: Department of Economic Development, Environmental Affairs and Tourism Honourable MEC S. Somyo	 18/04/2018

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Acronyms

AOP:	Annual Operational Plan
CAE:	Certificate of Adequate Enclosure
CDP:	Concept Development Plan
DEA:	Department of Environmental Affairs (National)
DEDEAT:	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
ECPTA:	Eastern Cape Parks and Tourism Agency
EIA:	Environmental Impact Assessment
IDP:	Integrated Development Plan
MEC:	Member of the Executive Council responsible for Economic Development, Environmental Affairs and Tourism in the Eastern Cape Province
MLT	Mkabati Land Trust
NEM:PAA	National Environmental Management: Protected Area Act, Act 57 of 2003
RPT:	Reserve Planning Team
SAHRA:	South African Heritage Resource Agency
SDF:	Spatial Development Framework
SOK:	State of Knowledge
SWOT:	Strengths, weaknesses, opportunities and threats

Glossary

Access	Refers to the physical right of entry to the protected areas and the rights to use the resources of the protected areas
Agency	Means the Eastern Cape Parks and Tourism Agency established under the Eastern Cape Parks and Tourism Act, Act 2 of 2010
Biodiversity	“Biodiversity” or “biological diversity” means the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems
Board	Means the Eastern Cape Parks and Tourism Agency Board as per section 15 of the Eastern Cape Parks and Tourism Agency Act
Desired state	An envisaged future state of a reserve outlined under the reserve vision and reserve objectives
Ecosystem services	The goods and services that contribute to human survival and wellbeing and which are derived from the normal functioning of healthy ecosystems. NEM:PAA defines “environmental goods and services” as: (a) benefits obtained from ecosystems such as food, fuel and fibre and genetic resources; (b) benefits from the regulation of ecosystem processes such as climate regulation, disease and flood control and detoxification; and (c) cultural non-material benefits obtained from ecosystems such as benefits of a spiritual, recreational, aesthetic, inspirational, educational, community and symbolic nature
Management Authority	The organ of state or any institution or person appointed by the Minister or MEC to manage the protected area in terms of NEM:PAA
Protected area	The system of protected areas in South Africa includes marine and terrestrial areas declared under a number of Acts, including the National Forest Act, 1998. NEM:PAA, 2003 deems nature reserves declared under pre-1994 provincial legislation to be Nature Reserves in terms of NEM:PAA.

Responsible tourism	<p>Responsible tourism is tourism which:</p> <ul style="list-style-type: none"> • minimizes negative social, economic and environmental impacts • generates greater economic benefits for local people and enhances the well-being of host communities • improves working conditions and access to the industry • involves local people in decisions that affect their lives and life chances • makes positive contributions to the conservation of natural and cultural heritage embracing diversity • provides more enjoyable experiences for tourists through more meaningful connections with local people, and a greater understanding of local cultural, social and environmental issues • provides access for physically challenged people • is culturally sensitive, encourages respect between tourists and hosts, and builds local pride and confidence
Servitude	A registered right that a person has over the immovable property of another
Stakeholder	Any person, organ of state or any party affected by the operation of the reserve or having an interest in the reserve

1.1 Introduction

Eastern Cape Parks and Tourism Agency (ECPTA) as a management authority is required in terms of the National Environmental Management: Protected Areas Act, No. 57 of 2003 to compile and update management plans for protected areas under its management. This plan builds on the foundations of the previous management plan that was authorized by the then Member of Executive Council for Eastern Cape Department of Economic Development, Environmental Affairs and Tourism in 2010.

The compilation of the plan followed the Department of Environmental Affairs (DEA) guidelines for developing management plans for protected areas. The plan contains the following sections:

Section 1	Provides a record of approval of the management plan
Section 2	Provides a record of the legal status of the protected area, as well as its description and location
Section 3	Provides a record of legislation and policies relevant for the management of the reserve
Section 4	Provides a synopsis of the consultation process followed in the preparation of this management plan
Section 5	Outlines the reserve purpose, vision, and the high level reserve objectives
Section 6	Provides a zoning plan for the reserve
Section 7	Provides information on the current access to the protected area and as well as the facilities within the reserve
Section 8	Outlines the expansion options of the reserve
Section 9	Outlines the concept development plan for the reserve
Section 10	Outlines the strategic plan for the reserve as well as the management actions for the planning period
Section 11	Provides details on the overall costs of action plans as outlined in section 10
Appendix A	Provides a record of declarations
Appendix B	Reserve Maps
Appendix C	Provides a list of relevant provincial and national legislation that guide the management of the reserve

1.2 Purpose of the management plan

The objective of the management plan as per NEM:PAA, 2003 is to ensure the protection, conservation and management of the protected area concerned in a manner that is consistent with the Act and the purpose for which it was declared. The plan indicates where the reserve management intends to focus its efforts in the next ten years, thus it provides also the medium-term operational framework for the prioritized allocation of resources and capacity in the management and development of the reserve.

1.3 Management Approach

1.3.1 Strategic adaptive management approach

The reserve system is dynamic with key factors changing constantly and over a period of time, as such management and the adopted strategies for the reserve need to be responsive to the dynamic nature of the system. The agency adopts the strategic adaptive management approach in managing the reserve. The principle behind the adaptive management is the one of “learn by doing”, that is, as the plan is implemented over a particular timeframe, reserve management must be able to learn from experience and to modify action plans accordingly. The strategic adaptive management cycle is as outlined in Figure 1 below.

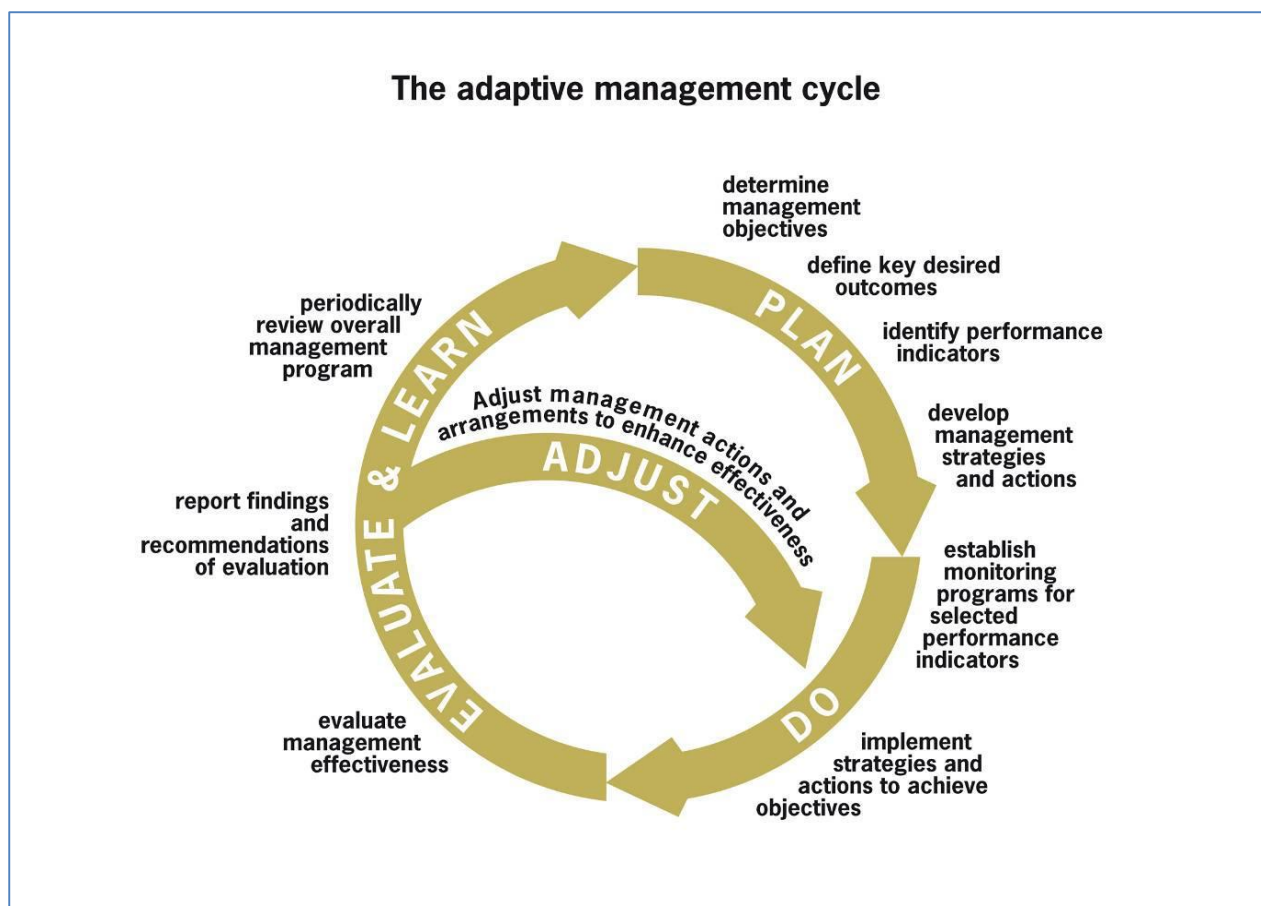


Figure 1: Strategic adaptive management cycle (Jones, 2005)

1.3.2 Participatory Approach

In developing management strategies for the reserve, the Agency regards public participation as key in ensuring the success of the reserve. The reserve is not an island and as such the activities of the reserve and the activities of adjacent land-owner/communities need to be complementary. Public participation, stakeholder engagement and political support is important and through the participatory approach a sense of “shared ownership of the reserve” is created and everyone has the need to see the reserve succeed.

Section 2: Legal status

2.1 Name of the Nature Reserve and Declaration Status

Mkambati Nature Reserve was proclaimed as a Nature Reserve in 1977 under the Transkei Conservation Act (no. 6 of 1971), and later under the Transkei Environmental Decree No. 9 of 1992. The reserve is currently regarded as a Provincial Nature Reserve under NEM: Protected Areas Act 57 of 2003. The area was previously known as the Mkambati Leper Colony and following the declaration as a nature reserve the Mkambati name remained hence the Mkambati Nature Reserve. Although officially known as Mkambati Nature Reserve, the name is a misspelling of the word “Mkhambathi” and in most cases various officials use the words interchangeably in most cases. It should be noted Mkambati Nature Reserve and Mkhambathi Nature Reserve refer to the same property.

2.2 Designated Management Authority

The Eastern Cape Parks and Tourism Agency is the management authority responsible for the management of Mkambati Nature Reserve together with the Mkambati Land Trust (MLT). The powers and responsibilities of ECPTA in terms of the management of the reserve are as prescribed under the ECPTA Act, Act 2 of 2010 as well as NEM:PAA, 2003. The powers and responsibilities of the MLT are prescribed under the Mkambati Settlement Agreement and the Co-management agreement.

2.3 Locality of the reserve

Mkambati Nature Reserve is situated on the coast of north-eastern Pondoland, in the Eastern Cape. It lies between Port Edward (30 km to the north east) and Port St Johns (59 km to the south west (see Figure 2) within the Ngquza Hill local Municipality and the OR Tambo District Municipality. The Reserve covers an area of approximately 7900 ha. The Reserve is part of the Pondoland Centre of Endemism, one of 235 sites identified world-wide as having important global diversity. The Reserve is thus regarded as being of regional, national and global conservation significance and contains an unusual combination of plant species, many of which are either rare or endemic to the area. The Mtentu River to the north, the Msikaba river in the south, and approximately 12 km of coastline in the east form the natural boundaries of the reserve. The only non-natural boundary is the inland fence to the west. All the land surrounding the reserve is communally owned (Amadiba communities to the north, Lambasi communities to the south and Mkambati communities to the west). The width of the reserve

from shoreline to the fence ranges from 5,5 to 8,2 km. The adjacent shoreline between the Msikaba and Mtentu Rivers, and the ocean to the 1000 m isobath forms part of the greater Pondoland Marine Protected Area.

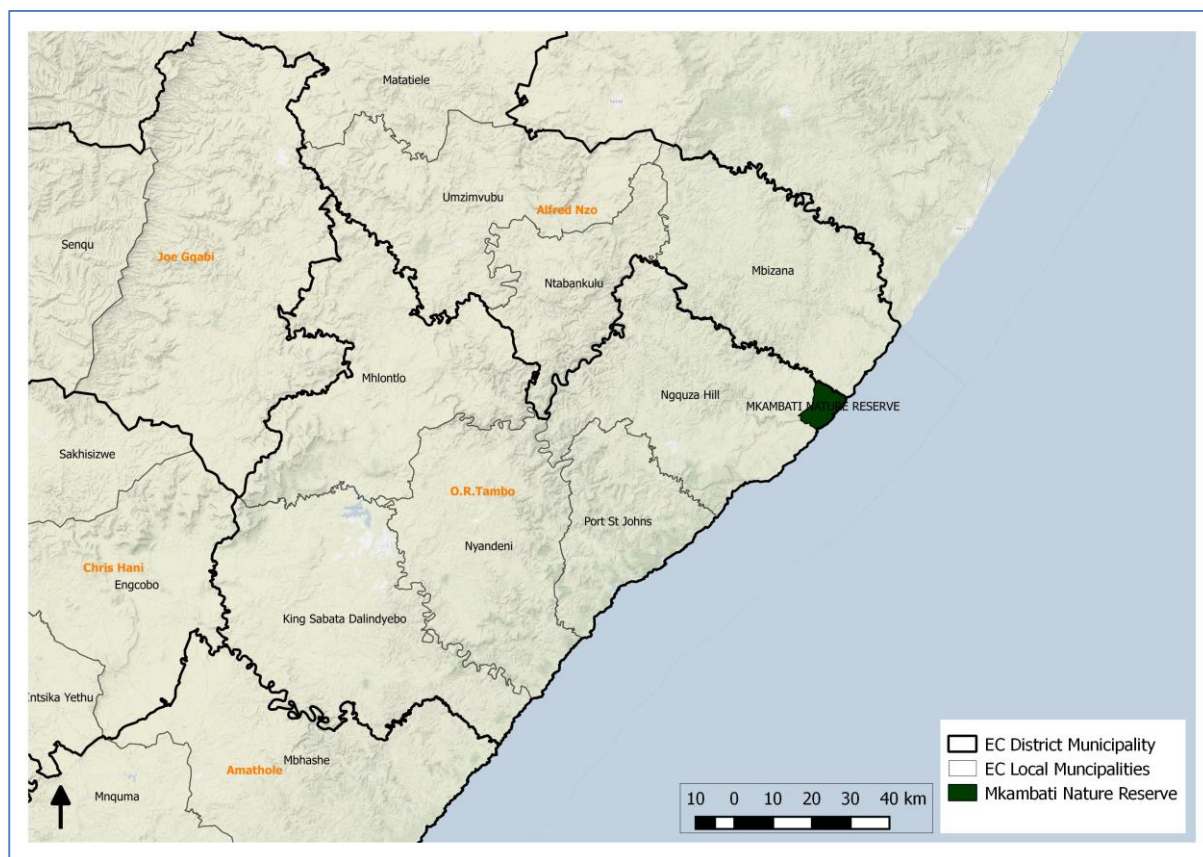


Figure 2: Locality of the Mkambati Nature Reserve

2.4 History and cultural heritage of the reserve

In 1920 a leper colony was established in the area known as Mkambati and formally approved by the Minister of Native Affairs in 1922. The Mkambati land was registered under Crown Title in 1951 and the rights to Mkambati transferred to the government of Transkei in 1966 and then later transferred to the Transkei Government Department of Health. After the closure of the leper colony in 1976, the rights to Mkambati were transferred to the Transkei Government Department of Agriculture and Forestry. In 1977 there was a proposal to plant sugarcane on the inland (western) two thirds of the Mkambati land and at the same time the seaward (eastern) third of the area was proclaimed as a Nature Reserve in terms of the Transkei Conservation Act of 1971. The area that had been set aside for sugarcane planting (11 000 ha) was allocated to the Transkei Agricultural Corporation (TRACOR), and between 1983 and 1986 a small sugarcane plantation was developed on the land. In 1990 a cattle farming

scheme was also introduced by TRACOR on the land adjacent to Mkambati Nature Reserve. However, the poor productivity of the soil resulted in the failure of the pilot agricultural projects and the land remains still largely unutilized. Conflicts over land use between TRACOR officials and community members of seven villages adjoining Mkambati led ultimately to a claim for restitution of land rights under the Restitution of Land Rights Act in 1994. The land claim was finally processed in 2004, and land ownership of both the Mkambati Nature Reserve and the adjacent TRACOR lands reverted to the Mkambati Land Trust.

2.5 Contractual agreements, Servitudes and Environmental Authorisations

Mkambati Nature Reserve is co-managed by ECPTA and the trustees of Mkambati Land Trust, and the terms of the co-management are prescribed in the co-management agreement. Mkambati Matters Property Limited has a signed lease agreement for exclusive use of a portion of the reserve (details on the signed lease agreement). Eskom has a registered servitude for a powerline in the reserve and the community has traversing rights through the reserve.

Mkambati Matters (Pty) Ltd has received an environmental authorisation for the construction and development of Mkambati Resort at Gwe-Gwe and North Beach (authorisation register number: EC153/ORT/LN1&LN3/M/13-30). The environmental authorisation has issued on the 22 of April 2015.

2.6 Land Claims

In 1994 seven communities lodged a claim for restitution of land rights for Mkambati and adjacent areas under the Restitution of Land Rights Act. During the course of negotiations, the communities agreed to commit the use of the Reserve area in perpetuity to conservation in the national interest on the understanding that management of the reserve would be a participatory process under the guidance of a co-management committee.

In 2004, the land claim was settled between the claimants, the State and its various departments as well as other interested and affected parties. In terms of the Settlement Agreement the claimed land was awarded to the Mkambati Land Trust (MLT) subject to the following provisions:

- The Reserve will be utilized only as a Provincial Protected Area and managed by DEDEA (now DEDEAT) or its agent ECPB (now ECPTA).

- The only developments allowed are low density nature based tourism subject to Environmental Impact Assessments or sustainable resource use consistent with the conservation objectives of the Reserve
- The Reserve shall be proclaimed in perpetuity as a Provincial Protected Area- The Trust may not alienate any portion of the claimed land other than to the State or a competent authority authorized by the State.
- The land shall be managed by a co-management committee (CMC) comprising members of the MLT and the delegated management authority. Management shall follow an approved management plan, and the CMC may not make decisions with respect to land use or development that go against the Management Plan, and Provincial and National legislation.
- The management agreement shall endure for 35 years after which a new agreement (i.e. the makeup of the management authority) will be formulated although the land remains in perpetuity a protected area.
- DEDEAT (through ECPTA) will attempt to implement long term lease agreements with Private Sector Companies in the hospitality industry to develop the Mkambati Nature Reserve eco-tourism potential and thereby create employment opportunities for local community members.

There are clauses in the agreement that outline the breach of agreement actions for both the MLT and DEDEAT and actions to be taken to resolve disputes. Further, clauses outline the rights and obligations of the DLA, DEDEAT and the MLT.

2.7 Biophysical Context

2.7.1 Climate

The climate is classified as mild sub-tropical with relatively high humidity. The coastal location adjacent to the warm Agulhas Current provides for minimal differences between minimum and maximum daily temperatures. The average rainfall is 1200mm, with 61% falling during spring and summer (September to February). On average June is the driest month with a mean of 47.6 mm and March is the wettest with a mean of 154.87mm. A minimum of 50mm rain is expected every month. Strong winds can occur with predominant winds blowing from the south

west or north east parallel to the coast. These winds impact significantly on coastal vegetation and on marine recreational activities.

2.7.2 Geology and Topography

The surface rock formations of the region are primarily sandstone of marine origin with localized doleritic intrusions. An island of this sandstone, extending in a narrow band (15 km. wide) from the Umzimkulu River in southern Kwa-Zulu Natal to the Mbotyi region, is home to numerous plant species which are uncommon or absent from surrounding substrates. This unique sandstone area, roughly 1880 km² in size, is known as the Pondoland Centre and is one of the principal centres of plant diversity in Southern Africa. This centre of diversity and endemism has developed as a result of locality, climate, topography and geomorphology working in combination to create a unique combination of plant species.

2.7.3 Flora/Vegetation

More than 80 % of Mkambati Nature Reserve is grassland and it is the only conservation area in the Eastern Cape incorporating a portion of the Pondoland–Natal Sandstone Coastal Sourveld veld type. These grasslands contain the majority of the endemic or near endemic species (> 80 species), yet this is the most threatened vegetation type in the MaputataInd-Pondoland region. The diversity of plant species in these grasslands is maintained predominantly by fire.

Afromontane, scarp, swamp, dune and mangrove forests also occur in the Mkambati Nature Reserve and there are over 700 ha of wetland habitats. Pondoland Scarp Forest is probably the most unique forest type in Africa and supports an endemic family (Rhychocalycaceae). On the northern bank of the Msikaba and Mtentu, the rare Pondo coconut palm or Mkambati Palm, (*Jubaeopsis caffra*) grows, from which the reserve derives its name. This is the only place in the world where this palm is found naturally. Endemic plants of the grasslands and forests within the Pondoland Centre of endemism include one monotypic family, at least six monotypic genera, at least 100 species of shrubs and herbs, and more than 30 woody species. Many of these endemics appear to be taxonomically isolated, with poor reproductive ability pushing them to the brink of natural extinction. They present some puzzling anomalies in biogeography and are highly vulnerable to disturbance.

Several invasive alien plant species occur in the reserve. Species known to occur include *Lantana camara* (Lantana), *Cestrum laevigatum* (Ink Berry), *Ipomoea congesta* (Morning

Glory), *Solanum mauritanium* (Bugweed), *Psidium guajava* (Guava), *Acacia mearnsii* (Black Wattle), *Eucalyptus spp.* (Blue gum), *Hakea sericea*, (Hakea), *Acacia longifolia* (Long leaved wattle), *Chromolaena odorata* (Triffid weed) and *Melia azedarach* (Syringa). The invasive alien problem is regarded as a potential serious threat to the biodiversity of the reserve.

2.7.4 Fauna

Mammals

Several of the larger herbivore species currently present in the Mkhambati Nature Reserve were introduced into the Reserve some 35 years ago to provide trophy hunting for wealthy overseas hunters, the original purpose for the reserve's establishment. Further introductions took place in 1984 and 1986. Of the introduced species, only eland and red hartebeest historically occurred in the area while the rest (plains zebra, mountain zebra, giraffe, gemsbok, kudu, springbuck, blesbok, blue wildebeest and impala) were extra-limits that were mostly removed from the reserve. The State of Knowledge Report contains detailed information on the animals historically present in the Eastern Cape and those that have been introduced but never occurred here. The remaining extra-limital species are currently being removed from the reserve. Other mammals in the reserve include Chacma Baboon, Common Reedbuck, Black-backed Jackal, Blue and Grey Duiker, Bushpig, and Vervet Monkey. Serval, clawless otter and even brown hyena track have also been observed.

Birds

There is a high diversity of bird species in the Reserve as a result of the variety of habitats. Mkhambati Nature Reserve is an internationally recognized Important Bird Area (IBA) (IBA code ZA066). The endangered Cape Griffon vultures have important nesting sites on the cliffs of the Mtentu and Msikaba gorges. The Pondoland area is also strategically important for migrating birds. The State of Knowledge report provides a list of the current species occurring in the reserve.

Reptile and amphibians

The diversity and biology of reptiles and amphibians are not well described, although preliminary studies suggest a high diversity, with a number of endemic, rare and threatened species. There are a number of endemic terrestrial mollusks in the Mkhambati area. The State of Knowledge Report provides an indication of the reptiles and amphibians recorded or expected in the Mkhambati Nature Reserve.

2.7.5 Estuaries

Five estuaries – Mtentu, Butsha, Gwegwe, Mgwetyana and Msikaba – occur in the reserve. Mtentu and Msikaba are unusual in a Southern African context and are of high conservation significance. Both estuaries are deeply incised, with thick indigenous forests extending to the waters edge, and the Msikaba estuary is the deepest in South Africa (35 m) and possibly contains the only endemic freshwater fish species in the Pondoland region. All the estuaries are important for biodiversity conservation, endemism, and for their function as nursery areas for a wide range of fish species.

2.7.6 Freshwater Ecosystems

The reserve comprises of four main river systems: Mgwetyana, Mgwegwe/Gwegwe, Daza and Kwanondinda River. The rivers are responsible for the attractive water-falls in the reserve and support the reserve lodges through the provision of freshwater. These rivers also support the estuaries linked to the Pondoland MPA. The rivers are under threat from illegal mining outside the reserve and this compromises the biodiversity of the reserve. The reserve has unique wetlands approximated at 700 ha in extend and some unique Swamp forests.

Section 3: Policy Framework

3.1 Organisational Policy Framework

Planning and management activities in ECPTA protected areas are mainly governed by national and provincial legislation as per Appendix B. In addition to the regional, provincial and national policies, ECPTA has developed agency level policies for the management of protected areas. The table below outlines the key ECPTA policies applicable per management activity (for a full policy framework visit the ECPTA website for the PAMP policy framework document).

Activity	Applicable ECPTA Policy
Financial	Supply chain management policy, 2014 Banking and cash management policy, 2014
The management of biodiversity	Alien Species in Protected Areas Policy, 2010 Large Mammal Management Policy, 2010 Large Mammal Donation Policy, 2010 Environmental Management Policy, 2010 Artificial Waterholes in PA Policy, 2013
Neighbour relations	Co-Management Policy, 2015 Community Beneficiation Policy, 2016 Transformation of Game Industry Policy, 2015
Research and development	Research in Protected Areas Policy, 2016
Risk, Safety and security	Firearms Control Policy, 2010 Risk Management Policy, 2011
Resource use	Natural resources use in protected areas, 2010
Access	Universal Accessibility Policy, 2016
Information Management	Information Security Policy, 2014

3.2 Oversight and Executive Authority for the Agency

The Eastern Cape Parks and Tourism Agency is a public entity, established by the Eastern Cape Parks and Tourism Agency Act, Act 2 of 2010. The MEC for Economic Development, Environmental Affairs and Tourism is the executive authority for the Agency as stipulated in the ECPTA Act, 2010. By appointment the Board serves as the accounting body with the Chief Executive Officer serving as the accounting officer for the management of the Agency (see Figure 3 below). The Chief Operations Officer is the implementer of the Protected Area Management Plan through the Regional Manager and the Reserve Manager, with support from all other units of the organisation.

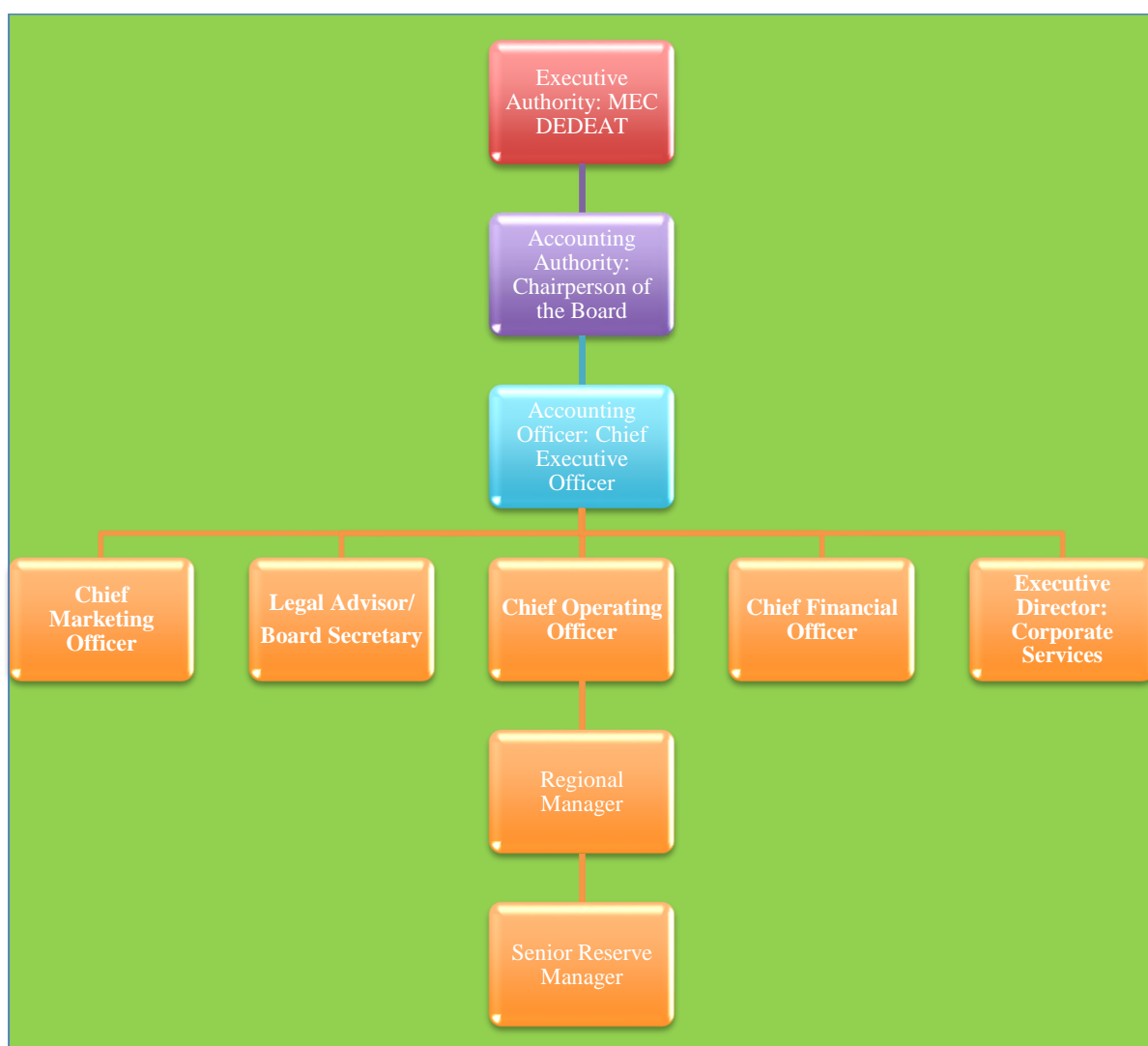


Figure 3: The Executive Framework of the Agency

3.3 Operational Framework for the Nature Reserve

The reserve manager is assisted by the reserve planning team (RPT) in relation various aspects relating to the management of the Mkambati Nature Reserve. A Reserve Planning Team, under the chair of the reserve manager, will be responsible for guiding the ongoing development, review, evaluation, and updating of the components of the management plan and the AOP.

The RPT shall include at least:

- The cluster manager.
- The reserve managers.
- Key reserve management staff (Section Rangers).
- Scientific Services (Ecologist).
- Planning Unit (Environmental & Systematic Conservation Planner)
- Destination Tourism (Regional Tourism Manager) & Marketing (Manager Branding & Promotions)
- Any other co-opted technical experts or local public representatives

The functions of the reserve planning team shall include:

- (i) Providing technical and expert advice to the reserve manager for the day to day operation of Mkambati Nature Reserve as required.
- (ii) Evaluating and approving any development proposals for the nature reserve
- (iii) Consulting with other reserve staff, the ECPTA executive, other agencies with expertise or jurisdiction, other knowledgeable persons, and the public in guiding the management strategy for the nature reserve.
- (iv) Providing strategic direction and technical inputs into management plan of the nature reserve.
- (v) Identifying the need for subsidiary plans, and guiding their formulation.
- (vi) Approving the draft subsidiary management plans for formal submission to the ECTA executive.
- (vii) Annually reviewing the reserve performance against the objectives established in the PAMP and AOP.
- (viii) Approving the annual reporting on the reserve performance
- (ix) Guiding the updating of the PAMP and AOP based on the outcomes of the annual performance review

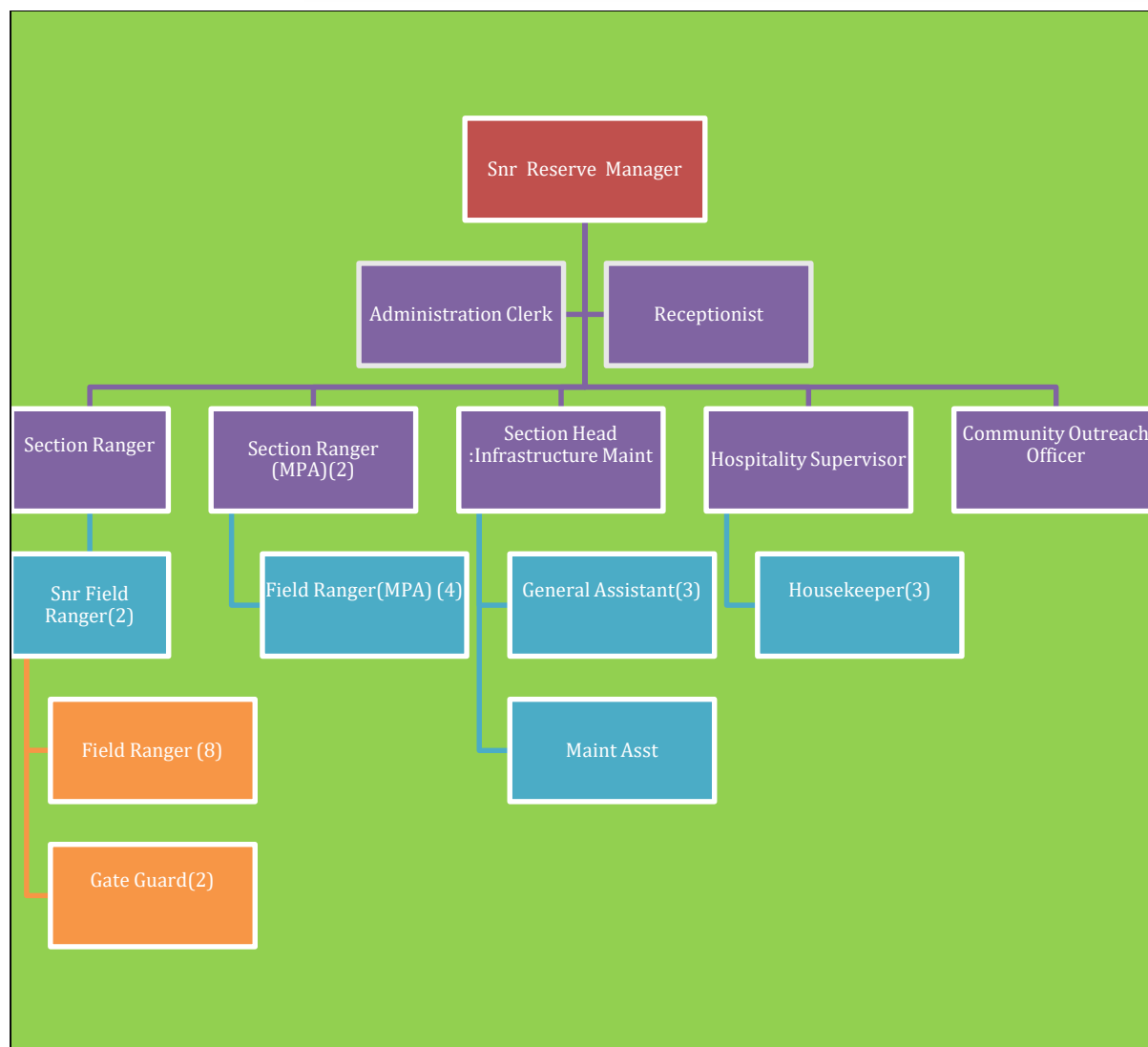


Figure 4: The organogram for Mkambati Nature Reserve

Section 4: Consultation

The Agency recognizes that the success of the reserve depends on the public and political support as such the public participation process was an important step in the development of this management plan. The consultation process for the development of this management plan is as prescribed under NEM:PAA section 39(3), read with section 41(2)(e) which states that *“when preparing a management plan for a protected area, the management authority concerned must consult municipalities, other organs of state, local communities and other affected parties which have an interest in the area.”*

The Eastern Cape Parks and Tourism Agency Act, 2010 stipulates that the Agency may “lead and facilitate the development of public-private partnerships as part of the co-management processes in the protected areas” and the agency may also “participate in relevant public participation programmes to consolidate and expand the protected area system”. Both NEM:PAA, 2003 and the ECPTA Act, 2010 provide for stakeholder consultation in the management of protected areas and this was the departure point for stakeholder consultation during the PAMP review process.

The main goals of the public participation process were:

- To provide a platform for effective communication, where views, concerns and opinions on management of the area can be shared between the managers and stakeholders,
- To increase the “sense of ownership” amongst stakeholders and
- To provide a platform for addressing issues of common concern to reserve management and stakeholders.

The initial step in the management planning process was the notification to the public or stakeholders of the intention to review the management plan for the reserve. The notifications were in a form that is appropriate for each stakeholder, this included print media, ECPTA website, email and mobile phone SMS notifications. This step was followed by a series of internal and external workshops that led to the development of the draft management plan. The draft management plan was circulated for broader public for further comments. Details of the stakeholder engagement process are contained in a separate stakeholder engagement report.

Section 5: Purpose and vision

5.1 Purpose of the Nature Reserve

NEM:PAA (section 40(1)(a)) stipulates that the management authority must manage a protected area exclusively for the purpose for which it was declared. The declarations for the most reserves were not specific in relations to the purpose for declaration of each reserve.

ECPTA has designed the purpose and vision of the reserve in line with the organisational vision and mission with a firm consideration of the organisational principles and NEM:PAA section 17.

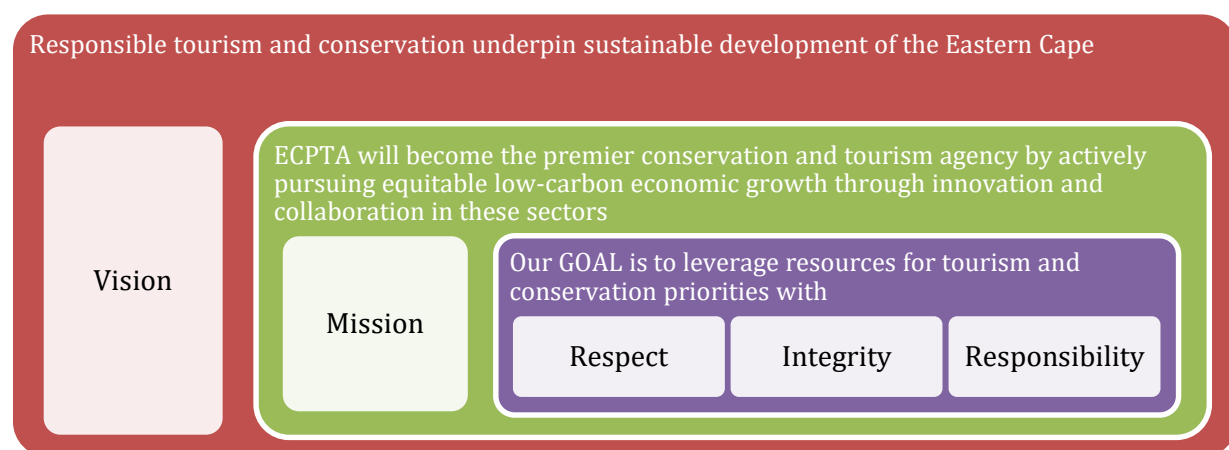


Figure 5: Organizational vision, mission and values

The main purpose of Mkambati Nature Reserve is:

“To conserve the representative unique biodiversity of the Pondoland Centre of Endemism and the associated heritage features”

5.2 The desired future state of the reserve

In an effort to guide the current management actions towards a prescribed future state of the reserve, a desired state of the reserve was designed. The desired future state of the reserve is described through the reserve vision with a firm consideration of the key attributes of the reserve, reserve guiding principles and threats to the vital attributes of the reserve.

A “Recreational Reserve Concept” has been adopted for this reserve which implies that the Agency will strive to generate revenue through the provision of recreational activities in the

reserve as discussed in a key ECPTA strategic planning initiative, *Reserves as Products* (2015) (see also section 9).

5.2.1 The vision of the reserve

The vision describes the envisioned desired future of the reserve and describes the desired protected area that the plan is seeking to achieve in the long term. The vision of the Mkambati Nature Reserve is:

“An internationally recognized model of community-owned natural resources managed in partnership with conservation authorities”.

5.2.2 Vital attributes of the reserve

Vital attributes are key important elements that make the reserve unique and different from other reserves. The three main vital attributes that have been identified for the reserve are outlined in Table 2 below.

Table 1: Vital attributes of Mkambati Nature Reserve

Vital attribute	Determinants	Threats/Risks
1. Endemic Species and Unique biodiversity	<ul style="list-style-type: none"> Functional macro & micro habitats that enable persistence of endemic species 	<ul style="list-style-type: none"> Climate Change Inappropriate fire regime Ecological regime shifts Land-use change around the reserve Alien and Invasive Plants
2. Seascape & Waterfalls	<ul style="list-style-type: none"> A long stretch of coastline with limited intrusive-activities in the buffer zone 	<ul style="list-style-type: none"> Dense developments in the buffer zone Illegal mining in the buffer zone
3. One of the few reserves managed with communities in the Province	<ul style="list-style-type: none"> A strong relationship between reserve management and the trustees of the Mkambati Land Trust. 	<ul style="list-style-type: none"> Loss of trust in reserve management Communication breakdown between MLT and communities

5.2.3 High Level objectives of the nature reserve

The high level objectives of the reserve follow from the management vision of the reserve and serve as more specific statements of intention, setting out the realistic targets management aims to achieve over a period of time. The concept of “objectives hierarchy” was adopted, where the vision and the desired state of the reserve is used to construct high level objectives with a cascade of subsequent sub-objectives until the level of operational actions. Operational actions will be discussed in chapter 10 under the strategic plan. For Mkambati Nature Reserve five broad high-level objectives were identified, as well as their associated sub-objectives (summarised in Table 3). The four high-level objectives are:

- To conserve the representative natural and cultural heritage of the Pondoland Centre of endemism through the restoration of the heritage as well as adopting sound conservation principles and implementing appropriate management actions.
- To enhance cooperative management and socio-economic beneficiation through interaction with the land trust, local authorities, communities and other key stakeholders for the long term persistence of the nature reserve
- To realise economic returns through the promotion of responsible tourism within the Pondoland area of the Wild Coast.
- To increase reserve revenue through the management and promotion of public-private partnerships.
- To ensure effective and efficient management of the reserve through the provision of adequately resourced support services to achieve the reserve objectives.

Table 2: High Level objectives and associated sub-objectives

High level Objective	Associated sub-objectives
1. To conserve and restore the integrity of the representative ecosystems and cultural heritage of the Pondoland area.	To increase the protected area network in the Pondoland area through biodiversity stewardship
	To address soil erosion and alien-invasive species through the rehabilitation of degraded lands to a functional state.
	To ensure proper management of fire through adopting sound management actions and implementing the fire management plan
	To monitor changes in the vegetation conditions through the development of sound vegetation monitoring protocols
	To avoid local decline of rare and threatened species through identifying, monitoring and managing, where possible, rare and threatened species
	To monitor game numbers in the reserve by conducting aerial game census and developing game management recommendations
	To secure the freshwater ecosystems of the reserve through the implementation of appropriate management actions
	To ensure readily available biodiversity information through the development of appropriate biodiversity data management systems
	To improve biodiversity knowledge through conducting research relevant to the management of the nature reserve
	To manage diseases in the reserve through constant monitoring of game mortalities and conducting of test of any game introductions.

	To manage the cultural heritage of the reserve by developing management actions that are in line with the national heritage guidelines
2. To realise economic returns through the promotion of responsible tourism within the Pondoland area of the Wild Coast.	<p>To provide quality tourism experience through the development of new tourism facilities and activities while enhancing as well as maintaining the current tourism facilities</p> <p>To enhance the brand through advertising, promotions and public relations</p> <p>To ensure visitor satisfaction in the reserve through constant improvement to meet customer needs and addressing visitor concerns.</p>
3. To enhance cooperative management and socio-economic beneficiation through interaction with the land trust, local authorities, communities and other key stakeholders for the long term persistence of the nature reserve	<p>To ensure there is integration of land-use planning around the reserve through participation in municipal planning processes</p> <p>To secure the buffer through active engagement with communities, land-owners, and key stakeholders in relation to conflicting land-uses around the reserve</p> <p>To ensure the Mkambati Land Trust and other key stakeholders play a role in the management of the reserve through regular engagements.</p> <p>To facilitate sustainable access and harvesting of natural resources within Mkambati Nature Reserve</p> <p>To ensure the communities benefit from the reserve through the provision job and business opportunities</p>
4. To increase reserve revenue through the management and promotion of public-private partnerships	<p>To alleviate pressure on the current budget for tourism development through the creation of an enabling environment for PPPs</p> <p>To manage the current concessionaire and create an enabling environment through constant engagement with Mkambati Matters Pty (Ltd)</p>
5. To ensure effective and efficient management of the reserve through the provision of adequately resourced support services to achieve the reserve objectives.	<p>To ensure the reserve has sufficient capacity to implement the management plan by filling posts on the reserve organogram and implementing administrative duties as per the ECPTA policies</p> <p>To ensure environmental compliance in the reserve by adhering to environmental legislation and implementing the Environmental Management Programme (EMPr)</p>

	To secure the reserve and prevent any criminal activities in the reserve through regular perimeter patrols
	To ensure proper management of reserve finances through the implementation of ECPTA finance standard operational procedures
	To ensure proper management of assets in the reserve through regular asset valuation, monitoring and maintenance of the asset register
	To ensure availability of adequate equipment required for operational activities through the procurement and maintenance of reserve equipment
	To address risk in the reserve by putting in place mechanisms for risk identification and management at reserve level

Section 6: Zoning Plan

The zoning plan for Mkambati Nature Reserve serves as a spatial tool aimed at minimising potential conflicts arising from the dual mandate of biodiversity conservation and tourism development. The Agency adopts the process of reserve zoning to strategically position tourism development in less sensitive areas of the reserve in an effort to ensure persistence of biodiversity while allowing for tourism activities in the reserve. The intention is to have a reserve that accommodates both tourism and biodiversity conservation, without compromising the ecological integrity of the reserve while also ensuring visitor satisfaction and providing the “sense of place”. In addition, sound management principles are intended to guide the sustainable development process in order to ensure persistence of natural resources.

6.1 Sensitivity-value analysis underpinning reserve zonation

Key to the zonation plan is the sensitivity-value analysis to determine the sensitivity of various potentially receiving landscapes of the reserve. Sensitivity-value analysis is a multi-criteria decision support tool that utilises landscape-level informants in an effort to construct defensible decisions underlying reserve design and zonation. It utilises best available biodiversity datasets, land-modification datasets (land-cover), topographic, viewsheds, hydrological and heritage information in order to identify areas with high sensitivity-value. Only biodiversity, hydrological, topographic and view-shed information were used to formulate the overall sensitivity of the reserve as little is known about the heritage of the reserve (see Figure 9 in Appendix B for the sensitivity value analysis map).

6.2 Reserve Zones

6.2.1 High Intensity Use Zones

This zone primarily harbours nodes that are relatively not compatible with sensitive areas, the nodes under this zone include Gwe-Gwe node, Administrative node, North Beach and Main Camp. The sensitivity in this case does not translate to biological importance but translates to sensitivity as based on the sensitivity value-analysis. The nodes under this zone are strictly (if possible) delineated away from the sensitive areas to protect the receiving environment.

6.2.2 Low Intensity Use Zones

The nodes that fall under this zone are zones that are compatible with low to moderate sensitivity of the receiving environment and within the reserve there is only one the Point Cottage node that falls within this zone. The summary of the characteristics, allowable activities, management guidelines are on the table 3 below.

6.2.3 Primitive Zone

This zone represents the significant portion of the reserve, based on the nature of the reserve this zone same as the remote zone harbours a number of rare and endangered species but due to the availability of roads could not qualify as remote zone. The reserve water falls, hiking trails and vulture colony are within the primitive zone.

6.2.4 Remote zone

Highly sensitive areas of the reserve are under this zone. The zone aims to protect the areas with high biodiversity value and sensitivity. The areas include the superbowl and the area north-east of the nature reserve, which is a home to a number rare and endangered species that require a high level of protection. The characteristics of this zone are summarised in table 3 below.

Table 3: Reserve Use Zones

Use Zone	Characteristics	Activities	Sustainable Resource Use	Facilities	Interaction with Other Users	Sophistication of Facilities	Access	Roads	Audible equipment and communication structures	Management Guidelines
Remote	Provides a "Wilderness" experience, but does not comply with the criteria for zonation as Wilderness Zone.	"No-trace-left" activities; canoeing, environmental education, nature observation on defined or non-defined hiking routes, research, bird watching. "Pack it in and pack it out" principle. Several groups may be in area at the same time.	Under strictly controlled conditions	No facilities. Facilities	None	No facilities except portable tents.	Non-motorised. Parking provided in Primitive zone.	No roads, D1 or E can be used for management access under controlled levels of use.	None	Need to mitigate impacts of visible and audible human activities impacting from outside the zone. No new accommodation (e.g. hiking huts etc)
Primitive	Provides basic self catering facilities and access to Remote Zone. Access is limited to users of the facilities. Limited number of users	Guided/unguided hiking/walking tours, game drives. Vehicular access routes to park infrastructure and facilities and facilities serving the remote zones.	Under controlled conditions	Small permanent "touch the earth lightly" camps and hikers huts.	Limited - access control focused on maintaining a "natural" experience for visitors.	Limited <15 beds. Basic facilities using gas/solar/fire for heating and cooking	Limited and controlled mechanised access on designated routes.	C1, D1 and E1 roads for management purposes, some roads can serve as 4x4 routes under strictly controlled conditions	No cell phone or radio coverage/usage. Emergency communications provided.	Roads or other infrastructure limited to minimum required to serve Remote zones for both recreation and management
Low Intensity Leisure	Landscapes that can absorb relatively larger concentrations of people. Slightly modified landscapes.	Tourist accommodation, picnicking and walking, boating (motorised – dead slow, non motorised), no fishing.	Under controlled conditions.	Ablution facilities and small self-catering or lodge accommodation only. No day visitor sites.	Limited to Moderate	Low to medium density 8 - 10 beds.	Limited and controlled mechanised access on designated routes.	B2, B1 C1 or D1 access to tour operators under controlled conditions.	No cell phone or radio coverage/usage	Only limited, sympathetic development linked to tourism and management tourism facilities.

High Intensity Use Leisure	High density tourist development nodes with modern amenities	Restaurants, shops, education centres, day visitor picnicking and braais, park administration and staff accommodation, tourism accommodation/ lodge facilities, lodge reception and parking areas.	Not compatible	Education Centres, day visitor sites, high density camps/lodges providing tourist accommodation with modern amenities. Staff villages and administrative centres restricted to park and concessionaire staff	Moderate to High	Moderate to high-density 30-200 beds. Self-catering and catered	Mainly for scientific and conservation measures, but some access for education and interpretation can be considered.	A1, B1 or C1. Allows access to the tourism nodes	Cellphone coverage only at the administrative area	Preferable to locate high order facilities such as staff accommodation, workshops inside this zone. Visitor and traffic management required.
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Section 7: Access and Facilities

7.1 Administrative and Management Facilities

Mkambati Nature Reserve incorporates a large number of buildings in the area near the main gate. Many of these buildings are in a moderate to very poor condition and their use is related to reserve management. The area comprises of the administrative complex, the staff village, the reserve managers house, the conservator house, old clinic (which is used by the working on fire team), old church and jail. The reserve has a number of management roads that are only designated for reserve staff, these roads are primarily for operational activities and not open to the public.

7.2 Visitor Facilities

Visitor accommodation in the reserve consists of:

- The Stone Lodge which was originally a farm house has been recently renovated. It has 5 rooms en-suite, 2 lounges, a pantry next to a large industrial kitchen, a dining room and a guest bathroom (total of 500 m² in extent). It has a large veranda overlooking a swimming pool, with very attractive views of the main Mkambati beach and the Msikaba Island.
- Cottages 1-6 are close to Stone lodge, just a stone throw away and sleep 6 people each (except cottage 3 which only takes 2 people). They are old residences with pitch asbestos roofs. Each cottage is about 120 m², except cottage 6 which is about 180 m² in size. They are in poor condition.
- Point Cottage is thatched, with 2 bedrooms sleeping six in total, and an open plan lounge/kitchen. It is situated near the main beach overlooking a rocky point. It has good solar powered lighting but is in poor condition and requires some renovations.
- Riverside lodge is an L-shaped thatch roof lodge situated in a very sheltered location on the western bank of the Gwegwe river. The building consists of 5 rooms en-suite, each with 4 beds, and a communal kitchen and dining area. Total floor area is about 300 m². The building is undergoing renovation.

- Seven thatch roof rondavels are situated at the mouth of the Gwe-Gwe River. The rondavels are to be demolished for use by Mkamabati Matters for exclusive tourist accommodation.

7.3 Activities in the Nature Reserve

Mkamabati Nature Reserve has a number of activities for visitors. The following are some of the activities offered in the reserve and some that are proposed through the formation of public-private partnerships:

- Boating and Scuba diving: These activities are linked to the Marine Protected Area (MPA) with the reserve being the entry point for the visitors interested in these activities. Other activities MPA linked activities are: snorkelling, whale watching, sardine run watching within the MPA.
- Kayaking and Canoeing: These are guided tours up the Mtentu and Msikaba estuaries
- Fishing: The reserve has a section where fishing is allowed. Fishing should be in controlled off take areas, no fishing outside this zone except through exemption from Pondoland MPA regulations e.g. Mtentu catch and release/flyfishing.
- Hiking & Cycling: along specifically designated areas and guided in certain areas of the reserve.
- Diving and Swimming: The rivers in the reserve form pools that offer exciting swimming opportunities for adventure loving visitors.
- Interpretative tours provided by local trained tourist guides for :
 - Controlled vehicle game drives throughout the network of roads within the reserve
 - Bird watch along marked and maintained forest trails and guided in certain instances e.g. vulture colony
 - Cultural/historical guided tours of heritage sites (e.g. middens, building) along the coastline and inland within the reserve

Section 8: Expansion Strategy

The ECPTA has a dedicated Provincial Expansion Strategy to guide expansion activities that are aimed at increase provincial protected area network. Within the area linking the reserve, there are two sections that are identified as priorities for expansion. These include the TRACOR land, the Mtentu and Msikaba gorge. The map below the shows the expansion priority areas for Mkambati Nature Reserve for the next ten years. The Lease agreement has a tentative agreement that stipulates the inclusion of area A and B (as on the map below, figure 9) into the reserve. ECPTA, MLT and Mkamabti Matters will need to initiate the discussion on these areas with firm public participation before the final decision can be made in regards to the inclusion of area A and B. From the biodiversity perspective, the Mtetu and Msikaba gorges outside the reserve boundaries have been identified as priority for inclusion into the reserve boundaries in the next ten years.

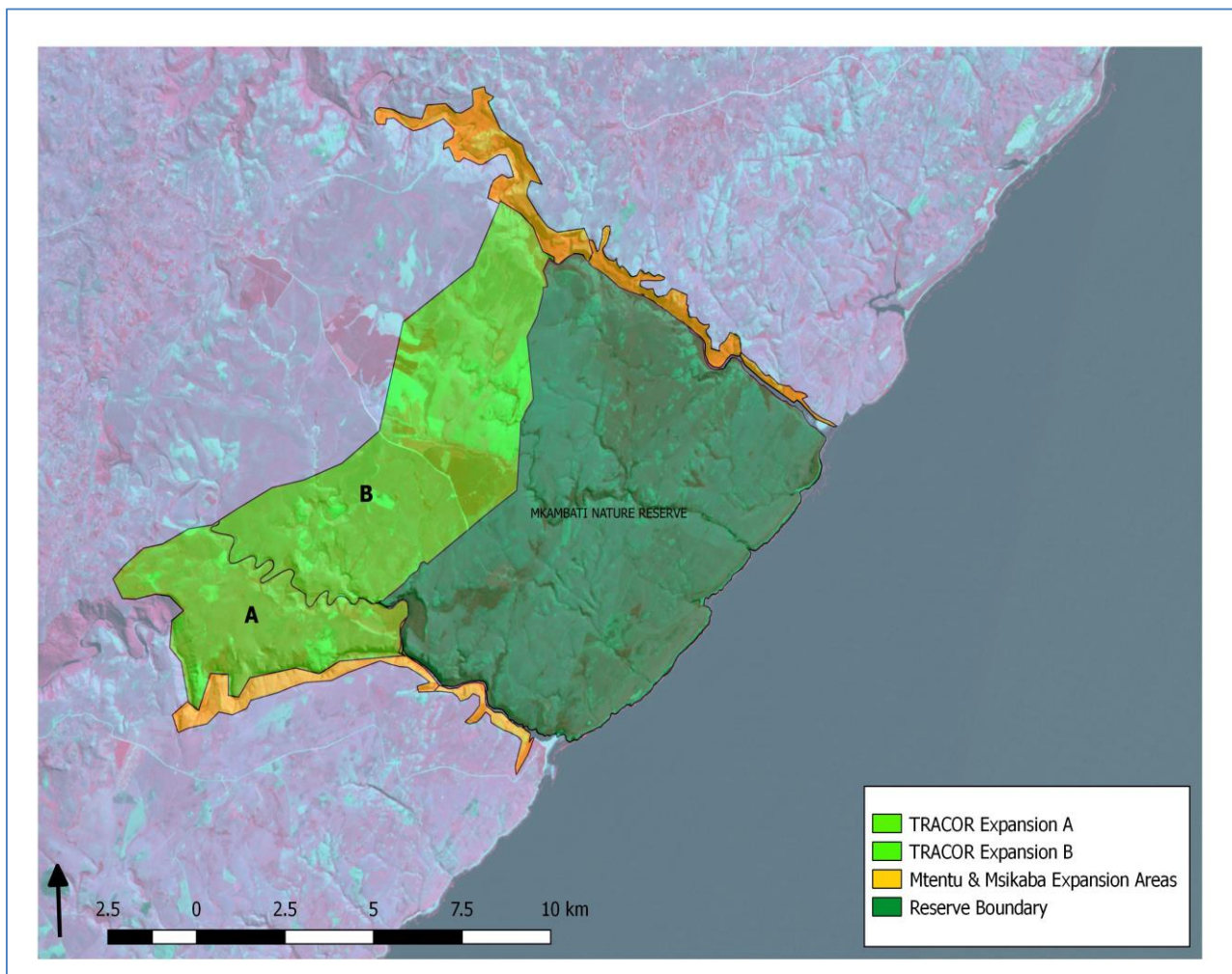


Figure 6: Expansion Options for Mkambati Nature Reserve

Section 9: Concept Development Plan

The reserve adopts a “Recreational Reserve Concept” which primarily focusses on the provision of recreational activities within the reserve. The spatial design/zonation of a “recreational reserve” concept varies from the spatial design of other reserve concepts such as the hunting, heritage and educational reserve concept. As such it is critical that reserve management adopts a particular reserve concept in an effort to avoid incompatible activities being offered in the reserve. The adoption of a certain concept also guides the management style, infrastructure, personnel and visitor corridors.

Rules and implications of the Concept:

- **Transformation Threshold:** Based on the adopted reserve concept, less than one percent of the reserve surface area can be converted or transformed to other uses other than conservation. This implies the remaining 99 percent of the surface area should be in a natural or near natural state. For areas that were previously degraded there should be a process of rehabilitating these areas to their relatively functional state (ecological functional state).
- **New developments:** Developments in the reserve should take into consideration the transformation threshold. The development of new tourist accommodation infrastructure is only allowable once the occupancy rate is above 45 % unless authorised by the reserve planning team with firm consideration of the “justifiable need”. This only relates to development in non-previously impacted areas. New developments should be compatible with the zoning (corridors and zones).
- **Activities:** Only compatible activities should be allowed in line with the various reserve visitor-use zones and corridors. For instance, only activities linked to day-visitors should be within the day-visitor corridor and the same applied to the overnight-corridor. Commercial hunting is restricted only internal culling for game management is permitted
- **Separation of the Corridors:** The reserve management adopts the notion of separating day-visitors with overnight visitors as much as allowable or possible to limit conflicting needs (see below).

Requirements of the Concept:

- Separation of day visitor and overnight corridors
- Compatible Recreational activities (section 7)
- Adequate reserve accommodation

9.1 Day-visitor corridor with day-visitor nodes.

The day visitor corridor starts from reserve gate through the administrative complex until Point. All the hiking trails and the routes to the waterfalls within this corridor. Although, the corridor is a day visitor corridor it does not any anyway imply that only day visitors are not allowed in this corridor. The nodes in this corridor are: Administrative complex, point node (this includes the beach and point cottage (see figure 12 on appendix B).

9.2 Overnight-visitor corridor with overnight visitor nodes

The routes under this corridor include all routes that lead to the overnight facilities such as camping site, lodges and cottages. The exclusive areas such as the North-beach and Gwe-Gwe fall under the overnight corridor and day-visitors are not permitted within this corridor. Clear signage is required to inform the day visitors of the start of the overnight visitor corridors. The overnight visitors have access to the day-visitor corridor but the day-visitors are not permitted onto the overnight corridor. In designing the concept reserve management will ensure this corridor does not include day visitor activities in an effort to ensure no conflicts between day visitors and day visitors (see figure 12 on appendix B).

9.3 New Infrastructure Development proposals

Priority in the short term will be on the reserve operational infrastructure particularly the staff accommodation which is in a very poor condition and requires urgent attention. Secondly, there is a planned renovation of the old cottages 1- 4 to increase visitor accommodation in the reserve. Since Point Cottage is in a day visitor corridor there is a need to either completely demolish or convert the cottage into a day visitor facility. The Mkambati Matters Limited has development proposals for the Gwe-Gwe and North beach which would primarily be for exclusive use. For detailed information on the concessionaire proposed development as separate proposed tourism resort at Gwe-Gwe and North Beach-document.

9.4 Service Routes in the Nature Reserve

Water supply to the accommodation units is from local rivers and the pressure is very low. ESKOM power is available at the Stone Lodge and the central administration block. Riverside Lodge, Gwegwe and the Point Cottage have solar powered lighting. Solid waste disposal is problematic. There is an active dump site near the main gate, but it is somewhat shielded from view by the dense growth of alien vegetation. Sewage disposal throughout the reserve is by septic tank and French drain. Except for the road between the main gate and the administration block, all internal roads

are in a poor to very poor condition with evidence of severe erosion in heavily used areas. A landing strip is located in the reserve near Gwe-Gwe Swamp Forest, and there is a helicopter pad next to the reception area. Both are in moderate to poor condition.

Section 10: Strategic Plan

To develop defensible strategies for the reserve, the high level objectives and associated sub-objectives (see Section 5) are further divided into implementable actions for the planning period. A five-year plan of action is outlined through implementation tables, each action is classified according to whether it is high, medium or low priority. The classification aids in decision making in cases where funding becomes limited, in such cases funds are allocated to high priority actions first and then medium priority actions if funds still allow.

For simplicity the high level objectives, associated objectives are packaged in the form of Key Performance Areas as in Table 7 below:

Table 4: Linking performance areas to high level objectives

High Level Objective	Key Performance Area
1. To conserve and restore the integrity of the representative ecosystems and cultural heritage of the Pondoland area.	Natural and Cultural Heritage Management
2. To enhance cooperative management through interaction with local authorities, communities and key stakeholders for the long term persistence of the nature reserve and socio-economic benefits	Cooperative Management and Socio-economic beneficiation
3. To realise economic returns through the promotion of responsible tourism within the Pondoland area of the Wild Coast.	Responsible Tourism and Visitor Services
4. To increase reserve revenue through the management and promotion of public-private partnerships	Resource Mobilization and Concession management
5. To ensure effective and efficient management of the reserve through the provision of adequately resourced support services to achieve the reserve objectives.	Effective Reserve Management

10.1 Natural and Cultural Heritage Management

Natural heritage management within this context relates to the maintenance ecosystem processes or function and as well the process of addressing the key threats and risks to the biodiversity of Mkambati Nature Reserve.

Ecological Threats/Risks to Biodiversity:

Poaching: The nature reserve has a number of rare and threatened plant species that particularly vulnerable to poaching. There is a need to locate, identify and develop monitoring protocols for this plants.

Soil erosion- Soil erosion in the reserve poses a serious threat to biodiversity, both terrestrial and aquatic ecosystems. Mkambati has areas experiencing soil erosion, although it has not been mapped to date but it is clearly visible and with the predicted changes in precipitation soil erosion may get worse with climate change. The removal of top soil and the formation of dongas in the reserve has a direct impact on the vegetation of the reserve and consequently on the fauna of the reserve, as such the need to interventions during the planning period is critical.

Sand mining outside the reserve: Sand mining within riverine systems linked to the reserve is having an impact on river flow to the reserve resulting in increased siltation. This would ultimately impact on the waterfalls which are a major attraction in the reserve and also the micro and macro-estuaries linked the marine protected area.

Alien and invasive fauna/flora- Aliens have various impacts on the natural system of the reserve and recently ECPTA has commissioned the mapping of alien and invasive plants in the reserve. Within the planning period, the reserve management will continue to address the issue of alien and invasive species in the reserve and adjacent areas.

Climate change—Climate change has been flagged as a major concern particularly on the potential impact it may have on ecosystems. Three main indicators of climate change in the South African context would be higher temperatures, altered rainfall patterns, more frequent or intense weather events including heat-events, droughts, storms and floods (Department of Environmental Affairs and Tourism, 2004). However, there are more direct impacts of climate change on biodiversity and these includes (Mitchell *et al.*, 2007):

- Changes in phenology, which may lead to loss of synchrony between species
- Changes in species abundance and distribution (including arrival and loss of species)
- Changes in community composition and structure
- Changes in ecosystem processes and function
- Loss of space/land area, e.g. due to sea level rise.

10.1.1 Reserve Expansion

The Agency has a dedicated Protected Area Expansion Strategy that guides the expansion of nature reserves and areas around the reserve have been identified for potential expansion. To

increase the resilience of the reserve system to the impact of global change, there is a need to secure critical areas that form part of natural corridors and areas considered as critical biodiversity areas (as per other planning initiatives). ECPTA is the implementer of the N2 offset and as part of the offset the priority expansion areas near Mkambati will be declared and demarcated as part of the Mkambati Nature Reserve.

10.1.2 Rehabilitation

The rehabilitation process includes both alien management and soil erosion management within the reserve and outside the reserve boundary. The reserve management has recently completed the alien mapping of the reserve as per the working for wetlands standards and within the next ten-year period, reserve management will initiate the process of quantifying soil erosion in the reserve and updating the alien maps to guide rehabilitation in the reserve. This would be followed by a clear strategic rehabilitation plan that which will address the key actions and monitoring programme. The rehabilitation plan would take cognizance of the dynamic nature of ecological systems and adopt the strategic adaptive management principles.

For the adjacent areas of the reserve, the offset funding is also going to fund (Botha and Browlie, 2015):

- Invasive Plant Control
- Wetland Rehabilitation
- Rehabilitation and Erosion Control

10.1.3 Integrated Fire Management

The reserve management uses fire as a tool for veld management but to date there is no fire management plan for the reserve that guides reserve management in managing fire in the reserve and also using fire as a tool. To manage fire in the reserve two assumptions are made:

- Fire is an integral part of the ecosystem.
- Fire is a tool for veld management

There are three operational areas of work in terms of fire management in the Mkambati nature reserve which are:

- Prevent/Contain reserve fires from crossing into adjacent areas around the reserve.
- Record fire incidents and extend.
- Monitor the impacts of fires in the reserve.

The reserve has a dedicated fire management plan which is a subsidiary plan for the Protected Area Management Plan. The fire management plan guides the reserve in relations to the overall

fire management. Fire management in the reserve has a number of goals which are categorized into two groups (van Wilgen *et al.*, 2011), namely:

- **Ecological goals**- which entails the use of fire on the conservation of biodiversity and landscapes. Ecological or ecosystem goals include:
 - **Improvement of grazing**- To ensure palatability of grass for wildlife within the reserve (van Wilgen *et al.*, 2011).
 - **Addressing Bush encroachment**- To use fire to maintain grassland and prevent the increase of woody plants.
 - **Invasive Alien Plant Control**- To integrate fire in the control of invasive alien plants in the reserve.
- **Societal/Operational goals**- which includes the impact that fire has on people, assets and infrastructure (for reserve or adjacent land/farms).
 - **Firebreaks**- To use fire in the development of firebreaks to contain natural fires for reaching adjacent farms/land or infrastructure.
 - **Reducing the fuel load**- To use fire to reduce the fuel load prior the fire season.

Fire management is beyond the scope of this management plan and the detailed fire management plan is available for the reserve which forms part of the subsidiary for this plan. The subsidiary management plans should be regarded as part of this management plan detailing the certain activities that require in-depth detail of a particular issue (e.g fire).

10.1.4 Veld Management

The veld is continually changing and the various weather patterns have exacerbated the veld conditions of the reserve. For the next ten years the reserve management will focus on creating proper baselines and veld monitoring programme that incorporates remote sensing in monitoring veld changes and condition to inform decision making at the reserve level. The monitoring will also inform strategies that ensure veld resilience into the future.

10.1.5 Freshwater Ecosystems

The rivers supporting the reserve are under threat from illegal mining and also plantations on adjacent land near the reserve. There are few activities linked to freshwater ecosystems management, which are:

- Developing species lists for freshwater fish in the rivers linked to the reserve.
- Monitoring freshwater ecosystems in the reserve
- Initiate engagements in relations to illegal mining within the riverine areas

10.1.6 Species of Special Concern

Although managing and monitoring the veld is considered adequate to secure almost all species in some intact ecosystems, however, there are species that fall through the cracks, these include the threatened, rare and endangered species within the reserve. The reserve management will seek to record all rare/endangered species of the reserve and develop a monitoring protocol for such species in an effort to ensure persistence and prevent extinction.

10.1.7 Game Management

Managing game numbers in the reserve is one of the critical operational activities that are designed to ensure game numbers are regulated in the reserve in an effort to avoid any negative impacts that may arise due to high game numbers. Naturally, predators regulate game numbers but in a semi-closed system where predators are unavailable like within the reserve system, there is a constant need to monitor game numbers and where possible game-offtakes should be implemented. There three main areas of work that relate to game management:

- Conduct aerial game census every three years.
- Development of game management recommendations annually

10.1.8 Disease Management

Diseases can have a negative impact on the biodiversity of the reserve particularly the fauna of the reserve. Although, there are no recent recorded incidents of diseases in the reserve, ECPTA is required as an agency to manage or monitor diseases within the reserve area as per the Animal Diseases Act No 35 of 1984. The reserve management will adopt the following strategies in disease management:

- **Adequate fencing:** Ensuring the reserve perimeter is secure with proper fencing, this is to prevent reserve animals from crossing into the adjacent properties to minimise the risk of spreading diseases to/from adjacent properties.
- **Mortality records:** There is a need for the maintenance of a record of all mortalities in the reserve particular for animals that are found dead in the reserve with no indication no physical injuries.
- **Testing:** For any introductions there is a need to ensure that disease free animals are translocated and relevant tests are done to ensure no spread of infectious diseases.
- **Wild-Life Disease Surveillance Training:** Training should be provided to the reserve staff particularly the field rangers to provide them with the skills to spot wildlife diseases on carcasses or living-infected animals.

10.1.9 Biodiversity Information Management

The adopted strategic adaptive management requires that information is readily available to inform reserve strategies and influence decision making. The current planning period reserve management will encourage research in the research particularly on priority research areas and the information from the research outputs needs to be transcribed in a format that can be easily used by reserve management. Within this planning period the reserve management will ensure that the Ecological Filling System/State of Knowledge is periodically updated as well as the Umsenge database that houses biodiversity data of the agency. The information on published papers will be digitised to update species lists that can be stored in the database.

10.1.10 Cultural Heritage Management

Part of the management of the reserve includes the management of the reserve's rich cultural heritage. The area of work that relates to the heritage management include:

- Identification and classification of various heritage features
- Developing and agreeing on mechanisms to secure and manage the reserve heritage.
- Rehabilitating some of the identified heritage features as required.

Table 5: Action plans for Biodiversity Management

KPA: Natural and Cultural Heritage Management										
Objective: To conserve the representative natural and cultural heritage of the Pondoland Centre of endemism through the restoration of the heritage as well as adopting sound conservation principles and implementing appropriate management actions.										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Reserve Expansion	To increase the protected area network in the Pondoland area through biodiversity stewardship	Initiate discussions with MLT and local communities in regards to including areas identified as priorities into the reserve system	High	Cluster Manager/Reserve Manger/Stewardship Manager	x	x	x	x	x	Engagement Report
Rehabilitation	To address soil erosion and alien-invasive species through the rehabilitation of degraded lands to a functional state.	Identify and map areas with visible soil erosion in the reserve	High	Ecologist		x				Soil degradation map
		Identify and map reserve areas with alien and invasive species and develop density estimates	High	Ecologist		x				Map of alien and invasive species
		Develop the rehabilitation plan for the Nature Reserve	High	Ecologist			x			Rehabilitation Plan
		Initiate the process of securing funding for rehabilitation	High	Regional Manager			x			Proof of submission (proposal)
		Start the implementation of the rehabilitation plan	High	Reserve Manager				x		Report
Integrated Fire management	To ensure proper management of fire through adopting sound management actions and implementing the fire management plan	Implement the fire management plan		Reserve Manager						
		Review the fire management plan	Medium	Ecologist and Reserve Manager		x				Fire management plan
		Participate in local fire forums	High	Reserve Manager	x	x	x	x	x	-
Vegetation Management	To monitor changes in the vegetation conditions through	Develop the vegetation/veld monitoring protocol for Mkambati Nature Reserve	Medium	Ecologist	x					Monitoring Protocol

	the development of sound vegetation monitoring protocols	Monitor changes in the vegetation cover within Nature Reserve	Medium	Ecologist					x	Record of veld changes over time
Freshwater Ecosystems	To secure the freshwater ecosystems of the reserve through the implementation of appropriate management actions	Delineate all reserve wetlands and their condition	Low	Ecologist				x		Shapefiles
		Develop a freshwater ecosystem management plan	Low	Ecologist					x	Management Plan
		Implement the freshwater ecosystem management plan	Low	Reserve manager					x	-
Species of Special concern	To avoid local decline of rare and threatened species through identifying, monitoring and managing, where possible, rare and threatened species	Identify and add map species of special concern with the CREW group	High	Ecologist	x	x	x	x	x	List with co-ordinates
		Develop a monitoring protocol for species of special concern	High	Ecologist			x			Monitoring Protocol
Game Management	To monitor game numbers in the reserve by conducting aerial game census and developing game management recommendations	Conduct game census (triennially)		Ecologist & Senior Manager: Scientific Services		x				Game census report
		Develop and implement game management recommendations		Ecologist, Senior Manager: Scientific Services, Reserve Manager	x	x	x	x	x	Game management recommendations document
		Develop a mutually agreed plan for game management in the reserve (ECPTA, the MLT and concessionaire)	Medium	Regional manager, Senior Manager Scientific Services, Reserve Manager, MLT, Mkambati Matters	x					Game management plan
Biodiversity Information Management	To ensure readily available biodiversity information through the development of appropriate biodiversity data management systems	maintain Species lists for the reserve	Medium	Ecologist	x	x	x	x	x	Species lists
		Update the Ecological filing system	Medium	Ecologist						Ecological filing system
		Update the State of Knowledge if and when necessary	Medium	Reserve Manager	x	x	x	x	x	Updated State of knowledge report
		Maintain database of ecological information (Umsenge database)	Medium	Database Manager	x	x	x	x	x	Umsenge Database
	To improve biodiversity knowledge through conducting research relevant to the management of the nature reserve	Identify priority research needs for the reserve	Medium	Ecologist and Reserve Manager	x	x	x	x	x	Record of priority research needs
		Maintain linkages with research institutions	Medium	Ecologist and Reserve Manager	x	x	x	x	x	Memorandum of agreement

Disease Management	To circumvent the potential impact of faunal diseases through monitoring and control of faunal diseases within the nature reserve	Provide wildlife disease surveillance and post-mortem investigation training to reserve staff.	High	Cluster Manager/Reserve Manager	x	x	x	x	x	-
		Record all faunal mortalities	High	Reserve Manager	x	x	x	x	x	Mortality register
		Collect samples suspicious faunal mortalities and send to veterinary laboratories	High	Reserve Manager	x	x	x	x	x	-
		Conduct tests for any faunal translocations or introductions.	High	Reserve Manager/Ecologist						Vetenary report
Cultural Heritage Management	To manage the cultural heritage of the reserve by developing management actions that are in line with the national heritage guidelines	Identify and classify all the cultural heritage within the reserve	High	Reserve Manager/Regional Tourism Manager		x				Record of all heritage sites
		Appoint A SAHRA accredited service provider to develop a heritage management plan for the reserve.	High	Regional Tourism Manager			x			Heritage Management Plan
		Submit the heritage management plan to SAHRA for approval	High	Regional Tourism Manager			x			Proof of submission

10.2 Responsible Tourism and Visitor Services

10.2.1 Tourism Development

The agency has recently commissioned a feasibility study for tourism activities within the reserve that can be linked to public-private partnerships or concessions. For this planning period the reserve management will implement the recommendations of the feasibility study and formulate PPPs in an effort to increase revenue for the reserve.

Secondly, Mkambati Matters Limited will be developing tourist facilities that will accommodate around 110 visitors at GweGwe and North Beach with the following activities to be introduced by the concessionaire (Mkambati Matters):

- Self-guided excursions
 - Hiking (littoral, gorge, forest, grassland)
 - Mountain bike (designated trails)
 - 4X4 trails (designated routes)
 - Sea kayak (designated)
- Guided interpretative excursions (Specialist interest)
 - Hiking
 - Mountain-biking
 - 4X4 trails
 - Horseback riding
 - Skiboat
 - Scenic helicopter / fixed wing flights
 - Fishing. (Designated)
 - Guided Vulture Colony tours
 - Guided palm grove tours.
 - Guided kayak excursions (Msikaba)
 - Game drives.

10.2.2 Reserve Marketing

The activities and the attractions of the reserve need to be known to the public in an effort to attract more visitors to the reserve. Within the planning period the reserve management will seek to increase the reserve footprint online and also look at the feasibility of having a social media presence for the reserve.

10.2.3 Visitor Services

To provide the best service to the visitors of the reserve, there is a need to record visitor perception and complaints about the service provided by the reserve. For this planning period the reserve management will work improving the annual customer survey for the reserve in an effort to improve visitor services where there are shortfalls (activities outlined on the table below).

Table 6: Action plans linked to Responsible Tourism and Visitor services

KPA: Responsible Tourism and Visitor Services										
Objective: To realise economic returns through the promotion of responsible tourism within the Pondoland area of the Wild Coast.										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Tourism Development	To provide quality tourism experience through the development of new tourism facilities and activities while enhancing as well as maintaining the current tourism facilities	Develop new tourism activities linked to the Commercialisation Strategy and Mkambati Matters Proposals.	High	Mkambati Matters Limited & Regional Tourism Manager		x	x	x	x	Implementation of the Commercialisation strategy
		Review and implement the Tourism Development plan for the Nature Reserve	High	Regional Tourism Manager		x	x	x	x	Updated Tourism Development plan
		Maintain the current tourism infrastructure within the Nature Reserve	High	Reserve Manager & Mkamabati Matters	x	x	x	x	x	Maintenance reports
		Establish a relationship with tour operators in relations to including Mkambati in their tour packages	High	Regional Tourism Manager		x	x	x	x	Report
Reserve Marketing	To enhance the brand through advertising, promotions and public relations	Run marketing campaigns for the reserve (exhibitions, trade-shows etc)	Medium	Brand Manager/ Experiential Marketing Manager & Mkambati Matters	x	x	x	x	x	Advertising booklets
		Improve the online foot-print for the reserve	Medium	Digital Marketing Officer & Mkambati Matters	x	x	x	x	x	Report
		Assess the feasibility of creating a social media presence for the reserve	Medium	Regional Tourism Manager & Digital Marketing Officer		x	x	x	x	Social Media presence report
		Enhance and package the tourist & environmental awareness products of the reserve	Medium	Reserve Manager & Regional Tourism Manager	x	x	x	x	x	Report
Visitor Services	To ensure visitor satisfaction in the reserve through constant	Update and maintain visitor profiles	Medium	Hospitality Officer & Mkambati Matters	x	x	x	x	x	Report

	improvement to meet customer needs and addressing visitor concerns.	Record visitor satisfaction and develop a visitor satisfaction report	Medium	Customer Care Manager	x	x	x	x	x	Visitor satisfaction report
		Implement remedial action based on the visitor satisfaction report	Medium	Customer Care Manager /Reserve Manager		x	x	x	x	Report
		Ensure visitor facilities are up to standard.	High	Reserve Manager/ Customer Care Manager	x	x	x	x	x	Report

10.3 Co-operative management and Socio-beneficiation

In managing of the reserve, the reserve management has identified the involvement of stakeholders in contributing to the management of the reserve as key to the success of the reserve. Activities and developments near the reserve as well as around the reserve can have an impact on the reserve as such an inclusive management of the reserve is key in relation to securing and managing the areas of influence around the reserve and the reserve buffer zone. Further, these includes integrated planning through mainstreaming reserve plans into the municipal Integrated Development Plan (IDP) and Spatial Development Framework (SDF). The actions associated with this performance area are outlined in Table 10 below. There are three main programmes associated with this performance area:

- **Mainstreaming (Biodiversity) programme:** It is important for reserve plans to be integrated into municipal plans in an effort to ensure reserve plans are not in conflict with the broader municipal planning. This ensures that there is integrated land-use planning around the reserve and also mainstreaming reserve plans into municipal plans.
- **Stakeholder engagement programme:** Stakeholders are primarily key in ensuring the success of the nature reserve as such this programme focuses on maintaining active engagement with communities, and key stakeholders in relation to conflicting land-uses around the Mkambati Nature Reserve
- **Co-Management programme-** which focuses on ensuring the effective implementation of the co-management agreement (this is addressed in a separate subsidiary plan: Co-management implementation plan). Since this programme is addressed in a separate subsidiary documents in detail, it will not be addressed in this document. The sub-objectives that are related to this programme are:
 - To ensure the Mkambati Land Trust and other key stakeholders play a role in the management of the reserve through regular engagements.
 - To facilitate sustainable access and harvesting of natural resources within Mkambati Nature Reserve by implementing the natural resource-use plan.
 - To ensure the communities benefit from the reserve through the provision job and business opportunities

Table 7: Co-Management and Socio-Beneficiation

KPA: Co-operative management and beneficiation										
Objective: To enhance cooperative management and socio-economic beneficiation through interaction with the land trust, local authorities, communities and other key stakeholders for the long term persistence of the nature reserve										
Programme	Sub-Objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Mainstreaming (Biodiversity)	To ensure there is integration of land-use planning around the reserve through participation in municipal planning processes	Establish and maintain a working relationship with the Ngquza Hill Local Municipalities as well as the OR Tambo District Municipality.	Medium	Reserve Manager & Regional Tourism Manager	x	x	x	x	x	Report of engagement
		Participate and comment on the IDP & SDF for the Ngquza Hill Local Municipalities as well as the OR Tambo District Municipality.	Medium	Reserve Manager & Regional Tourism Manager/Environmental Planner	x	x	x	x	x	IDP attendance register and a record of ECPTA inputs into the IDP
		Monitor developments around the reserve and comment on land-use applications	Medium	Environmental Planner &Regional Manager	x	x	x	x	x	Comments-Environmental Impact Assessment reports
		Identify the zones of influence, buffer and corridors as well as reserve consolidation priorities for integration into the municipal SDF & IDP	High	Ecologist, Systematic Conservation planner & Environmental Planner	x	x	x	x	x	SDF & IDP with reserve zones of influence
Stakeholder engagement	To secure the buffer are through active engagement with communities, land-owners, and key stakeholders in relation to conflicting land-uses around the reserve	Participate in relevant forums around the reserve (e.g. Community Policing Forum)	High	Reserve Manager	x	x	x	x	x	Attendance registers
		Develop an annual Environmental education plan		Reserve Manager	x	x	x	x	x	An annual Environmental education plan
		Conduct environmental awareness with local schools and communities	Medium	Reserve Manager / people and parks	x	x	x	x	x	Report
		Actively adjacent communities to address invasive alien plant infestation on boundaries of	High	Reserve Manager / people and parks		x	x	x	x	Report

		the reserve to reduce risk of re-infestation of cleared areas								
		Maintain linkages with the local tourism organizations	Medium	Reserve Manager & Section Ranger	x	x	x	x	x	Report

10.4 Resource Mobilization and Concessions Management

Due to limited resources the reserve management has identified an opportunity of forming public-private partnerships in an effort to address some of the reserve shortfalls that are related to lack of funding or inadequate funds. The table below outlines some of the activities that are related to this key performance area. There are two main programmes linked to this key performance area:

- New Public-Private Partnerships (PPP) programme which focuses on alleviating pressure on the current budget through the creation of an enabling environment for PPPs
- Concession Management programme which focuses on managing the current concessions or concession agreements.

Table 8: Resource mobilization and Concessions Management

KPA: Resource Mobilization and Concession Management										
Objective: To increase reserve revenue through the management and promotion of public-private partnerships										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
New Public-Private Partnerships	To alleviate pressure on the current budget through the creation of an enabling environment for PPPs	Develop new tourism activities linked to the Commercialisation Strategy and Reserves as Products	High	Reserve Manager & Manager: Tourism Development	x	x	x	x	x	Implementation of the Commercialisation strategy
		Advertise the expression of interest running reserve activities to the public	Medium	Manager: Tourism Development	x					Newspaper adverts
		Draw-up new concession agreements with awarded concessionaires	Medium	Regional Tourism Manager/People and Parks Regional Manager		x				Concession agreements
Concession Management	To manage the current concessionaire and create an enabling environment through constant engagement with Mkambati Matters Pty (Ltd)	Include Mkambati Matters in decision making process for the reserve (Joint Liaison Committee)	High	Reserve Manager & MLT	x	x	x	x	x	-
		Maintain regular engagement with Mkambati Matters in regards to environmental management within the exclusive use zone	High	Reserve Manager & MLT	x	x	x	x	x	-

10.5 Effective Reserve Management

This performance area deals primary with the administrative aspects of reserve management, this includes finance management, human resource management and staff capacity building. The various activities linked to the performance area as well as the high-level objective are summarised in Table 11 below. The performance area comprises the following programmes:

- **Human Resource Development and administration programme:** this programme focuses on attaining and developing the necessary skills required for implementing the various programmes of the reserve. This includes also the handling of the day to day administrative activities.
- **Environmental Management programme:** This programme primarily deals with ensuring best environmental practices are practised within the reserve and also ensuring compliance to the relevant environmental legislation.
- **Finance Management programme:** Focuses on ensuring sound environmental principles are adhered to at all times in the reserve.
- **Asset Management programme:** Focuses on the procurement and maintenance of reserve assets.
- **Safety and Security programme:** This relates to the securing the perimeter of the reserve and ensuring the safety of visitors and all reserve staff.
- **Infrastructure programme:** This programme primarily focuses on developing and maintaining all reserve infrastructure to meet operational requirements.
- **Risk Management programme:** Focuses on identifying operational risks and developing mechanisms for alleviating the risks or managing the risks.

Table 9: Activities linked to Effective Reserve Management

KPA: Effective Reserve Management										
Objective: To ensure effective and efficient management of the reserve through the provision of adequately resourced support services to achieve the reserve objectives.										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Human Resource Development and administration	To ensure the reserve has sufficient capacity to implement the management plan by filling posts on the reserve organogram and implementing administrative duties as per the ECPTA policies	Convene staff meetings monthly	High	Reserve Manager	x	x	x	x	x	Register
		Attend Regional and game management meetings	Medium	Reserve Manager	x	x	x	x	x	Register
		Organise and facilitate reserve planning meetings	High	Reserve Manager	x	x	x	x	x	Register
		Implement the reporting systems as per ECPTA requirements	High	Reserve Manager	x	x	x	x	x	-
		Motivate for recruitment of vacant posts	High	Regional Manager & Reserve Manager	x	x				Letter of motivation
		Facilitate staff capacity building and training	Medium	Reserve Manager	x	x	x	x	x	Report
		Implement change management and staff satisfaction surveys and action plan in-line with ECPTA requirements	Medium	Reserve Manager	x	x	x	x	x	Report

		Administer leave, overtime and duty rosters	High	Reserve Manager	x	x	x	x	x	-
		Sign annual performance agreements and implement performance management system	High	Reserve Manager	x	x	x	x	x	Agreements and assessment report.
Environmental management	To ensure environmental compliance in the reserve by adhering to environmental legislation and implementing the Environmental Management Programme (EMPr)	Manage waste and ensure refuse is removed timeously	High	Reserve Manager	x	x	x	x	x	N/A
		Conduct water awareness campaigns	High	Reserve Manager	x	x	x	x	x	-
		Develop an Environmental Management programme (EMPr)	High	Environmental planner/Reserve Manager	x					Environmental management programme
		Implement the EMPr		Reserve Manager		x	x	x	x	-
Safety and Security	To secure the reserve and prevent any criminal activities in the reserve through regular perimeter patrols	Maintain the reserve fence	High	Reserve Manager	x	x	x	x	x	-
		Regulate visitors entry and exit	High	Reserve manager	x	x	x	x	x	-
		Maintain regular patrols in the reserve	High	Reserve Manager	x	x	x	x	x	Patrol sheet
		Develop an annual safety and security plan for the nature reserve		Reserve Manager	x	x	x	x	x	Safety and Security plan
	Maintain relations with law enforcement agencies around the	Maintain working relations with SAPS and DEDEAT	High	Reserve manager	x	x	x	x	x	Report

	reserve through constant engagement	(environmental crime services)								
Finance Management	To ensure proper management of reserve finances through the implementation of ECPTA finance standard operational procedures	Compile an annual reserve budget as per the Annual operational plan	High	Reserve Manager & MLT	x	x	x	x	x	Annual budget
		Procure in-line with the allocated budget and policies	High	Reserve Manager	x	x	x	x	x	Clean audit
		Secure cash revenue per ECPTA Financial Management policy & SOP	High	Reserve Manager	x	x	x	x	x	-
		Compile and report on reserve finances quarterly to the co-management Committee	Medium	Reserve Manager	x	x	x	x	x	Financial reports
Asset Management	To ensure proper management of assets in the reserve through regular assert valuation, monitoring and maintenance of the asset register	Maintain the asset register	Medium	Reserve Manager, Asset Control Officer	x	x	x	x	x	Asset Register
		Prepare and implement a programme for the regular inspection of all assets and identification of problems/ damage	Medium	Reserve Manager	x	x	x	x	x	Asset inspection report/condition section on the assets register
		Develop an annual maintenance plan for the reserve	Medium	Reserve Manager	x	x	x	x	x	Maintenance plan
		To ensure availability of adequate equipment required for operational	Acquire communications equipment, fire-fighting,	Medium	Reserve Manager	x	x	x	x	x

	activities through the procurement and maintenance of reserve equipment.	maintenance equipment as considered appropriate									
		Acquire three double-cab 4x4 pickup trucks, one single cab and a truck.	Medium	Regional Manager & MLT	x	x	x	x	x		Vehicles purchased
		Ensure all new reserve assets are insured.	High	Asset manager & Reserve Manager	x	x	x	x	x		A record of insurance for all assets.
Infrastructure	To provide adequate infrastructure through maintaining and developing required infrastructure to meet operational requirements	Maintain the staff accommodation as per ECPTA standards (ongoing)	High	COO, Regional Manager, Reserve Manager & MLT	x	x	x	x	x		Maintenance Report
		Maintain the reserve roads and trails to an acceptable standard (ongoing)	High	Reserve manager	x	x	x	x	x		Maintenance Report
Risk Management	To address risk in the reserve by putting in place mechanisms for risk identification and management at reserve level	Compile an annual risk plan for the nature reserve	High	Reserve manager	x	x	x	x	x		Annual Risk plan
		Identify operational risks within the reserve	High	Reserve manager	x	x	x	x	x		Risk Register
		Develop mechanisms of alleviating risks within the reserve	High	Reserve manager	x	x	x	x	x		Report
		Monitor progress in implementing risk mitigation mechanisms	High	Regional Manager	x	x	x	x	x		Progress Report

10.5 Implementation and Monitoring of the Plan

Following the adoption of the management plan by the MEC, the action plans as per the implementation tables are incorporated into the annual operational plan (for each year) of the reserve and the organisation. The action plans are to be carried out in the form of key performance areas for each of the identified responsible positions as per the implementation table. An annual performance review will serve as a tool for monitoring the implementation of the actions plans. The review will serve as a guide for assessing if there is a need to review of the action plans for the following financial year, the reviewed action plans are then incorporated into the Annual Operational Plan (AOP).

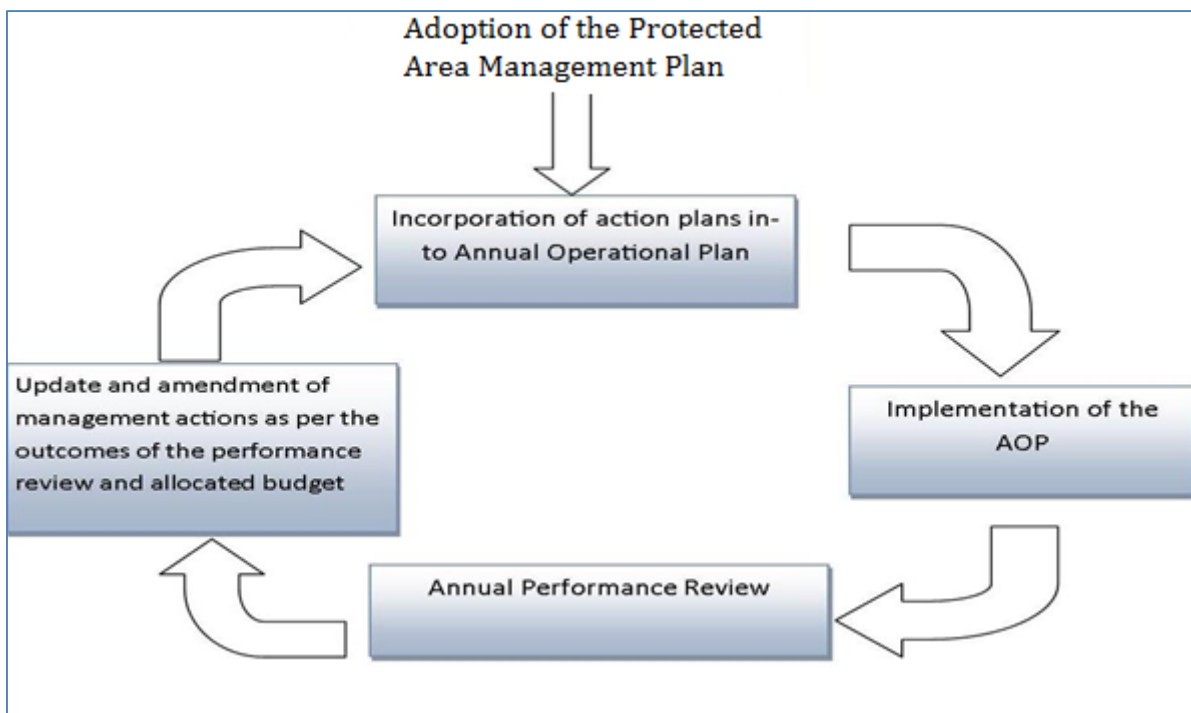


Figure 7: Steps in the Implementation of the Management Plan

10.6 Review of the plan

The Agency has adopted a strategic adaptive management approach for the development and implementation of the management plan. As such annually the reserve management will review the action plans as prescribed by the management plan. After five years (mid-term review) the success of the management actions will be assessed and the implementation tables re-designed to incorporate the adjustments. ECPTA has adopted ten-year time frame for the overall review of

the entire management plan. Although this is not a legislative requirement, the agency assessed the timeframe to be adequate for the review process.

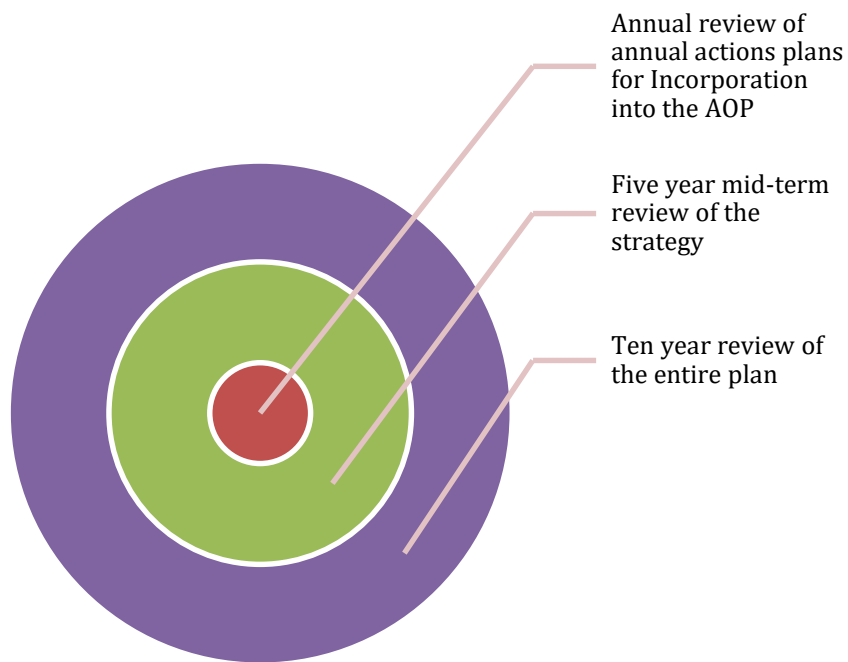


Figure 8: Review timeframes for parts of the management plan

Section 11: Costing

NEMPAA: (section 41(2)(d)) stipulates that a management plan must contain a programme for the implementation of the plan and its costing. The costing of the activities linked to the five-year implementation plan was based on a zero-based budgeting. The development and handling of budgets is done in line with ECPTA policies and national policies. It is further guided by several standard operational procedures for managing finances at reserve level and also at an organisational level. The costing process involved costing the implementation of the programmes (this includes also human resource costs associated with each programmes), maintenance costs, provision for replacement of assets and once-off costs.

11.1 The Cost of Implementing Reserve Programmes

The costs associated with the actions as outlined on the implementation tables, have been estimated to give an indication of the costs associated with implementing each of the reserve programmes. The estimation is for the period 2018-2023 and the summary is given in the table below for each programme.

Table 10: Costs for implementing various reserve programmes

Programmes	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Reserve Expansion	36755	38960	41298	43776	46403
Rehabilitation	1231071	1304935	1383231	1466225	1554198
Integrated Fire management	26893	28506	30217	32030	33951
Vegetation Management	127810	135479	143608	152224	161358
Freshwater Ecosystems	210810	223459	236867	251079	266143
Species of Special concern	7278	7715	8178	8669	9189
Game Management	150199	159211	168764	178890	189623
Biodiversity Information Management	145359	154080	163325	173125	183512
Disease Management	1773234	1879628	1992406	2111950	2238667
Cultural Heritage Management	1936176	2052347	2175487	2306017	2444378
Tourism Development	80561	85395	90518	95949	101706
Reserve Marketing	425216	450729	477773	506440	536826
Visitor Services	653724	692948	734525	778596	825312
Mainstreaming (Biodiversity)	156593	165989	175948	186505	197695
Stakeholder engagement	109807	116396	123380	130782	138629
New Public-Private Partnerships	138656	146975	155794	165142	175050
Concession Management	69088	73233	77627	82285	87222
Human Resource Development and administration	204398	216662	229662	243441	258048

Environmental management	131104	138970	147309	156147	165516
Safety and Security	5547454	5880302	6233120	6607107	7003533
Finance Management	92318	97857	103729	109952	116550
Asset Management	428054	453737	480961	509819	540408
Infrastructure	145420	154145	163394	173197	183589
Risk Management	144910	153605	162821	172591	182946
Total	13972891	14811265	15699940	16641937	17640453

11.2 Maintenance Costs

The Agency makes provisions for maintenance cost for all the infrastructure in the reserve. The provision for the maintenance costs ensures that there is constant funding for ensuring reserve infrastructure remains in good condition to avoid dilapidation. The maintenance costs are summarised in the table below.

Table 11: Maintenance Costs for Reserve Infrastructure

	Replacement value	Maintenance Costs(per annum)
Building	11387449	455498
Fencing	817836	82967
Roads & Stormwater System	27547944	1378581
Sewage System/Sanitation	102391	11170
Water supply system	4159577	166383
Electricity	2125863	212586
Total	46141060	2307186

11.3 Provision for the Replacement of Assets

The Agency makes provision for the replacement of assets with a short lifespan/ estimated useful life. Table 12 below summarises the actual monetary provision for replacement for each of the asset groups found in the reserve. To calculate the annual replacement provision, the total value cost of the asset was divided by the estimated useful life of the asset.

Table 12: Provision for replacement of assets

	Value	Provision for replacement
Computer Equipment	111574	37191
Furniture And Fittings	1052642	105264
Office Equipment	305972	30597
Plant And Equipment	480267	48027
Commercial Vehicles	1153502	230700
Building Attachments	184396	18440
Total	3288353	470219

11.4 Projected Revenue

The reserve generates revenue from various activities in the reserve as outlined in the table below. Although the reserve is not yet profitable, it is the intension of the agency to increase the revenue of the reserve, however it is not expected that the revenue would vary considerably from the values provided below unless there is an unexpected cash injection into the tourism facilities or activities of the reserve.

Table 13: Revenue for the Reserve

Category	Current
Accommodation	923523
Gate Entrance	7425
Venison	754
Payment for Ecological Services	2005
Total	933707

11.5 Summary

The reserve requires an annual budget of R 16 750 296 to carry out all the operational activities for 2018/2019. The estimates of the operational costs and deficits are summarised on the table below.

Table 14: Summary of the costs per annum

Category		2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Annual Operational costs		16750296	17588670	18477345	19419342	20417858
Once-off	5307500					
Projected Budget allocation (MTEF)		4660528	4660528	4660528	4660528	4660528
Deficit		-16089768	-16891152	-17740766	-18641515	-19596473

11.6 Measures to relieve pressure on the current budget

Table 17 below outlines the programmes that could potentially alleviate pressure on the current budget. Due to the current economic climate, it is unlikely that the budget allocation will significantly increase as such the agency needs to look at alternative mechanisms to fund some of the reserve programmes.

Table 15: Alternative Income Streams to fund certain programmes in the reserve

Programme	Potential Funding Mechanism	Potential Funder
Rehabilitation	Natural Resource Management Programme (NRM)	Department of Environmental Affairs

Infrastructure	Environmental Protection and Infrastructure Programmes (EPIP)	Department of Environmental Affairs
	The National Lottery grant	The National Lottery
Assets (vehicles)	Vehicle donations	Any vehicle company
Park consolidation and expansion	Global funding grants	Global conservation fund, GEF, WWF

Reserve management will look into forming strong relationship with the municipality in an effort to get assistance from the municipality in relation to roads in the reserve. This could potentially also alleviate the pressure on the current budget for the reserve.

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Appendix A: Declarations

Umq. Vol. 2 Buk.	No. 2	Umq. Vol. 2 Buk.
	22 : 4 : 77	
	3. Owesithathu umda ulandela umkhondo obhekisela emantla eme kwibhakana yesine (4).	NAME OF
	4. Uphinde ngokuthe ngqo emantla ngokunjalo uyo kutsho kwibhakana yesihlanu (5), ngakumlambo uMkambati.	Mkambati
	5. Owesihlanu ususela kule bhakana yesihlanu ukhwe ze ngomkhondo womzantsi-mpuma ukuya kwibhakana yesithandathu (6)	
	6. Ukususela apho uphinda uthathe umkhondo obhekisela kisa ngasentla ukuya kwibhakana yesixhenxe (7)	
	7. Owesixhenxe umda uhamba ngqo kumkhondo womntla-mpuma ukuya kwibhakana yesibhozo (8) yona eme kunxweme elisezantsi lomlambo uMtentu.	
	8. Owesibhozo umda usukela kwibhakana yesibhozo (8) ugudle amantla onxweme oMtentu uphelelapho amanzi olwandle ema khona xa lubuyisela	
	9. Uphinde uhambe ngalo mgqaliselo ulandele ikhondo lomzantsi-ntshona ugudle unxweme lolwandle uphelelise kumazantsi oMsikaba.	
	10. Oweshumi umda usuka kulo wethoba uyokutsho ekudibaneni kwale milambo uMsikaba nalo yonke kwaDlambu uqhubeke ugudle umntla wonxweme lomlambo wakwaDlambu uyokutsho kwibhakana yokuqala (1) le sekuchaziwe ngayo.	
	11. Ibhakana yokuqala (1) neyesibhozo (8) zezamatye e-Cairn.	
	12. Ibhakana ukususela kweyesibini (2) ukuya kwibhakana yesixhenxe (7) zezamatye iMonolite.	

Lo mmandla unobubanzi obungama - 6120 e-Hektare.

GOVERNMENT NOTICE NO. 45.

DEPARTMENT OF AGRICULTURE AND FORESTRY

The following Government Notice is published for general information.

TRANSKEIAN NATURE CONSERVATION ACT, 1971.

ESTABLISHMENT OF MKAMBATI NATURE RESERVE

Under and by virtue of the powers in me vested by Section 22(1)(a) of the Transkeian Nature Conservation Act, 1971. (Act 6 of 1971), I, SAUL KOLISILE NDZUMO, Minister of Agriculture and Forestry do hereby establish as a nature reserve the area described in the schedule.

MINISTER OF AGRICULTURE AND FORESTRY

SCHEDULE

ME OF NATURE RESERVE










Umbati Nature Reserve

DEFINITION OF BOUNDARIES

The area in the district of Lusikisiki formally known as the Mkambati Leper Institute, with the following boundaries:

1. From beacon one (1) on the north-eastern bank of the KwaDlambu River in a straight line and in a north-easterly direction to beacon two (2).
2. Then in a straight line and north-easterly direction to beacon three (3).
3. Thence in a straight line and northerly direction to beacon four (4).
4. Thence in straight line and northerly direction to beacon five (5) north-west of the drift in the Mka-mbati River.
5. Thence in a straight line and south-easterly direction to beacon six (6).
6. Then in a straight line and northerly direction to beacon seven (7).
7. Thence in a straight line and north-easterly direction to beacon eight (8) on the southern bank on a tributary of the Mtentu River.
8. Thence along the said tributary and along the northern bank of Mtentu River towards the sea at high water mark.
9. Thence along the high water mark in a south-westerly direction along the Indian Ocean to the high water mark of the southern bank of the Msi-kaba River.
10. Thence along the southern high water mark of the said river to the confluence of the KwaDlambu River and along the northern bank of the said river to beacon one (1) first mentioned in this schedule.
11. Beacons one (1) and eight (8) are stone cairns.
12. Beacons two (2) to seven (7) are stone monolithies.

The area covers approximately 6120 hectares.

Appendix B: Maps

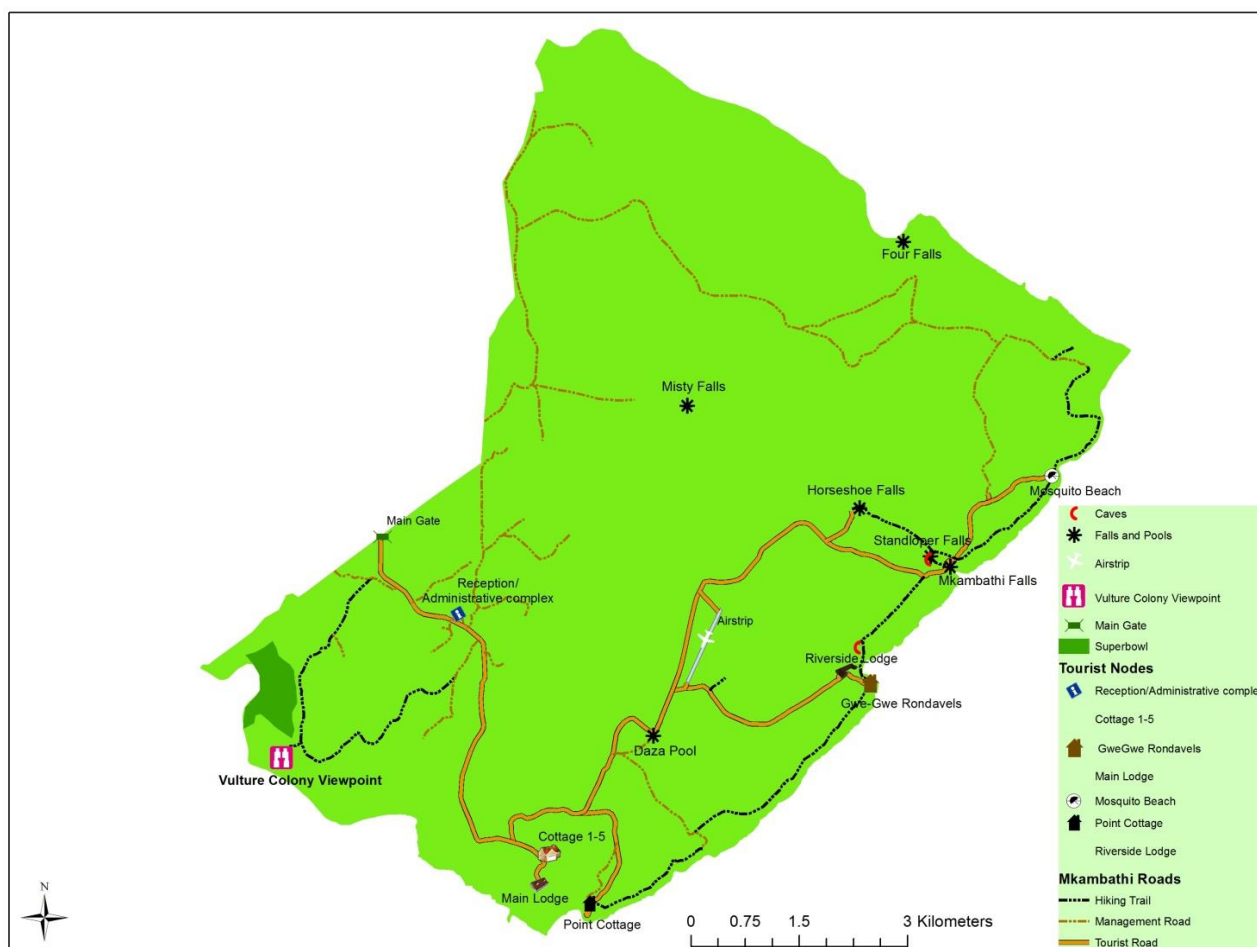


Figure 9: Spatial-layout for Mkambati Nature Reserve.

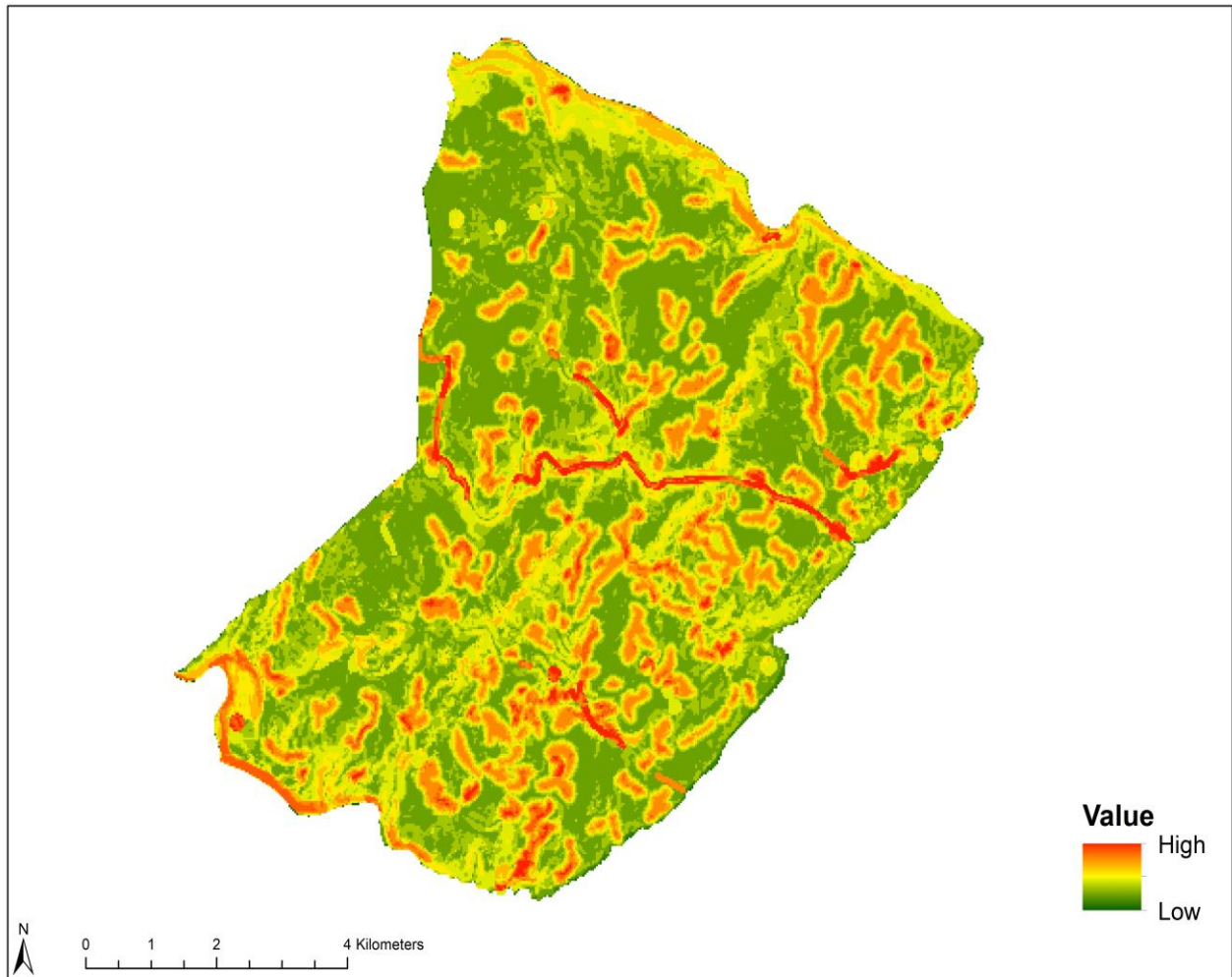


Figure 10: Sensitivity value analysis for Mkambati Nature Reserve.

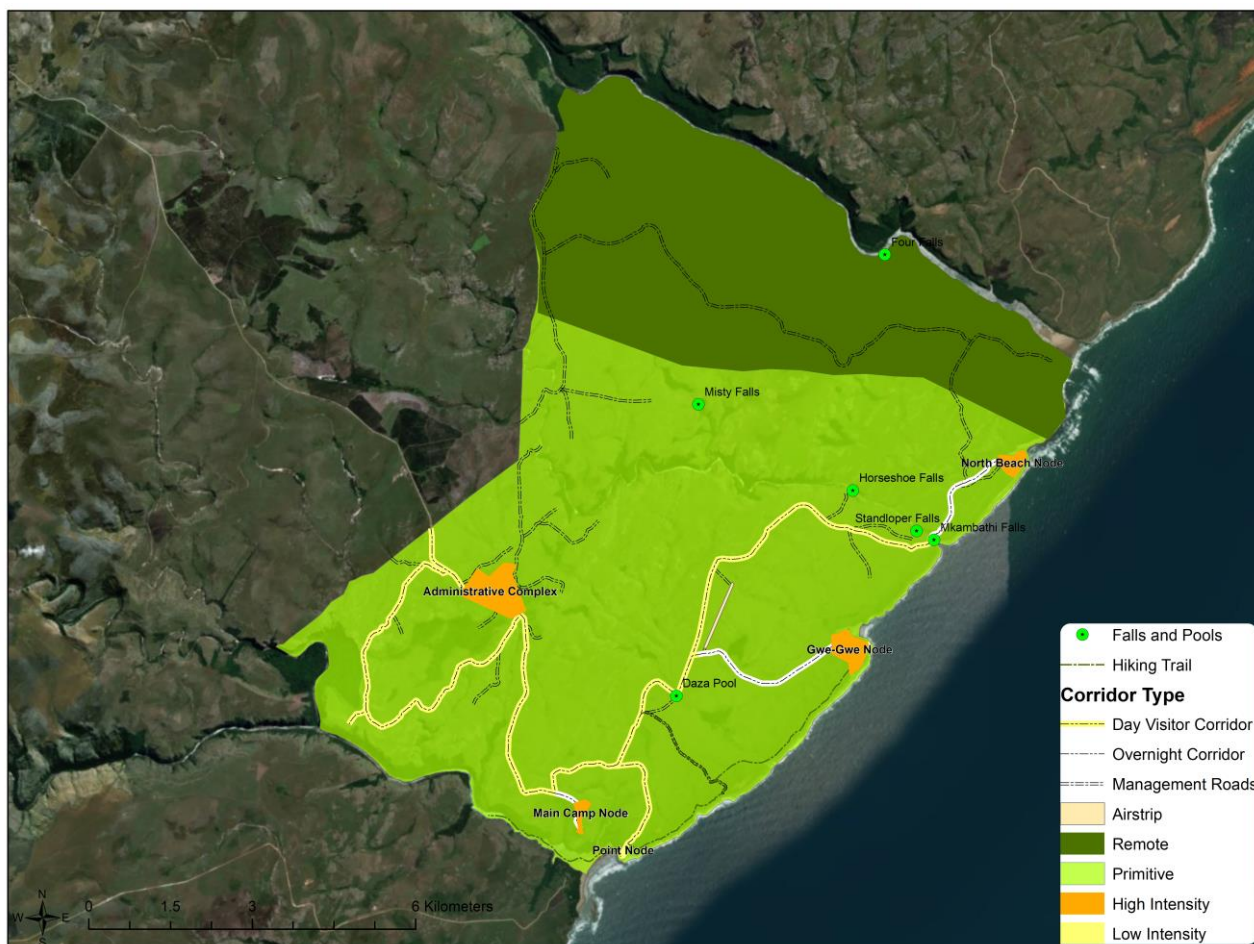


Figure 11: Zonation Plan for Mkambati Nature Reserve

Appendix C: Legislation

List of National and Provincial legislation applicable to the management of the reserve.

National Environmental Management Act, Act 107 of 1998 (NEMA)

National Environmental Management: Protected Area Act, Act 57 of 2003

National Environmental Management: Biodiversity Act, Act 10 of 2004

National Environmental Management: Protected Areas Act, Act 57 of 2004

National Forest Act, Act 84 of 1998.

National Veld and Forest Fire Act, Act 101 of 1998.

National Water Act, Act 36 of 1998.

National Heritage Resources Act, Act 25 of 1999.

Public Finance Management Act, Act 1 of 1999.

Restitution Act, Act 22 of 1994.

Conservation of Agricultural Resources Act, Act 43 of 1983 (CARA).

Fencing Act, Act 31 of 1963.

Problem Animal Control Ordinance, Act 26 of 1957.

Cape Nature and Environmental Conservation Ordinance, Act 19 of 1974.

Eastern Cape Parks and Tourism Agency Act, Act 2 of 2010