

PROTECTED AREA MANAGEMENT PLAN

BAVIAANSKLOOF WORLD HERITAGE SITE

2018-2028

Executive Summary

The management of the Baviaanskloof World Heritage Site (Baviaanskloof WHS) is guided by the Protected Area Management Plan, which is a guiding document that outlines the desired future state of the Baviaanskloof WHS as well as the management actions required to achieve the desired future state. 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 Baviaanskloof WHS was approved in 2009, but the plan was due for a review and there was also a need to align the plan with the new national protected area management plan guidelines and NEM:PAA regulations.

According to the National Environmental Management Act (NEM:PAA) (Act 57 of 2003), the management of Baviaanskloof WHS the needs to be in line with the purpose for declaration. However, the declaration of the heritage site was not specific (only implied) in relation to the purpose for declaration and as such the Baviaanskloof WHS management defined the site specific purpose of the Baviaanskloof WHS in line with applicable legislation and ECPTA values. The main purpose of the Baviaanskloof WHS is to:

“Conserve the unique natural and cultural heritage of the Cape Floristic Region as well as its associated landscapes.”

The agency has adopted the “Heritage Site” concept for the Baviaanskloof WHS. The adopted concept implies the Baviaanskloof WHS will focus primarily on managing and showcasing the representative natural and cultural heritage of the region. However, the concept has no restriction on secondary activities that support or complement the “Heritage Site” concept

The important departure point for the development of this management plan was the compilation of the desired future state. The desired future state outlines the desired future for Baviaanskloof WHS and this is reflected under the vision and associated objectives (section 5). The vision of the Baviaanskloof WHS is:

“The Baviaanskloof WHS excels at providing sustainable and tangible conservation-based benefits to society through collaborative management”.

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

- To conserve and restore the integrity of the natural heritage through adopting sound conservation principles and implementing biodiversity conservation actions;
- To manage the cultural heritage through the adoption of the national heritage guidelines and implementation of necessary management actions.
- To ensure economic returns through sustainable tourism practices and pursuing other compatible forms of revenue generation.
- To enhance cooperative management and socio-economic beneficiation through interaction with local authorities, adjacent land owners as well as key stakeholders for the long term persistence of the heritage site.
- To ensure effective and efficient management through the provision of adequately resourced support services.

The high level objectives as well as their associated sub-objectives guide the action plans for the next ten years (with action plan review after five years). The implementation of the plan will be through the incorporation of action plans into the Annual Operational Plan (AOP) of each unit 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 agency has identified the need to increase revenue through increasing tourism activities and infrastructure identified to be critical in ensuring the site realises economic returns. Further, by formulating public-private partnerships (PPP) that could assist in developing some of the activities (and infrastructure) hence alleviating pressure on the current budget. 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 Baviaanskloof World Heritage Site was developed in an inclusive and consultative process with key stakeholders and was recommended and adopted by:

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Title and Name	Signature and Date
MEC: Department of Economic Development, Environmental Affairs and Tourism <i>Honourable MEC S. Somyo</i>	

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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
masl:	Metres above sea level
MEC:	Member of the Executive Council responsible for Economic Development, Environmental Affairs and Tourism in the Eastern Cape Province
NEM:PAA	National Environmental Management: Protected Area Act, Act 57 of 2003
RPT:	Heritage site Planning Team
SAHRA:	South African Heritage Resource Agency
SDF:	Spatial Development Framework
SOK:	State of Knowledge
SWOT:	Strengths, weaknesses, opportunities and threats
WHS:	World Heritage Site

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 processes 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 Future State	An envisaged future state of the Baviaanskloof WHS outlined under the heritage site vision and heritage site 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 heritage sites declared under pre-1994 provincial legislation to be Nature Heritage sites 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 heritage site or having an interest in the heritage site

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 (when necessary) 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 the Executive Council (MEC) responsible for Economic Development, Environmental Affairs and Tourism in the Eastern Cape Province in 2010.

The Baviaanskloof WHS is a cluster of reserves managed by the Eastern Cape Parks and Tourism Agency which were declared as part of a series of protected areas under the Cape Floristic Region Protected Areas. The Baviaanskloof WHS comprises of the following nature reserves, namely:

- Baviaanskloof Nature Reserve
- Groendal Nature Reserve
- Formosa Nature Reserve
- Welbedacht Nature Reserve
- Stinkhoutberg Nature Reserve
- Meirhooplaat Nature Reserve

The compilation of the plan followed the Department of Environmental Affairs (DEA) guidelines for developing management plans for a protected area. 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 heritage site
Section 4	Provides a synopsis of the consultation process followed in the preparation of this management plan
Section 5	Outlines the heritage site purpose, vision, desired state and the high level heritage site objectives
Section 6	Provides a zoning plan for the heritage site

Section 7	Provides information on the current access to the protected area and as well as the facilities within the heritage site
Section 8	Outlines the expansion options of the heritage site
Section 9	Outlines the concept development plan for the heritage site
Section 10	Outlines the strategic plan for the heritage site 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	Maps
Appendix C	Provides a list of relevant provincial and national legislation that guide the management of the heritage site

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 heritage site management intends to focus its efforts in the next ten years, and it provides also the medium-term operational framework for the prioritized allocation of resources and capacity in the management, use and development of the Baviaanskloof WHS.

1.3 Management Approach

1.3.1 Strategic adaptive management approach

The heritage site system is dynamic with key factors changing constantly and over a period of time, as such management and the adopted strategies for the Baviaanskloof WHS need to be responsive to the dynamic nature of the system. The agency adopts the strategic adaptive management approach in managing the heritage site. The principle behind the adaptive management is the one of “learn by doing”, that is, as the plan is implemented over a particular timeframe, the heritage site 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.

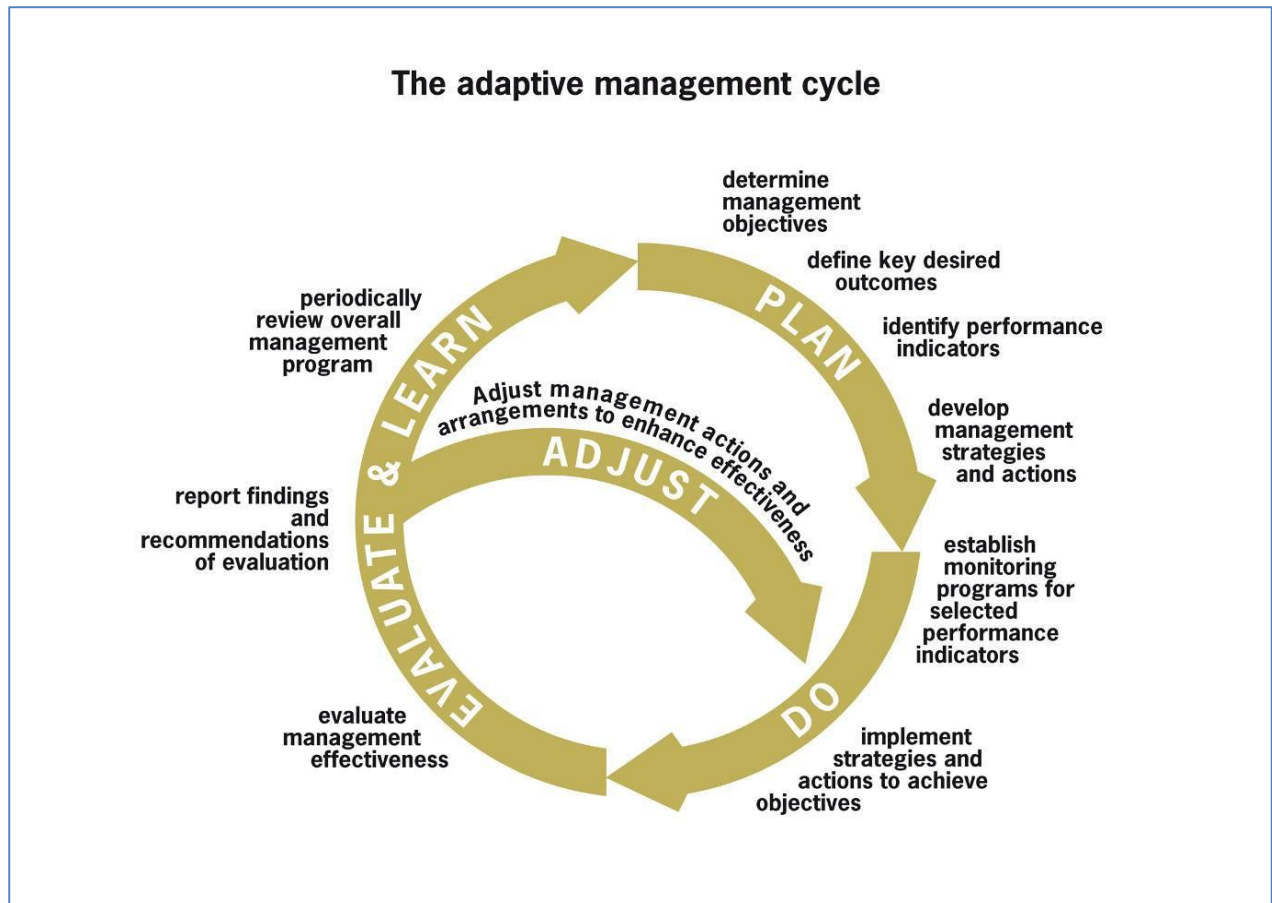


Figure 1: Strategic adaptive management cycle (Jones, 2005)

1.3.2 Participatory Approach

In developing management strategies for the heritage site, the Agency regards public participation as key in ensuring the success of the Baviaanskloof WHS. The Baviaanskloof WHS is not an island and as such the activities of the heritage site and the activities of adjacent land-owners and communities need to be complementary. Public participation, stakeholder engagement and political support is important in ensuring the success of the heritage site. Through the participatory approach a sense of “shared ownership of the heritage site” is created with everyone having the urge to see the Baviaanskloof WHS succeed.

Section 2: Legal status

2.1 Name of the Heritage site and declaration status

The Baviaanskloof World Heritage Site was declared as part of the Cape Floristic Region Protected Areas Serial Nomination in June 2004. The basis of the Baviaanskloof WHS status is the outstanding floristic diversity and endemism of the Cape Floristic Region (CFR). The Baviaanskloof WHS status places the Baviaanskloof Nature Reserve in a special category in terms of the Protected Areas Act, 2003. A Memorandum of Agreement has been signed by the DG: DEA, Cape Nature; SANParks and ECPTA to appoint each as the management authority of the respective World Heritage Sites that are currently managed by each agency. A CFR PA Joint Management Committee (CFR PA JMC) has been established under chair of DEA to manage the CFR PA WHS. Most of the 196 properties currently making up the WHS are proclaimed as state forests (Proclaimed under the Forestry Act). The proclamation dates range from 1922 to 1990. Other properties have no official proclamations. The total area of the Baviaanskloof WHS is 249,399.94 hectares in extent.

2.2 Designated Management Authority

The Eastern Cape Parks and Tourism Agency is the management authority responsible for the management of the Baviaanskloof World Heritage Site. The powers and responsibilities of ECPTA in terms of the management of the site are as prescribed under NEM:PAA (Act No.57 of 2003), Regulations for the Proper Administration of Nature Reserves and also the World Heritage Convention Act 49 of 1999.

2.3 Locality of the Baviaanskloof WHS

The Baviaanskloof WHS is made up six nature reserves situated in the western region of the Eastern Cape Province, extending from Uitenhage near Port Elizabeth to Willowmore on the Western Cape Boundary (see figure 2). The WHS covers most of the Kouga and Baviaanskloof Mountain Ranges, and part of the Grootwinterhoek and Elandsrivier Mountains to the East. The WHS is situated between the arid Steytlerville Karoo and the mesic southern Cape coast.

2.3.1 Municipal Planning Context

The Baviaanskloof WHS falls primarily in the Sarah Baartman District Municipality while a small portion of the far western site falls outside in the Eden District Municipality of the Western Cape Province. The Baviaanskloof WHS falls within four local municipal areas namely; Dr

Beyers Naude Local Municipality (LM), Kouga LM, Koukamma LM and Sundays River Valley LM as well as a small portion of Groendal Nature Reserve that falls within the Nelson Mandela Metropolitan Municipality. There are numerous references to the WHS in the IDP and SDF of these Municipalities.

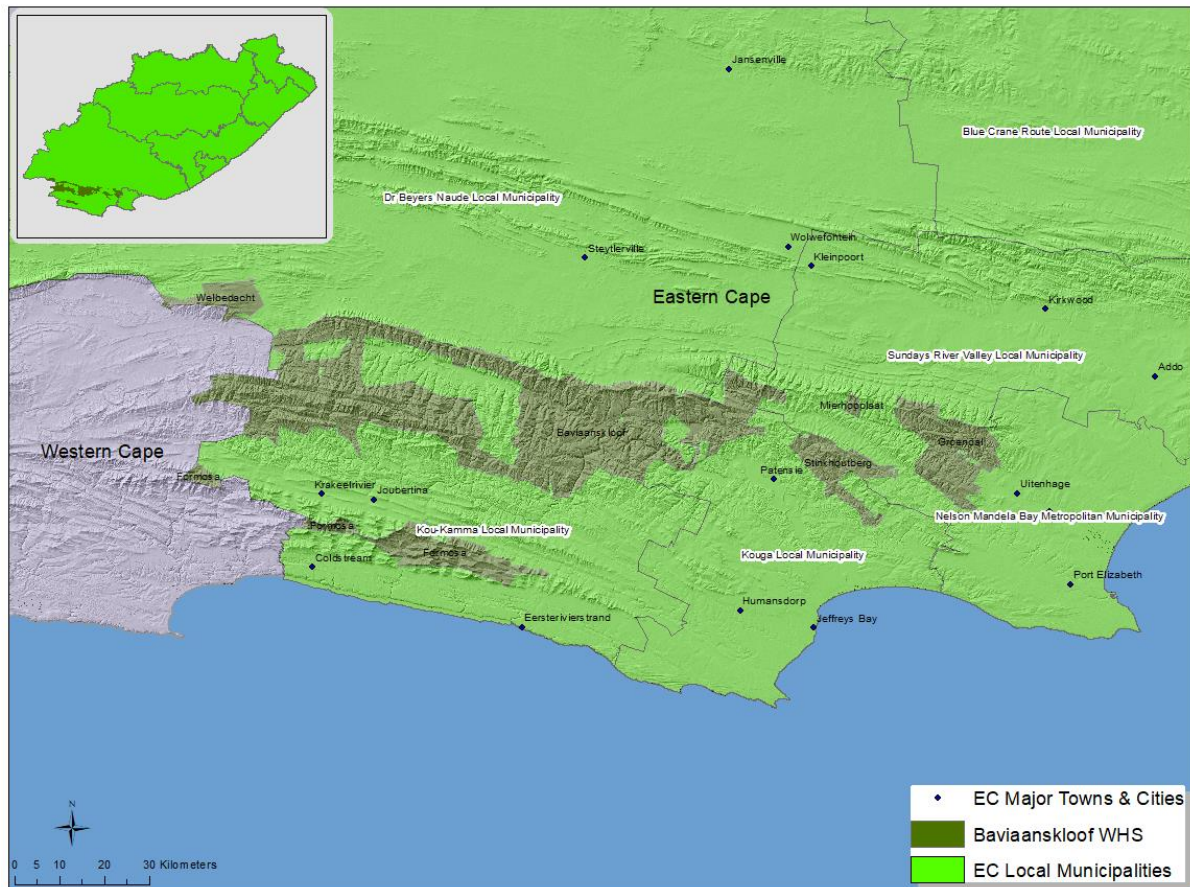


Figure 2: Locality of the Baviaanskloof WHS

2.4 History of the Baviaanskloof WHS

The Baviaanskloof area has been managed by the Department of Forestry (now Department of Agriculture, fisheries and forestry) since the early 1920's. The policy then was that of "mountain protection", which was applied in management by the forester stationed at Prince Albert. The first forester in the Baviaanskloof was appointed circa 1930 at Studtis. The Langkloof (Formosa) forestry station was only established in December 1964. The Cockscomb station was established later in 1974. The main tasks of Forestry in those years were the creation of firebreaks and control of mountain fires. A number of fences were also erected. More intensive management has taken place since 1985 with an increased budget

and the appointment of more staff for the area. Livestock transgressions were finally curbed by 1990 and the exotic plant problem was tackled through the Working for Water programme that was administered by Gamtoos Irrigation Board.

Large parts of the high-lying areas of the Kouga and Baviaanskloof mountains have always been classified as State land (Crown land) and have never been privately owned. Large areas of mountain land were bought by the State in the early seventies as part of the government's mountain catchment protection policy. With the building of the Paul Sauer Dam, now known as the Kouga Dam, large areas of land on both sides of the Kouga River were bought out and transferred to the Department of Forestry in 1977 to be managed by them. Since 1986 a further 35 000 ha has been acquired (with the aid of private and government funds) in order to consolidate the core section of the area.

On 1 April 1987 the management of the area was transferred from Environment Affairs (Department of Forestry) to Cape Nature Conservation as part of the devolution policy of the government. The area has been managed according to the principles of a wilderness area since the early 1980's, even though it was not declared as such. The area was transferred to Eastern Cape Province (Department of Economic Development Environmental Affairs and Tourism – DEDEAT) for management during 1994. In 2002 the Baviaanskloof Mega-Reserve project was initiated and in 2004 the Eastern Cape Parks Board (ECPB) was formed with all DEDEAT staff being transferred to the ECPB in 2006. ECPB was later in 2010 merged with the Eastern Cape Tourism Board to form the Eastern Cape Parks and Tourism Agency.

2.4.1 Historical Inhabitants of the area

The Eastern Cape has been inhabited by humans for many thousands of years, with archaeological evidence of human occupation dating back some 120 000 years. Between 60 000 and 20 000 years ago, stable Late Stone Age human populations became established in a series of phases. The hunter-gatherer San, who occupied the region until the Khoekhoen (= Khoikhoi) arrived about 2000 years ago. The Khoekhoe were followed in turn, about 1700 years ago, by Bantu-speaking Iron Age agro-pastoralists who migrated southwards from central and eastern Africa. European settlement in the Baviaanskloof region commenced in the mid to late 18th century. By the end of the 19th century the San had ceased to exist as an independent people in the area. The human population of the Baviaanskloof itself probably reached a maximum of about 2000 people somewhere between the mid-19th and mid-20th

centuries, where after began a decline that continues to the present day. The rugged terrain and the isolation of the valley from the marketplace were major constraints and a challenge for the early farmers in the Baviaanskloof. People living in the area suffered periodic natural events, such as floods, droughts and outbreaks of disease (Boshoff *et al.*, 2005).

2.5 Contractual Agreements and Servitudes

There are a number of agreements that have been entered into in regards to the day to day operation of the heritage site and these are as follows:

- The Kouga Dam is managed by the Gamtoos Irrigation Board (GIB) on behalf of the Department of Water Affairs (DWA): water quality is tested monthly, and water levels and release of water for the irrigation of surrounding farms is the responsibility of GIB officials.
- Memorandum of Agreement with Sarah Baartman District Municipality setting out co-operation in terms of marketing, tourism and conservation with special reference to Baviaanskloof World Heritage Site. Baviaanskloof is a fire management unit of the Southern Cape Fire Protection Association. Fire agreement has been entered into with MTO for the Area east of Stinkhoutberg Section (Longmore Forest)
- ECPTA is also part of the Elands River Fire Protection Association.

2.6 Environmental Authorisations

There is an authorization for the development of the leopard trail huts (authorization number 14/12/16/3/3/1/1521). At the time of the development of this management plan, a basic assessment was underway for the re-construction of a causeway over Witrivier river within the Baviaanskloof WHS.

2.6 Land Claims

Currently, there are no known land claims against the Baviaanskloof WHS properties to date.

2.7 Biophysical Context

2.7.1 Climate

In terms of rainfall within the Baviaanskloof WHS, good rains can occur at any time of year and so can dry periods, but peaks generally occur in autumn and spring (Tyson, 1971). The proportion of summer rainfall in the area increases gradually towards the east. The rain is mostly cyclonic and orographic in nature with frequent thunderstorms (10 to 20 per annum) in the summer months (Bond, 1981). Snow occurs annually on the high mountain peaks.

Table 2: Average annual rainfall figures (mm)

Mountain Range	Area Average	Southern Slope	Northern Slope
Tsitsikamma	869	1021	695
Kouga	547	651	448
Baviaanskloof	451	461	435
Groot Winterhoek	575	723	425

High daily and seasonal temperature fluctuations occur in the area. Temperatures of 44°C occurring as a result of warm winds from the high plateau are not uncommon. Night temperatures can be relatively cold with differences of up to 28°C between day and night temperatures. The average daily maximum temperature in the low-lying areas is about 32°C in January and 18°C in July. The average daily minimum temperature is about 15°C in January and 5°C in July, with extremes varying between 5°C and -3°C. Frost occurs from the beginning of June to the end of August. In summer the prevailing wind direction is south to southeast, and in winter the prevailing wind direction is northwest. Dry hot berg winds are experienced during autumn and particularly winter (BWA Management Plan, 2001).

2.7.2 Geology and Topography

As part of the Cape fold belt the area is characterised by relatively high mountains, including the highest peaks in the South Eastern Cape (Cockscomb 1 758 m and Smutsberg 1 757 m). The average height of the three parallel east south-east mountain ranges, the Baviaanskloof, Groot Winterhoek and Kouga mountains is more than 1 200 m above sea level.

From the peaks the slopes fall steeply to the north and south to end on a plateau level (the African Land Surface) of 650 to 900 m above sea level. Only a few ridges of this formation survive. The rest of this former land surface was carved away by deep ravines reaching a valley at an altitude of between 550 and 320 m above sea level. This valley includes the Kouga, Baviaanskloof and Groot River valleys.

Five formations of the Table Mountain Group are found in the area, namely the Peninsula, Cedarberg, Goudini, Skurweberg and Baviaanskloof Formations. Sediments of the Enon

formation, consisting of conglomerate with rounded to angular alluvial stone in a sandy matrix are found in the valley in the middle of the area. In the valleys the extensive appearance of alluvial sand and gravel is due to deposition by rivers depositing sand and gravel from the mountains and ravines (*Boshoff et al., 2005*).

2.7.3 Flora/Vegetation

No fewer than seven of the country's nine biomes – the highest level of ecosystem recognized by ecologists - are represented in the broader Baviaanskloof area – these are the Fynbos, Subtropical Thicket, Nama-Karoo, Succulent Karoo, Grassland, Savanna and Forest biomes. This exceptional diversity is testament to the great physical and climatic diversity in this area of transition. The bulk of the WHS falls within the eastern part of the Cape Floristic Region. The northern areas of the WHS marginally represent the Nama-Karoo Biome while the eastern areas mostly fall within the Albany Thicket biome. The Forest Biome is represented in the narrow river valleys and the Grassland Biome is represented on the plateaus, which are remnants of the African Land Surface below the Kouga and Baviaanskloof Ranges.

The Baviaanskloof WHS includes two internationally recognized “Biodiversity Hotspots” the Fynbos (Cape Floristic Region) and the Albany Thicket (Maputaland-Pondoland-Albany Biodiversity Hotspot). The Baviaanskloof Nature Reserve alone houses over 1100 species of plant, 20 of which are known to be endemic, 52 species are categorised as Red Data list/Threatened species. Expanding the list to Groendal and Formosa Nature Reserves could add as many as 100 species.

2.7.4 Fauna

The majority of game found in the Baviaanskloof WHS has been re-introduced and includes black rhino, cape mountain zebra, red hartebeest, cape buffalo, eland, kudu, mountain reedbuck, duiker, grysbok and grey rhebok. Also common are aardvark, aardwolf, cape clawless otter, honey badger, bushbuck, bush pig, leopard, bat-eared fox and caracal as well as chacma baboon and vervet monkeys. A summary of the game introductions and removals between 1996 and 2004 is presented in the State of Knowledge Report/Ecological filling system.

2.7.5 Freshwater Ecosystems

The Baviaanskloof WHS includes sections of the Kouga, Baviaanskloof and Groot River valleys and the main drainage systems flow in the valleys, mainly in an easterly and southerly

direction. Smaller streams flow northwards on the northern slopes of the Baviaanskloof Mountains and westwards from the watershed on the Uniondale side of the area. The site is within several quaternary catchments as depicted on figure 3 below.

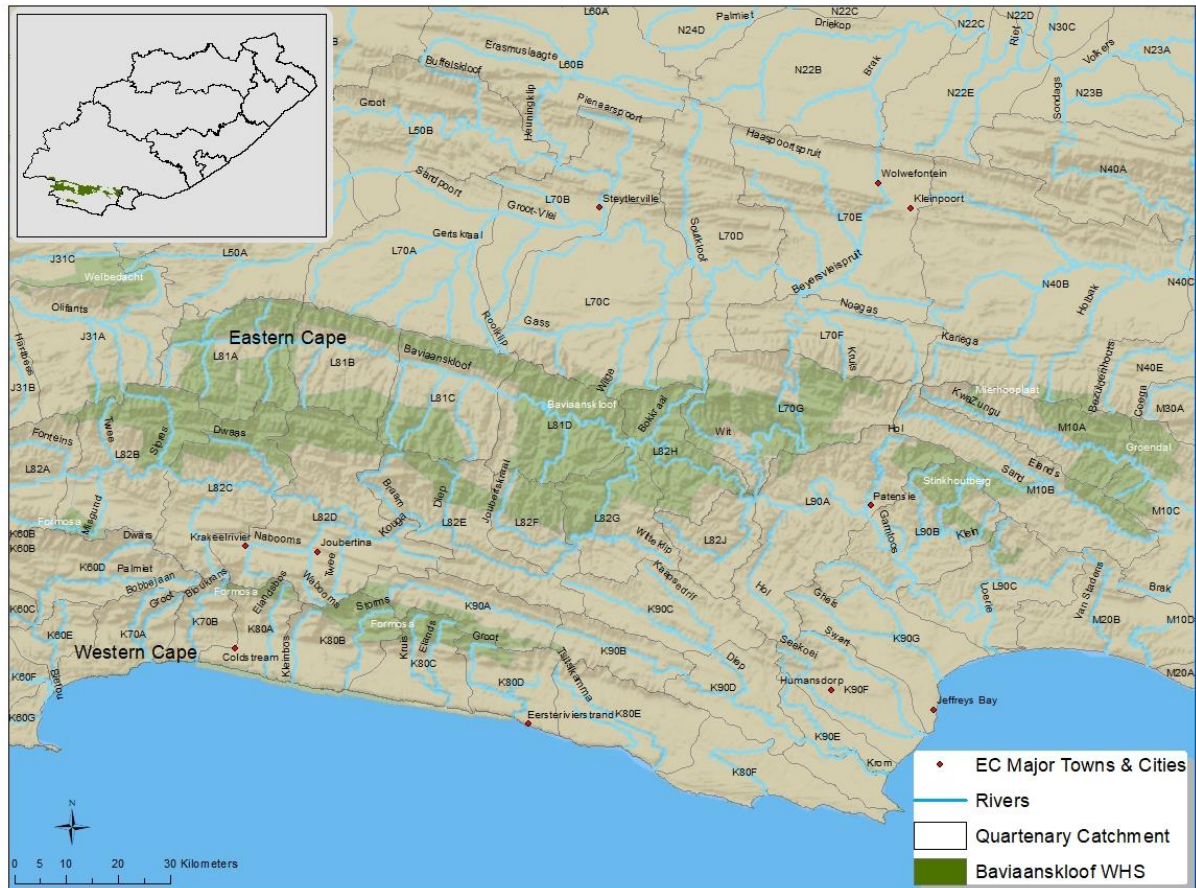


Figure 3: Rivers and Catchments in and around the Baviaanskloof WHS

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 (Table below). For the overall Protected Area Management Plan policy framework as separate PAMP policy framework document should be consulted.

Table 1: Relevant organizational policies relevant to the management of the Baviaanskloof WHS

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 responsible for the implementation of the Protected Area Management Plan through the Regional Manager and the Heritage Site Managers, with support from all other units of the organisation.

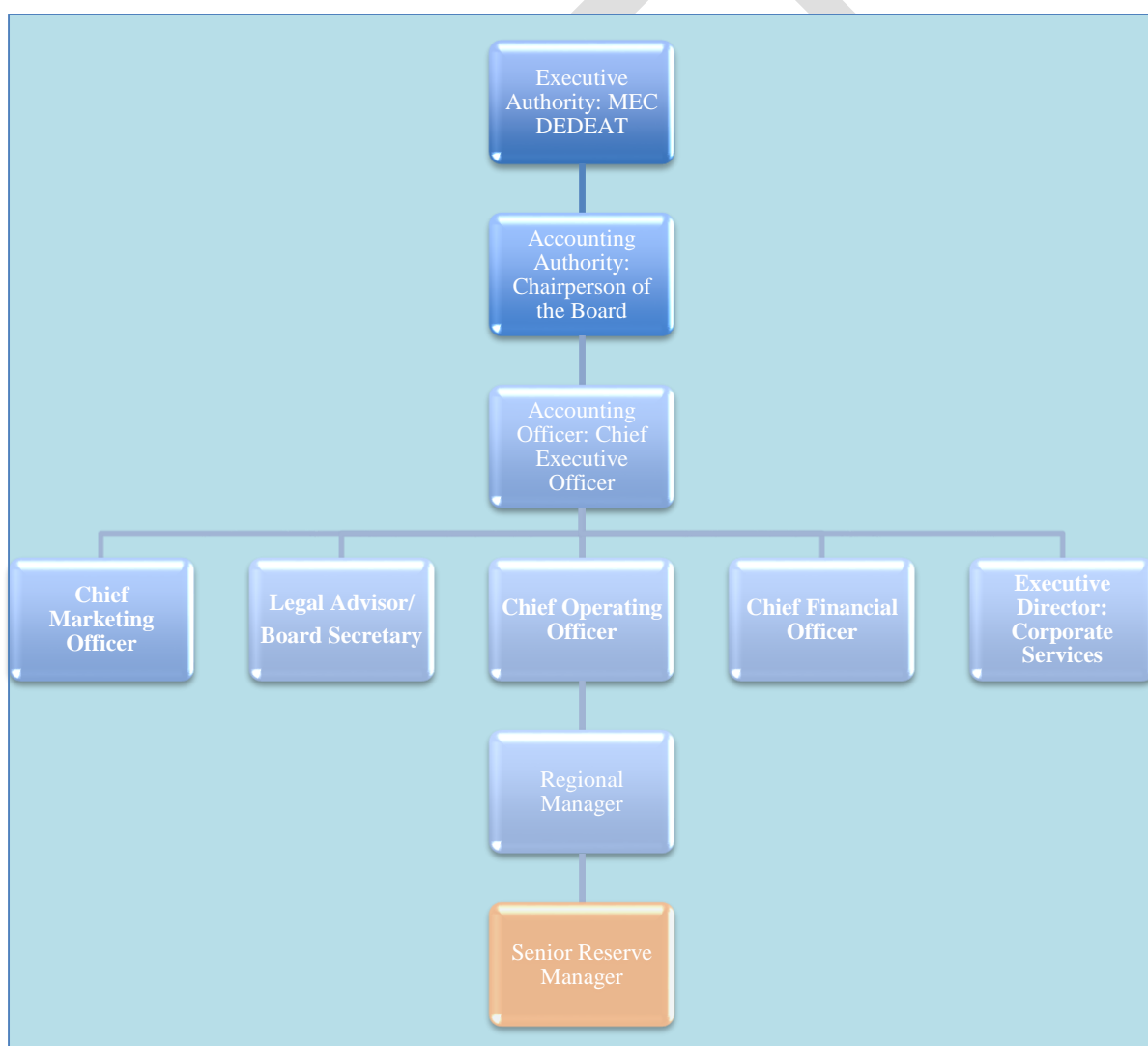


Figure 4: The Executive Framework of the Agency

3.3 Operational framework for the Baviaanskloof WHS

During 2015/16 the ECPTA commissioned an organogram review process to align the organisational organogram to the new strategic goals of the Agency. The organogram for the heritage site is indicated in Figure 4-6 below. Due to limited resources ECPTA determined the organogram below as the most appropriate for the management of the heritage site as per the allocated resources.

The reserve managers are assisted by the reserve planning team in relation various aspects relating to the management of the heritage site. A Reserve Planning Team (RPT), 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 managers for the day to day operation of the heritage site as required.
- (ii) Evaluating and approving any development proposals for the Baviaanskloof WHS
- (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 Baviaanskloof WHS.
- (iv) Providing strategic direction and technical inputs into management plan of the Baviaanskloof WHS.
- (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

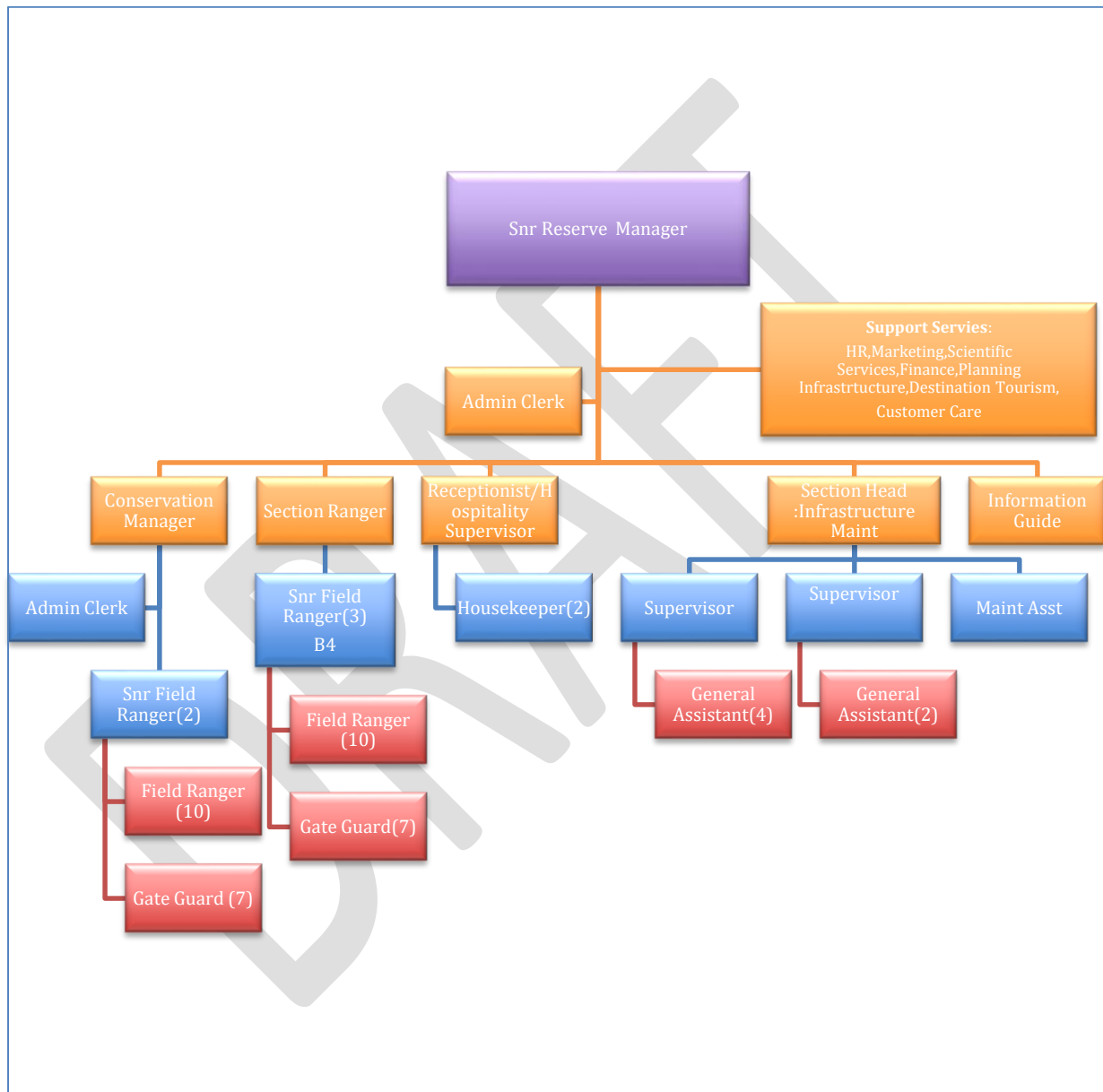


Figure 5: The organogram for the Heritage site (Baviaanskloof Section)

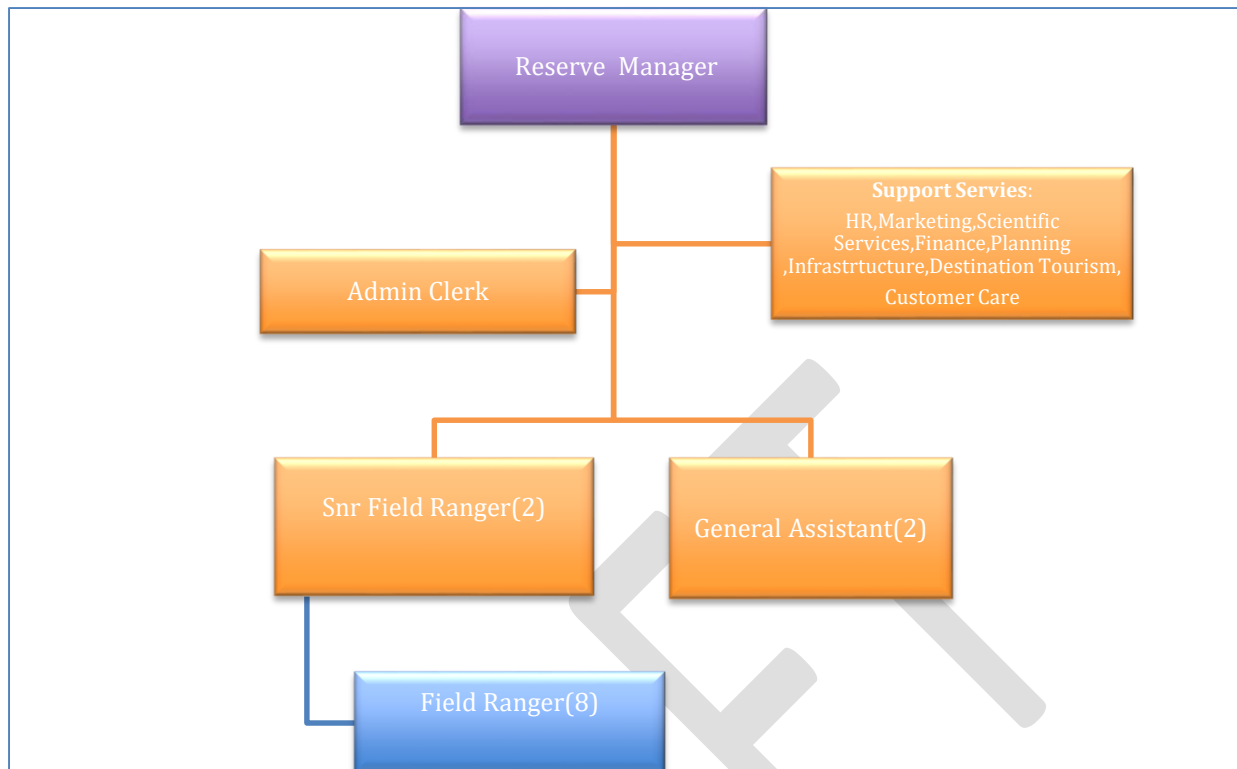


Figure 6: The organogram for the Heritage site (Formosa Section).

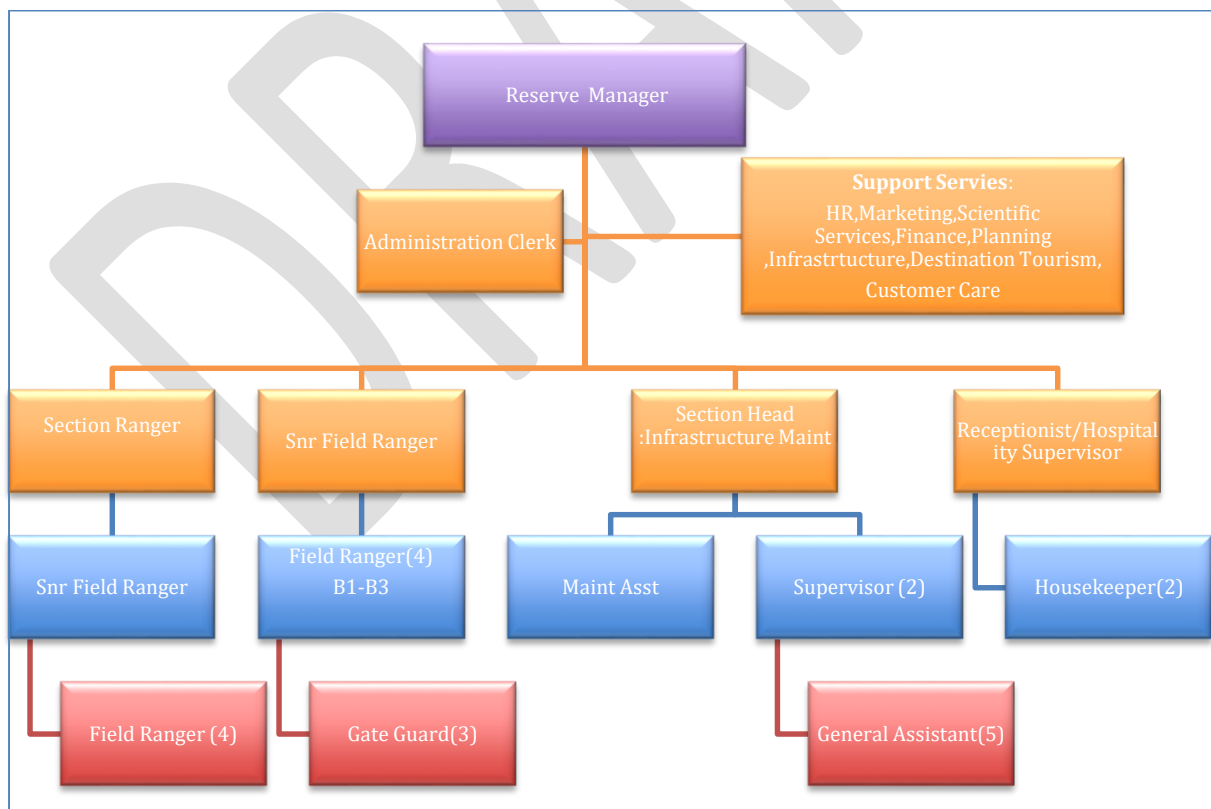


Figure 7: Organogram for the Heritage Site (Groendal Section)

Section 4: Consultation

The Agency recognizes that the success of the heritage site depends on 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.”*

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 heritage site 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 heritage site. The notifications were in a form that is appropriate for each stakeholder, these 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 Baviaanskloof WHS

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 protected areas under the heritage site were not specific in relation to the purpose for the declaration of each of the sections of the Baviaanskloof WHS.

ECPTA has designed the purpose and vision of the heritage site in line with the organisational vision and mission with a firm consideration of the organisational principles and NEM: PAA, 2003 section 17.

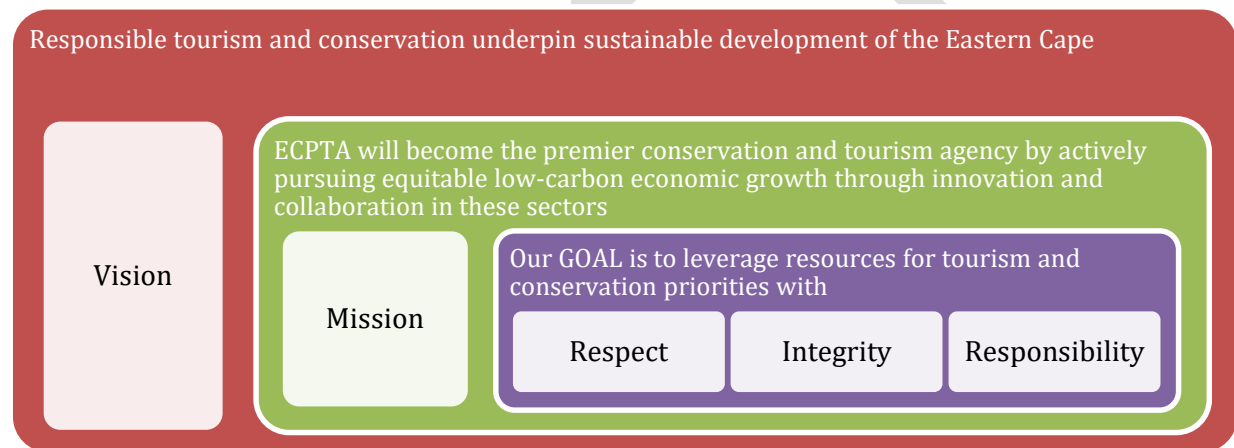


Figure 8: Organizational vision, mission and principles

The main purpose of the Baviaanskloof World Heritage Site is to:

“Conserve the unique natural and cultural heritage of the Cape Floristic Region as well as its associated landscapes.”

5.2 The desired state of the Baviaanskloof WHS

The important departure point for the development of the management plan was the compilation of the Baviaanskloof WHS desired future state which serves to guide the current management actions towards the prescribed future state. The desired future state of the heritage site is described through the vision with a firm consideration of the key attributes of the world heritage site, guiding principles and threats to the vital attributes of the heritage site.

5.2.1 The vision of the Baviaanskloof WHS

The vision describes the envisioned desired future of the heritage site as well as the desired protected area that the plan is seeking to achieve in the long term.

The vision of the Baviaanskloof WHS is:

“The Baviaanskloof WHS excels at providing sustainable and tangible conservation-based benefits to society through collaborative management”.

5.2.2 Vital attributes of the Baviaanskloof WHS

Vital attributes are key important elements that make the heritage site unique and different from other heritage sites. The four main vital attributes that have been identified for the Baviaanskloof WHS are outlined in Table 2 below.

Table 2: Vital attributes of Baviaanskloof WHS

Vital attribute	Determinants	Threats/Risks
1. Biologically diverse with seven biomes, endemic flora and fauna	<ul style="list-style-type: none"> Untouched wilderness areas Variable climate Topographic heterogeneity 	<ul style="list-style-type: none"> Climate change Poaching Inappropriate fires Unsustainable utilisation
2. A large conservation area that allows for large scale ecological processes.	<ul style="list-style-type: none"> The size of the Baviaanskloof WHS Variable climate 	<ul style="list-style-type: none"> Climate change Inappropriate fires Fragmentation due to over-development in-between the separate sections.
3. Unique landscape (remoteness and wilderness character).	<ul style="list-style-type: none"> Topographic heterogeneity Minimal development in and around the site. 	<ul style="list-style-type: none"> Increase in development in and around the site
4. Rich Cultural heritage	<ul style="list-style-type: none"> Long history of human habitation (Khoi, San and European settlers) and conflicts in the area. 	<ul style="list-style-type: none"> Dilapidation and poor management of heritage sites.
5. The major water catchment area for the Nelson Mandela Bay and surrounding areas	<ul style="list-style-type: none"> Mountainous areas and rivers provide for a good catchment system 	<ul style="list-style-type: none"> Drought Erosion Invasive Alien plants Over-utilisation by herbivores

5.2.3 High Level Objectives of Baviaanskloof WHS

The high level objectives of the Baviaanskloof WHS follow from the management vision of the heritage site and serve as more specific statements of intention and setting out the realistic targets management aims to achieve over a period of time. The concept of “objectives hierarchy” was adopted, where the desired future state of the heritage site 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 the Baviaanskloof WHS, five broad high-level objectives were identified, as well as their associated sub-objectives (summarised in Table 3). The five high-level objectives are:

- To conserve and restore the integrity of the natural heritage through adopting sound conservation principles and implementing biodiversity conservation actions;
- To manage the cultural heritage through the adoption of the national heritage guidelines and implementation of necessary management actions.
- To ensure economic returns through sustainable tourism practices and pursuing other compatible forms of revenue generation.
- To enhance cooperative management and socio-economic beneficiation through interaction with local authorities, adjacent land owners as well as key stakeholders for the long term persistence of the heritage site.
- To ensure effective and efficient management through the provision of adequately resourced support services.

Table 3: High Level objectives and associated sub-objectives

High level Objective	Associated sub-objectives
1. To conserve and restore the integrity of the natural heritage through adopting sound conservation principles and implementing biodiversity conservation actions	To secure the heritage site through addressing priority fencing areas.
	To increase the protected area network in the region 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 monitoring protocol
	To maintain or improve, where possible, the ecological condition of the freshwater ecosystems of the Baviaanskloof WHS through collaborative management of water catchments with adjacent landowners
	To address local decline of rare and threatened species through identifying, monitoring and managing, where possible, such species
	To regulate game through monitoring and managing game numbers within the Baviaanskloof WHS
	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 world heritage site management
	To identify and develop new tourism products while enhancing and maintaining the current tourism facilities

2. To ensure economic returns through sustainable tourism practices and pursuing other compatible forms of revenue generation.	To ensure visitor satisfaction in the Baviaanskloof WHS
	To encourage public-private partnerships for the provision of new tourism activities.
3. To manage the cultural heritage through the adoption of the national heritage guidelines and implementation of necessary management actions.	To secure the integrity of the through identifying all cultural heritage features and developing appropriate management actions
	To facilitate public access to the cultural heritage sites through the provision of adequate infrastructure and interpretative materials.
4. To enhance cooperative management and socio-economic beneficiation through interaction with local authorities, adjacent land owners as well as key stakeholders for the long term persistence of the heritage site.	To facilitate and ensure socio-economic empowerment through the provision of job opportunities around the Baviaanskloof WHS
	To ensure a functional buffer zone through regular interaction with adjacent landowners and municipalities
	To empower communities around the Baviaanskloof WHS through the provision of environmental education programmes
5. To ensure effective and efficient management through the provision of adequately resourced support services.	To ensure the Baviaanskloof WHS has sufficient capacity to implement the management plan
	To ensure sound environmental principles are adhered to at all times in the Baviaanskloof WHS
	To secure the Baviaanskloof WHS through the prevention any criminal activities and regular 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 Baviaanskloof WHS
	To procure equipment required for operational activities of the Baviaanskloof WHS
	To develop and maintain the infrastructure to acceptable standards
	To ensure required infrastructure is constructed to meet operational requirements
	To put in place mechanisms for risk management at reserve level

Section 6: Zoning Plan

The zoning plan for the heritage site 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 heritage site zoning to strategically position tourism development in less sensitive areas of the heritage site in an effort to ensure persistence of biodiversity while allowing for tourism activities in the Baviaanskloof WHS. The intention is to have a heritage site that accommodates both tourism and biodiversity conservation, without compromising the ecological integrity of the heritage sites 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 Use Zones for the Baviaanskloof WHS

The heritage site is categorised into six main use zones based on the receiving environment and also taking into consideration the visitor needs for each of the use zones. The use zones are summarised in the table 3 below. The use zones are as follows:

- Wilderness
- Remote
- Primitive
- Low intensity Leisure
- Quiet Zone
- Special Zone

Table 4: Use Zones for the Baviaanskloof WHS

Use Zone	Characteristics	Activities	Sustainable Resource Use	Facilities	Interaction with Other Users	Sophistication of Facilities	Access	Roads	Audible equipment and communication structures	Management Guidelines
Wilderness/Pristine	An area retaining an intrinsically wild appearance and character, or capable of being restored to such and which is undeveloped and road less, without permanent improvements or human habitation.	"No-trace-left" activities; guided nature observation on non-defined hiking routes, research, bird watching. "Pack it in and pack it out" principle.	Not applicable	No facilities. Facilities serving this zone placed in adjoining zones and in particular the Primitive zone. No audible equipment or communications structures.	None, confined to own group. Numbers of groups and numbers per group to be regulated.	No structures excepting those existing structures of cultural significance (guided by SAHRA). Facilities serving the zone placed in adjoining zones and in particular the Primitive zone	Non mechanised access for visitors and management. Non-motorised river rides acceptable.	No roads.	None	Managed to protect and maintain natural and cultural resources biodiversity and the provision of environmental goods and services.
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 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
Quiet	The landscape can provide a sense of solitude of a smaller scale and relative to the park -i.e. areas within a park that cannot be zoned as Remote, but a relative sense of solitude can be experienced.	Hiking, adventure sports (climbing, kloofing) self guided constructed trails and walks, mountain biking and horse trails.	Under controlled conditions	Hiking trails, footpaths, bird hides, mountain bike trails and horse trails. Limited, sensitively designed accommodation. Ablution facilities may be provided in high use areas	Limited to Moderate	Where provided should be basic	Non-motorised, pedestrian, cycle and horses. In some cases kayaks or canoes	Minimal roads – limited to management tracks C1, D1 or E1	Cell phone coverage/usage for emergencies. Code of use for cell phones and radios required to retain relative level of solitude	Noise levels should be minimal in this zone with visitor numbers regulated to a minimum per time.
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.	Cell phone coverage in vicinity of camps. Code of use for cell phones and radios required to retain relative level of solitude.	Only limited, sympathetic development linked to tourism and management tourism facilities.
Special	Area of exceptional diversity, endemism and rarity.	Scientific and conservation measures only	Not compatible	None	Very limited	None	Mainly for scientific and conservation measures, but some access for education and interpretation can be considered.	Trails to allow access for research	None	No-go area for visitors

Section 7: Access and Facilities

7.1 Infrastructure within the Baviaanskloof WHS

The Baviaanskloof WHS has a number of day and overnight facilities available, providing several options for tourists. All the accommodation is self-catering facilities. The facilities are outlined below (per section):

Baviaanskloof Nature Reserve

Western Section:

- i) *Geelhoutbos Cabin: a refurbished old forester's cabin*

Cockscomb Section:

- i) *Bergplaas Cottage: Cottage with 12 beds with mattresses (6 bunk beds) large lounge, kitchen and bathroom with solar hot water and lights. Outdoor braai facilities. No fridge, or cutlery or crockery.*
- ii) *Rooihoek and Doodsklip Wilderness Campsites: 6 sites with max of 6 people per site, basic camp site with no ablution blocks or power or drinking water, pit latrines and a leave no trace /packing pack out ethic.*
- iii) *Komdomo Camp Site: 19 electrified Camp sites with 6 people per site, ablutions blocks with hot water, flush toilets.*
- iv) *Smitskraal Day Visitor Site: 5 day visitors sites with access to Kouga River*

Kouga Section:

- i) *Riverside House and campsite currently closed*

Groendal Section:

- i) *Rooikrantz camping / caravan site and a day use / picnic site on the Swartkops River. A refurbished house is also available for tourists.*

7.2 Reserve recreational and tourism services

Activities include fishing, hiking, mountain biking, swimming, picnicking, bird watching and game viewing. An 4X4 route through the BNR traverses the Kouga Mountains and crosses the Western and the Kouga Sections.

Section 8: Expansion Strategy

The expansion of the provincial protected area network is guided by the Eastern Cape Protected Area Expansion Strategy (ECPTA, 2012). The agency has planned to increase the protected area network around the heritage site through biodiversity stewardship agreements. The agency has limited resources to consider land purchase as such there are five main types of stewardship agreements (see figure 8 below) that are considered by the agency. The expansion will be a voluntary process which implies expropriation of land is not an option in regards to protected area expansion.

AGREEMENT TYPE	LEGAL MECHANISM	
Nature Reserve	National Environmental Management: Protected Areas Act (Act 57 of 2003)	<ul style="list-style-type: none"> Favourable for sites with highest biodiversity importance Binding on property: declaration of Nature Reserve, and a title deed restriction* Binding on landowner: contract with landowner usually for 30 – 99 years/in perpetuity Contributes to South Africa's protected area estate
Protected Environment	National Environmental Management: Protected Areas Act (Act 57 of 2003)	<ul style="list-style-type: none"> Favourable for declaration over multiple properties Less restrictive land use than Nature Reserve Binding on property: declaration of Nature Reserve, and a title deed note* Binding on landowner: contract with landowner usually for 30 – 99 years/in perpetuity Contributes to South Africa's protected area estate
Biodiversity Management Agreement	National Environmental Management: Biodiversity Act (Act 10 of 2004)	<ul style="list-style-type: none"> Shorter term, less restrictive than protected area declaration Must have a Biodiversity Management Plan (NEM:BA) on all/part of the property Binding on landowner: contract with landowner ideally 5 – 10 years Contributes to South Africa's conservation area estate
Biodiversity Agreement	Contract law	<ul style="list-style-type: none"> Shorter term, less restrictive than protected area declaration Binding on landowner: contract with landowner ideally 5 – 10 years Contributes to South Africa's conservation area estate
Biodiversity Partnership Area	Informal agreement	<ul style="list-style-type: none"> Non-binding partnership, may include a Memorandum of Understanding

Figure 9: Stewardship agreement options for the expansion priorities (SANBI, 2017).

The securing of the priority expansion areas will be a concerted effort between ECPTA, SANParks and NGOs in the area. The identified priority areas for expansion are as per the figure 9 below.

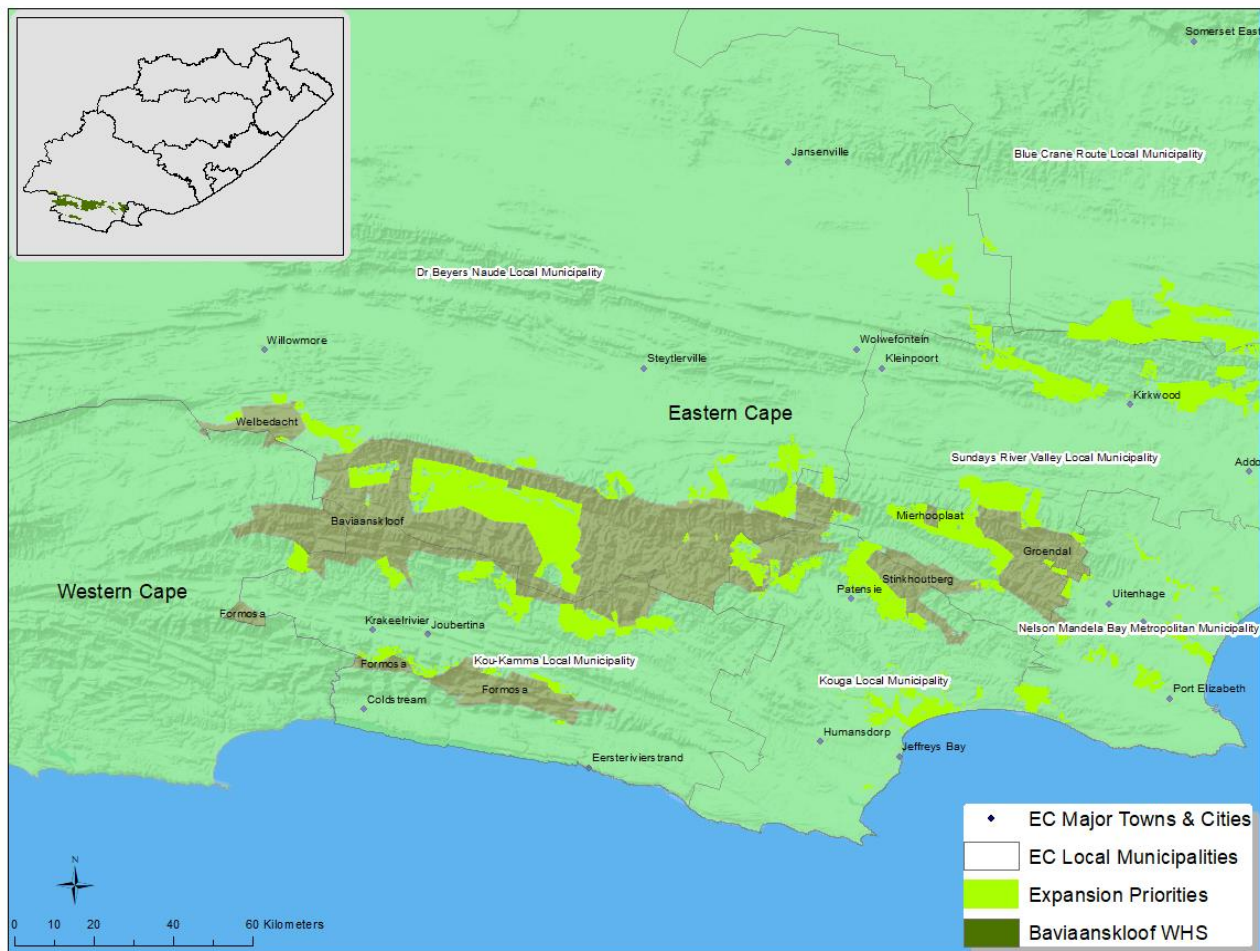


Figure 10: Expansion Priorities in and around the Baviaanskloof WHS .

Section 9: Concept Development Plan

Based on available information on the biophysical, heritage, socio-economic and land use context of the WHS, and in consultation with the Reserve Planning Team, a Conservation Development Plan (CDP) for the projected medium-term extent of the WHS has been developed as an integral part of this Protected Area Management Plan (PAMP). This CDP provides a broad overarching medium-term spatial planning framework for the Baviaanskloof WHS. The CDP (and its associated zonation plan) indicates the extent and location of suitable visitor use zones for the Baviaanskloof WHS, with management guidelines and broad conservation and tourism infrastructural requirements (e.g. fences, roads) designated for each use zone. The zonation/spatial aspects of the CDP are dealt with in the zonation chapter of this plan.

The Baviaanskloof WHS adopts a “Heritage Site Concept” which primarily focusses on managing as well as showcasing the natural and the cultural heritage of the area. The spatial design/zonation of a “heritage site concept” varies from the spatial design of other reserve concepts such as the hunting, recreational and educational reserve concepts. As such it is critical that management adopts a particular concept in an effort to avoid incompatible activities being offered within the world heritage site. The adoption of a certain concept also guides the management style, infrastructure, personnel and allowable visitor activities.

Rules and implications of the Concept:

- **Transformation Threshold:** Based on the adopted concept, less than 0.5 percent of the surface area can be converted or transformed to other uses other than conservation. This implies the remaining 99.5 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 ecological functional state.
- **New developments:** Developments in the reserve should take into consideration the transformation threshold. The development of new tourist accommodation infrastructure in a completely undisturbed area is only allowable once the occupancy rate is above 45 % unless authorised by the reserve planning team with firm consideration of the “justifiable need”. New developments should be compatible with the zoning of the heritage site.

- **Activities:** Only compatible activities should be allowed in line with the various reserve visitor-use zones. Commercial hunting is restricted and only internal culling for game management is permitted.

9.3 New Infrastructure Development and Activities proposals

Priority in the short term will be on the reserve operational infrastructure particularly the staff accommodation which is in a relatively poor condition and requires urgent attention.

There are number of development nodes identified (as per the tourism development plan) for the Baviaanskloof WHS which are:

- **Komdomo**
- **Eastern Baviaanskloof WHS Interpretive Centre**
- **Goedehoop**
- **Bergplaas**
- **Rooihoek**
- **Smitskraal**
- **Geelhoutbos**
- **The Leopard Hiking Trail**
- **Western WHS Interpretive Centre & Western Entrance**
- **Riverside**
- **Apieskloof / Akkerdal / Doornkraal**
- **Kouga Dam**
- **Must-See Attractions & Activities in the entire Baviaanskloof WHS.**

For more information on the development nodes, a tourism development plan should be consulted, the tourism development plan is regarded as the subsidiary plan for the PAMP.

9.4 Service Routes in the Baviaanskloof WHS

Access to the various component Sections of the WHS is very limited. There is a single provincial road (R332) that runs through the center of the Baviaanskloof Nature Reserve, it is suitable for high-clearance vehicles and is maintained by the Provincial Roads Agency in the sections that runs through the core of the WHS. There are short public access roads linking the various tourist infrastructure sites with the R332. There is a short stretch of public road in the Groendal NR (Kwa-Zunga Section) which was originally a servitude in favour of the municipality to access the Groendal dam. There are no formal roads except 4x4 tracks, in the Stinkhoutberg Section (GMR) and Welbedacht sub Section (BNR) and Mierhoopplaas sub Section (GMR).

Section 10: Strategic Plan

To develop defensible strategies for the heritage site, the high level objectives and associated sub-objectives (see chapter 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 5: Linking performance areas to high level objectives

High Level Objective	Key Performance Area
1. To conserve and restore the integrity of the natural heritage through adopting sound conservation principles and implementing biodiversity conservation actions	Natural Heritage Management
2. To ensure economic returns through sustainable tourism practices and pursuing other compatible forms of revenue generation.	Responsible Tourism and Visitor Services
3. To manage the cultural heritage through the adoption of the national heritage guidelines and implementation of necessary management actions.	Cultural Heritage Management
4. To enhance cooperative management and socio-economic beneficiation through interaction with local authorities, adjacent land owners as well as key stakeholders for the long term persistence of the heritage site.	Co-operative Management and Beneficiation
5. To ensure effective and efficient management through the provision of adequately resourced support services.	Effective Heritage Site Management

10.1 Natural 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 the heritage site.

Ecological Threats/Risks to Biodiversity:

Soil erosion- Soil erosion in and around the Baviaanskloof WHS poses a threat to biodiversity, both terrestrial and aquatic ecosystems. The heritage site is experiencing soil erosion in certain areas (e.g. at Goedehoop, and around Nahoogte in Welbedacht), 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 heritage site has a direct impact on the vegetation of the reserve and consequently on the fauna of the Baviaanskloof WHS, as such the need to interventions during the planning period is critical.

Alien and Invasive fauna/flora- Aliens species have had various impacts on the natural system of the site with short, medium and long term impacts. There is a need to develop new maps of invasive species density and distribution as the current maps are outdated (completed in 2007).

Fire- The occurrence of fire is closely monitored on the Baviaanskloof WHS. The Baviaanskloof WHS is managed as a natural fire zone, where wild fires are allowed to burn as long as they are ecologically appropriate and they do not threaten infrastructure. Man-made fires are combatted where possible. The most recent monitoring results indicate that there are portions of the Baviaanskloof WHS that are burning too frequently. In addition, young vegetation is over-represented. Ideally young, intermediate and older vegetation should be more or less equally represented. Frequent wildfires entering the reserve from outside its boundaries pose a serious threat to the ecosystems and assets of the heritage site (Reeves *et al.*, 2014), as such the need to address, monitor and manage the issues linked to wildfires is important for the persistence of the biodiversity of Baviaanskloof WHS.

Climate change –Climate change has been identified 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 (the timing of life cycle events), which may lead to loss of synchrony between species
- Changes in species abundance and distribution
- Changes in ecosystem processes and function

The management of biodiversity within the heritage site is carried out through the implementation of several programmes, including: site consolidation and expansion, rehabilitation, integrated fire management, vegetation management, freshwater ecosystems, species of special concern, disease management and biodiversity information management. The programmes under this KPA are summarised in Table 8 below with their associated actions for the planning period 2018-2023.

10.1.1 Site Consolidation and Expansion

This programme focuses on ensuring the heritage site boundary and legal status is secured through proper declaration of the heritage site. The focus during this planning period is to:

- Identify priority area/corridors outside the heritage site for inclusion into the expansion options to protect the heritage site buffer and corridors.
- Assist where possible, through the biodiversity stewardship programme, the communities in declaring the land linking the heritage site to ecological corridors outside the heritage site or putting an agreement in place for proper management of these areas.

10.1.2 Rehabilitation

The heritage site comprises of areas of limited extent that are eroded due to the land uses of the past. Due to financial difficulties the areas that require rehabilitation were never mapped. During this planning period the Baviaanskloof WHS management plans to identify and map these areas. Further the Baviaanskloof WHS has alien plants that must be cleared, however, maps of density and distribution of alien/invasives plants must be updated. A rehabilitation plan is required that will incorporate both erosion control and alien plant control. The activities linked to this programme are outlined in Table 8 below.

10.1.3 Integrated Fire Management

Currently, there is a dedicated fire management plan for the heritage site that guides reserve management in managing fire. To manage fire 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 within the Baviaanskloof WHS which are:

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

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 (in this case fire). Below is a flow diagram that outlines a sequence of actions for implementing burning and assessing thresholds for adaptive fire management within Baviaanskloof WHS.

10.1.4 Vegetation Management

The aim of this programme is to monitor the veld condition through a vegetation monitoring programme in order to track changes over time. These includes monitoring the impact of alien vegetation, the consequence of frequent fires and vegetation changes as a result of climate change (this includes after long droughts and flooding). Vegetation monitoring will initially be qualitative (fixed point photography) but in future more quantitative monitoring techniques will be considered (including the use of remote-sensing).

10.1.5 Freshwater Ecosystems

This programme focuses on the monitoring of freshwater ecosystems in the Baviaanskloof WHS, the riverine system that enters the heritage site passes through a number property as such the need to monitor contaminants or possible pollution is important. Any pollution to the riverine systems will have an impact on the fauna and flora of the heritage site. 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 degradation and pollution in the upper catchments and riverine areas.
- Monitor water levels and water abstraction upstream.

10.1.6 Species of Special Concern

This programme deals primarily with ensuring that rare and endangered species persist into the future. It focuses on:

- Identifying and locating species of special concern
- Mapping the localities of these species
- Developing monitoring protocol for this species in an effort to assess any declines or loss of any species of concern. Existing monitoring programs are implemented for black rhino, Cape mountain zebra and Hewitt's ghost frog.

The idea is to locate the species in an effort to develop strategies that would ensure that there is no extinction of any species within the heritage site system as the main focus of a heritage site is to secure species and ecosystems.

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. Currently, there is an annual removal of buffalo from the Baviaanskloof, in an effort to simulate top-down regulation and to maintain the species within a target range.
- Monitor game distribution through the use of camera traps and field ranger sightings

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 site perimeter is secure with proper fencing in areas where game is likely to escape, 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 faunal mortalities in the reserve particular for animals that are found dead in the reserve with no indication of the 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. This is particularly important for buffalo, which are subject to veterinarian regulation.
- **Wildlife 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.

10.1.8 Biodiversity Information Management

Biodiversity information is critical in decision making processes in the heritage site, as such the data collection and storage is important in the management of the heritage site. The programme focuses on ensuring the biodiversity data for the heritage site is properly updated, curated and managed by the Agency. The programme has the following components:

- The updating of species lists.
- The updating of the ecological filling system and the state of knowledge.
- The maintenance of the ECPTA *Umsenge* database (ecological database).
- Identifying priority research needs for the heritage site and maintaining linkages with institutions of higher learning.

Table 6: Action plans for Biodiversity Management

KPA: Natural Heritage Management											
Objective: To conserve and restore the integrity of the natural heritage through adopting sound conservation principles and implementing biodiversity conservation actions											
Programme	Sub-objective	Actions	Priority	Responsibility	O/AR	Year					Key Indicator
						1	2	3	4	5	
Site Consolidation and Expansion	To protected the heritage site through addressing priority fencing areas.	Procure and erect fencing around priority fencing areas	High	Reserve Managers		x	x	x	x	x	CAE
	To increase the protected area network in the region through biodiversity stewardship	Engage with landowners in relations to biodiversity stewardship	Medium	Stewardship Manager	O	x	x	x	x	x	Declaration of Stewardship sites
Rehabilitation	To address soil erosion and alien-invasive species through the rehabilitation of degraded lands to their relatively functional state.	Identify and map areas with visible soil erosion within the Baviaanskloof WHS .	Medium	Ecologist			x				Soil degradation map
		Identify and map reserve areas with alien and invasive species and develop density estimates	Medium	Ecologist			x				Map of alien and invasive species
		Develop the rehabilitation plan for the Heritage Site	High	Ecologist				x			Rehabilitation Plan
		Initiate the process of securing funding for rehabilitation	Medium	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	High	Reserve Manager							
		Review the fire management plan	Medium	Ecologist and Reserve Manager			x				Fire management plan
		Monitor fire and report on monitoring results	High	Ecologist	O	x	x	x	x	x	Annual Fire monitoring report
		Participate in local fire forums	High	Reserve Manager	O	x	x	x	x	x	-
Vegetation Management	To monitor changes in the veld conditions through the development of a sound monitoring protocol	Develop the vegetation monitoring protocol for the Heritage Site	Medium	Ecologist				x			Monitoring Protocol
		Monitor changes in the vegetation cover within the Heritage Site	Medium	Ecologist						x	Record of veld changes
Freshwater Ecosystems	To maintain or improve, where possible, the ecological condition of the freshwater ecosystems of the Baviaanskloof WHS through collaborative management of catchments with adjacent landowners.	Develop species lists for freshwater fish within the Baviaanskloof WHS	Medium	Ecologist		x					Species lists
		Monitor Freshwater systems in the Baviaanskloof WHS	Medium	Ecologist						x	Monitoring protocol and reports
		Engage with landowners on the upper catchments in regards to water pollution	Medium	Reserve Managers						x	Engagement reports
Species of Special concern	To address local decline of rare and threatened species through identifying, monitoring and managing, where possible, such species	Identify and map species of special concern	High	Ecologist	O	x	x	x	x	x	List with co-ordinates
		Implement existing monitoring programmes for SSC (black rhino, CMZ, Hewitt's ghost frog)	High	Ecologist & Reserve Managers	O	x	x	x	x	x	
		Develop new monitoring protocols	High	Ecologist				x			Monitoring Protocol

		for other species of special concern as identified										
Game Management	To regulate game numbers through monitoring and managing game numbers within the Baviaanskloof WHS	Conduct game census (every three years)	High	Ecologist & Senior Manager: Scientific Services			x					Game census report
		Develop and implement game management recommendations	High	Ecologist, Senior Manager: Scientific Services, Reserve Manager	O	x	x	x	x	x		Game management recommendations document
Disease Management	To avoid or reduce the potential impact of faunal diseases through monitoring and implementation of disease management strategies	Provide wildlife disease surveillance and post-mortem investigation training to reserve staff.	Medium	Cluster Manager				x				Disease incident reports
		Record all faunal mortalities	High	Reserve Managers, Section Rangers & Field Rangers	O	x	x	x	x	x		Mortality record.
		Conduct tests for any faunal translocations or introductions.	High	Ecologist	AR							Record of tests conducted.
Biodiversity Information Management/Knowledge management	To ensure readily available biodiversity information through the development of appropriate biodiversity data management systems	Maintain Species lists for the reserve	Medium	Ecologist	O	x	x	x	x	x		Species lists
		Update the Ecological filing system	Medium	Ecologist	O	x	x	x	x	x		Ecological filing system
		Update the State of Knowledge (if and when necessary)	Medium	Reserve Manager	O	x	x	x	x	x		Updated State of knowledge report
		Maintain database of ecological information (Umsenge database)	Medium	Database Manager	O	x	x	x	x	x		Umsenge Database
	To improve biodiversity knowledge through conducting research relevant to heritage site management	Identify priority research needs for the reserve	Medium	Ecologist and Reserve Manager	O	x	x	x	x	x		Record of priority research needs
		Maintain linkages with research institutions	Medium	Ecologist and Reserve Manager	O	x	x	x	x	x		Memorandum of agreement

10.2 Responsible Tourism and Visitor Services

The heritage site management seeks to generate revenue through ecotourism activities within the heritage site. However, in developing tourism products, the emphasis is on responsible tourism where the sensitivity of the receiving landscape is considered as well as other principles relating to responsible tourism. The actions linked to this performance area are summarized in Table 9 as well as the time-frames for implementation.

There are three main programmes associated with this performance area:

- **Tourism development programme:** focusses on ensuring adequate tourism infrastructure and activities are available in the heritage site for visitors as well as formulating linkages with local tour operators.
- **Heritage Site Marketing:** focuses on ensuring the heritage site and its activities are known to the public. The activities linked to this programme includes the creation of a social media platform and increasing the online footprint of the heritage site.
- **Visitor Services:** the programme focuses on the provision of services to the visitors, this includes ensuring visitor facilities are in good condition. This is guided by understanding the visitor profiles and developing mechanisms for assessing visitor satisfaction.
- **Environmental Education Programme:** which focuses primarily on the provision of an excellent environmental education facilities and activities to enhance revenue generation in the heritage site.

Table 7: Action plans linked to Responsible Tourism and Visitor services

KPA: Responsible Tourism and Visitor Services											
Objective: To ensure economic returns through sustainable tourism practices and pursuing other compatible forms of revenue generation.											
Programme	Sub-objective	Actions	Priority	Responsibility		Year					Key Indicator
					O/AR	1	2	3	4	5	
Tourism Development	To increase visitor numbers through the development new tourism facilities and activities while enhancing and maintaining the current tourism facilities	Introduce new activities as per the Commercialisation Strategy	High	Regional Tourism Manager	O		x	x	x	x	Implementation of the Commercialisation Strategy
		Review the Tourism Development Plan for the Heritage Site (to include all sections)	High	Regional Tourism Manager			x				Updated Tourism Development plan
		Implement the Tourism Development Plan	High	Reserve Manager & Regional Manager	O	x	x	x	x	x	Progress Reports
		Maintain the current tourism infrastructure within the Heritage Site	High	Reserve Manager	O	x	x	x	x	x	Maintenance reports
		Establish a relationship with tour operators in relations to including the Heritage Site in their tour packages	High	Regional Tourism Manager	O		x	x	x	x	Report
Heritage Site Marketing	To achieve a competitive advantage through the promotion of tourism offerings and cultural heritage of the heritage site.	Develop marketing materials for the Heritage Site	Medium	Brand Manager/ Regional Tourism Manager	O	x	x	x	x	x	Advertising booklets
		Improve the online foot-print for the Baviaanskloof WHS	Medium	Digital Marketing Officer	O	x	x	x	x	x	Report
		Assess the benefits and create a social media presence for the heritage site	Medium	Regional Tourism Manager & Digital Marketing Officer			x				Social Media presence report
		Enhance and package the tourist & environmental awareness products of the reserve	Medium	Reserve Manager & Regional Tourism Manager	O	x	x	x	x	x	Report
Visitor Services	To improve visitor satisfaction in the	Update and maintain visitor profiles	Medium	Hospitality Officer	O	x	x	x	x	x	Report

	Baviaanskloof WHS through apposite customer focussed excellence	Record visitor satisfaction and develop a visitor satisfaction report	Medium	Hospitality Officer	O	x	x	x	x	x	Visitor satisfaction report
		Implement remedial action based on the visitor satisfaction report	Medium	Hospitality Officer/Manager	O		x	x	x	x	Report
		Ensure all visitor facilities are maintained and cleaned daily	High	Reserve Manager/Hospitality Supervisor	O	x	x	x	x	x	Report
Environmental Education	To contribute towards environmental awareness through the provision of a high quality environmental education programme	Maintain the environmental education centre	High	Reserve Manager	O	x	x	x	x	x	Infrastructure Maintenance Report
		Develop programmes & materials linked to environmental education for schools	Medium	Reserve Manager	O	x	x	x	x	x	Environmental education materials
		Formulate and maintain relationships with local schools	Medium	Reserve Manager							-

10.3 Cultural Heritage Management

The cultural heritage management relates to the securing, showcasing and management of the cultural heritage of the Baviaanskloof WHS. There are number of activities that are linked to the cultural heritage management for the Baviaanskloof WHS:

- Identification and recording of all heritage features within the Baviaanskloof WHS
- Development and implementation of the heritage management plan for the Baviaanskloof WHS.
- Ensuring the public has relative access (where possible) to the cultural heritage of the Baviaanskloof WHS.

Table 8: Cultural Heritage Activities

KPA: Cultural Heritage Management										
Objective: To manage the cultural heritage through the adoption of the national heritage guidelines and implementation of necessary management actions										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Cultural Heritage Management	To secure the integrity of the heritage site through identifying all cultural heritage features and developing appropriate management actions	Identify and grade all the cultural heritage within heritage site	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 heritage site.	High	Regional Tourism Manager			x			Adopted Heritage Management Plan
		Submit the heritage management plan to SAHRA for approval	High	Regional Tourism Manager			x			Proof of submission
	To facilitate public access to the cultural heritage sites through the provision of adequate infrastructure and interpretative materials.	Develop/maintain trails and routes to the heritage sites(if possible)	High	Reserve Managers				x	x	-
		Develop interpretative materials for the cultural heritage	Medium	Brand Manager /Regional Tourism Manager				x	x	Interpretative Materials (Brochures, signage)

10.4 Co-operative Management and Socio-economic beneficiation

In the management of the Baviaanskloof WHS, the heritage site management has identified the involvement of stakeholders in contributing to the management of the heritage site as key to the success of the heritage site. Activities and developments near the heritage site as well as around the heritage site can have an impact on the heritage site as such an inclusive management of the heritage site is key in relation to securing and managing the areas of influence around the heritage site and the heritage site buffer zone. Further, this includes integrated planning through mainstreaming Baviaanskloof WHS 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:** this programme ensures that there is integrated land-use planning around the heritage site and also mainstreaming heritage site plans into municipal plans.
- **Stakeholder Engagement Programme:** which focuses maintaining active engagement with communities, land-owners, and key stakeholders in relation to conflicting land-uses around the heritage site.
- **Socio-economic empowerment:** which primary focuses on the ensuring that the operation of the Baviaanskloof WHS benefits surrounding communities by contributing to job creation and providing business opportunities.

Table 9: Co-operative Management and Beneficiation-activities

KPA: Co-operative management and beneficiation										
Objective: To enhance cooperative management and socio-economic beneficiation through interaction with local authorities, adjacent land owners as well as key stakeholders for the long term persistence of the heritage site.										
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 engaging with municipalities and mainstreaming reserve plans into municipal plans	Establish and maintain a working relationship with the Local and District Municipalities around the Heritage Site.	Medium	Reserve Manager & Regional Tourism Manager	x	x	x	x	x	Report of engagement
		Participate and comment on the IDP & SDF for the Local and District Municipalities around the Heritage Site.	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 for integration into the municipal SDF & IDP	High	Ecologist, Systematic Conservation planner & Environmental Planner			x	x	x	SDF & IDP with reserve zones of influence
Stakeholder engagement	To maintain 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
		Conduct environmental awareness/education with local schools and communities	Medium	Reserve Manager / people and parks	x	x	x	x	x	Report
		Actively encourage adjacent communities to address invasive	High	Reserve Manager / people and parks		x	x	x	x	Report

		alien plant infestation on boundaries of 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
Socio-economic empowerment	To contribute towards socio-economic empowerment through the provision of job and business opportunities to locals.	Ensure the work-force of the heritage site comprises of locals (where possible)	High	Reserve Manager, Regional Manager, HR manager	x	x	x	x	x	Beneficiation report
		Formulate public-private partnerships as per the ECPTA Commercialisation Strategy	High	Regional Manager, Regional Tourism Manager	x	x	x	x	x	PPP agreements/beneficiation report

10.4 Effective heritage site management

This performance area deals primary with the administrative aspects of heritage site 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 heritage site. 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 heritage site 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 heritage site.
- **Asset Management programme:** Focuses on the procurement and maintenance of heritage site assets.
- **Safety and Security programme:** This relates to the securing the perimeter of the heritage site and ensuring the safety of visitors and all heritage site staff.
- **Infrastructure programme:** This programme primarily focuses on developing and maintaining all heritage site 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 10: Activities linked to Effective Heritage site Management

KPA: Effective Reserve Management										
Objective: To ensure effective and efficient management through the provision of adequately resourced support services.										
Programme	Sub-objective	Actions	Priority	Responsibility	Year					Key Indicator
					1	2	3	4	5	
Human Resource Development and administration	To ensure the Baviaanskloof WHS has sufficient capacity to implement the management plan and administrative requirements of the reserve	Convene staff meetings monthly	High	Reserve Manager	x	x	x	x	x	Register
		Participate in 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	High	Reserve Manager	x	x	x	x	x	Agreements and assessment report.

		performance management system								
Environmental management	To ensure environmental compliance through adhering to sound environmental principles in the Baviaanskloof WHS.	Manage waste and ensure refuse is removed timeously	High	Reserve Manager	x	x	x	x	x	N/A
		Conduct water awareness campaigns	Medium	Reserve Manager	x	x	x	x	x	-
		Implement the EMPr	High	Reserve Manager	x	x	x	x	x	-
Safety and Security	To secure the Baviaanskloof WHS through the prevention and management of criminal activities	Maintain the heritage site fence as required.	High	Reserve Manager	x	x	x	x	x	-
		Regulate visitors entry and exit	High	Reserve manager	x	x	x	x	x	-
		Conduct regular patrols in the reserve	High	Reserve Manager & field rangers	x	x	x	x	x	Patrol sheet
	To maintain good relations with law enforcement agencies around the heritage site through constant and regular engagements	Actively engage with the SAPS and DEDEAT (environmental crime services) regularly in regards to crime in and around the heritage site	High	Reserve manager	x	x	x	x	x	Report
Finance Management	To ensure proper management of finances through adhering to the Public Finance Management Act (PFMA) and ECPTA finance policies.	Compile an annual budget as per the Annual operational plan	High	Reserve Manager	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 heritage site finances quarterly to the reserve planning team	Medium	Reserve Manager	x	x	x	x	x	Financial reports
Asset Management	To ensure proper management of assets in	Maintain the asset register	High	Reserve Manager	x	x	x	x	x	Asset Register

	the reserve by maintaining a comprehensive asset register and developing mechanisms for maintaining to acceptable standards	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
	To procure equipment required for operational activities of the heritage site	Acquire communications equipment, fire-fighting, maintenance equipment as considered appropriate	Medium	Reserve Manager	x	x	x	x	x	Equipment supplied
		Acquire five double-cab 4x4 pickup trucks	Low	Regional Manager					x	Five pick-up trucks
		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 Management	To develop and maintain the reserve infrastructure to acceptable standards	Maintain the staff accommodation as per ECPTA standards (ongoing)	High	COO, Regional Manager, Reserve Manager	x	x	x	x	x	Maintenance Report
		Maintain the reserve roads and trails to an acceptable standard (ongoing)	Medium	Reserve manager	x	x	x	x	x	Maintenance Report
Risk Management	To manage risk through identifying actual/potential risks and putting in place mechanisms for risk management within the Baviaanskloof WHS	Identify operational risks within the heritage site	High	Reserve manager	x	x	x	x	x	Risk register
		Develop mechanisms of alleviating risks within the heritage site	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 heritage site 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).

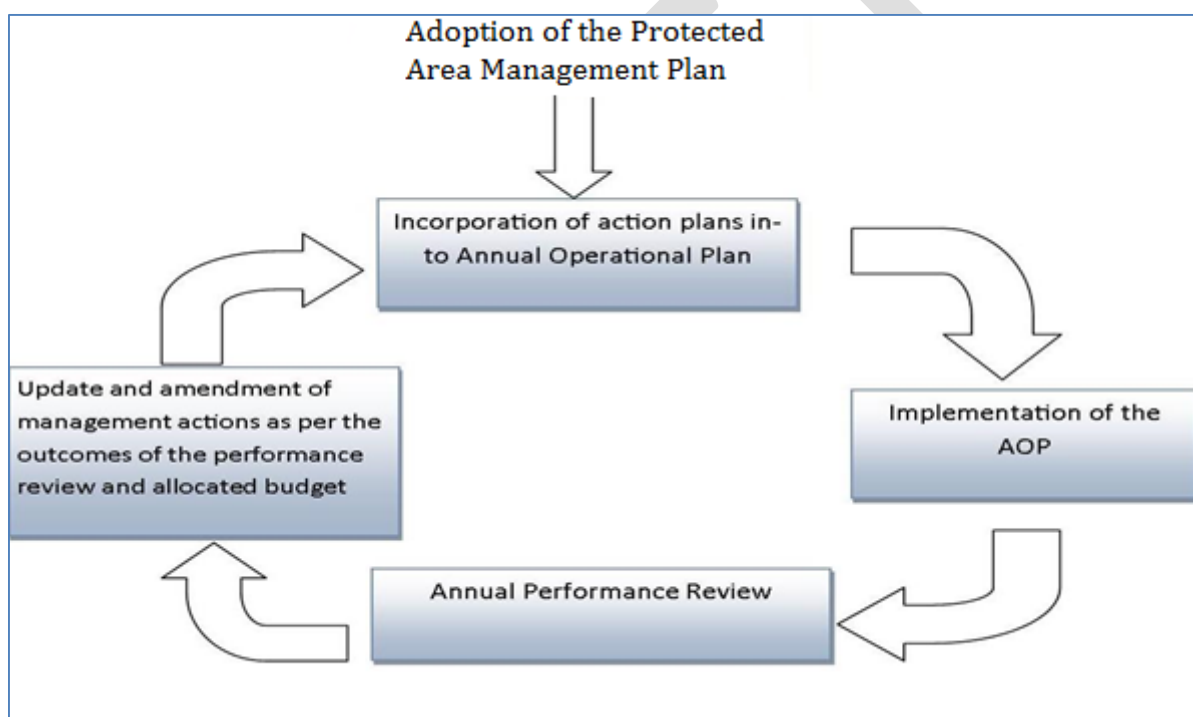


Figure 11: Steps in the Implementation of the Management Plan

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 heritage site 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 a 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.

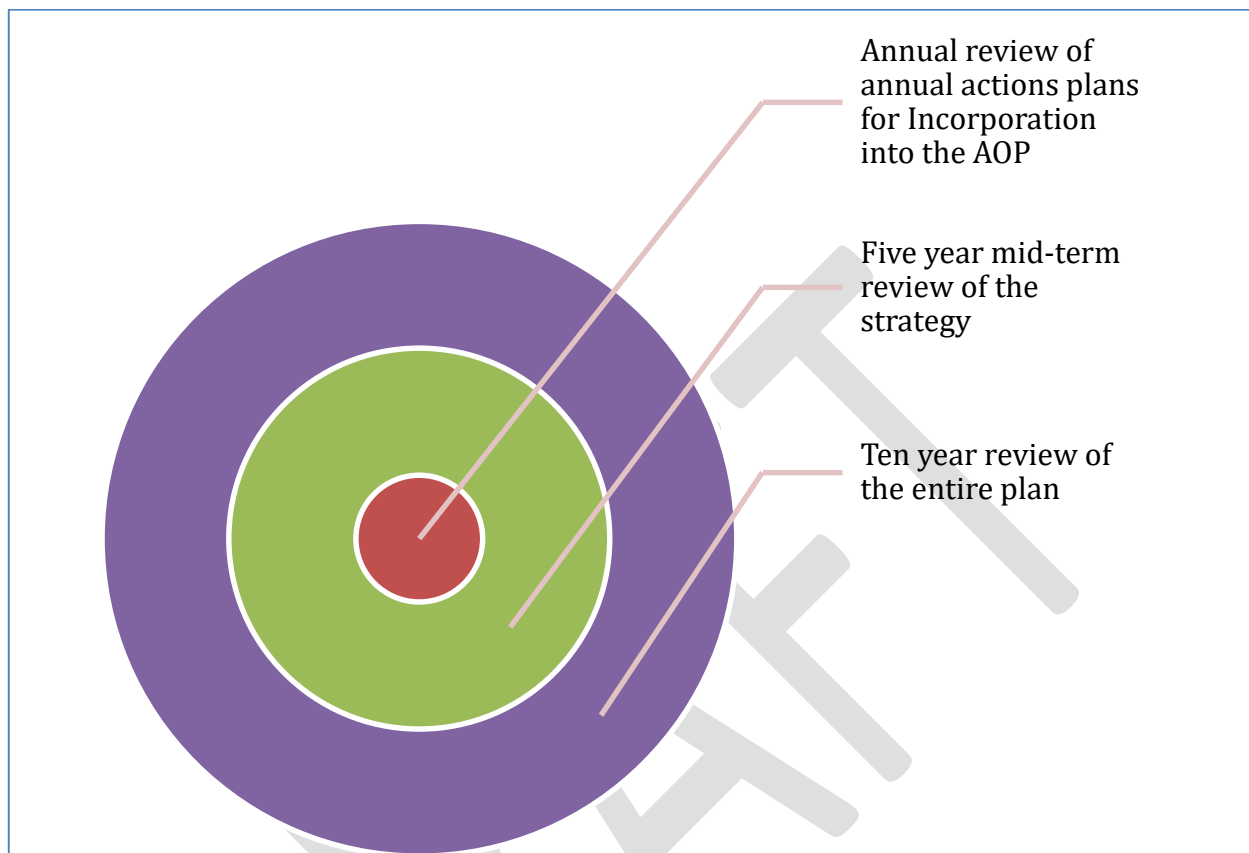


Figure 12: Review timeframes for parts of the management plan

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 the heritage site level and also at an organisational level. The costing 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 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 heritage site programmes. The estimation is for the period 2018-2023 and the summary is given in the table below for each programme.

Table 11: Costs for implementing various heritage site programmes

Programme	Actual Implementation Cost					
Mainstreaming (Biodiversity)						
Park Consolidation and expansion						
Rehabilitation						
Integrated Fire management						
Vegetation Management						
Game Management						
Species of Special concern						
Disease Management						
Game Management						
Tourism development						
Visitor Services						
Heritage site Marketing						
Cultural heritage management						
Stakeholder development & engagement						
Environmental interpretation and education						
Safety and security						
Risk Management						

Asset management						
Finance Management						
Environmental management						
Human Capital						
Infrastructure						
Information management						
Unallocated Costs						
TOTAL						

11.2 Maintenance Costs

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

Table 12: Maintenance Costs for Heritage site Infrastructure

	Replacement value	Maintenance Costs
Building		
Fencing		
Roads & stormwater		
Sewage System		
Water supply system		
Electricity		
Total		

11.3 Provision for the Replacement of Assets

The agency makes provision for the replacement of assets with a short lifespan/ estimated useful life. The table 14 below summarises the actual monetary provision for replacement for each of the asset groups found in the heritage site. To calculate the annual replacement provision, the total value cost of the asset divide by the estimated useful life of the asset.

Table 13: Provision for replacement of assets

	value	Provision for replacement
Computer Equipment		
Furniture And Fittings		
Office Equipment		
Plant And Equipment		
Commercial Vehicles		
Building Attachments		
Total		

11.3 Projected Revenue

The heritage site generates revenue from various activities in the heritage site as outlined in the table below. Although the heritage site is not yet profitable, it is the intension of the agency to increase the revenue of the heritage site, 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 heritage site.

	Current	2018/2019	2020/2021	2021/2022	2022/2023	2023/2024
Accommodation						
Gate Entrance						
Camping						
Total						

11.6 Summary

Table 14: Costs Summary

	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Annual Operational costs					
Once-off					
Projection based on the Current budget					
Deficit					

11.7 Measures to relieve pressure on the current budget

Table 16 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 heritage site programmes.

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

Programme	Potential Funding Mechanism	Potential Funder
Rehabilitation	Natural Resource Management Programme (NRM)	
Infrastructure	Environmental Protection and Infrastructure Programmes (EPIP)	
	The National Lottery grant	
Assets (vehicles)	Vehicle donations	
Park consolidation and expansion	Global funding grants	

Baviaanskloof WHS 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 heritage site. This could potentially also alleviate the pressure on the current budget for the heritage site. Further, the formulation of public-private partnerships will also alleviate pressure on the current budget in terms of the development of tourism activities and facilities.

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Appendix A: Declarations

10 No. 31832

GOVERNMENT GAZETTE, 30 JANUARY 2009

No. 72

30 January 2009

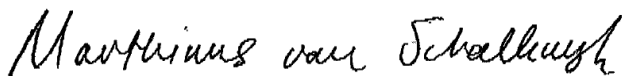
WORLD HERITAGE CONVENTION ACT, 1999

PROCLAMATION OF THE CAPE FLORAL REGION PROTECTED AREAS AS A WORLD HERITAGE SITE AND DELEGATION BY THE MINISTER OF CERTAIN POWERS AND DUTIES TO THE DIRECTOR-GENERAL OF THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

I, Marthinus Christoffel Johannes van Schalkwyk, Minister of Environmental Affairs and Tourism hereby proclaim by virtue of the powers vested in me in terms of section 1(xxiv) (a) of the World Heritage Convention Act, 1999 (Act No.49 of 1999), the Cape Floral Region Protected Areas inscribed in 2004 on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List, to be a World Heritage Site, as described in the Annexure below.

I hereby delegate, by virtue of the powers vested in me in terms of section 43(1) of the World Heritage Convention Act, 1999 (Act No.49 of 1999), to the Director-General of the Department of Environmental Affairs and Tourism to exercise only those powers and duties referred to in section 13(2) of the Act in connection with the Cape Floral Region Protected Areas World Heritage Site.

In order for the delegate to be able to perform its duties, I furthermore declare that sections 33, 35, 36, 37, 39, 40 (1) and (2), and 42 of the Act shall apply to the delegate.



MARTHINUS VAN SCHALKWYK
MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM
DATE:

ANNEXURE 1

PROCLAMATION OF THE CAPE FLORAL REGION PROTECTED AREAS AS A WORLD HERITAGE SITE

Name of property

Cape Floral Region Protected Areas, represented by the following components:

Component of Serial Cluster	Province	Coordinates of Central Point	Size in hectares	Annexures
Table Mountain National Park	Western Cape	34° 10' 00"S & 18° 22' 30"E	17,000	Annexure 1(A)
Cederberg Wilderness Area	Western Cape	32° 21' 10"S & 19° 08' 00"E	64,000	Annexure 1(B)
Groot Winterhoek Wilderness Area	Western Cape	33° 05' 30"S & 19° 08' 00"E	26,000	Annexure 1(C)
Boland Mountain Complex	Western Cape	33° 55' 20"S & 19° 09' 50"E	113,000	Annexure 1(D)
Boosmansbos Wilderness Area	Western Cape	33° 55' 30"S & 20° 52' 40"E	15,000	Annexure 1(E)
De Hoop Nature Reserve	Western Cape	34° 25' 30"S & 20° 29' 30"E	32,000	Annexure 1(F)
Swartberg Complex	Western Cape	33° 22' 00"S & 22° 21' 15"E	112,000	Annexure 1(G)
Baviaanskloof	Eastern Cape	33° 37' 30"S & 24° 01' 00"E	174,000	Annexure 1(H)

Hereunder is a detailed description of these components:



Appendix B: Maps

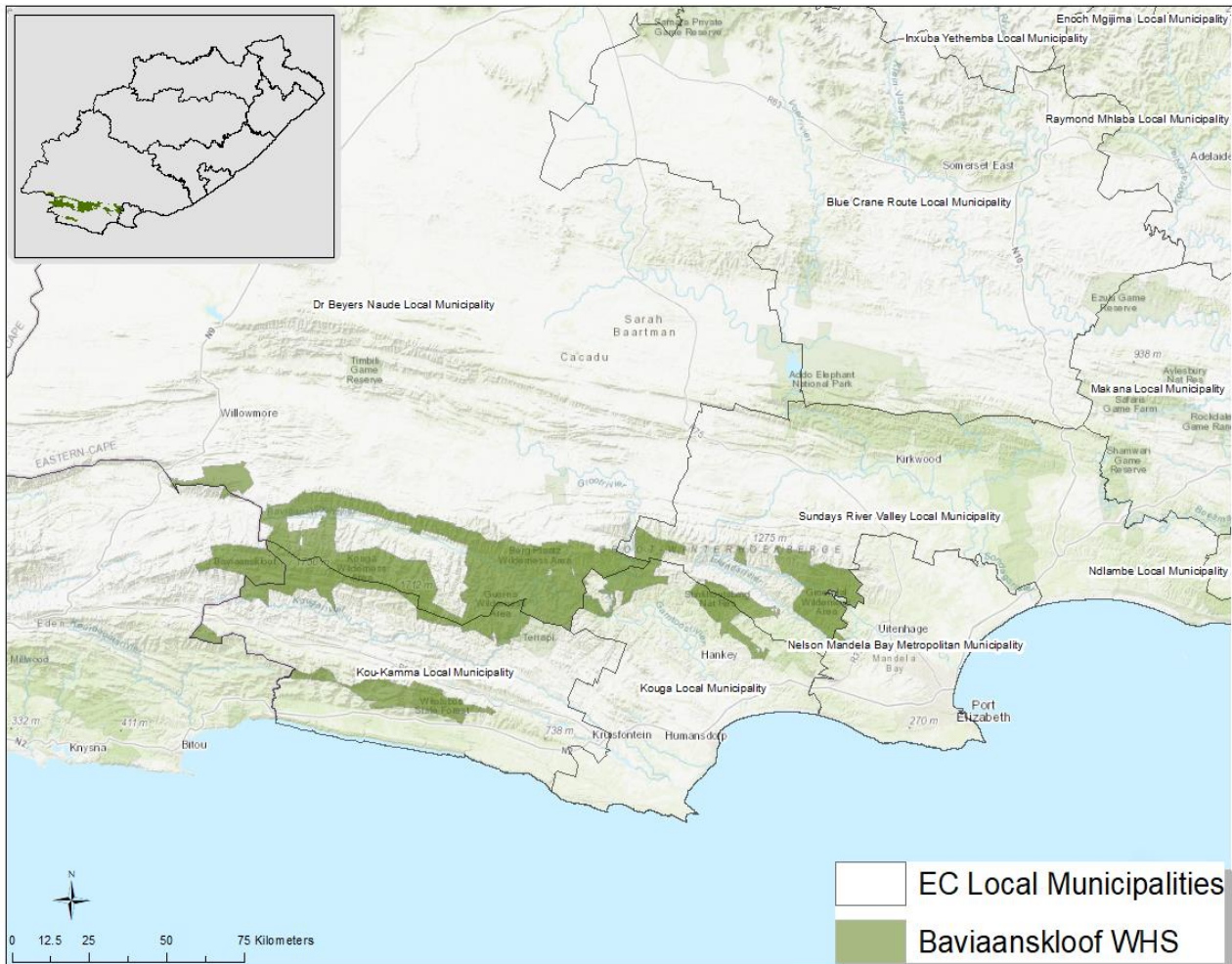


Figure 13: Heritage site layout with elevation (showing other protected areas around Baviaanskloof WHS).

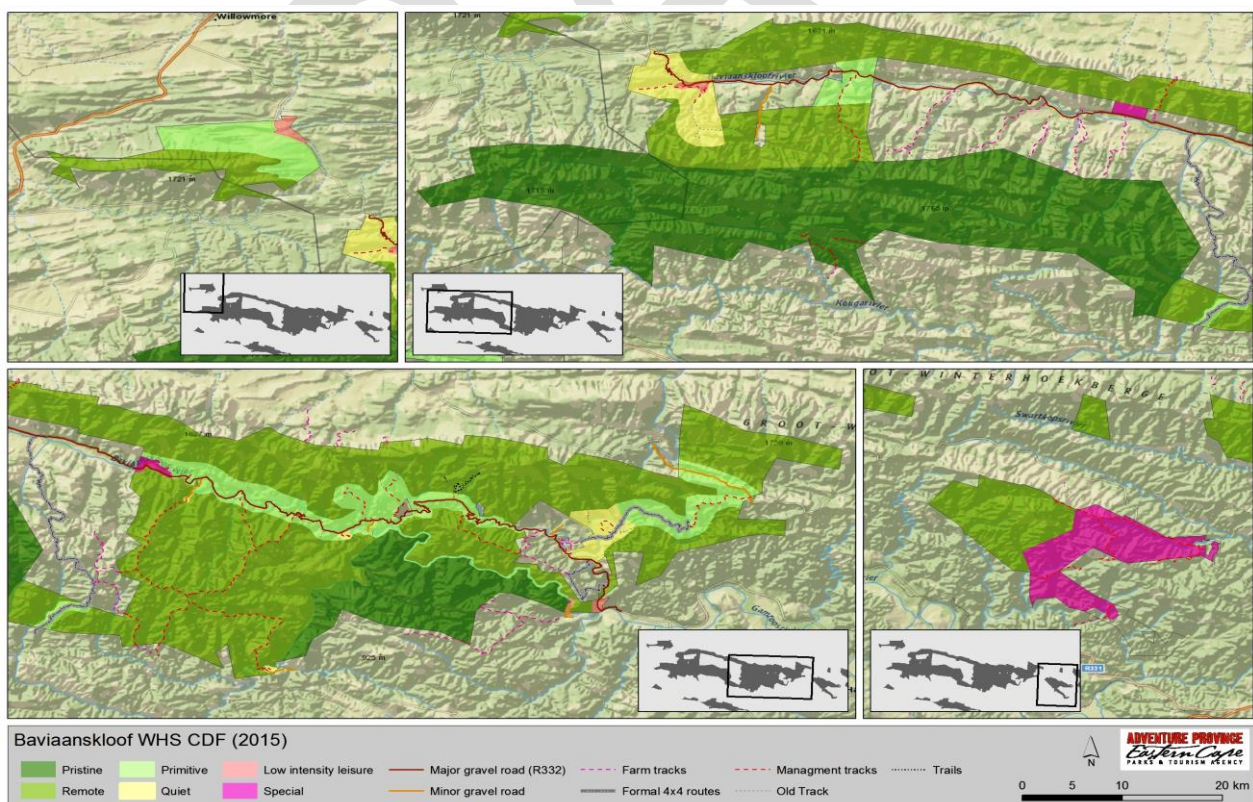
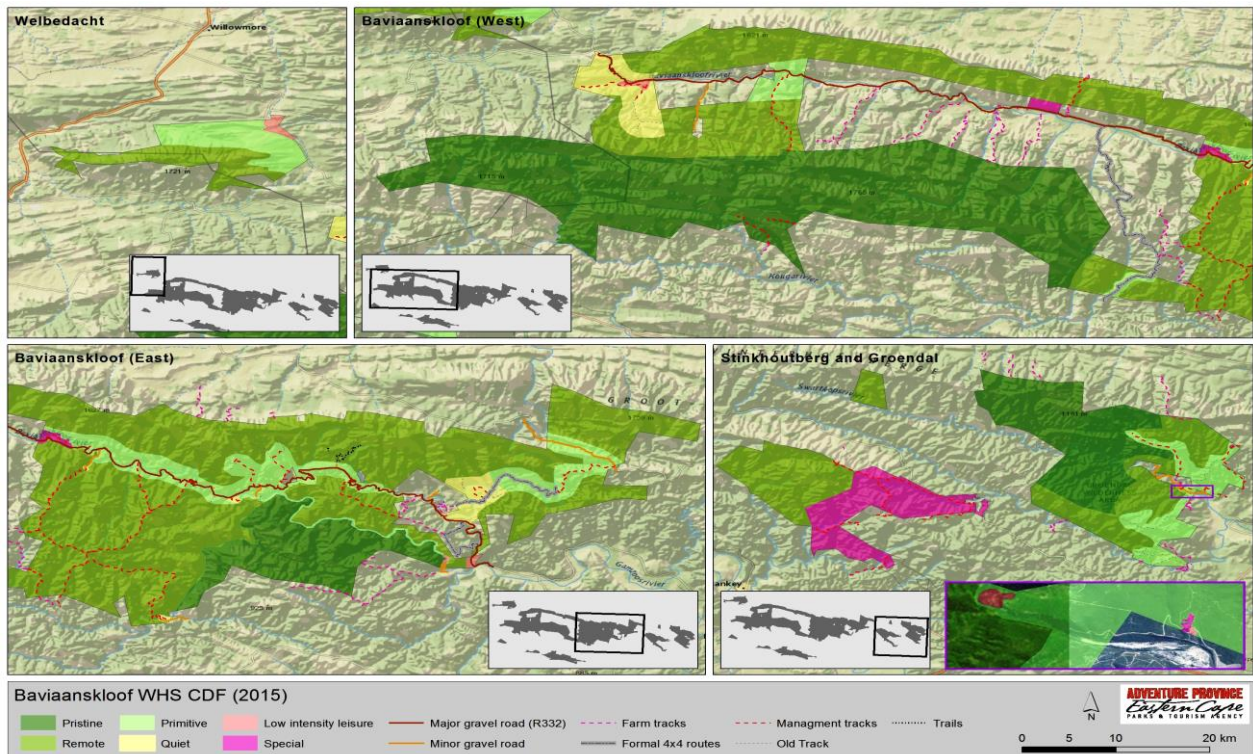




Figure 14: Zonation for the Heritage Site

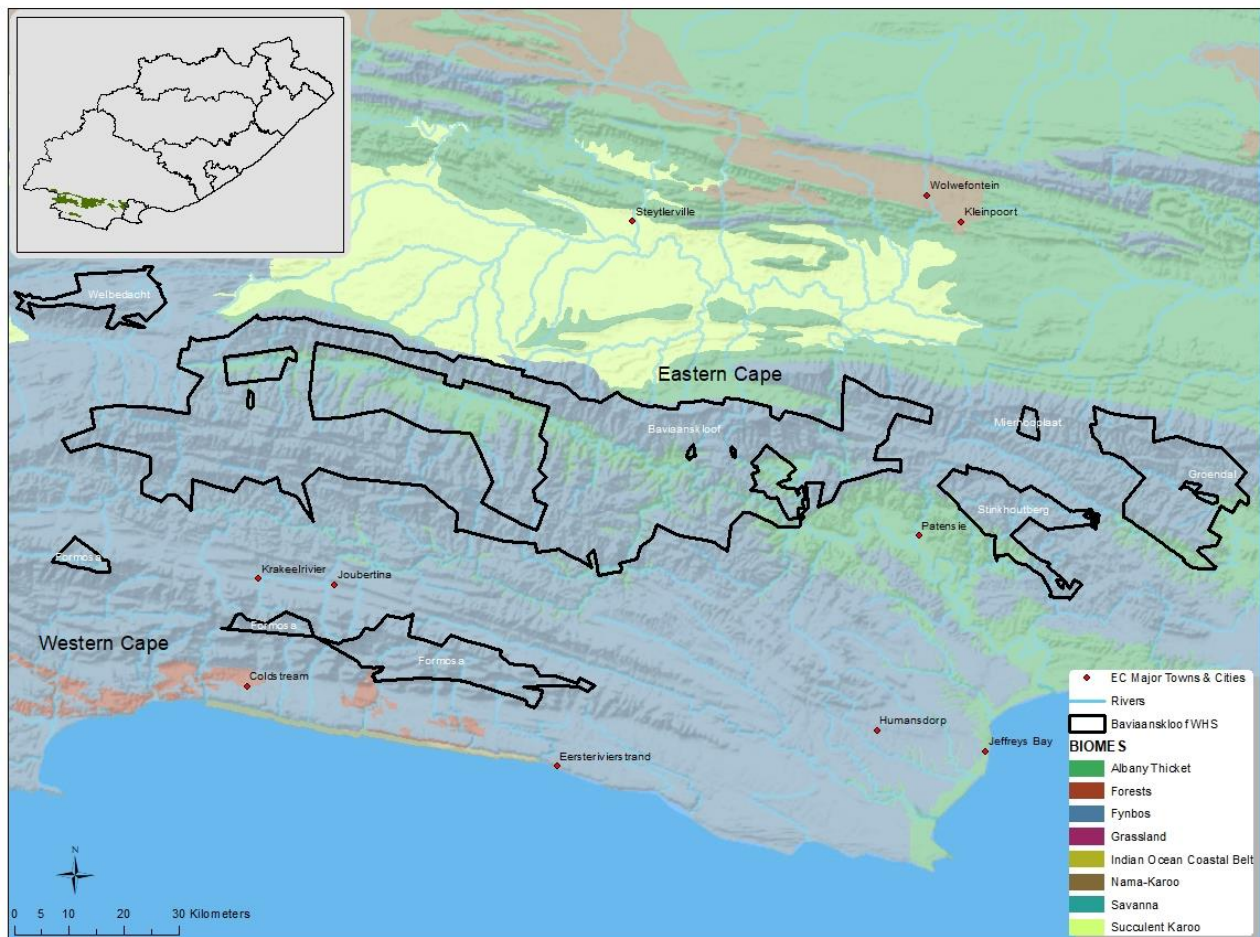


Figure 15: Biomes within the Baviaanskloof World Heritage Site (Vegmap, 2006)

Appendix C: Legislation

List of National and Provincial legislation applicable to the management of the heritage site.

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