



# **Bontebok National Park**

## **Management Plan**

**For the period  
2013 - 2023**





## Section 1: Authorisations

This management plan is hereby accepted and authorised as required for managing the Bontebok National Park in terms of Sections 39 and 41 of the National Environmental Management: Protected Areas Act (Act 57 of 2003).

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**Approved by the Minister of Water and Environment Affairs**

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Date: 05 September 2013





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## Glossary

<b>Balanced scorecard</b>	The performance management tool used by SANParks to ensure feedback and effective implementation of various management objectives
<b>Bioregion</b>	A region defined through physical and environmental features, including watersheds, soil and terrain characteristics. Bioregionalism stresses that the determination of a bioregion is also a cultural phenomenon, and emphasises local populations, knowledge, and solutions
<b>Desired state</b>	The overall conditions of the park (across the full V-STEEP range) that stakeholders desire
<b>Endemism</b>	Unique or confined to a specific place or area
<b>Invasive alien species</b>	Invasive and alien species are species whose introduction and/or spread outside their natural past or present distribution threaten biological diversity.
<b>Mission</b>	An articulation of the vision that describes why the park exists and its overall philosophy on how to achieve its desired state
<b>Objectives hierarchy</b>	The objectives for a park, with the most important, high level objectives at the top, cascading down to objectives at finer levels of detail, and eventually to operational actions at the lowest level
<b>Stakeholder</b>	A person, an organ of state or a community contemplated in section 82(1)(a) or an indigenous community contemplated in section 82(1)(b) of NEM:BA
<b>Vision</b>	A word “picture” of the future, or what is seen as the future for the park
<b>Vital attributes</b>	Unique or special characteristics of the park, the determinants of which management should strive to protect, and the threats towards which management should strive to minimise
<b>V-STEEP</b>	The values (social, technological, economic, ecological and political), used to understand, with stakeholders, the social, economic and ecological context of the system to be managed, and the principles/values that guide management. These are used to develop a broadly acceptable vision of the future
<b>the Act</b>	National Environmental Management: Protected Areas Act (Act 57 of 2003)
<b>the guidelines</b>	DEAs guidelines for the Development of a Management Plan for a protected area in terms of NEM:PAA (Cowan & Mpongoma 2010)

## Acronyms and Abbreviations

1	BA	Basic assessment
2	BMP	Biodiversity monitoring programme
3	BMS	Biodiversity monitoring system
4	BNP	Bontebok National Park
5	BSC	Balanced scorecard
6	CARA	Conservation of Agricultural Resources Act (Act 43 of 1983)
7	CDF	Conservation development framework
8	CPF	Coordinated policy framework
9	CSD	Conservation services division
10	DAFF	Department of Agriculture, Forestry and Fisheries
11	DEA	Department of Environment Affairs
12	EE	Environmental education
13	EIA	Environmental impact assessment
14	EMP	Environmental management plan
15	EMS	Environmental management system
16	EPWP	Expanded public works programme
17	GG	Republic of South Africa Government Gazette
18	GN	Government notice
19	HIA	Heritage impact assessment
20	HO	Head office
21	HR	Human resources
22	IDP	Integrated development plan
23	ISCU	Invasive species control unit
24	LLP	Lower level plan
25	NEMA	National Environmental Management Act (Act 107 of 1998)
26	NEM:BA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
27	NEM:ICMA	National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)
28	NEM:PAA	National Environmental Management: Protected Areas Act (Act 57 of 2003)
29	P&C	People and conservation
30	PM	Park manager
31	RM	Regional manager
32	RMM	Regional marketing manager
33	SANBI	South African National Biodiversity Institute
34	SANParks	South African National Parks
35	SAPS	South African Police Service
36	SDF	Spatial development framework
37	SMME	Small, medium and micro enterprises
38	SoKR	State of knowledge report
39	SR	Section ranger
40	SSC	Species of special concern
41	TO	Tourism officer
42	TPC	Threshold of potential concern
43	WfW	Working for Water



## Lists of figures, tables and appendices

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Figure 1: Park organogram

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Table 1: Estimated annual operational costs for 2012/2013

Table 2: Estimated once off cost of the programme

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Table 4: Total value based on original purchase price of various categories of minor assets.

Table 5: Summary of the annual and once off costs (based on actual expenditure) that is required to fully implement the activities in the Management plan over the next five years.

### Appendices

Appendix 1: Declarations

Appendix 2: Stakeholder consultation report

Appendix 3: Zoning plan

Appendix 4: Maps



## Executive summary

The first management plan for the Bontebok National Park (BNP) required in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003 as amended) (NEM:PAA) was submitted to, and approved in part, by the Department of Environment Affairs (DEA) in 2008 (SANParks 2008).

This first review of the management plan builds on the foundation of the first plan and addresses its inadequacies. The layout of the plan follows the format provided in the guidelines drawn up by the DEA (Cowan & Mpongoma 2010) (the guidelines) while also incorporating the adaptive planning process adopted by South African National Parks (SANParks). Local municipalities, the district municipality and other organs of state as well as other stakeholders were consulted as required (appendix 2). Relevant aspects of local authority plans were considered in the compilation of the plan.

The plan serves as a reference to the management and development of the park in its current and envisaged future form with information on the background, biophysical context, desired state, management and programmes at strategic and operational levels.

This management plan will come into effect following the approval by the Minister in terms of section 39 of NEM:PAA on a date specified by the Minister and is intended for a timeframe of 10 years after commencement unless it is replaced earlier by a newly approved plan. SANParks will review this plan no later than ten years after the commencement date.

The plan follows the DEA guidelines and contains the following sections for this plan:

- **Section 1** provides for the required authorisation;
- **Section 2** provides a record of the legal status of the park, descriptions of its context as well as relevant local, regional, national and international agreements;
- **Section 3** sets out the framework of legislation, national policies, SANParks structures, policies, guidelines, practices regarding management;
- **Section 4** describes the consultation process followed in the preparation of this plan;
- **Section 5** presents the vision, purpose, values, principles and attributes considered in developing a desired state for the park and provides the high level objectives as basis for the management programmes contained in the rest of the plan;
- **Section 6** outlines the zoning plan;
- **Section 7** describes access to and facilities;
- **Section 8** summarises the expansion and consolidation strategy;
- **Section 9** sets out the concept development plan;
- **Section 10** provides a strategic plan with objectives, programmes and activities with cost estimates. Monitoring and evaluation are integrated into the actions;
- **Section 11** contains detailed costing of the programmes.

**Appendices** to this plan contain further details such as proclamations, co-management areas, legislation and policies.



## Section 2: Legal status

### 2 Introduction

SANParks has developed a Biodiversity Custodianship Framework to plan, integrate, implement and review the biodiversity conservation, tourism and constituency building components that make up its core business, whilst ensuring continual learning and compliance with the DEA norms and standards.

#### 2.1 Name of the area

The **Bontebok National Park** was initially proclaimed near Bredasdorp in 1931, with the park later being relocated to its current location just outside of Swellendam in 1961 (Barnard & van der Walt 1961, Van Rensburg 1975).

#### 2.2 Location

Bontebok National Park (34°02' S, 20°25' E) is situated 223 km from Cape Town and eight km from Swellendam. It is situated on the coastal plateau between the Langeberg Mountain range (five km away) and the Indian Ocean (50 km away) (Appendix 4 Map 1).

#### 2.3 History of establishment

The first Bontebok National Park was established in 1931 near Bredasdorp specifically to save the few remaining bontebok from extinction (Barnard & Van der Walt 1961). At the time, a mere 17 bontebok *Damaliscus pygargus* spp. *pygargus* remained from a known population of 20 animals in the area. Initially the bontebok thrived under this protection, but later inadequate grazing (Novellie 1986), parasite infestations, trace element deficiencies and the wet marshy conditions in the area again threatened the survival of this species. The animals were subsequently transferred to the park at its current location in the Swellendam District in 1960, and the new park was formally proclaimed on 24 March 1961 (Barnard & Van der Walt 1961; Van Rensburg 1975). In December 1965 two additional pieces of land were acquired by the State and proclaimed, bringing the park to a total of 2797 ha (Van der Merwe 1968). The park at this stage comprised Erven 1699, 23, 153, and Portions 3 and 8 of Farm 254, Swellendam (National Parks Act No. 57 of 1976, p. 26). In 2004, two contractual areas, known as 'Die Stroom' (Erf 5338, Swellendam) and the 'airfield' (Erf 5339, Swellendam), together approximately 639 ha, were proclaimed (Government Gazette 25924, Notice No. 41, 23 January 2004) as part of the park.

#### 2.4 Contractual agreements

The park does not have any contractual agreements.

#### 2.5 Total area

The park has been expanded to 3,476.30 ha, of which 3,390.56 ha is declared with the rest in the process of being declared (Appendix 1).

#### 2.6 Highest point

The highest point in the park is known as "die Skietbaan" at 152 m (499 feet) above mean sea level (Appendix 4 Map 2). The airspace above the park as regulated by the NEM:PAA S47.1 is thus 2,999 feet above mean sea level.

## 2.7 Municipal areas in which the park falls

The park falls within the Greater Swellendam Local Municipality within the Overberg District.

## 2.8 International listings

The park is not currently listed in any international listings.

## 2.9 Biophysical and socio-economic Description

The park has an updated State of Knowledge Report (SoKR) (Kraaij *et. al.* 2009, updated September 2011) as well as an updated Biodiversity Lower Level Plan (LLP) (Cowell *et. al.* 2011).

### 2.9.1 Climate

The annual rainfall is 511 mm of which most (59 %) falls during the winter months (April to October). Two main peak rainfall periods are evident, one in April-May and the other in August, while the driest months are normally December and January (Novellie (1986). Temperature range between a summer maximum of around 40 °C to a winter minimum of around 0 °C, whereas the annual average temperatures are between 6 °C and 32 °C. Snow occurs on the Langeberg Mountains. Prevailing winds are south-easterly in summer and north-westerly (dry warm bergwinds) or south-westerly (associated with cyclonic systems) in winter (Grobler & Marais 1967). Although the park does not hold a weather station / Stevenson screen, rainfall records have been kept since 1961 and minimum and maximum temperatures since 1991. In addition, estimates of cloud cover and wind speed and direction are recorded daily.

### 2.9.2 Topography

The park lies between 60 and 152 masl on the coastal plateau between the Langeberg mountain range and the Indian Ocean. The topography comprises a series of gently undulating gravel terraces descending from a rocky plateau in the northeast through sand and boulders to an alluvial plain. The flats in the southeast are surrounded by low hills and the perennial Breede River (Grobler & Marais 1967; Theron 1967).

### 2.9.3 Geology and soils

More than 90 percent of the park encompasses alluvium and gravel terraces, with outcrops of consolidated rock (belonging to the Witteberg series) occurring only along the Breede River (Theron 1967).

Gravel terraces of three ages can be recognized comprising roll-stones of quartz-like sandstone, and sandy gravel. The north and central parts of the park consist of high-level silcrete and ferricrete, while the south-western flats comprise an alluvial belt of loam and sandy loam (probably an old meander of the river which was gradually filled by sand).

The most recently acquired area in the west (Die Stroom) is characterized by shales and siltstone with occasional sandstone beds along the Breede River. Soils are immature brown earth and podzols, shallow lithosols and deep alluvial sand. Glenrosa and/or Mispah forms, with lime rare or absent in upland soils but generally present in low-lying soils, occur in the southern part of Die Stroom. Prisma-cutanic and/or pedocutanic diagnostic horizons dominate the soils of the remainder of the park (Chief Director of Survey and Land Information 1993).

### 2.9.4 Hydrology

The Breede River in the park runs in a series of long (>1 km), broad (50 m – 150 m) channels with deep (>2 m) pools, separated by narrow rapids and stony runs (Russell 2001). The substratum in channels and pools consists predominantly of sand and silt, with some small stony patches. In rapids and runs, the substratum consists predominantly of cobble and sand, with the bedrock exposed in some places (Russell 2001).

## 2.9.5 Bontebok National Parks' biological systems

The park's biological systems are described more fully in the park's SoKR and Biodiversity LLP.

The local geological template, long-term fire exposure, the effects of allelopathic and/or nitrogen fixing alien plants, the physical effects of hoof-action and nutrient redistribution via urinary and faecal deposits by large mammal populations affect soil heterogeneity. This soil heterogeneity in the park determines and supports high botanical diversity with many rare and endemic plants, including Red Listed taxa (one critically endangered, nine endangered, seven vulnerable). The fynbos and renosterveld vegetation require fire for regeneration but are not dependent on herbivory, and can be negatively impacted by excessive trampling of large herbivores. Too frequent fires and high intensity trampling negatively affects botanical diversity in these vegetation types (Kraaij 2011).



Bontebok and other large herbivores (red hartebeest and mountain zebra) depend largely on grazing lawns and recently burned (<5 years) veld for nutritional needs (Kraaij & Novellie 2010). Grazing lawns, which cover 0.5% of the park, compete directly for space with fynbos/renosterveld vegetation. Grazing lawns are created, maintained and/or enlarged by continuous, high intensity grazing and trampling, and concentrated faecal and urinary deposition by grazers, and are not directly affected by fire as fuel loads remain consistently low (Archibald 2008; McNaughton 1984; Scholes & Walker 1993). Recently burned veld disperses grazing pressure from herbivores across the landscape, potentially halting the proliferation of grazing lawns (Archibald 2008; Kraaij and Novellie 2010).

From 1960 to 2004, fire frequency of burn blocks had return intervals of 5.8 years (renosterveld) and eight years (fynbos) to provide grazing for bontebok. Fire frequency has been reduced since 2004 to eight years (renosterveld) and 16 years (fynbos) to comply with standard practice based on the requirements of serotinous plants in mountain Fynbos). This policy change has reduced the amount of post-fire veld available per annum, increasing the grazing pressure on grazing lawns which could result in their proliferation. Studies in the spread of grazing lawns in savanna systems have indicated that decreased fire frequencies and higher grazer densities could more than double the proportion of grazing lawns in parks. Possible proliferation of grazing lawns reduces net ground area for botanical species of special concern (SSC) in fynbos and renosterveld vegetation types. In this way, fire is indirectly linked to grazing lawns through large herbivores by dispersing grazing pressure across the landscape in post-fire veld. Similarly, grazing lawns are linked to botanical diversity, by ostensibly reducing trampling on fynbos/renosterveld vegetation as focal points which concentrate herbivore impacts. However, sustained herbivory may establish more, or extend the range of current lawns. Knowledge of herbivore densities and how these affect grazing lawn proliferation are key to understanding the subtle linkages to botanical diversity in the park (Kraaij 2010).

## Flora

Beds of *Phragmites australis* and *Typha capensis* line both banks of the Breede River, while there is limited growth of other aquatic species. The south bank comprises scrub-covered hills with occasional rock outcrops and the north bank consists of gently sloping sandy soils, supporting mature woody vegetation in a well-established riparian strip. The protection of riparian and aquatic vegetation to provide suitable habitat for indigenous fish species is one of the few measures that can be taken to ensure their survival (Russell 2001).

The only work on non-vascular flora was that cited in O’Keeffe (1986) on algal growth potential at several sites in the Breede River for use as an indicator of river health status.

Apart from the aquatic and riparian vegetation, the park protects two vegetation types or broad habitat units as defined by Cowling & Heijnis (2001), *i.e.* Suurbraak grassy fynbos and Overberg coast renosterveld. The new vegetation map for South Africa (Mucina *et al.* 2005) indicates three vegetation types for the park, *i.e.* Cape lowlands alluvial vegetation, Eastern ruens shale renosterveld, and Swellendam silcrete fynbos, the boundaries of which do not correspond with those of the mentioned two Broad Habitat Units (Appendix 4 Map 7). Nevertheless, all these lowland vegetation types are globally considered to be of high conservation priority (Cowling *et al.* 1999; Driver *et al.* 2005).

Coastal renosterveld is the most altered vegetation type of the fynbos, 85 % being lost mainly to agriculture (Moll & Bossi 1984). Due to the virtual destruction and extremely fragmented nature of South coast renosterveld (especially towards the west (Kemper *et al.* 2000)), this vegetation type is regarded as critically endangered (Cowling *et al.* 1986; Von Hase *et al.* 2003). The high conservation status of South coast renosterveld thus raises the conservation importance of BNP.

A sketchy description (and associated map) of the terrestrial vegetation communities of the western half of the park exists (Grobler & Marais 1967). This study has been done prior to initiation of the short-cycle fire regime, and has identified 12 vegetation communities belonging to three main groups, i.e. riparian/tree-group, sweet veld/renosterbos-group (Acocks Type 46), and mixed grassveld/*Leucadendron*-group (Acocks Type 70). Despite the rudimentary vegetation description, a comprehensive (though unpublished) plant species list has been kept in concurrence with building up the park's herbarium collection. The plant species list (with > 600 species) has been regularly updated and expanded by various internal/external botanists (e.g. Rebelo undated) but needs verification. A phytosociological study of Die Stroom is currently in progress.

Various popular articles extol the flora of the park (e.g. Van der Walt 2003).

## Fauna

### Invertebrates

The only work done on aquatic invertebrates was that of Coetzer (1986) surveying the benthic invertebrates of the Breede River for use as an indicator of river health status. In terms of relative abundance of invertebrate functional feeding groups, collector-filterers were most abundant, followed by comparable numbers of collector-gatherers and scrapers, with very few shredders and predators/piercers (Coetzer 1986). The high proportion of collector-filterers in the lower reaches of the Breede River was attributed to large amounts of return-flow of irrigation water because erosion-zone features occurred at sampling localities in this section (Coetzer 1986).

Coates (1970) compiled a checklist of the *Collembola* of South African parks, listing three *Seira* species (*S. mathewsi*, *S. grisea*, and *S. marephila*) for the park and the plants on which they occur.

### Fish

A total of 380 fish from 12 species was recorded during sampling of six sites in the Breede River in the park during 1999 and 2000 (Russell 2001). Fish species collected included one indigenous freshwater species, two indigenous catadromous species, three indigenous estuarine species, two species translocated from other South African rivers, and four alien species. Among these were the red-data listed *Barbus andrewi* (vulnerable) and the previously red-data listed *Myxus capensis* (rare), although the domination of alien and translocated species is of conservation concern. Braack's (1981) records of surveys done between 1961 and 1977 add one indigenous and two alien fish species to Russell's (2001) list. At the regional scale, Barnard (1943) has done a revision of the indigenous freshwater fish of the south-western Cape region.

### Amphibians

Routine investigations have resulted in the discovery of ten frog species inhabiting Bontebok NP (Braack 1981). The eleventh species, *Breviceps* sp., can only be regarded as a likely inhabitant at this stage (SoKR).

### Reptiles

Surveys have confirmed the presence of 18 snake, six lizard, three tortoise and one terrapin species in the park (Braack 1981). No additional tortoise or terrapin species are expected to be found, but the list of snakes and lizards is most likely incomplete. In addition to inventories, preliminary work has been done on resource partitioning and sympatry in land tortoises in the park (Rowlands 1988).

### Birds

A first preliminary bird list for the park comprising of 103 species underwent additions and revisions with the most recent one (Baron 1981) listing 186 bird species of which 71 species classified as residents, 10 as migrants and 95 as visitors. Subsequently three more species were added to the list (SoKR). Endangered birds that occasionally appear in the park are the black stork and Cape vulture (Greyling & Huntley 1984). The park's birds have also been publicised in the popular literature. A strip-count survey of bird densities in the renosterveld of the park gave an average density of 151 birds per 40 ha with the grey-backed cisticola (*Cisticola subruficapilla*) being the most numerous species, accounting for 23 % of all birds counted (Winterbottom 1968).





### **Mammals**

Various accounts of historical mammal occurrence in the Swellendam area exist, listing predators such as lion, leopard, hyena, jackal, wild dog, and wild cat(s). Ungulates within historical range include bontebok, grey duiker, Cape grysbok, red hartebeest, grey rhebok, steenbok, and Cape mountain zebra (currently present in the park), and buffalo, bushpig, eland, elephant, hippopotamus, black rhinoceros, and klipspringer (currently absent from the park) (Boshoff & Kerley 2001). Extralimital species that were previously introduced but later removed are common reedbuck and springbok (Novellie & Knight 1994). A checklist of mammals is included in the SoKR. Rodents are listed by De Graaff (1974). Among the specialised studies done on mammals, much emphasis was on the bontebok and grey rhebok. Aspects particularly well-studied were bontebok life history, demography, population dynamics (De Graaff *et al.* 1976a; Novellie 1986), genetic purity (Fabricius *et al.* 1989; Essop *et al.* 1991), feeding ecology (Beukes *et al.* 1989), fecundity, reproduction (Skinner *et al.* 1980; Novellie 1981), territorial-, mating- and drinking behaviour (David 1970, 1971, 1973a&b, 1975a&b; Van Zyl 1978); grey rhebok feeding- and general ecology (Beukes 1984, 1987, 1988); and life histories (De Graaff *et al.* 1976b; Van der Walt *et al.* 1976a&b), parasitology and glandular secretions/ pheromones (Le Roux 1980; Nell 1992) of various ungulates. Bontebok is a preferred grazer of short- to medium grasses such as *Cynodon dactylon*, *Themeda triandra*, *Digitaria eriantha* and *Eragrostis* species (Beukes *et al.* 1989). Of the grass species in the park, 11 can be considered palatable, 18 acceptable and 23 unpalatable to bontebok, whereas only 5 % of shrubs are utilized (De Graaff *et al.* 1976a). Beukes (1984) showed that the quality of the bontebok's diet is higher during winter than during summer. Presumed poor reproduction in bontebok between 1960 and 1973 spurred several studies on the matter. Skinner *et al.* (1980) found males to be in fair breeding condition and concluded that a post-lambing seasonal lambing percentage of 54 % must be considered the norm for bontebok in the park, permitting a satisfactory population growth. An unknown factor was the extent and causes of lamb mortality. Novellie (1986) showed that lambing percentage is correlated with rainfall of the 12 months preceding the mating season. Bothma (1986) recommended a sex ratio of 1 male to 2 females for natural bontebok populations, and for the maintenance of a healthy age structure, populations should consist of 30 – 40 % sub adults. Watson *et al.* (1991) described a method of age determination from skull growth in blesbok, which may also be applied to bontebok. Beukes (1988) showed that grey rhebok are predominantly browsers, contrary to the common belief that they are grazers. Dicotyledonous shrubs and forbs (many of the genera *Disparago*, *Metalasia*, and *Aspalathus*) comprised 97 %, and graminoids 3 % of their diet, which has implications for the management of rare plant species in the park. Life history descriptions of the red hartebeest, eland and Cape buffalo account for the removal of buffalo from Bontebok NP in 1974 due to great difficulty (and expenses) with keeping the animals in the park, and the removal of eland and red hartebeest in 1975 as a result of poor performance and low fecundity (mainly related to nutritional deficiencies and parasites) (SoKR). Selected studies were done in the park on the genetics of animals other than bontebok/blesbok, i.e. geographic mitochondrial DNA variation in the rock hyrax (Prinsloo & Robinson 1992), and the role of cytogenetics in genetic conservation of mammals (Robinson & Elder 1993).



### 2.9.6 History

The Bontebok National Park, originally located south of Bredasdorp, was re-proclaimed at its present location near Swellendam in 1961. It is not certain who the earliest inhabitants of this area were, although many Stone Age tools of ancient civilizations are found between Riversdale and the Buffeljags River.

Much evidence exists of the presence of nomadic San and Khoekhoen people (Van Rensburg 1975). Of special importance to the Swellendam/Caledon area were the 'Hessekwashers', who kept numerous sheep and cattle on the coastal lowlands, which they used for trading with the Cape settlers since 1660 (Van Rensburg 1975). Lang Elsie was a remarkable woman chieftain who lived between 1734 and 1800, with remains of her kraal - today visible in the park as an open yard-like expanse of ground - occurring next to the Breede River (now called "Lang Elsie's kraal") (Tomlinson 1943). Graves of Nouga Saree, a neighbouring chieftain, and a few of his followers are believed to be in the vicinity of the "Ou Tuin" along the Breede River in the park, although the exact locality of these graves is currently not known. His fat-tailed sheep and long-horned cattle grazed on what became the old racecourse, whereas Lang Elsie's grazing land are believed to have constituted the remainder of the flats extending to the Buffeljags River.

Since the early eighteenth century the white civilization started to encroach on the area. A combination of factors, including the smallpox epidemic of 1713, devastated the Khoekhoen tribes and only scattered remnants could be found on farms in the district by the end of the eighteenth century. Wheat cultivation also commenced in the early eighteenth century, which marked the start of the eradication of the area's natural vegetation (Van Rensburg 1975). According to Skead (1980), giving account of the Dutch farmers of the late 1700's, deterioration in veld condition and overgrazing had already been noticed by then. There are also records of farmers burning the veld and trying to get rid of the renosterbos (*Elytropappus rhinocerotis*). Between 1848 and 1904 a portion of the current park was used as a racecourse for horses, and between 1952 and 1960 part of it was used as a shooting range. Being part of the town commonage of Swellendam, it was also heavily grazed by domestic livestock prior to 1960. The area was thus subject to intensive human use before the park was proclaimed.

### 2.9.7 Cultural heritage sites

A rich oral history recorded in the early 20th century describes two eighteenth century Khoekhoen settlements within the park, commonly known as 'Lang Elsie's Kraal' after which the rest camp was

named and 'die ou tuin' also known as the old race course. Investigation by the University of Cape Town Archaeology Department focused on these two locations. So far, eight archaeological sites have been identified, including two significant stone structures, a 19th and possibly 18th century track way, a possible burial cairn and six significant artefact scatters. The results so far indicate that the park is relatively rich in archaeological terms (unpublished report from UCT).

### 2.9.8 Tourism potential

The park presents an attractive stop over point for travellers following the Garden Route, being situated close to Swellendam, and around halfway between Cape Town and George. The park is well known for its riverside rest camp at Lang Elsie's Kraal which provides access to the Breede River. The park offers accommodation in the form of chalets and camping sites. A day visitor facility at 'die Stroom' on the banks of the Breede River has braai facilities. The facility is fully equipped and can be used for functions. Activities provided for include hiking, mountain biking, angling, canoeing, and game and bird watching.

The park also provides an opportunity to experience South African culture where one can connect to the people of the past and learn about how indigenous people once lived and how this lifestyle was modified by colonial settlement.

### 2.10 Regional socio-economic contribution

As a destination for visitors (15,259 visitors during the 2011/12 financial year) the park complements other local destinations in making tourism a significant factor in the regional economy.

The park strives to be in line with the Greater Swellendam Municipality's Integrated Development Plan (IDP) of which the vision is to be: 'A robust and inclusive local economy addressing local needs and exploiting local opportunities, real, potential and competitive advantages.'

The park does this through permanent employment 17 permanent staff of which currently 11 are from the Greater Swellendam Area. Preference is given to people within the local area with relevant qualification and experience. By doing this the park created employment opportunities for local unemployed. Moreover, during peak periods temporary employment is available for about two people over a period of six months.



The park contributes to skills development and capacity building by involving communities in relevant Expanded Public Works Programmes (EPWP) offering them job opportunities. Through the EPWP, the park has created five Small, Medium and Micro Enterprises (SMME's) ranging from labour consultants to small building contractors. The park, through call-backs, supports these SMMEs whenever there are business opportunities available within the park. To date, through the EPWP alone, over R1,300,000 has been spent on SMMEs. Moreover, about a fifth of this was spent on small contractors.

The park currently has no concessionaires, but it is anticipated that concession opportunities will be available after the completion of envisaged new day visitor facilities at die Stroom. These could include outsourcing the coffee shop and kiosk and other visitor activities.

The park supports local businesses whenever possible for procurement of goods and services. Swellendam, the nearest town, faces typical urbanisation challenges with rapidly increasing informal settlement, unemployment and lack of skills among its labour force. HIV/AIDS is also seen as one of the major challenges (Swellendam IDP).

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## Section 3: Policy framework

### 3 Introduction

SANParks, like all protected area management authorities, are subject to the constitution, legislation, international agreements, national policies and government priorities. Section 41 of the NEMA: PAA requires that management plans be located within the context of a Coordinated Policy Framework (CPF), with SANParks complying with a first CPF having been developed in 2006 (SANParks 2006b). This CPF is currently being revised and will be updated in 2013 (SANParks in preparation). Until updated, the current CPF will remain in force.

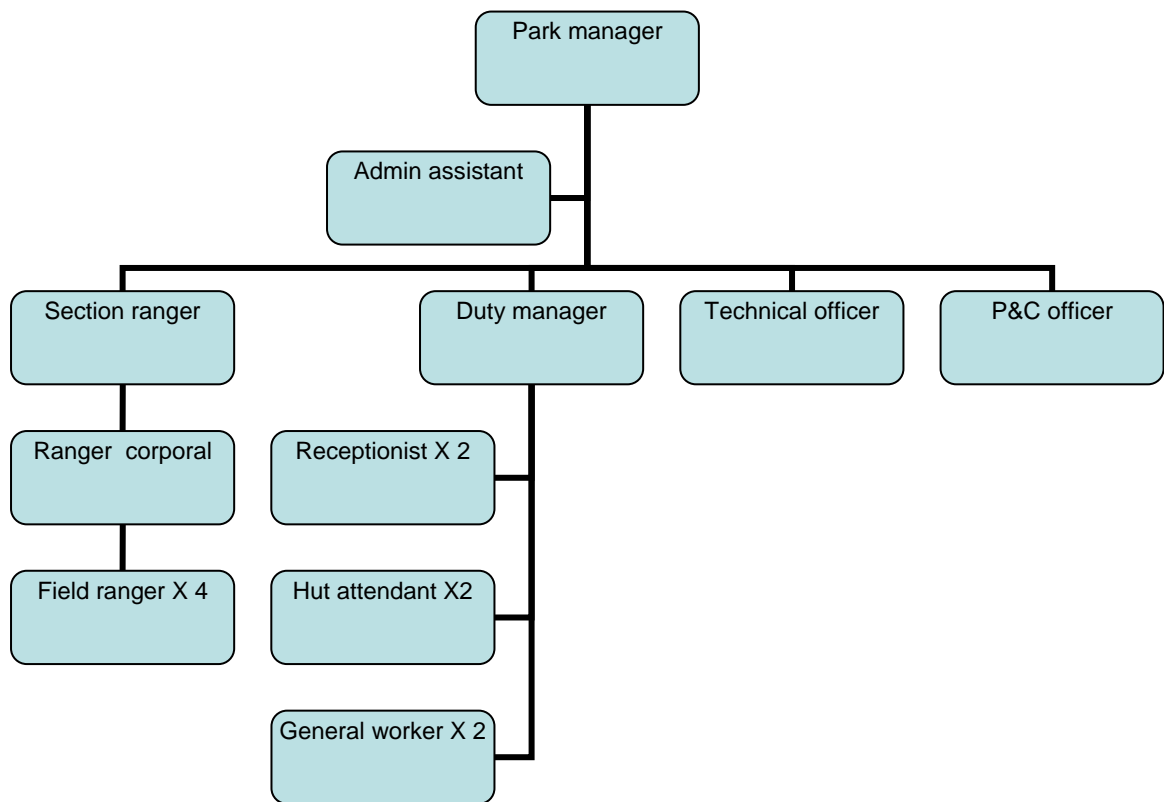
The CPF will provide the information required by the DEA guidelines for management plans (Cowan & Mpongoma 2010). This document will summarise the institutional, ecological, economic and social environment for park management and includes:

- (1) An introduction to the management plan requirements of the NEM: PAA, what it means for stakeholders, and the corporate provisions SANParks has made to comply with NEMA: PAA.
- (2) SANParks as an organisation: including its organisational structure, vision, mission, biodiversity values and performance management system (by means of the Balanced Scorecard), and its approach to strategic adaptive management.
- (3) Policies and guiding principles:
  - a) Finances and commercialisation;
  - b) Tourism;
  - c) Zoning system in parks;
  - d) Stakeholder relationships;
  - e) Management to maintain biodiversity and ecosystem processes;
  - f) Risk management;
  - g) Safety and security;
  - h) Cultural heritage resources;
  - i) Resource use;
  - j) Research.

The planning cycle for management plans in SANParks is ten years, although programmes and costing will be revised at a more regular basis, normally every five years but more often if needed.

#### 3.1 Park specific framework

All park managers (except for Kruger) report to the Managing Executive: Parks through a Regional General Manager. In the case of the BNP this is via the Regional General Manager for the Cape Region. The park's organogram (Figure 1) sets out the reporting structure in the park.



**Figure 1:** Park Organogram



## Section 4: Consultation

The intent of setting a 'Desired State' is to guide park management towards achieving the well-being of the ecological, economic and social environments of the park. The development of a desired state for BNP was guided by a stakeholder workshop held in August 2011 during which a mission and management objectives were formulated (SANParks 2011, included as Appendix 2):

- Reviewing the vision and mission of the park;
- Understanding the operating values and principles;
- Evaluating the park's key attributes and determining high level management objectives.

The public participation process included the following:

- Advertisements and invitations to register as Interested and Affected Parties, both locally and nationally;
- A Desired State workshop;
- A Hierarchy of Objectives workshop;
- Focus group meetings;
- Public open days to allow comment on the draft plan;
- Feedback on comments to stakeholders.

Objectives for the park were developed by alignment with SANParks corporate strategic objectives, but defining them in a local context in conjunction with key stakeholders. These objectives are clustered or grouped into an objectives hierarchy that provides the framework for the management plan. The high level objectives were developed into more detailed objectives by park management staff, regional and head office staff as well as specialist researchers down to the level of operational actions.



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## Section 5: Purpose and mission

### 5 Introduction

As noted in previous sections, the development of a desired state is the first step in developing a park management plan. This section of the plan details the setting of the park's desired state, as well as the vision and mission statements which reflect the high level essence of what the park aspires towards. As part of this process the determinants of the park's vital attributes were identified as well as the threats to these attributes. Objectives were chosen with a view to maintaining the determinants and overcoming the threats. Management programmes were then designed to attain the objectives. The development of the desired state, vision and mission for the park was guided by a stakeholder workshop (Appendix 2).

#### 5.1 Purpose of the park

NEM:PAA requires that the park be managed in accordance with purpose for which it was declared. The purpose of the park was originally gazetted to conserve the (then) endangered bontebok, but has since widened to include the conservation of the remaining vegetation types found in the park.

#### 5.2 Mission

The mission for a park is an inspirational statement designed to provide a picture of the future, to answer the question of 'where do we want to go?' The following statement captures the range of inputs from the stakeholder consultation meeting:

*To manage the park through:*

- *Promoting greater engagement between the people of the region and the park by encouraging linkages in the broader area;*
- *Conserving viable populations of rare and threatened species;*
- *Providing educational opportunities;*
- *Creating greater awareness and interpretation of cultural heritage;*
- *Providing responsible tourism and recreational opportunities;*
- *Facilitating socioeconomic benefits.*

#### 5.3 Vital attributes

The vital attributes which can also be described as the key characteristics of a park are listed below:

- a) History of the park including its translocation and current status;
- b) Breede River as a central feature and unique opportunity for tourism;
- c) High historical value associated with the Khoi heritage;
- d) Favourable geographical position halfway between Cape Town and the Garden Route, potential hub of multiple tourism routes;
- e) Moderate climate;
- f) Intensive management due to its small size;
- g) Educational opportunities (in combination with proximity to town, small size, intense management, high biodiversity and accessibility);
- h) Opportunity for solitude, reconnection and identification with nature; sense of place, spectacular viewsheds.

## 5.4 High level objectives

These high level objectives (Figures 2 a-f) were developed with input from stakeholders during the public participation process and refined by the team that developed this management plan.

The biodiversity high level objectives and sub objectives were developed by park and CSD staff as described in the draft biodiversity LLP (CSD, 2011).

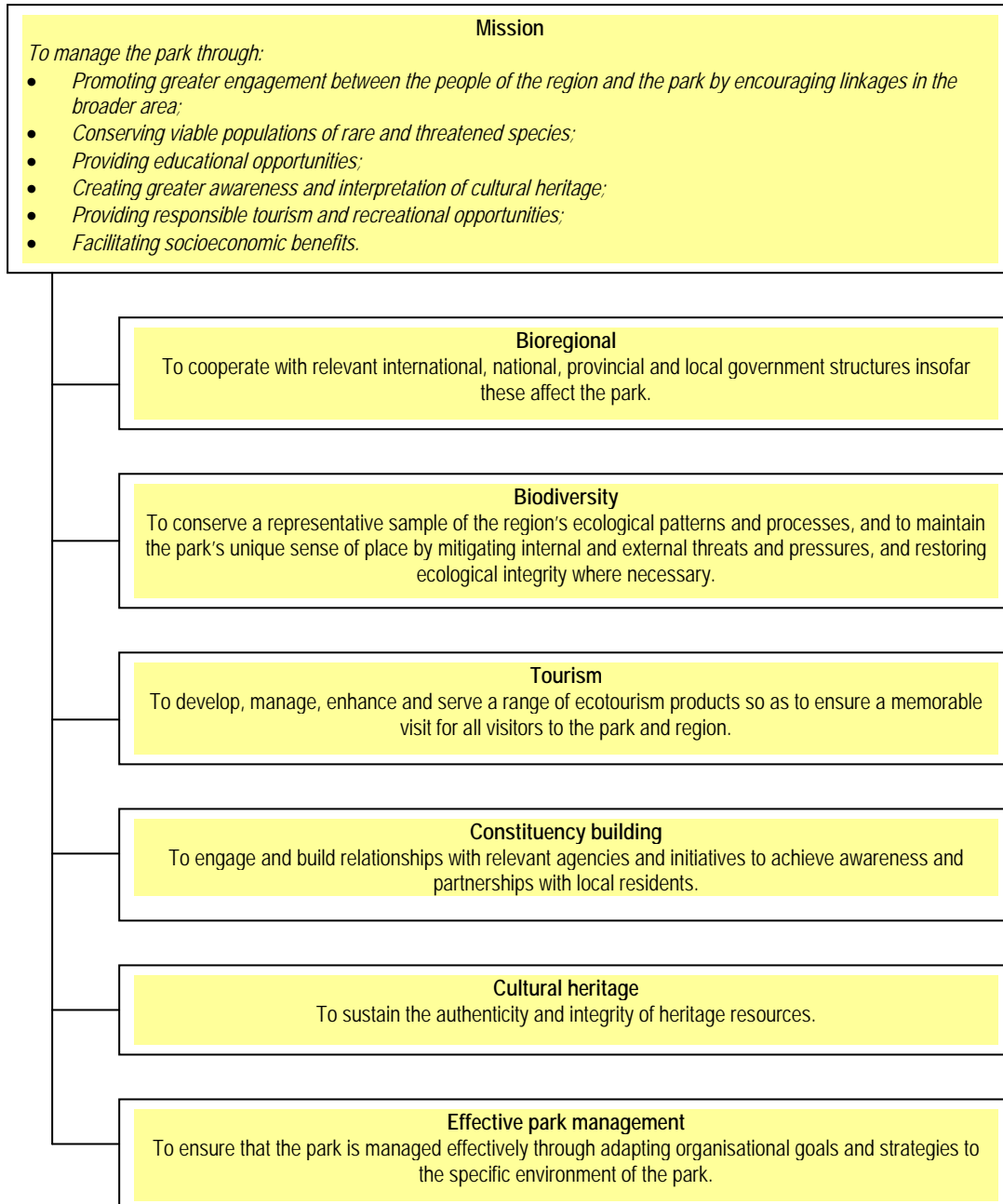
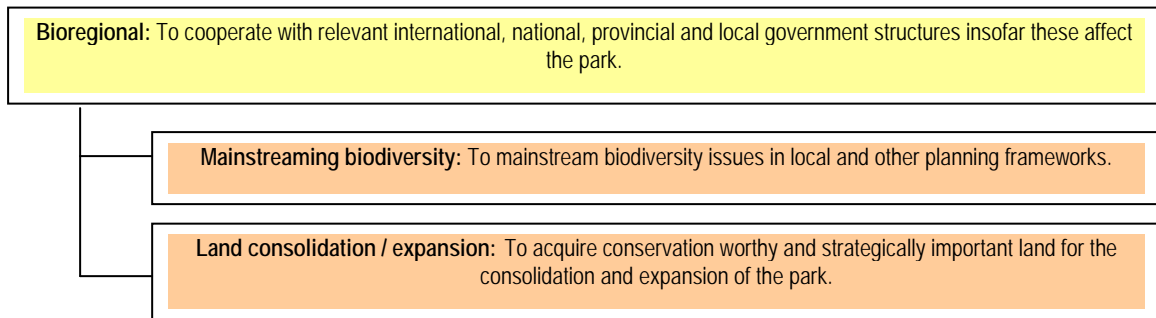
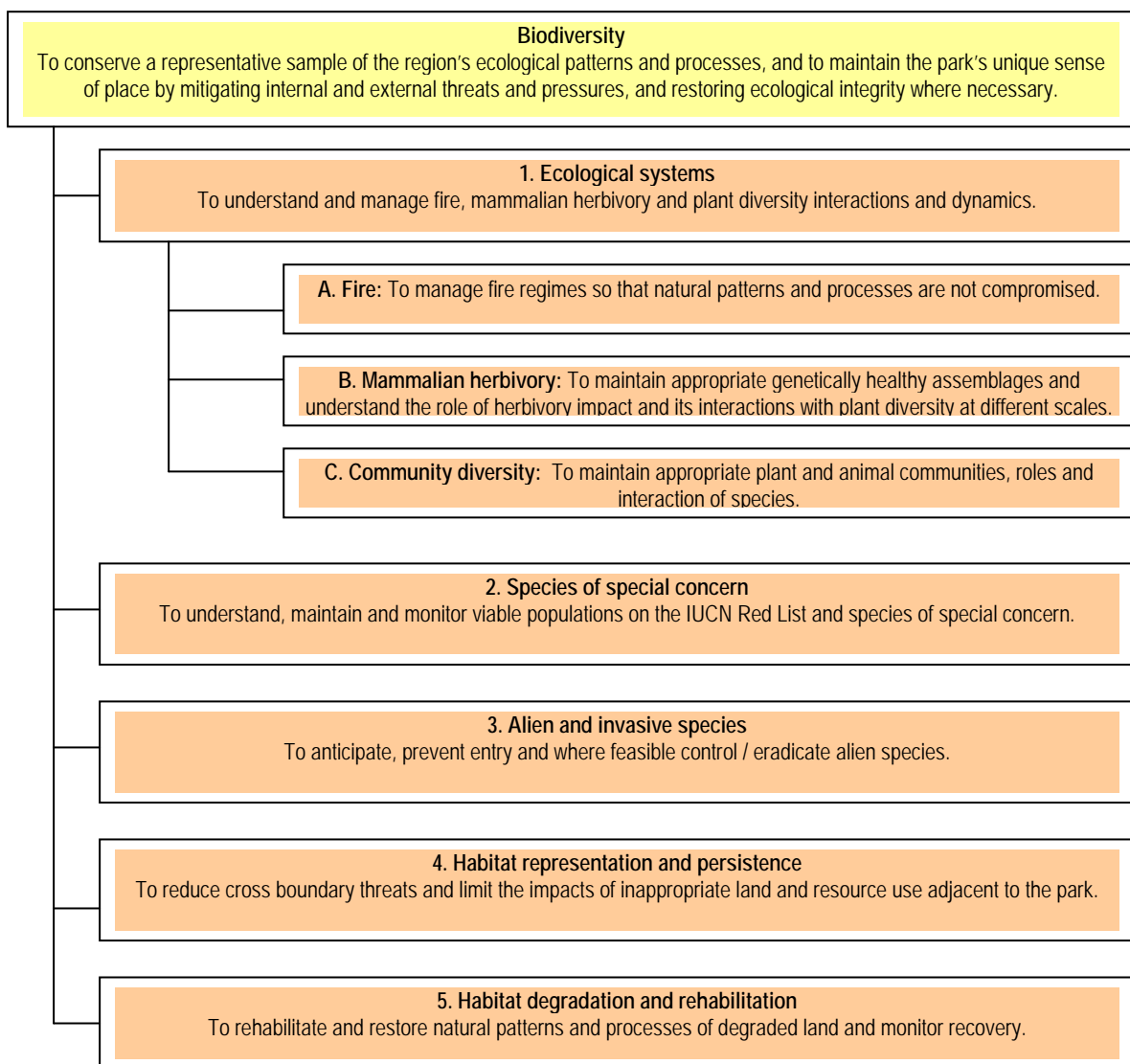


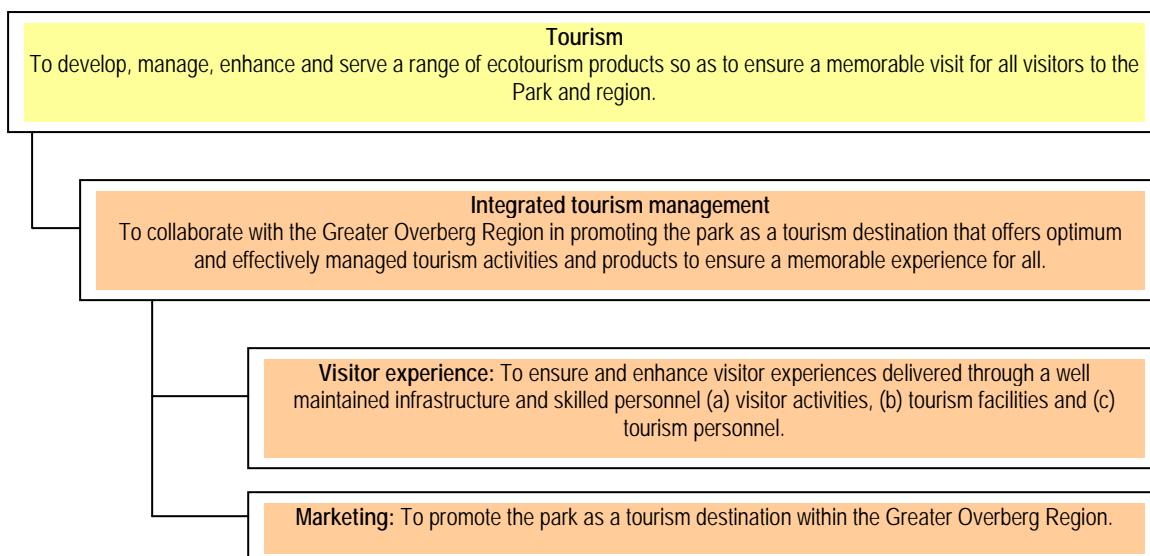
Figure 2a: Park high level objectives.



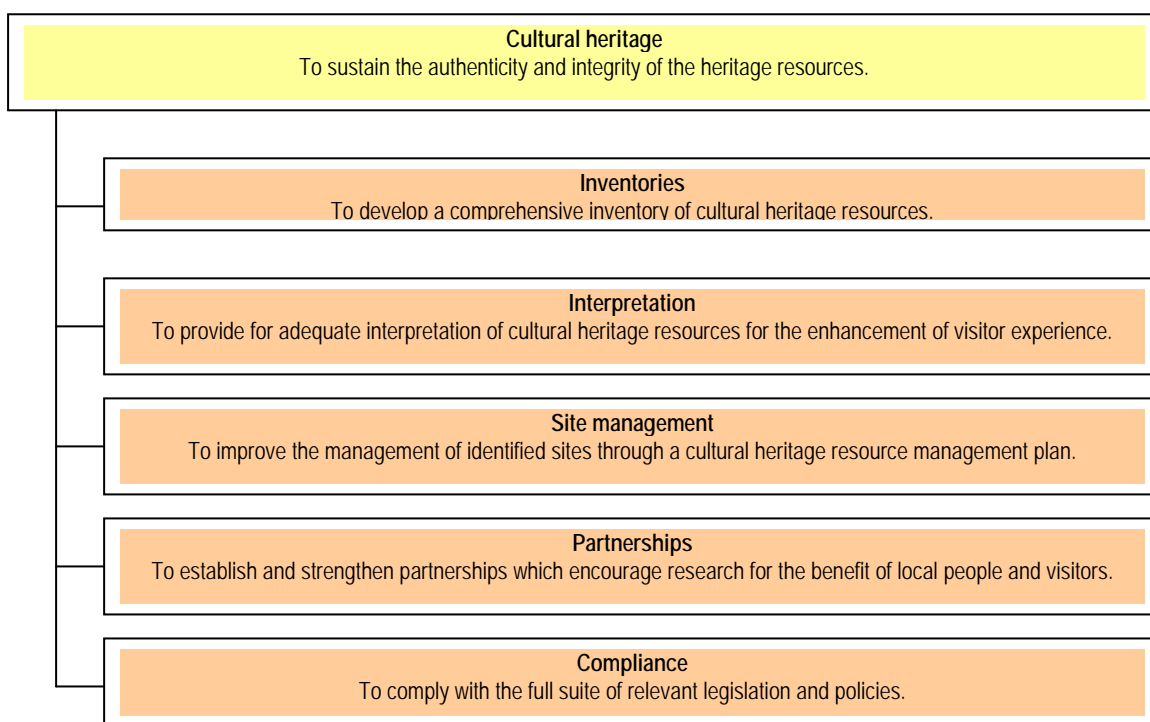
**Figure 2b: High level objectives for bioregional.**



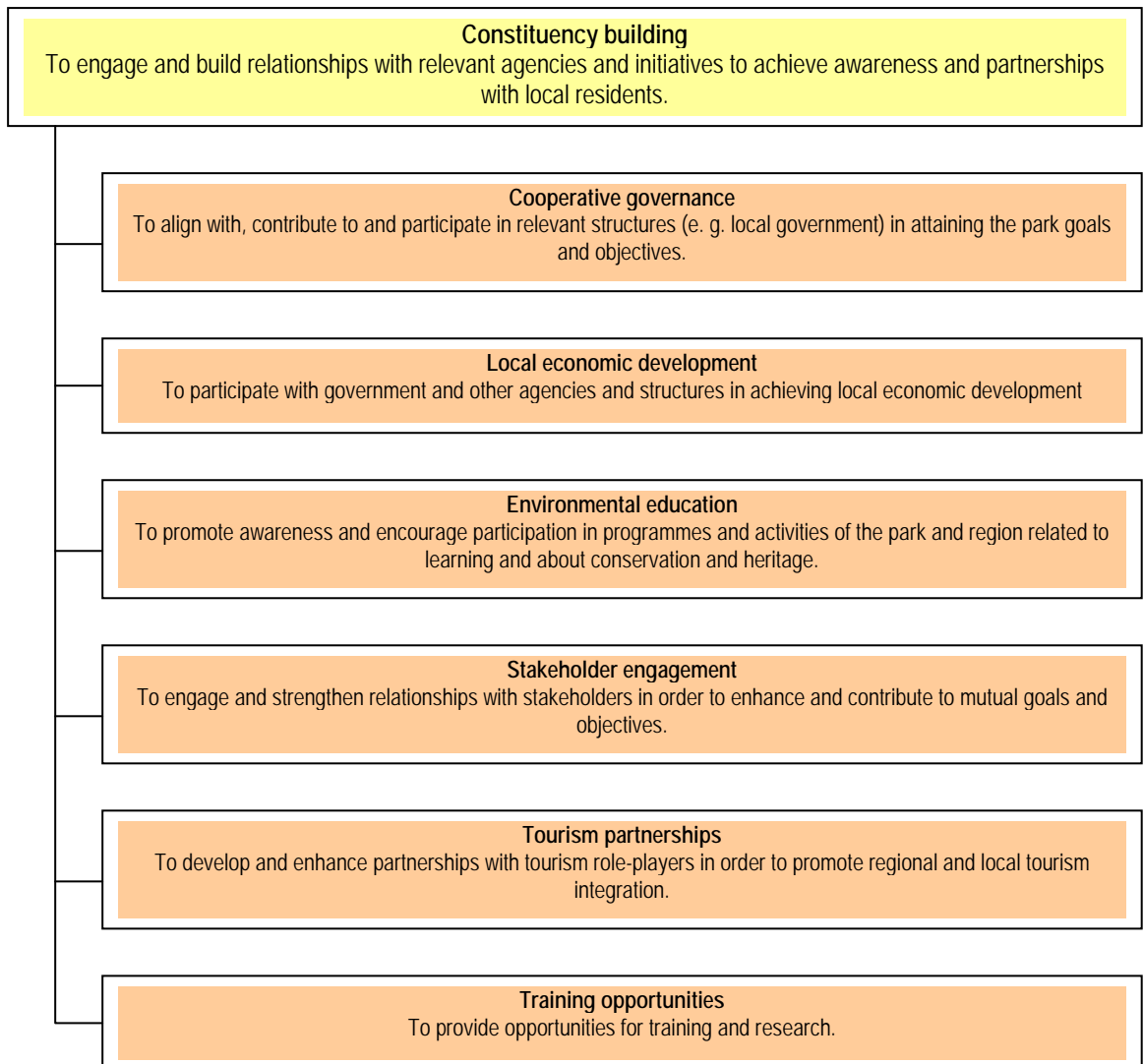
**FIGURE 2c: High level objectives for biodiversity.**



**Figure 2d: High level objectives for tourism.**

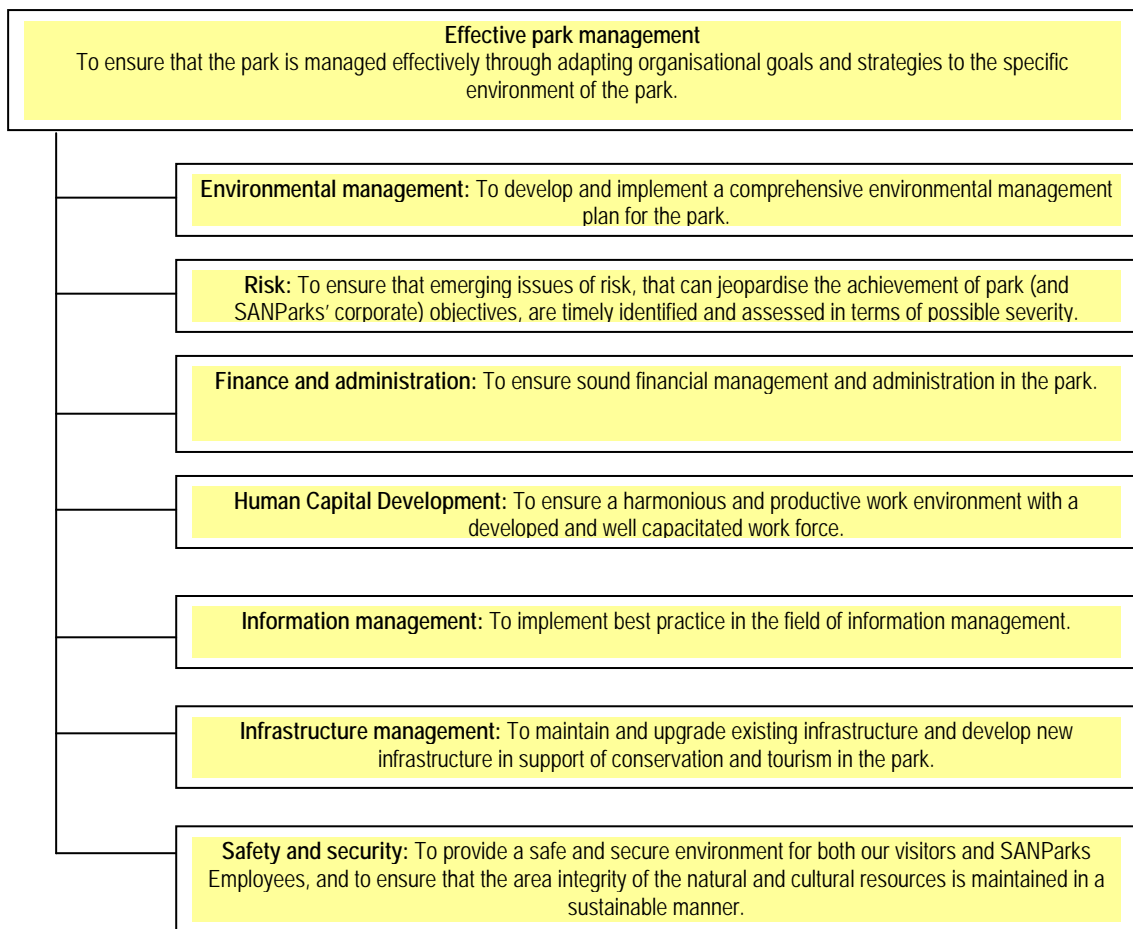


**Figure 2e: High level objectives for cultural heritage.**



**Figure 2f: High level objectives for constituency building.**





**Figure 2g: Effective park management high level objectives.**



## Section 6: Zoning plan

### ***Conservation development framework (CDF) including park zoning:***

The primary objective of a conservation development framework (CDF) is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives. A key part of the CDF is the zoning plan, which plays an important role in minimizing conflicts between different users of a park by separating potentially conflicting activities such as game viewing and day-visitor picnic areas whilst ensuring that activities which do not conflict with the park's values and objectives (especially the conservation of the protected area's natural systems and its biodiversity) can continue in appropriate areas. Although not up to date, the park has a full CDF (SANParks 2006a).

The zoning of Bontebok National Park was based on an analysis and mapping of the sensitivity and value of a park's biophysical, heritage and scenic resources; an assessment of the regional context; and an assessment of the park's current and planned infrastructure and tourist routes/products; all interpreted in the context of park objectives (Appendix 4 Maps 4 and 6).

### **Overview of the use zones of Bontebok National Park:**

The use zoning plan for Bontebok National Park is shown in Map 4. Full details of the use zones (including high resolution maps), the activities and facilities allowed in each zone, the conservation objectives of each zone, the zoning process, the park interface zones (detailing park interaction with adjacent areas) and the underlying landscape analyses are included in appendix 3: Bontebok National Park Zoning Plan. Additional details are included in the park's CDF which is available on request.

**Quiet zone:** This zone is characterized by unaccompanied (or accompanied under some circumstances) non-motorized access, where visitors can walk or cycle and experience nature without the intrusion of any form of motorized transport. Visitor numbers and density are higher than in the primitive zone and contact between visitors is frequent. The conservation objective is to maintain the zone in a generally natural state, with the proviso that limited impacts on biodiversity patterns and processes are allowed in order to accommodate park recreational and tourism objectives. Infrastructure should only be allowed within a restricted development footprint, and infrastructure, especially paths and viewpoints should be designed to limit the impacts of large numbers of visitors on the biophysical environment. The aesthetic/recreational objectives for the zone specify that the zone should retain a relatively natural appearance and character and activities which impact on this should be restricted. In particular visitors are not allowed motorized access to this zone. It is however recognized that the presence of larger numbers of visitors and the facilities they require, may impact on the feeling of wildness found in this zone. In BNP, rationalization of the road network allowed quiet areas to be designated in eastern and western sections of the park, as well as in two central areas circled by the main tourist roads. Quiet areas also serve the function of restricting infrastructure development in certain environmentally sensitive sections of the park such as seasonal wetlands and renosterveld areas of the park.

**Low intensity leisure zone:** The underlying characteristic of this zone is motorized self-drive access with the possibility of small basic camps. Facilities along roads are limited to basic picnic sites with toilet facilities. The conservation objective is to maintain the zone in a largely natural state that is in keeping with the character of a Protected Area, mitigate the biodiversity impacts of the relatively high levels of tourism activity and infrastructure that are accommodated within this zone through careful planning and active management, and to ensure that both the negative effects of the activities and infrastructure are restricted to the zone. The aesthetic/recreational objectives for the zone specify that although activities and facilities will impact on the wild appearance and reduction of the wilderness characteristics of the area (solitude, remoteness, wildness etc) is inevitable, these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience. Low intensity leisure areas were designated around a rationalized road network for game viewing, along a proposed linkage to a new entrance along the N2 highway, along the park's boundary with urban areas to the north, the actively used section of the Breede River from Die Stroom to Aloe Hill containing most visitor facilities including the rest camp, and around the current administrative complex. A Low Intensity Leisure zonation is proposed for a new node accommodating visitor entrance and reception facilities, as well as park management facilities.

#### Overview of the special management overlays of BNP:

Special management overlays which designate specific areas of the park that require special management interventions were identified. Two areas were designated (map 4):

**Special conservation areas – rare, endemic and endangered plant species:** Areas within BNP containing key populations of rare, endemic and endangered species were identified as special conservation areas. These areas were identified to ensure that management and development activities do not result in any degradation of habitat for these species, and particularly to ensure that no loss of habitat occurs.

**Heritage conservation areas:** The key cultural heritage sites of BNP were included into this special management overlay to ensure the protection of cultural resources in this zone.

#### Overview of the buffer zone:

A buffer zone is the identified area within which activities (e.g. land use change) have an influence on the park (current and future extent). This section of the management plan is aligned with the DEA policy on buffer zones for national parks and the SANParks buffer zone policy. This section of the management plan formally identifies and defines the buffer zone (appendix 4 maps 5 & 5b).

The park buffer zones shows the areas within which land use changes could affect a national park. The zones, in combination with guidelines, will serve as a basis for a.) identifying the focus areas in which park management and scientists should respond to EIA's, b.) helping to identify the sort of impacts that would be important at a particular site, and most importantly c.) serving as the basis for integrating long term protection of a national park into the spatial development plans of municipalities (SDF/IDP) and other local authorities. In terms of EIA response, the zones serve largely to raise red-flags and do not remove the need for carefully considering the exact impact of a proposed development. In particular, they do not address activities with broad regional aesthetic or biodiversity impacts.

The delineation of the buffer zone of the park is informed by the critical biodiversity area map for the Overberg District (and adjacent districts) (Accessible at <http://www.bgis.sanbi.org/Overberg/project.asp>. critical biodiversity areas in the surrounding landscape were evaluated in terms of their importance to the park. Key issues are the corridors and linkages down the Breede River via key remaining patches of lowland Renosterveld to De Hoop Nature Reserve, and also north to the Marloth and Boosmansbos Nature Reserves. These areas (especially the corridor down the Breede River) should form the focus for corridor protection initiatives.

The buffer zone for the park has two overlaying categories, namely priority natural areas, and a visual/aesthetic zone (Map 6).

**Priority natural areas:** These are key areas for both pattern and process that are required for the long term persistence of biodiversity in and around the park. The zone also includes areas identified for future park expansion and corridor initiatives. Inappropriate development and negative land-use changes should be opposed in this area. Developments and activities should be restricted to sites that are already transformed. Only developments that contribute to ensuring conservation friendly land-use should be viewed favourably.



**Viewshed protection areas:** These are areas where development is likely to impact on the aesthetic quality of the visitor's experience in a park. Within these areas any development proposals should be carefully screened to ensure that they do not impact excessively on the aesthetics of the park. The areas identified are only broadly indicative of sensitive areas, as at a fine scale many areas within this zone would be perfectly suited for development. In addition, major projects with large scale regional impacts may have to be considered even if they are outside the viewshed protection zone.

Current status and future improvements:

The BNP CDF will be updated, if required, during the current update cycle.

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## Section 7: Access and facilities

### 7 Introduction

The infrastructure of the park is shown in appendix 4 map 8.

#### 7.1 Public access and control

Public access points and control measures as required in the guidelines are briefly discussed as follows:

**Access points to the park.** Vehicular access points to visitors are through an unmanned access gate that is unmanned with all visitors required to report to reception about 3km from the gate. There is also a new access gate which is planned to be fully operational within this planning cycle, however it is currently only opened during peak season.

**Internal access control.** Guests inside can explore the park in a vehicle, mountain biking or walking on designated tourist roads and trails (maps available at reception).

#### 7.2 Areas with restricted access

All guests are restricted to the designated tourist roads and not allowed to walk in the veld. There are a few management roads with no entry signs throughout the park and also the Restcamp is restricted to overnighting guests only.

#### 7.3 Landing fields and flight corridors

The park has no designated landing fields or flight corridors. A municipal landing strip is situated some 3kms from the reception.

#### 7.4 Facilities for vessels

There are currently no facilities for vessels.

#### 7.5 Visitor and administrative facilities

The park currently offers the following facilities:

- Lang Elsie's Kraal Rest Camp - income generating overnight accommodation facility.
- Three viewpoints, viewing deck and designated fishing spot.
- Hiking and mountain bike trails.
- Day visitor facility (for functions) and picnic area.
- Self drive game viewing.
- The park also currently has the following administrative facilities & features:
- The current park administration buildings, garages and a workshop, store room and two staff houses.
- A new administration building.

#### 7.6 Mining

No mining, legal or otherwise, is currently known to occur in the park.

### **7.7 Commercial activities**

The park currently has no commercial or concessio areas.

### **7.8 Community use**

None.

### **7.9 Servitudes**

None.





## Section 8: Consolidation and expansion

The expansion and consolidation of the park is in line with the national strategic objective (DEA 2005) of expanding South Africa's protected area system. The expansion and consolidation programme are also informed by SANParks policy regarding land inclusion (SANParks 2006; Knight *et al.* 2009), and the National Protected Areas Expansion Strategy (DEA 2008) and the three year rolling land acquisition plan. It is important to note that this three year plan can change due to the availability of funds, willing buyer willing seller concept and the negotiation process.

The vision for the park includes the desire to promote landscape linkages to enhance the conservation of its unique and important fauna and flora of the Swellendam region with the support and active participation of all its stakeholders. However given the parks small size and its position in a very fragmented environment, there is a desire to minimise the visual intrusion of the surrounding transformed landscape and the impact of the hard boundary on the parks aesthetic qualities (appendix 4 map 3).

The park is situated in a nationally identified priority conservation area as identified by the South African national conservation assessment (Driver *et al.* 2005). As the park contains some of the largest intact samples of the critically endangered lowland fynbos vegetation types, it is considered of global conservation significance (Cowling *et al.* 1986). The renosterveld in particular remains the most heavily transformed vegetation type in the Cape Floral Kingdom. As such, the expansion of the park remains important for SANParks in its attempt to consolidate the remaining fragments of the lowland fynbos in a highly fragmented and transformed landscape. This is despite the fact the park does not conform to internationally accepted norms for a national park. In response to this, there is an Overberg Bioregional Initiative that attempts to link the protected areas and remaining natural vegetation patches via corridors through conservation stewardship programmes from the Langeberg Mountains via Marloth Nature Reserve and Bontebok National Park down the Breede River to the coast and de Hoop Nature Reserve.

The 3,476.30 ha large park currently has three vegetation types, namely the critically endangered Cape Lowlands Alluvial and Eastern Ruens Shale Renosterveld vegetation types, and the endangered Swellendam Silcrete Fynbos vegetation types, that make up 6.2 %, 0.03% and 93% of the park, respectively (Mucina & Rutherford 2006). An expanded park would seek to consolidate all the remaining surrounding fragments of lowland fynbos in the adjacent area. All three of the vegetation types are poorly protected, with the park being the principle conservation area (>84% of the protected area) for two (Cape Lowlands Alluvial Vegetation, Swellendam Silcrete) of the vegetation types.

The southern area focuses primarily upon the protection of the viewshed on the southern bank of the Breede River and entails about 420 ha of land. This would increase representation of the endangered Eastern Ruens Shale Renosterveld vegetation type with a little of the Cape Lowlands Alluvial vegetation type. Collectively these could increase the park to about 4,190 ha.

This expansion would be in line with the fine scale planning for the renosterveld areas (Cowling *et al.* 1999; Von Hase *et al.* 2003). If these expansions were via acquisition only it may cost in the region of R4.0 m.

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## Section 9: Concept development plan

### 9 Introduction

Biodiversity conservation and protection is the primary reason for the park, and this was considered in every action included in the management plan.

In addition to the information required by NEM:PAA as set out in Section 9 of the guidelines, this part of the plan outlines all the discrete but often interlinked issues and focus areas management must address. These are developed into objectives and actions in Section 10 and, as a whole, state the activities that will direct the park towards the desired state for the park being reached. The actions have been formulated to achieve one or more of the high level objectives with links between different objectives and actions.

Only a summary of each management activity is presented in this section, with the detail being further developed in Section 10 or in specific lower level plans. In some cases these are presented as part of a long-term framework extending beyond the timeframe of this plan. It must be noted that this long-term framework not only considers appropriate development in the park *per se*, but also restoration and rehabilitation requirements in accordance with the CDF for the park.

The achievement of the park's growth aspirations depends on understanding the relationships and inter-dependencies between various strategic planning processes in the region. These range from bioregional planning through to the district and local Spatial Development Frameworks (SDFs), all incorporated into the park's consolidation programme and the park's CDF.

#### 9.1 Development Nodes

No new development nodes for the park are currently envisaged.

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## Section 10: Strategic plan

### 10 Introduction

Sections 3, 4 and 5 of this plan outlined the policy framework, the consultation process and development of a mission and high level objectives for the park. In this section the goals and higher level objectives of the park are developed into lower level objectives and sub-objectives and finally into operational actions. In this way decision-making, even at the operational level, can be traced all the way back to the core values and inputs from stakeholders on which they have been based. This approach conforms to the requirements of the NEM:PAA, the NEM:BA, SANParks policy, and ratified international conventions.

Programmes of implementation, developed as outlined above, form the strategic plan for this planning cycle, are arranged under the following headings:

- Bioregional
- Biodiversity
- Tourism
- People and Conservation
- Effective Park Management

Each programme is presented as follows:

- **Programme name:** A name describing the programme
- **High level objective:** Stating the overall goal of the programme
- **Background:** Overview of intent, guiding principles, description, outcome, research and monitoring and risk (all where applicable)
- **Tables:** Outline of objectives, initiatives and management actions within the scope of the objective with an indication if the programme is once odd, continuing or conditional on the availability of resources. These tables have the following headings:
  - **Initiatives or objectives** The various initiatives or objectives, derived from the hierarchy of higher level objectives, which make up each programme.
  - **Actions:** The actions necessary to achieve the objective.
  - **Responsibility:** The SANParks person, section, department, division or unit responsible for implementing the action.
  - **Indicator:** A measure whereby the achievement of the objective can be evaluated.
  - **Timeframe:** An indication of when the action is likely to be completed (indicated by year over the planning cycle).
  - **References:** References to relevant programmes, Lower Level Plans (LLPs) or other documents

#### 10.1 Bioregional

##### High level objective

To cooperate with relevant international, national, provincial and local government structures insofar these affect the park

### 10.1.1 Mainstreaming biodiversity

#### High level objective

**Mainstreaming biodiversity:** To mainstream biodiversity issues in local and other planning frameworks

The purpose of this programme is to ensure that the park's biodiversity goals are integrated into all levels of planning.

The achievement of the park's aspirations depends on understanding the relationships and inter-dependencies between various strategic planning processes in the region. These range from the bioregional planning, through to the district and local IDPs and SDFs, into the park's consolidation and conservation development frameworks.

MAINSTREAMING BIODIVERSITY PROGRAMME					
High level objective: To mainstream biodiversity issues in local and other planning frameworks					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To conserve systems and processes within the park and buffer zone.	Collaborate with relevant structures by communicating, participating with and contributing to actions and activities.	PM, Regional Planning	Minutes	Ongoing	
	Identify and map ecological corridors and buffer zones for the conservation according to national criteria	PM, Regional Planning	Map of areas	Year 1	DEA buffer zone policy
	Implement actions that promote conservation outcomes in buffer zone and corridors	PM, Regional Planning	Outcomes achieved	Year 1, ongoing	
To mitigate external threats and pressures to and on the park	Identify possible external threats from development	CSD, PM	List of threats	Ongoing	
	Participate in IDP and SDF processes to influence decisions	PM,	Minutes of meetings	Ongoing	
	Engage with relevant forums and participate in EIAs, scoping etc.	PM	Scoping, EIA reports	Ongoing	
	Plan and implement appropriate interventions in response to pressures with relevant parties	CSD, PM	Minutes of meetings, plans	Ongoing	



### 10.1.2 Land consolidation / expansion

#### High level objective

**Land consolidation / expansion:** To acquire conservation worthy and strategically important land for the consolidation and expansion of the park

The purpose of this programme is to achieve the SANParks goal of conserving ecological systems and patterns typical of the region by acquiring conservation worthy land through purchase or other means.

LAND CONSOLIDATION / EXPANSION PROGRAMME					
High level objective: To acquire conservation worthy and strategically important land for the consolidation and expansion of the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To consolidate private land parcels of conservation or strategic importance to the park	Prioritise list of identified land parcels of immediate importance to the park for this planning cycle	CSD, PM, Region	List available	Year 1, ongoing	
	Evaluate and assess properties for acquisition	CSD, PM, Regional Planning	Evaluation, reports	Year 1, ongoing	
	Obtain approvals for acquiring identified properties	CSD, PM, RM	Approval document	Year 1, Ongoing	
	Engage with private land owner/s to initiate negotiations	CSD, PM, RM	Minutes & reports	Ongoing	
	Acquire land according to expansion policy	CSD	Deed or contract	Year 2, ongoing	
	Facilitate the declaration of acquired land as national park	CSD, RM	Declaration	Year 5	

### 10.2 Biodiversity

#### Objective

**Biodiversity:** To conserve a representative sample of the region's ecological patterns and processes, and to maintain the park's unique sense of place by mitigating internal and external threats and pressures, and restoring ecological integrity where necessary



## The biodiversity monitoring system

Monitoring is a required component of legislation and SANParks' strategic adaptive management (SAM) approach, the biodiversity monitoring system (BMS) (McGeoch *et al.* 2011) has been drawn up by scientific specialists across a range of fields, to act as an overarching guiding framework for the "how" (primarily) of monitoring at the point where the adaptive planning process meets the implementation or management component of the SAM cycle. The BMS aims to ensure common standards for monitoring, to provide a crosscheck that issues have not been omitted and serves to integrate information for reporting purposes. All of this information is then collated and assessed for logistical feasibility and synthesized into a park monitoring plan that is relevant to and prioritises the key concerns. Based on the processes (mechanisms) and underlying change towards/away from those threats, it appropriately identifies the best "early warning signal", as well as evaluates the management outcome of the particular management approach taken.

The BMS prioritization process takes into account the top priorities of a park across the 10 biodiversity monitoring programmes (BMP) and assigns each a score according to the rating given in consultation with park management and scientific services. The top three programmes with the highest scores will be dealt with as a priority over the next review cycle, and form the basis of the content of the biodiversity lower level plan for each park.

### 10.2.1 Ecological systems

#### High level objective

1. Ecological systems: To understand and manage fire, mammalian herbivory and plant diversity interactions and dynamics

In the park the key concerns are the fire history (too frequent prescribed burns) in the park and the need to continue managing for an appropriate fire regime to restore the plant communities in the park.

Bontebok is the key mammal species of special concern and the maintenance of the bontebok population is also a key concern (Kraaij 2010). The relationship between fire, the availability of forage for herbivores (specifically bontebok), herbivory impacts on the vegetation and plant diversity encompass the elements and interactions of key concern to the park.

The rationale behind the burning regime and its application in the park since 1970 has been extensively discussed and debated, both internally and externally.

A short-rotation (4-yr) fire cycle was instigated ten years after the park's proclamation at Swellendam, the main aim being to provide sufficient grazing (grass) for the bontebok in the management units comprising renosterveld (having "reasonable cover of grass"), and to promote a more even distribution of grazing pressure. The remaining management units, those with less grass and more characteristic fynbos species, were burnt in rotation at longer intervals (10-12 years) (SoKR 2011).

Grazing is another important determinant in renosterveld ecosystems and interacts with fire in its effects on the vegetation (Kraaij & Novellie 2010). While fire may be used as a management tool to promote grassiness, regular burning followed by intense grazing may lead to the destruction of the grass sward and a thickening up of shrubs.

Because of the small size of the park and the way in which fire and grazing interact, the two main management objectives of BNP are in constant conflict). Conservation of the vegetation, implicating correct fire practice, has to be traded off against the maintenance of a viable bontebok population (Kraaij & Novellie 2010).

Taking the mentioned constraints and current understanding of vegetation ecology into account, a new burning regime (with implications for the stocking rate of bontebok;) was adopted by BNP in 2004 (Kraaij 2010). The amended fire plan is based on a rotation of not less than eight years in renosterveld vegetation and 16 years in fynbos, allowing for some variation, with burning done in late summer/early autumn. The original fire management blocks were retained but grouped into units of sufficient size, having considered the latest changes in service and tourist roads. Die Stroom was also included in the plan and burnt for the first time by park management in the late summer of 2005 (Kraaij 2010).

The first management plan for BNP (Robinson *et al.* 1981) set the maximum stocking rate of bontebok at 200 and grey rhebuck at 100. It has often been pointed out those monitoring needs to be done to ascertain whether grazing is having a deleterious effect on the vegetation over the long-term (Novellie & Kraaij 2010).

Prolonging the fire cycle under the new burning regime (see 5.1.1; Kraaij 2010) could in effect result in a reduction in the amount of forage available to bontebok.



Thus, in order to appropriately distribute grazing pressure in space and time, it was suggested that the bontebok population be reduced from a maximum stocking rate of 200 animals to fluctuating between 130 and 170 individuals (Kraaij & Novellie 2010). The stocking rate of bontebok should continually be re-evaluated in view of vegetation condition. Vegetation monitoring should thus be done to determine if changes in vegetation cover and composition occur as a result of the altered management (fire and stocking) regime (Kraaij & Novellie 2010; Novellie & Kraaij 2010).

Given that bontebok are concentrate grazers, the focus should be on monitoring the use of preferred grass species. Grass species most heavily grazed are *Themeda triandra*, *Eragrostis curvula*, *Merxmuellera stricta*, *Pentaschistis eriostoma* and *Stipagrostis zeyheri* (Novellie 1987). Despite not being one of the most preferred species, *Cynodon dactylon* may be used as an indicator that bontebok will use a certain habitat (SoKR 2011).

Another aspect that should be considered in monitoring the effects of herbivory is the dynamics of bontebok grazing lawns (Novellie & Kraaij 2010). Territorial males prefer those vegetation types that have small patches of either grazing lawns or naturally occurring *Cynodon dactylon* lawns regardless of the nature of the surrounding vegetation. Moreover, indications are that the territorial dung sites of these males may be responsible for initiating at least some of the grazing lawns. It is likely that a positive feedback loop starts with local enrichment of the soil caused by dung middens of territorial male bontebok, with trampling further decreasing shrub cover at the site. Increases in grass species and annuals that prefer soils high in nitrogen and that are usually higher in nutritional content themselves, would likely increase grazing, in turn resulting in grazing tolerant, but productive grass species such as *C. dactylon*, becoming dominant. These productive lawns would be able to sustain increased bontebok densities, in turn resulting in expansion of grazing lawns (Novellie & Kraaij 2010). If the park objective is overall biodiversity conservation, monitoring should serve to alert management to a situation where grazing lawns increase at the expense of other species.

ECOLOGICAL SYSTEMS PROGRAMME					
<b>High level objective:</b> To conserve a representative sample of the region's ecological patterns and processes, and to maintain the park's unique sense of place by mitigating internal and external threats and pressures, and restoring ecological integrity where necessary					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To manage fire regimes so that natural patterns and processes are not compromised	Map and maintain fire belts to conduct scheduled block burning as per schedule in the LLP	PM, SR, CSD	LLP	Ongoing	
	Train staff in prescribed burning	PM	Training records	Ongoing	
	To maintain all fire management equipment	PM	Maintenance done	Ongoing	
	Liase with neighbours and local authorities regarding prescribed burning	PM, SR	Permits	Ongoing	
	Research and monitor to review the impact of fire regime on the ecosystems	CSD, PM	Research report	Ongoing	
To prevent and suppress wild fires	Determine the location of all firebreaks in terms of legislative requirement	PM, SR	Fire management plan	Ongoing	
	Actively participate in local Fire Protection Association	PM, SR	Membership	Year 1, ongoing	
	Maintain readiness during fire season and days of high FDI	SR	Reports	Ongoing	
	Research and monitor to review the impact of fires on the ecosystems	CSD, PM	Research report	Ongoing	
	Record and report on all fire incidents as per fire management plan	SR, CSD	Reports	Ongoing	
To maintain appropriate genetically healthy assemblages and understand the role of herbivory impact and its interactions with plant diversity at different scales	Analyse historical herbivore records in conjunction with vegetation survey reports and maps and make recommendations as per LLP	CSD	Scientific report	Year 1	
	Identify potential actions for herbivore management	CSD	Scientific report	Ongoing	
	Monitor and assess Mountain Zebra population for sarcoid disease	SR, CSD	Scientific report	Ongoing	
	Implement actions recommended in LLP	PM, SR	Reports	Ongoing	
	Maintain regular road census of herbivores, submit reports to CSD	SR	Annual Report	Ongoing	
To control feral and extralimital animals within park boundaries.	Monitor the impact and extent of feral and extralimital animals in the park	SR, FR	Quarterly report	Ongoing	
	Develop actions and strategies to deal with feral and extralimital species	SR	Reports	Ongoing	
To maintain appropriate plants and animals, roles and interaction of species	Undertake a literature review of all research undertaken on fauna and flora in the park	CSD	Inventory list	Year 1	
	Conduct field surveys and trapping of small fauna, record all species and send specimens for identification	SR, CSD	Reports	Ongoing	
	Recommend management interventions and implement them	CSD, SR	Reports	Ongoing	
	Regularly monitor and review plan	PM, SR, CSD	Scientific report	Year 3, ongoing	



## 10.2.2 Species of special concern

### High level objective

**Species of special concern:** To understand, maintain and monitor viable populations on the IUCN Red List and species of special concern

The park was established for the primary purpose of conserving bontebok. However several other threatened and endemic plant species (and possibly other taxa) are found in the park and priority species need to be monitored to identify necessary management actions and to ensure the persistence of such species in the park. The park also has within its boundaries 3 threatened vegetation types, Cape lowlands alluvial vegetation, eastern ruens shale renosterveld, and Swellendam silcrete fynbos. All of these lowland vegetation types are globally considered to be of high conservation priority (Cowling and Pierce, 1999; Driver *et al.*, 2005). The eastern ruens Shale renosterveld which falls under the broader coastal renosterveld vegetation classification is the most altered vegetation type of those within the park, 85 % being lost mainly to agriculture (Moll and Bossi, 1984). Due to the virtual destruction and extremely fragmented nature of this vegetation type is regarded as critically endangered (Cowling *et al.*, 1986; Von Hase *et al.*, 2003). The high conservation status of the renosterveld thus raises the conservation importance of the park.

SPECIES OF SPECIAL CONCERN PROGRAMME					
High level objective: To understand, maintain and monitor viable populations on the IUCN Red List and Species of Special Concern					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To implement monitoring of SSC	Schedule field survey days for monitoring of target SSC.	CSD, SR	Monitoring done	Year 1	
	Record and collate SSC monitoring data.	CSD, SR	Database populated, lists	Year 1, ongoing	
	Develop vegetation/species specific recommendations	CSD, SR	Scientific report	Year 2, ongoing	
	Implement, monitor and report on recommended management actions.	PM, CSD	Scientific report	Year 2, ongoing	

### 10.2.3 Water in the landscape

#### High level objective

To reduce threats and limit the impacts of water use in the Breede River within the park

The main threats to the Breede River section within the park boundaries include: upstream land-use practices (and associated water abstraction and potential pollution of the river) and alien and invasive plants and fish.

The riverine habitat is invaded and water hyacinth periodically flushes into and out of the park from upstream. Park management has little or no control of the water quantity and quality of the river as these are influenced by upstream factors (Russell, 2001). Monitoring of the river system within the park forms part of the fresh water and estuarine management programme, and the upstream land use falls within the habitat representation and persistence Management programme. All other external threats and pressures to the park will also be monitored via the habitat representation and persistence management programme (McGeoch *et al.*, 2011).

No programme was developed for this aspect.

### 10.2.4 Alien and invasive species

#### High Level Objective

Alien and invasive species: To anticipate, prevent entry and where feasible control / eradicate alien species

Alien and invasive species (IAS) are considered important for monitoring in BNP, the majority of the IAS has been removed through the Working for Water programme, however there still exists many IAS on neighbouring lands and along the riverine area. Monitoring of the spread of the IAS along the borders of the park is required and regular cleaning and clearing of species washed down the Breede River and into the park after high flow and flood events. A list of alien species is available for the park (Spear *et al.* 2011), along with associated comments on the habitat association and some information on density and extent of occurrence. The Cape research centre has completed mapping all alien plant species including non-woody aliens and will contribute baseline data for the park. Layers of data on woody alien plant distribution and clearing efforts from WfW (ISCU) will also be considered in the monitoring actions for the park. The outcomes of the global environmental change (GEC) project (<http://www.sanparks.org>) of the outcome of the Cape research centre will inform the actions needed in BNP to combat and control IAS.

Reports will include the status of IAS in BNP, as well as recommendations for prevention of future invasions and information on pathways of introduction. There are currently an estimated 63 alien and invasive species in the park, including 6 fish, 1 insect, 1 frog and one bird species as well as approximately 54 plant species (Spear *et al.* 2011).

Various SANParks policies and corporate strategies have been developed to provide a framework for invasive species management across the SANParks estate. These include:

- SANParks policy framework on management of invasive alien species
- The alien clearing plan will be carried out in conjunction with the rehabilitation programme of the park (to be developed) which should provide details
- SANParks' approach to plants in gardens and camps. Although no park specific policy for ornamental plants exists, other guiding legislation and corporate policy provide the directive.
- Decisions on historical importance of trees need to be developed within the cultural resource policy plan.
- All herbicides will be strictly managed according to the SANParks / ISCU herbicide management policy (titled "Working for water: policy on the use of herbicides for the control of alien vegetation").
- The alien management programme will need to consider the importance of fire in the park
- Park-specific measures should be developed to address issues around non-invasive alien species that may be permitted
- Guiding principles for alien clearing:
  - The status of the aliens and invasive species must be considered before an eradication programme begins
  - The park should be divided into management units
  - The general approach should give priority to the areas with a high risk or threat to biodiversity

SANParks has a legal obligation to control and eradicate weeds and invader plants in terms of CARA. The control and eradication strategy is therefore based in the list published in terms of the CARA and the associated regulations as well as the invasive species identified in the park. DEA is currently in the process of finalising an alien invasive species list to be published in terms of the NEM:BA. SANParks acknowledge that as soon as this list has been gazetted the park will have to comply with section 70 to 77 of the NEM:BA. SANParks will align the alien species control and eradication programme accordingly.



ALIEN AND INVASIVE SPECIES PROGRAMME					
High level objective: To anticipate, prevent entry and where feasible control / eradicate alien species					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To identify extent of existing IAS in the park	Conduct a field survey of entire park for IAS	ISCU, CSD	Date sheets	Year 1	
	Map park for all IAS record data	SR	Maps	Year 1	
To identify potential new invasive species and probable avenues of introduction	Update list of IAS and identify new problem species	CSD	Lists	Ongoing	
	Develop early warning system for new IAS	ISCU, project managers	Reports	Ongoing	
	Develop systems for dealing with IAS	ISCU, CSD,	Systems developed	Ongoing	
To plan and implement AIS control programmes	Review and update MUCP for the park	CSD, PM, ISCU	Priority list	Year 1, ongoing	
	Develop APO within financial and other capacity constraints	ISCU, PM	APO developed	Ongoing	
	Implement clearing operations	ISCU, PM	Reports	Ongoing	
	Monitor and review success of clearing operations	SR, ISCU, CSD	Annual report	Year 1, ongoing	
To effectively control alien fish population in Breede River	Assess the occurrence of alien fish species	ISCU, CSD, PM	Scientific report	Year 2, ongoing	
	Develop strategies to control fish species	PM	Species lists	Year 1, ongoing	
	Monitor success of strategies	CSD	Reports	Ongoing	
To rehabilitate degraded and transformed land	Identify and prioritise degraded sites	PM, SR	Land identified	Ongoing	Separate programme - next
	Develop and implement rehabilitation plans for individual sites	SR	Plans	Ongoing	
	Monitor management interventions and actions	CSD	Report	Ongoing	



## 10.2.5 Habitat degradation and rehabilitation

### High level objective

**Habitat degradation and rehabilitation:** To rehabilitate and restore natural patterns and processes of degraded land and monitor recovery

Habitat degradation in the park is closely related to the ecological systems management plan, with inappropriate fire regimes (Kraaij 2010) and overgrazing being the two historical and/or potential threats to biodiversity in the park.

Other causes of habitat degradation include roads and trails, the building and maintenance thereof and associated edge effects, as well as erosion (Williams *et al.* 1997). There are areas of the park that require rehabilitation, including old municipal quarries/ shooting ranges, decommissioned roads, old agricultural land, old settlement areas, wetlands and land cleared of alien plants (Holmes *et al.* 2008). Activities relating to the rehabilitation efforts in the park will fall under the habitat degradation and rehabilitation programme.

HABITAT DEGRADATION AND REHABILITATION					
High level objective: To rehabilitate and restore natural patterns and processes of degraded land and monitor recovery					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To identify and map areas of habitat degradation	Conduct sites visit and using Habitat Degradation and Rehabilitation Monitoring Programme assessment document identify and list areas of degradation in BNP.	CSD, SR	Maps	Year 1	
To list and rank causes of degradation	Prioritize areas for rehabilitation base on the Habitat Degradation and Rehabilitation Monitoring Programme assessment document.	CSD, PM	Priority lists	Year 1	
To rehabilitate old shooting range/quarry	Develop rehabilitation plan.	CSD, SR	Plan and APO	Year 2	
To implementation rehabilitation of old shooting range	Rip compacted soils, collect seed and brush for sowing. Place erosion control weirs and gabions where required.	CSD, SR	No impact on surrounding vegetation. Seedlings germinating in first season.	Year 3	
Monitor management interventions and actions	Seasonal monitoring of restoration actions and regular reports of progress or set backs.	PM, CSD	Annual report	Year 2, ongoing	





### 10.3 Responsible tourism

#### Objective

To develop, manage, enhance and serve a range of ecotourism products so as to ensure a memorable visit for all visitors to the park and region.

The purpose of this programme is to find a balance between providing products and activities for the appropriate use, appreciation and enjoyment of the park by visitors while having minimal impacts on conservation and biodiversity assets. Tourism programmes are aimed at the development, management, enhancement and provision of a range of sustainable tourism products to ensure a memorable experience for all park visitors.

The scope for diversifying tourism products or to increase income generation is relatively limited. Infrastructure development will be limited to a new entrance gate.

Tourism opportunities were developed in the park in order to generate income for the organisation so as to support the conservation of biodiversity and cultural assets while affording tourists the opportunity to enjoy a diverse range of nature based tourism products and activities.

The park contains irreplaceable resources, unique in the South African context, but these resources are also fragile, hosting a number of endemic species, important aquatic and wetland systems and sites of paleontological, archaeological, historical and cultural significance which could all be an attraction to tourists. At the same time, these have to be protected. Use zones are developed to ensure responsible tourism activities balancing conservation values with the need to generate increased revenue. It follows that the effects of tourism activities must be monitored so that potential threats are identified, addressed and mitigated in management plans.

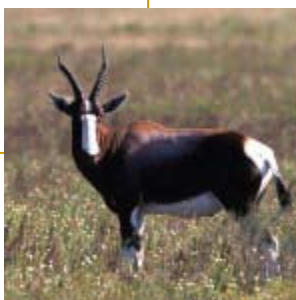
#### High level objective

**Integrated tourism management:** To collaborate with the greater Overberg Region in promoting the park as a tourism destination that offers optimum and effectively managed tourism activities and products to ensure a memorable experience for all

### TOURISM PROGRAMME

**High level objective:** To collaborate with the Greater Overberg Region in promoting the park as a tourism destination that offers optimum and effectively managed tourism activities and products to ensure a memorable experience for all

Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure that visitors have access to a range of unique, top quality and services in line with diverse and dynamic visitor needs	Improve tourism experience at access gates and through the park (e.g. signage, clean roads)	PM, STO	Stakeholder / customer feedback	Ongoing	
	Identify and conduct feasibility studies for new products to be introduced	RM, PM, STO	Studies available	Ongoing	
	Prioritise and implement development plans	RM, PM, STO	Plans available	Year 1, ongoing	
	Develop initiatives to increase the number of black visitors	RM, PM	Visitor profile	Ongoing	
	Monitor performance of new products and visitor profile	RM, PM, STO	Reports	Year 1, ongoing	
To ensure that tourism products and services provide value for money experiences	Review pricing for park products annually	PM, RM	Tariff document	Ongoing	
	Provide best practice customer care through training of staff	PM, RM	Training reports	Ongoing	
	Evaluate feedback from tourists	PM, STO	CSI Index	Ongoing	
	Ensure that feedback issues are addressed where appropriate	RM,			
To market the tourism products in the park in order to increase tourism numbers and revenue	Participate in local and regional tourism structures and events	PM, STO, P&C	Report	Ongoing	
	Undertake tourism co-ordination & liaison with local tourism bodies wrt park products	PM, STO	Meeting Minutes / Outcomes	Ongoing	
	Review and assess effectiveness of current marketing material	PM, STO, P&C	Assessment report	Ongoing	
	Develop and produce marketing material to local and regional institutions	PM, STO, P&C	Marketing material available	Ongoing	
	Identify strategic distribution of marketing material in order to ensure that essential information reaches target groups	PM, STO	Increases in numbers, activities and revenue	Ongoing	



## 10.4 People and conservation

Given the inclusive approach to conservation management by SANParks, the people and conservation (P&C) department was established to build constituencies among people in support of the conservation of the natural and cultural heritage assets within national parks. Through strengthening relationships with neighbouring park communities, management of cultural resource and indigenous knowledge management, environmental education, awareness and interpretation, social science research, and youth outreach, the park is contributing towards developing a people centred approach to conservation management. The key management activities for the next planning cycle are to increase the cultural heritage value and environmental education (EE) interpretation. Activities include:

- Proactively engage a wide range of park stakeholders on relevant issues.
- Maintain an active Park Forum.
- Undertake targeted local economic development projects which encompass support for local small, micro and medium enterprises, the outsourcing of commercial facilities through public private partnerships and the development of sustainable natural resource products.
- Continually improve the EE and awareness programmes.
- Develop and support the park volunteers such as the SANParks Honorary Rangers and volunteer associations (e.g. Global Vision International).

Three high level objectives, each with its own objectives were developed.

### 10.4.1 Cultural heritage

Cultural heritage actions are aimed at the establishing and sustaining the significance, authenticity and integrity of the of heritage resources for which SANParks is responsible for the enjoyment and benefit of visitors to the park.

#### High level objective

**Cultural heritage:** To sustain the authenticity and integrity of the heritage resources

The purpose of this programme is to research, protect and encourage awareness of the diverse heritage associated with the park in conjunction with surrounding communities. Heritage actions are aimed at the establishing and sustaining the significance, authenticity and integrity of heritage resources for which SANParks is responsible for the enjoyment and benefit of visitors to the park.

The cultural heritage of the park is subject to the National Heritage Resources Act no 25 of 1999. This Act encourages the development of heritage management plans for proper management of heritage resources.

CULTURAL HERITAGE PROGRAMME					
High level objective: To sustain the authenticity and integrity of the heritage resources					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To develop a comprehensive inventory of cultural heritage resources	In collaboration with stakeholders undertake and maintain an inventory of heritage resources associated with the park with a significance rating	P&C, others	Lists, records	Ongoing	
	Develop and then maintain a database of the cultural mapping of the tangible and intangible heritage resources associated with the park	P&C	Lists	Ongoing	
	Capture the internal history of the park such as park establishment, anecdotal stories, park highlights, etc. formally	P&C	Lists	Year 1, ongoing	
	Formalise the evaluation of heritage management through a State of Cultural Heritage Report	P&C	Report	Year 3	
To establish and strengthen partnerships which encourage research for the benefit of local people and visitors experience	Identify possible research institutions/individuals to conduct prioritised research in partnership with local heritage groups	PM, P&C	Reports	Ongoing	
	Identify and prioritise research needs for cultural heritage	PM, P&C	Minutes of meetings	Year 1, ongoing	
	Facilitate appropriate research activities	PM, P&C	Reports		
	Monitor and evaluate research recommendations for management implementation	PM, P&C Officer	Reports	Year 2, ongoing	
To improve the management of cultural heritage	Formulate site management plans for individual sites	P&C	Plans available	Year 2, ongoing	
	Record oral history related to the park	P&C	Records	Ongoing	
	Identify appropriate sites for SAHRA declaration	P&C	Declaration of sites	Year 3, ongoing	SAHRA declaration
	Implement and monitor compliance with management plans	P&C	Reports		
To provide for adequate interpretation of cultural heritage resources for the enhancement of visitor	Identify and prioritise appropriate cultural heritage for interpretation	CRC, P&C	Priority list	Year 1, ongoing	
	Ensure that appropriate interpretative materials is developed for identified sites	P&C, CRC	Materials available	Year 2, ongoing	
	Monitor and evaluate effectiveness of interpretative materials	P&C, CRC	Public feedback	Year 2, ongoing	



## 10.4.2 Stakeholder engagement

### High level objective

**Stakeholder engagement:** To engage and strengthen relationships with stakeholders in order to enhance and contribute to mutual goals and objectives

The purpose of this programme is to maintain and support stakeholder cooperation.

Co-operative, collaborative and mutually beneficial relationships are essential for the park to reach its stated objectives. To this end, both formal and informal partnerships are initiated, maintained and nurtured with all levels of government, business partners, community organisations, non-governmental organisations, customers and employees.

STAKEHOLDER ENGAGEMENT PROGRAMME					
<b>High level objective:</b> To engage and strengthen relationships with stakeholders in order to enhance and contribute to mutual goals and objectives					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To build sound cooperation and stakeholder relationships with all involved with the park	Develop a plan for stakeholder engagement	P&C	plan available	Year 1	
	Building relationship with stakeholder through engagement in terms of plan	P&C	Reports	Ongoing	
	Evaluate the effectiveness and value of the plan	P&C	Reports	Ongoing	
To provide a platform for mutually beneficial relationships between the park and its stakeholders including a Park Forum	Review existing structure	PM, RM			
	Review Park Forum Charter including representativity				
	Arrange Quarterly Park Forum Meetings	PM, SR, P&C	Minutes	Ongoing	
	Monitor and evaluate the effectiveness of the structure	RM, PM P&C	Minutes	Year 1, ongoing	
To co-ordinate and support volunteer groups (SANParks Honorary Rangers, GVI volunteers etc.)	Identify park requirements and needs and ensure that these are communicated to the groups	PM, P&C	Funds raised	Ongoing	
	Facilitate appropriate allocation in park's activities	P&C	Programmes	Ongoing	
	Monitor and guide activities	SRR	Reports	Ongoing	

### 10.4.3 Environmental education

#### High level objective

**Environmental education:** To promote awareness and encourage participation in programmes and activities of the park and region related to learning and about conservation and heritage

The purpose of this programme is to build constituencies by knowledge transfer and awareness creation amongst people in support of SANParks' conservation endeavours by playing a significant, targeted and effective role in promoting a variety of educational opportunities and initiatives. The park will continue to focus attention on youth development and environmental education and interpretation for various user groups and the communities around the park.

As a national park that should be preserved for future generations, all issues pertaining to the core business of the park in relation to environmental education should be researched on a continuous basis. This will include the capacitating and training of staff within the specialist areas of the variety of the programmes. External evaluation of the EE programmes that are presented in the park will be done by means of an evaluation feedback form that will be supplied to all groups.

ENVIRONMENTAL EDUCATION PROGRAMME					
High level objective: To promote awareness and encourage participation in programmes and activities of the park and region related to learning about conservation and heritage					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To provide youth development programmes in order to build a conservation constituency (junior honorary rangers, Journey Youth Trails)	Identify types of youth development programmes related to the park	P&C, RM, HO	List of programmes	Ongoing	
	Plan and develop youth development programmes	P&C, PM	Resources available	Ongoing	
	Implement programmes	P&C	Programmes	Ongoing	
	Evaluate effectiveness of programmes and update as necessary	P&C, PM	Resources	Ongoing	
To implement environmental education programmes	Review and update existing environmental education programmes	P&C, PM,	Programmes	Year 1, ongoing	
	Adapt or develop new programmes as indicated	P&C, PM,	Programmes	Year 1, ongoing	
	Promote programmes by visiting identified groups	P&C	Schedule	Ongoing	
	Develop resources and interpretive materials for effective environmental education	P&C, PM, Hon Rangers	Resources available	Ongoing	
To develop awareness programmes in order to promote the park and conservation	Develop awareness programmes based on calendar days	P&C, PM,	Programmes	Year 1, ongoing	
	Prioritise days to celebrate and select appropriate days according to resources	P&C, PM,	Programmes	Year 1, ongoing	
	Identify and liaise with target groups	P&C, PM,	Programmes	Ongoing	
	Coordinate specific activities related to events	P&C, PM,	Programmes	Year 1, ongoing	
	Organise activities	P&C, PM,	Programmes	Ongoing	
	Evaluate and review programmes	P&C, PM,	Programmes	Ongoing	



## 10.5 Effective park management

### Objective

**Effective park management:** To ensure that the park is managed effectively through adapting organisational goals and strategies to the specific environment of the park

Effective park management programmes (including daily, weekly, monthly quarterly and annual actions, reports and reviews) are geared to ensuring that the values and objectives of the park are maintained. These programmes put in place the systems and processes that enable proactive management of the park's objectives. This section outlines the management programmes, objective and actions that assist in effective park management such as environmental management, financial management (e.g. procurement, reporting), budgeting, maintenance planning, and monitoring compliance.

### 10.5.1 Environmental management

#### High level objective

**Environmental management:** To develop and implement a comprehensive Environmental Management plan for the park

The purpose of this programme is to minimise operational impacts on the park.

The park will develop a system to manage their operational impacts. Such a system will provide the framework for the formulation and implementation of proper impact management that are required for all activities within the park. The purpose is to set clear guidelines for the management of environmental impacts and resource use. Proper management of development and operational activities can be achieved through appropriate planning tools and effective controls. A number of management tools are used to develop and manage the park in a manner consistent with relevant legislation and the SANParks policy framework.

Guiding principles:

- Minimise or eliminate negative environmental impacts and use of natural resources.
- Incorporate best practice environmental management into management practices.
- Comply with all relevant legislation

Regarding new developments or upgrades the NEMA and NEM:PAA and regulations provide guidance regarding a number of activities that are either prohibited or require permits. Environmental impact assessments (EIAs) are viewed as an important management tool in identifying and managing impacts associated with a particular activity.

For certain activities, NEMA requires that environmental authorisation be obtained from the competent authority, with the process and activities contained in the EIA regulations. Where authorisation is not legally required, the minimum requirement will be the preparation of an environmental management plan (EMP).



The primary spatial planning tool is the zoning plan. Zoning provides for a full spectrum for usage of the park, ranging from high-density recreation to a wilderness experience, while ensuring that the ecological integrity, cultural resources and ‘sense of place’ of the park are maintained and/or enhanced. Zoning is seen important strategic intervention to ensure the protection of the park’s biodiversity, heritage and aesthetic values while allowing its optimal development as a tourism destination. On a broad scale the zoning plan acts as the first “filter” in determining whether a proposed development is compatible and/or complementary in a specific use zone.

Special emphasis must be placed on water use, energy efficiency and waste management focusing on the following:

- Identification of environmental aspects and significant environmental impacts,
- Identification of relevant legislative and regulatory requirements;
- Identification of priorities, appropriate environmental objectives and targets.
- Establish a structured process to implement policy, achieve objectives and meet targets.
- Plan, control, monitor and review implementation for continuous improvement

ENVIRONMENTAL MANAGEMENT PROGRAMME					
High level objective: To develop and implement a comprehensive Environmental Management plan for the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure compliance with environmental legislation and best practice principles for all management activities in the park	Make new legislation and regulations available to park staff and stakeholders	PM	Information available	Year 1, ongoing	
	Develop best practice principles for environmental management	PM	Document available	Year 1, ongoing	Zoning plan
	Conduct internal scoping of all activities that may impact on the environment and ensure that EIAs, HIAs and BAs are conducted where required and EMPs are developed to guide activities	PM	Document available	Year 1, ongoing	Zoning plan

### 10.5.2 Risk

#### High level objective

**Risk:** To ensure that emerging issues of risk, that can jeopardise the achievement of park (and SANParks’ corporate) objectives, are timely identified and assessed in terms of possible severity.

The purpose of the programme is to maintain and update the park’s risk profile

SANParks regards the management of business risk as an integral part of management across all business operations. In line with corporate governance best practices and as per PFMA requirements, the SANParks Board has formalised the risk management processes by adopting a corporate risk management framework. As its foundation, the risk management framework has an enterprise-wide risk identification and assessment process, based on thorough understanding of the environment in which the organisation operates and the strategic corporate objectives intended to be delivered.

The main aim of the corporate risk management framework is to instil a culture of corporate risk management and risk ownership being practised as the responsibility of all. This will provide SANParks with a comprehensive understanding of all identified risks and their potential impact on the achievement of objectives - thereby creating a good basis for the effective management of those risks that are assessed as exceeding the risk appetite of the organisation.

Acknowledging that all activities occurring at different levels within the organisation are exposed to various types of risks, the focus of SANParks’ risk management framework is to shift the attention of the organisation towards a philosophy of optimising the balance between potential risks and the potential rewards that may emanate from both pro-active and conscious risk oriented actions. As such SANParks maintains a corporate risk profile of the identified key strategic risks the organisation faces.



This profile is communicated to the Board and is reviewed on an ongoing basis. The risk profile reflects among others the risks identified, how each is addressed and or monitored,

At individual park level the park manager is responsible for risk management. Being the link between the operational activities and its environment on the one hand, and the corporate support and management structure on the other, the park manager is many instances responsible for implementation of corporate initiatives, programmes, management plans and others that form part of the SANParks strategy to address or mitigate issues of risk. Examples are the implementation and roll-out of a Safety and Security plan, implementing and maintaining ecological monitoring systems to identify and assess the impact of environmental change, and complying with financial and cash-flow directives especially in economically depressed times.

Similarly, the park manager needs to ensure that emerging issues of risk, that can jeopardise the achievement of park (and SANParks' corporate) objectives, are timely identified and assessed in terms of possible severity. In consultation with the corporate support structure such issues are either assessed to be within the management capacity of the park and its existing resources, or the matter is elevated to a corporate level, where a specific risk management strategy is agreed upon, resources allocated where applicable, and a risk management or monitoring plan is implemented

RISK MANAGEMENT PROGRAMME					
High level objective: To ensure that emerging issues of risk that can jeopardise the achievement of park (and SANParks' corporate) objectives are timely identified and assessed in terms of possible severity.					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To establish and maintain effective, efficient and transparent systems of risk management	Identify and assess risks for all business operations in the park	Park Management	Risk register	Year 1	Legislation
	Develop responses to address and prevent or mitigate issues of risk.	Park Management	Risk response plan	Year 1	Legislation
	Motivate for funding related to risk management where possible	Park Management	Budget provision	Annual	
	Monitor effectiveness in terms of the risk response actions and improve as needed.	Park Management	BSC	Ongoing	

### 10.5.3 Finance and administration

#### High level objective

**Finance and administration:** To ensure sound financial management and administration in the park

The purpose of the programme is to ensure sound financial management and administration. SANParks budget policy follows the zero-based approach, which implies that every category must be critically assessed, evaluated and supported by an approved business plan. Once budget amounts have been determined for a category, it needs to be compared to previous years and any variance in excess in excess of budget guidelines must be motivated and explained.

Annual budgets should be compiled in accordance to budget guidelines and instructions issued annually by SANParks corporate finance division.

Without incisive financial management of the park, there can be no realistic conservation effort. For the next planning cycle the park will ensure that all park operations and park projects are cost effective and financially sound. In addition particular attention will be given to developing a diverse income base and proactive financial networking to enable to the park to move towards being financially sustainable.

FINANCE AND ADMINISTRATION PROGRAMME					
High level objective: To ensure sound financial management and administration in the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To attain effective financial management of the park	Ensure effective management of operational budgets	PM	Monthly financial statements	Ongoing	Financial management systems
	Ensure sound financial management of special projects; i.e. Working for Water; Working for the Coast; others	PM, ISCU	Budget targets achieved	Ongoing	Project business plans
	Identify new and align existing business opportunities with the SANParks commercialisation programme	PM, RM	Opportunities identified. New income streams generated	Ongoing	Commercialisation strategy
To ensure financial accountability and align financial management systems	Implement recommendations from annual audit report	PM, Admin Officer	Audit report	Ongoing	
	Prepare accurate and realistic annual budgets in consultation with management team	RM, PM, Admin Officer	Annual budgets prepared	Ongoing	Annual budgets
	Provide monthly financial reports by cost centre	Admin	Reports prepared	Ongoing	
	Ensure proper recordkeeping of assets (procurement, register, disposal)	Admin	Registers and records	Ongoing	



#### 10.5.4 Human capital development

##### High level objective

**Human capital development:** To ensure a harmonious and productive work environment with a developed and well capacitated work force

The purpose of the human capital development programme is to ensure that the park is supported by an adequate human resources function in order to provide effective conservation, visitor and supporting services. SANParks has developed corporate human resources policies, guidelines and procedures to guide the park and its workforce in an effectively organised structure focusing its operations.

By adhering to these policies, guidelines and procedures the park will ensure that competent staff is appointed, and that current staff will be managed in an effective manner to keep them positive, proactive and committed to their tasks and responsibilities. This will also ensure that human resource management will comply with the relevant national legislation.

Park human resource capacity is not only defined by development of current staff, but requires the holistic management of the appropriate human capital. This includes the creation of a learning environment, developing leadership skills, sharing of knowledge and experiences as well as developing socially important lifestyle management programmes to help employees and their families deal with the negative effects of lifestyle diseases including HIV-AIDS.

Park administration must in a prescribed way report on deaths, new appointments, attendance registers, overtime claims, leave etc. A salary instruction is prepared from this and then sent to head office for processing and preparation of monthly salaries.

The park reviews training needs on an annual basis and submits this to SANParks head office for authorisation. Compilation of training needs starts off with the individual development plans for each staff member and then finalised with performance appraisals. Management also encourages and analyses all staff to improve their levels of skills and qualifications in their relevant field of expertise on an ongoing basis.

HUMAN CAPITAL DEVELOPMENT PROGRAMME					
High level objective: To ensure a harmonious and productive work environment with a developed and capacitated workforce in the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure the park attracts and retains the most suitable human capital	Recruit staff according to corporate selection and recruitment policy	PM, Admin	Procedures followed for appointments, EE plan	Ongoing	SANParks recruitment policy

Objectives	Actions	Responsibility	Indicators	Timeframe	References
To implement performance management system	Ensure that band C and higher have signed KPAs	PM, Section mManagers	KPA's available	Ongoing	
	Appraise staff according to performance management system	PM, Section managers			
To implement plans and skills development strategies to meet the strategic goals of the organisation	Conduct skills audit	Regional HR	Plan available	Ongoing	
	Develop skills plan	Regional HR	Skills plan available	Ongoing	Training plan
	Arrange training interventions	PM, admin	% of budget for training		
Implement workplace health care programmes which focus on preventative physical and mental health care	Conduct Aids awareness workshops	PM	Workshops, attendance	Ongoing	
	Ensure staff have access to ICAS	PM	Facilities, reports	Ongoing	
	Invite professionals to the park to promote awareness on OHS and mental health issues	PM	Attendance registers	ongoing	

### 10.5.5 Information management

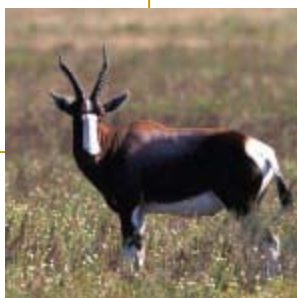
#### High level objective

**Information management:** To implement best practice in the field of information management

The purpose of the programme is to establish and then maintain a database of park information.

Management of the park requires that the appropriate data and information are collected, maintained and made readily accessible to staff responsible for all aspects of management. Such data are not only essential for formulating effective long-term management objectives, plans, programs and systems, but also for educating and informing residents associations, user groups, local authorities, provincial and national decision and policy makers, international organisations and aid/donor agencies.

INFORMATION MANAGEMENT PROGRAMME					
High level objective: To implement best practices in the field of records and information management					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To develop and implement a records management and file plan for the park in accordance with SANParks policies and procedures	Review the existing records management and file plans	PM	Draft records management and file plan for park	Year 1	(Act no. 43 of 1996 as amended)
	Implement an appropriate records and filing system	PM, Admin	Records and documents filed into plan	Ongoing	Corporate file plan and policy
	Ensure appropriate access to park files and records in accordance to corporate records management policy and guidelines	PM, Admin	Access procedures recorded and implemented	Ongoing	Corporate file plan and records management policy



## 10.5.6 Infrastructure

### High level objective

**Infrastructure:** To maintain and upgrade existing infrastructure and develop new infrastructure in support of conservation and tourism in the park

The purpose of the programme is to provide for upgrading and maintenance (day to day and scheduled) of existing infrastructure. Infrastructure in the park consists of facilities in support of conservation (such as management roads and tracks, office facilities, staff housing, fences, bulk services, workshops and stores) and tourism (such as tourist roads and tracks, walking trails, office facilities, staff housing, bulk services, lookout points, hides, picnic sites and tourist accommodation).

The product development strategy, applicable legislation and limitations of the zoning shall guide new infrastructure development such that:

- Infrastructure must be developed and maintained in accordance with all applicable legislation, policies, standards and codes
- Maintenance must be undertaken in a cost effective manner
- New developments and infrastructure maintenance must:
  - As far as practicable incorporate good, cost effective environmental design;
  - As far as practicable use low maintenance designs and material;
  - As far as possible utilise existing roads and tracks and disturbed sites and to limit green field developments.

INFRASTRUCTURE PROGRAMME					
High level objective: To maintain and upgrade existing infrastructure and develop new infrastructure in support of conservation and tourism in the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure that infrastructure in the park is maintained to a desired state	Compile an inventory of all infrastructure in the park, assess construction types and determine extent of maintenance needed	PM, section managers	Inventory	Year 1	
	Document the scope of maintenance needs in accordance with relevant specifications	PM, section managers	Reports	Year 1	Building and electrical regulations
	Prioritise maintenance needs and develop a 5-year maintenance plan for the park	PM, technical	Maintenance plan, schedules	Year 1, ongoing	
	Implement the 5-year maintenance plan according to the annual maintenance schedules	PM, technical	Monthly and annual reports	Ongoing	
	Assess progress, revise annual maintenance schedules and evaluate standard of work	PM, technical	Annual report	Ongoing	



To identify product development opportunities to guide the development of new infrastructure	Identify and prioritise product development opportunities for the park	PM	Strategy in place	Year 1	Zoning plan
	Identify possible mechanisms and partnerships to realise identified product development.	PM, RM	Agreements	Year 1	
	implement approved development plans				
To remove unwanted structures and facilities	Identify and list all such structures etc.	SR	List	Year 1	
	To remove relevant structures	SR	Reports	Year 2	

### 10.5.7 Security and safety

#### High level objective

**Safety and security:** To provide a safe and secure environment for both our visitors and SANParks employees, and to ensure that the area integrity of the natural and cultural resources is maintained in a sustainable manner.

The purpose is to provide a safe and secure environment for both visitors and staff and to ensure that the area integrity of the natural and cultural resources of the park is maintained in a sustainable manner.

At a broader level, the plan must ensure that tourist perceptions are maintained in order to protect the brand and reputation of SANParks and the SA tourism industry at large. A designated safety and security person is responsible to facilitate the implementation of the safety and security plan. This person will act as the link between the park and relevant security institutions. All conservation staff are appointed as environmental management inspectors in terms of section 31D (1) of NEMA to exercise the powers and functions in respect to the enforcement of the provisions of the suite of NEMAs.

Area integrity planning includes a regular threat analysis of the park to ensure that the security measures implemented are current and in step with ever changing criminal threats. Information gathered through various sources will be verified and used to plan patrols and other safety measures. Documentation such as immediate action drills, standard operating procedures and emergency plans will be made available to staff to ensure they are fully informed, thereby ensuring decisive actions in times of emergencies. Vital safety information/instructions and contact details will also be made available to guests. All of the above documents will be updated on a regular basis.

Training is seen as an important tool to empower staff in the execution of their respective safety and security duties. Tailor-made training courses will focus on the following areas:

- Training and retraining of all staff with regards to tourist safety
- Constant training of relevant staff in dealing with conflict situations
- Proper and sufficient on-going training of tourism staff, general awareness of criminal activity trends and the correct action in case of criminal activity taking place
- Specialised training for relevant staff to ensure all actions taken are in line with the Criminal Procedure Act, e.g. executing an arrest, controlling crime scenes and handling evidence.
- Environmental management inspector training for relevant staff
- Ongoing training of security personnel and updating of site instructions at key points to address threats from the criminal environment

Safety and security must be seen within the broader context of the region. The success of the safety and security programme lays in co-operation and stakeholder participation from various departments and parties both within SANParks and external entities.

Safety and security must be seen within the broader context of the region. The success of the safety and security programme lays in co-operation and stakeholder participation from various departments and parties both within SANParks and external entities.



Through combined operations with the various law enforcement bodies a cross pollination of ideas, techniques and information is achieved enabling a continually adaptive safety and security planning and implementation. The park will focus on:

- Raising awareness of tourism within local law enforcement structures to ensure support and quick reaction times when necessary
- Raising awareness of environmental crime with relevant judiciaries and law enforcement departments
- Raising awareness of safety and security at park management meetings

In order to ensure that the park stays focused on implementing this programme the following monitoring interventions will be implemented: participate in the state of area integrity management (SoAIM) assessment (a tool in measuring the effectiveness of current safety situation), while heads of departments will undertake regular checks to manage all irregularities

SAFETY AND SECURITY PROGRAMME					
<b>High level objective:</b> To provide a safe and secure environment for both our visitors and SANParks employees, and to ensure that the area integrity of the natural and cultural resources is maintained in a sustainable manner.					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To provide a high level of safety and security in the park to staff, visitors and landowners.	Review relevant safety and security plans	Park Management	Reviewed plans	Year 1	
	Train staff in area integrity management and readiness to react to emergency situations.	Park Management	Training records	Year 1 and ongoing	Strategic safety and security plan
	Assess readiness of staff	Management	Audits, drills	Ongoing	IDP's
	Monitor effectiveness of safety and security measures (SOAIM reports)				
To Improve overall park safety through interactions with external role players	Align the safety and security activities to accommodate collaborative operations with external partners	SR, SR	Safety and security plan	Ongoing	
	Participate in various external safety and security related forums	SR	Minutes	Ongoing	Inter agency agreements.



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## Section 11: Costing

In line with the legal requirements, the programmes of implementation to achieve the desired state have been costed.

### Guiding principles

- Responsibly manage the allocation of budget, raising revenue and expenditure;
- Ensure solid financial management support for achievement of plan objectives;
- Compliance to the Public Finance Management Act as well as SANParks financial policy and procedures.

Using the zero based budgeting approach a funding estimate was derived based upon the activities in this management plan. When estimating the costing the following items were considered:

- Those costs and associated resources which could be allocated to specific activities and which were of a recurring nature;
- Those costs and associated resources which could be allocated to specific activities but which were of a once-off nature;
- Unallocated fixed costs (water, electricity, phones, bank fees etc);
- Maintenance of infrastructure;
- Provision for replacement of minor assets, (furniture, electronic equipment, vehicles, etc.); and

### Recurring costs

The annual operating cost (includes man days, travel, non-park funding and shortfall, where applicable) is estimated at R 5,364,835 for 2013/2014. These ongoing costs are split according to the programmes listed in table 1.

Table 1: Estimated annual operational costs for 2013/2014.

Programmes	Estimated budget (R)	Percentage of total
Habitat rehabilitation	1,101,580	20.5%
Tourism operations	1,064,154	19.8%
Alien eradication	772,762	14.4%
Infrastructure	607,700	11.3%
Safety and security	579,505	10.8%
Ecological systems	357,931	6.7%
Environmental education	177,532	3.3%
Finance & administration	152,598	2.8%
Stakeholder engagement	106,119	2.0%
Species special concern	99,198	1.8%
Mainstream biodiversity	84,440	1.6%
Cultural heritage	76,758	1.4%
Environmental management	58,868	1.1%
Information management	44,878	0.8%
Land consolidation	26,937	0.5%
Risk management	26,937	0.5%
Human capital	26,937	0.5%
<b>Total Operations</b>	<b>5,364,835</b>	<b>100%</b>

### Once off costs

In addition to the above there is a further once-off cost estimated at R 8,040,000 over the next 5 years (see Table 2).

Table 2: Estimated once off cost of the programme.

Activity	Estimated budget (R)
New infrastructure	8,040,000
<b>Total</b>	<b>R 8,040,000</b>

### Unallocated fixed costs

The unallocated fixed costs for 2013/2014 are R671,171.

### Maintenance

A breakdown of the infrastructure, both existing and new with their replacement value and an estimate of the ongoing annual maintenance for 2013/2014 is provided in table 3. The projected maintenance for existing infrastructure is estimated at R675,586 in 2013/2014. If planned new infrastructure is developed it will add a further R116,000 (at 2013/2014 rates) onto this annual maintenance budget, increasing it to R791,586. The maintenance requirement was calculated as a percentage of the replacement value.

### Replacement of minor assets

With many of the vehicles being leased along with the computers, this will significantly reduce this requirement as these items are expensive and require frequent replacement. To calculate the replacement provision, the cost price of the assets was divided by the estimated useful life. SANParks applies certain standards in this regard. The estimated asset value for various categories based on their original purchase price and the estimated budget required annually to make provision for their replacement. Management should make provision for about R45,874 in 2013/2014, this figure is presented in Table 4.

Table 3: Estimated replacement value of the existing infrastructure and any new infrastructure required with the estimated annual maintenance budget for the existing and new infrastructure.

	Estimated replacement value			Estimated maintenance		
	Existing (R)	New (R)	Total (R)	Existing (R)	New (R)	Total (R)
Staff and administrative infrastructure upgrades	21,390,000	8,000,000	29,390,000	308,016	115,200	423,216
Roads	8,800,000	0	8,800,000	215,000	0	215,000
Trails	106,000	0	106,000	5,300	0	5,300
Fencing	3,000,000	0	3,000,000	60,000	0	60,000
Water system	870,000	40,000	910,000	35,400	800	36,200
Electricity	2,303,500	0	2,303,500	46,070	0	46,070
Other	200,000	0	200,000	4,000	0	4,000
Sewerage	90,000	0	90,000	1,800	0	1,800
<b>Total</b>	<b>36,759,500</b>	<b>8,040,000</b>	<b>44,799,500</b>	<b>675,586</b>	<b>116,000</b>	<b>791,586</b>



Table 4: Total value based on the original purchase price of various categories of minor assets.

Asset type	Asset value	Provision for replacement
Computer equipment	R9,715	R3,238
Firearms	R714	R71
Furniture	R56,822	R8,117
Machinery & equipment	R172,360	R24,623
Office equipment	R23,652	R3,379
Vehicles and watercraft	R1,582	R226
White goods	R43,536	R6,219
<b>Total</b>	<b>R308,380</b>	<b>R45,874</b>

Table 5: Summary of the annual and once off costs (based on actual expenditure) that is required to fully implement the activities in the Management plan over the next five years.

### Summary

It is estimated that the Park will require an annual operating budget of R6,569,614 for 2013/2014, increasing to R 8 293 987 in 2016/2017. In addition to this amount the Park will also require once off cost of R8,040,000 over the next planning cycle. A summary is presented in table 6.

	2013/2014	2014/2015	2015/2016	2016/017	2017/2018
Recurring operational costs	R6,569,614	R6,963,791	R7,381,619	R7,824,516	R8,293,987
Once off costs over 5 years	R8,040,000				
SANParks budget for BNP	R5,081,880	R5,386,793	R5,710,001	R6,052,601	R6,415,757
Deficit	R1,487,734	R1,576,998	R1,671,618	R1,771,915	R1,878,230

### The deficit can be broken down as follows:

- An additional amount of R 1, 000, 000 is required in support of the rehabilitation programme;
- An additional amount of R 487, 734 is required to cover the current maintenance shortfall;
  - An additional R 326, 782 is required for buildings;
  - An additional R 121, 934 is required for roads;
  - An additional R 39, 019 is required for fences.

### Implications:

1. Should the park be unsuccessful in securing the amount of R 1, 000, 000, then the rehabilitation of degraded areas will not be achieved.
2. Should the park be unsuccessful in securing the amount of R 487, 734, then the maintenance of infrastructure will be affected and status of the current infrastructure could further deteriorate.

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## Appendices

Appendix 1: Declarations

Appendix 2: Stakeholder Participation

Appendix 3: Zoning Plan

Appendix 4: Maps

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## Appendix 1: Declarations

### **National Parks Act (Act 57 Of 1976 as amended):**

#### **BONTEBOK NATIONAL PARK**

##### ***Definition of Area***

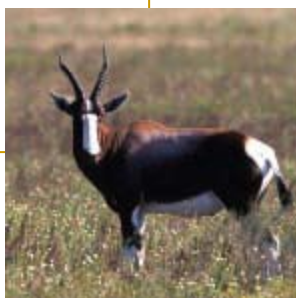
Beginning at the beacon lettered A on the diagram of Erf 1699 Swellendam, thence in an easterly direction along the boundaries of the said Erf 1699 and Erf 23, so as to include them in this area, to the northernmost beacon of Erf 2477; thence south-westwards along the western boundaries of the said Erf 2477 and Erf 2476, so as to exclude them from this area, to the southernmost beacon of the last-mentioned erf; thence south-westwards along the boundaries of the said Erf 23 and Erf 153, so as to include them in this area, to the westernmost point of the last-mentioned erf; thence southwestwards along the prolongation of the north-western boundary of the said Erf 153 to the middle of the Breede River; thence north-westwards along the middle of the said Breede River to the southernmost point of Portion 3 of Farm 259 Swellendam; thence north-westwards along the boundaries of the said Portion 3, and Portion 8 of Farm 254 Swellendam, so as to include them in this area, to the westernmost point of the last-mentioned portion; thence north-westwards in a straight line to the beacon lettered H on the diagram of the said Erf 1699; thence along the northwestern boundary of the said Erf 1699, so as to include it in this area, to the beacon first named.

**GN 41/2004** declared the following land to be part of this park and amended the definition accordingly:

1. Erf 5338, Swellendam, Province of the Western Cape, measuring 535,5909 hectare, held by Deed of Transfer No. T5463/2001
2. Erf 5339, Swellendam, Province of the Western Cape, measuring 95,9582 hectare, held by Deed of Transfer No. T5463/2001

[Definition of "Bontebok National Park" amended by GN 41/2004]

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## Appendix 2: Stakeholder participation

### INTRODUCTION

SANParks has submitted a management plan to DEAT in November 2006 as required by the National Environmental Management: Protected Areas Act No.31 of 2004. An update was submitted in March 2008 as required by the Minister. SANParks has decided to review its' management plans on a ten year revision cycle.

### STAKEHOLDER PARTICIPATION PROCESS

#### 2.1 Objectives

The objectives of the stakeholder participation process are to:

- Create a channel for the accurate and timely dissemination of information to interested and affected stakeholders;
- Create the opportunity for communication between SANParks and the public;
- Promote opportunities for the building of understanding between different parties;
- Provide the opportunity for stakeholders to give meaningful input into the decision-making processes that drive the development of the Park Management Plan.

#### 2.2 Approach

The approach to the Stakeholder Participation Process is based on the principles embodied in the following legal framework:

- The Constitution of the Republic of South Africa Act No. 108 of 1996;
- National Environmental Management Act No. 107 of 1998 (NEMA); and
- The National Environmental Management: Protected Areas Act No.57 of 2003 as amended by the National Environmental Management: Protected Areas Act No.31 of 2004.

In addition to the above legal framework, the stakeholder process was developed with the Guiding Principles for SANParks Stakeholder Participation in mind. SANParks thus undertakes to:

- Seek to notify stakeholders of participation processes through appropriate mechanisms.
- Ensure that the process provides the opportunity for input from all stakeholders within reasonable timeframes, emphasising the sharing of information, joint- learning and capacity building.
- Promote participation by stakeholders through timeous and full disclosure of all relevant and appropriate information.
- Provide feedback on the outcome of the process to stakeholders and demonstrate how their inputs have been considered in the decision making process.
- Ensure that methodologies accommodate the context of the issue at hand and the availability of resources (people, time, money) and do not conflict with these guiding principles.
- Give particular attention to ensuring participation by marginalised communities, communities with specific concerns, or communities that have contractual rights in the National Park.

### STAKEHOLDER PARTICIPATION STRATEGY FOR BONTEBOK NATIONAL PARK

The various stakeholder events and activities carried out during the process are summarised in the following tables.

#### 4. STAKEHOLDER EVENTS AND ACTIVITIES

##### Informing registered stakeholders

All the stakeholders that was registered during the 2006 management plan revision process was informed (via e-mail and telephonic) of our intention to review the BNP management plan during the 2011/2012 financial year.

Table 4.1: This table reflects the various organisations that were identified to participate in the Park Management Plan Process. The government departments are at national, provincial and local level. The intention is to show that, in terms of the spirit of co-operative governance SANParks has approached these parties.

Local Government	Overberg District and Swellendam municipalities, Swellendam SAPS and Fire Protection Association
Provincial Government	CapeNature, WESSA
National Government	DWAF, DEAT, SANRAL and SANBI
Traditional Authority	Community Leaders - Sidney Sidina and Mr. Mbatane
Park Forum	SPAF (Swellendam Protected Area's Forum)
Visitors to Parks	General
Local Resident/ Neighbour	Landowners and Farmers' Unions and Swellendam Shooting Club (SPK)
Community Organisations	Swellendam Youth Organisation
Local Business	Swellendam Chamber of Commerce
Media	Bulletin, Swellendam Gazette and Swellendamerjtie
Research	CREW (Custodians of Rare and Endangered Wild Flowers, Sarcoids Study by the Pretoria University, UCT (re-cultural heritage and Black Harrier research) and Veterinary and Wildlife Services
Education	Local Schools and UCT (re-cultural heritage:- archaeological research and awareness)
Conservation Organisations	CapeNature and UCT (Black Harrier research)
NGO	WESSA, Honorary Rangers and Lower Breeder River Conservancy
Tourist Associations	SATSA, Bontebok Tourism and Travel and Grading Council
Tour operators	Bontebok Tourism and Travel and Swellendam B&Bs
Other	Unions, SANParks

**Table 4.2:** Stakeholders had the following opportunities to register as interested and affected

Mechanism to Register	Description	Date
Media Advertisements	Advertisements to inform the stakeholders of the desired state workshops were place in the following newspapers: - Langeberg Bulletin;  - Breede Forum	06 May, 22 July and 12 August  12 August
4 Registration at meetings	Stakeholders were able to register at the following meeting: -- Desired State Workshops;	19-20/05/11 & 15-16/08/11



**Table 4.3** The Desired State Workshop took place on the 15 and 16 August 2011 and includes a range of stakeholders and SANParks specialists in the development of the Desired State which entails drawing up a vision for the Park supported by higher level objectives which form the framework for the management plan.

Activities	Description
<b>Invitations</b> Park management, certain SANParks specialists and the Park Forum were invited.	The initial workshop was scheduled to take place on 19 and 20 May 2011 at the Drostdy Museum in Swellendam. Due to poor attendance this workshop was cancelled. A second workshop was held on 15 and 16 August 2011.
<b>Attendance</b>	23 participants (8 Stakeholders and 15 SANParks Staff) Representing the following constituencies: <ul style="list-style-type: none"> <li>• Swellendam local municipality;</li> <li>• Lower Breede River Conservancy;</li> <li>• Drostdy Museum;</li> <li>• Cape Nature;</li> <li>• Honorary Rangers;</li> <li>• Greater Swellendam Residents and Business Association;</li> <li>• Farming community;</li> <li>• Greater Swellendam Tourism Organisation.</li> <li>• SANParks.</li> </ul>

A desired state workshop was also held on 17 and 18 August 2011. A public open day to allow comment on the draft management plan will be held after internal approval.



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## Appendix 3: Zoning

### Bontebok National Park Zoning Plan

#### 1. INTRODUCTION

The primary objective of a Conservation Development Framework (CDF) is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives. A key part of the CDF is the zoning plan, which plays an important role in minimizing conflicts between different users of a park by separating potentially conflicting activities such as game viewing and day-visitor picnic areas whilst ensuring that activities which do not conflict with the park's values and objectives (especially the conservation of the protected area's natural systems and its biodiversity) can continue in appropriate areas. A zoning plan is also a legislated requirement of the Protected Areas Act, which stipulates that the management plan, which is to be approved by the Minister, must contain "a zoning of the area indicating what activities may take place in different sections of the area and the conservation objectives of those sections".

The zoning of Bontebok National Park was based on an analysis and mapping of the sensitivity and value of a park's biophysical, heritage and scenic resources; an assessment of the regional context; and an assessment of the park's current and planned infrastructure and tourist routes/products; all interpreted in the context of park objectives. This was undertaken in an iterative and consultative process. This document, which is extracted from the full *Conservation Development Framework for Bontebok National Park* (2006) sets out the rationale for use zones, describes the zones, and provides management guidelines for each of the zones.

#### 2. RATIONALE FOR USE ZONES

The prime function of a protected area is to conserve biodiversity. Other functions such as the need to ensure that visitors have access to the park, and that adjoining communities and local economies derive benefits from the area, potentially conflict with and compromise this primary function. Use zoning is the primary tool to ensure that visitors can have a wide range of quality experiences without compromising the integrity of the environment.

Further, people visit a park with differing expectations and recreational objectives. Some people are visiting a park purely to see wildlife as well as natural landscapes. Others wish to experience intangible attributes such as solitude, remoteness, wildness, and serenity (which can be grouped as wilderness qualities), while some visit to engage in a range of nature-based recreational activities, or to socialize in the rest camp. Different people have different accommodation requirements ranging from extreme roughing it up to luxury catered accommodation. There is often conflict between the requirements different users and different activities. Appropriate use zoning serves to minimizing conflicts between different users of a park by separating potentially conflicting activities such as game viewing and day-visitor picnic areas whilst ensuring that activities which do not conflict with the park's values and objectives (especially the conservation of the protected area's natural systems and its biodiversity) can continue in appropriate areas. Use zones serve to ensure that high intensity facilities and activities are placed in areas that are robust enough to tolerate intensive use, as well as to protect more sensitive areas of the park from over-utilization.

### 3. PARK USE ZONATION SYSTEM:

#### The Zoning System

SANParks has adopted a dual zoning system for its parks. The system comprises:

- a) Visitor use zones covering the entire park, and
- b) Special management overlays which designate specific areas of a park that require special management interventions.

The use zoning of Bontebok National Park is shown in Map 4, and summarised in Table One.

#### The Zoning process and its linkage to the underlying environmental analysis

The zoning for Bontebok National Park was underpinned by an analysis and mapping of the sensitivity and value of a park's biophysical, heritage and scenic resources. This analysis examined the biophysical attributes of the park including habitat value (in particular the contribution to national conservation objectives), special habitat value (the value of the area to rare and endangered species), hydrological sensitivity (areas vulnerable to disruption of hydrological processes such as floodplains and wetlands), topographic sensitivity (steep slopes), soil sensitivity (soils that are vulnerable to erosion) and vegetation vulnerability to physical disturbance. In addition, the heritage value and sensitivity of sites was examined (including archaeological, historical and current cultural aspects). The visual sensitivity of the landscape was also examined in order to identify sites where infrastructure development could have a strong aesthetic impact. This analysis was used to inform the appropriate use of different areas of the park, as well as to help define the boundaries between zones. The zoning was also informed by the park's current infrastructure and tourism products, as well as the regional context (especially linkages to neighbouring areas and impacts from activities outside the reserve). Planned infrastructure and tourism products were also accommodated where these were compatible with the environmental informants. These were all interpreted in the context of the park objectives. This was undertaken in an iterative and consultative process.

Map 5 shows the relationship between the use zoning and the summary products of the biodiversity and landscape sensitivity-value analysis. The size and nature of the park precluded the use of the more "wilderness" orientated zones such as Remote and Primitive. However, there was an attempt to pedestrianize the park, and the bulk of the park as well as most of the environmentally sensitive and valuable areas were placed in the Quiet zone which only allows non-motorised tourist access and limited infrastructure.

Table 2 summarises the percentage area of the park covered by each zone, as well as the percentage of the highly environmentally sensitive and valuable areas (defined as areas with values in the top quartile of the sensitivity value analysis) that are in each zone. This indicates that almost 60% of the park falls within the Quiet zone. The areas zoned Quiet also contain approximately 66% of highly valuable and sensitive areas. Importantly, many of the remaining highly sensitive areas are also protected by a Special Conservation Overlay.

#### Quiet Zone:

##### **Characteristics:**

This zone is characterized by unaccompanied non-motorized access without specific access control and permits. Visitors are allowed unaccompanied (or accompanied) access, mainly on foot, for a wide range of experiences. Larger numbers of visitors are allowed than in the Primitive zone and contact between visitors is frequent. The main accent is on unaccompanied non motorized access. Larger numbers of visitors are allowed and contact between visitors is frequent. It is important to note that this zone may have different interpretations in different parks and the CDF documentation for each park should set the objectives specific to that park. Thus, in some instances horses and mountain bikes could be accommodated.

##### **Visitor activities and experience:**

*Activities:* Hiking, rock climbing, bird watching, self-guided constructed trails and walks.

*Interaction with other users:* Interaction between groups of users is frequent.

##### **Conservation objectives of the zone:**

The zone should be maintained in a generally natural state, with the proviso that limited impacts on biodiversity patterns and processes are allowed in order to accommodate park recreational and tourism objectives. The zone should be managed within the following specific objectives:

*Biophysical environment:* The zone should be maintained in a generally natural state, but some deviation from a natural/pristine state is allowed. Infrastructure should only be allowed within a restricted development footprint, and infrastructure, especially paths and viewpoints should be designed to limit the impacts of large numbers of visitors on the biophysical environment.



**Table 2:** Summary of the percentage area of the park covered by each zone, as well as the percentage of the highly environmentally sensitive and valuable areas (defined as areas with values in the top quartile of the sensitivity value analysis) that are in each zone.

		Zone as a percentage of park area	Percentage of highly sensitive areas that are in the zone
Tourism orientated zones	Quiet	56.6	65.5
	Low intensity leisure	43.4	34.5

*Aesthetics and recreational environment:* The zone should retain a generally natural appearance and character, and activities which impact on this should be restricted. In particular visitors are not allowed motorised access to this zone. It is however recognized that the presence of larger numbers of visitors and the facilities they require, may impact on the feeling of wildness found in this zone.

**Facilities:**

*Type and size:* Hiking trails, footpaths, bird hides. No accommodation. Ablution facilities may be provided in high use areas. Heritage structures may be used for recreation purposes.

*Sophistication of facilities:* Where provided these should be basic.

*Audible equipment and communication structures:* Allowed, but should be managed to retain a relative level of solitude.

*Access and roads:* Essentially pedestrian access, but in certain parks horse and Mountain bikes can be accommodated. Pedestrian only or in some cases cycles. No access for tourists by vehicle. The only roads are essential two wheeled management tracks.

**Location in Park:**

In Bontebok NP, rationalization of the road network allowed Quiet areas to be designated in the eastern renosterveld lowlands and vleis, the central plains and hills marking the transition between the renosterveld and fynbos vegetation types, the hydrographically sensitive “Ou Reisiesbaan” basin, the western headland and Breede River meander in the new addition to the park, where the riverine corridor is of high environmental value and sensitivity and where there is little evidence of human impact on the landscape.

**Low Intensity Leisure Zone:**

**Characteristics:**

The underlying characteristic of this zone is motorized self-drive access with basic facilities. The numbers of visitors are higher than in the Remote and Primitive zones. Relatively comfortable facilities are positioned in the landscape retaining the inherent natural and visual quality which enhances the visitor experience of a more natural and self providing experience. Access roads are low key, preferably gravel roads and/or tracks to provide a more wild experience. Facilities along roads are limited to picnic sites with toilet facilities.

**Visitor activities and experience:**

*Activities:* Self drive motorized game viewing, picnicking, walking, cycling, rock climbing, hiking, adventure activities.

*Interaction with other users:* Moderate to high

**Conservation objectives of the zone:**

The conservation objective is to maintain the zone in a largely natural state that is in keeping with the character of a Protected Area, mitigate the biodiversity impacts of the relatively high levels of tourism activity and infrastructure that are accommodated within this zone through careful planning and active management, and to ensure that both the negative effects of the activities and infrastructure are restricted to the zone. The zone should be managed within the following specific objectives:

*Biophysical environment objectives:* The zone should be kept in a largely natural state. Deviation from a natural/pristine state should be minimized and limited to restricted impact footprints as far as possible. However, it is accepted that some damage to the biophysical environment associated with tourist activities and facilities will be inevitable.

*Aesthetics and recreational environment objectives:* The zone should be maintained in a largely natural state from an aesthetics point of view. Although it is inevitable that activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness etc), these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience.

**Facilities:**

*Type and size:* Picnic sites, view sites, information centres, ablution facilities, parking areas, education centres etc. Small (including camping) camps of low to medium density 25-35 beds. Additional facilities can include swimming pools. Trails for 4x4 vehicles can also be provided. Day visitor site are not placed within the camps.

*Sophistication of facilities:* Self contained units with bathroom facilities. Camp sites will include ablution facilities.

*Audible equipment and communication structures:* Cell phone coverage in vicinity of camps. Code of use for cell phones and radios required to retain relative level of solitude.

*Access and roads:* Motorized self drive sedan car access (traditional game viewing) on designated routes which are preferably gravel roads. When busses are permitted some roads should be designated as accessible to self drive only. Roads are secondary gravel tourist roads or minor game viewing roads.

**Location in Park:**

Low intensity leisure areas were designated around a rationalized road network for game viewing, along a proposed linkage to a new entrance along the N2 highway (including the gateway precinct), along the park's boundary with urban and industrial areas to the north, the actively used section of the Breede River from Die Stroom to Aloe Hill containing most visitor facilities including the rest camp, and around the current administrative complex. Where possible environmentally sensitive areas like the eastern renosterveld lowlands and vleis, the central plains and hills, and the hydrographically sensitive "Ou Reisiesbaan" basin were excluded from this zone.

**4. THE PARK BUFFER ZONE**

A National Park Buffer Zone is the identified area within which activities (e.g. landuse change) have an influence on the park (current and future extent). This section of the management plan is aligned with the DEA Policy on Buffer Zones for National Parks and the SANParks Buffer Zone Policy. This section of the management plan formally identifies and defines the buffer zone.

The Park Buffer Zones shows the areas within which landuse changes could affect a national Park. The zones, in combination with guidelines, will serve as a basis for a.) identifying the focus areas in which park management and scientists should respond to EIA's, b.) helping to identify the sort of impacts that would be important at a particular site, and most importantly c.) serving as the basis for integrating long term protection of a national park into the spatial development plans of municipalities (SDF/IDP) and other local authorities. In terms of EIA response, the zones serve largely to raise red-flags and do not remove the need for carefully considering the exact impact of a proposed development. In particular, they do not address activities with broad regional aesthetic or biodiversity impacts.

Table 1: Summary of Use Zone Characteristics

Zone	General Characteristics	Experiential Qualities	Interaction between users	Type of Access	Type of activities	Type of Facilities	Conservation Objectives	Biophysical Conservation Objective	Aesthetics and Recreational Conservation Objective
QUIET	This zone allows non-motorised access to areas which generally retain a natural appearance and character. Access is not specifically controlled.	Wide range of activities; relaxation in a natural environment	Moderate to high	Unaccompanied non-motorised access. Mainly on foot, non-motorised access to specific facilities.	Hiking; walking; rock climbing; where relevant non-motorised aquatic activities; bird watching; possibly mountain biking and horse riding.	Hiking trails; footpaths; management tracks; bird hides. Ablution facilities may be provided in high use areas. No accommodation; and no tourist access by vehicle.	The zone should be maintained in a generally natural state, with the proviso that limited impacts on biodiversity patterns and processes are allowed in order to accommodate park recreational and tourism objectives.	The zone should be maintained in a generally natural state, but some deviation from a natural/pristine state is allowed. Infrastructure should only be allowed within a restricted development footprint, and infrastructure, especially paths and viewpoints should be designed to limit the impacts of large numbers of visitors on the biophysical environment.	The zone should retain a generally natural appearance and character, and activities which impact on this should be restricted. In particular visitors are not allowed motorised access to this zone. It is however recognized that the presence of larger numbers of visitors and the facilities they require, may impact on the feeling of wildness found in this zone.
LOW INTENSITY LEISURE	The underlying characteristic of this zone is motorised self-drive access with basic facilities. The numbers of visitors are higher than in the Remote and Primitive Zones.	Comfortable facilities in a relatively natural environment.	Moderate to high	Motorised self-drive access.	Motorised self-drive game viewing, picnicking, walking, cycling; rock climbing; hiking; adventure activities.	Facilities limited to basic picnic sites; ablution facilities; information/education centres; parking areas. Small to medium (incl. camping) rest camps with basic facilities. Low spec access roads to provide a more wild experience.	Maintain the zone in a largely natural state that is in keeping with the character of a Protected Area, mitigate the biodiversity impacts of the relatively high levels of tourism activity and infrastructure that are accommodated within this zone through careful planning and active management, and ensure that the negative impacts of the activities and infrastructure are restricted to the zone.	The zone should be kept in a largely natural state. Deviation from a natural/pristine state should be minimized and limited to restricted impact footprints as far as possible. However, it is accepted that some damage to the biophysical environment associated with tourist activities and facilities will be inevitable.	The zone should be maintained in a largely natural state from an aesthetics point of view. Although it is inevitable that activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness etc), these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience.



The delineation of the buffer zone of Bontebok National park is informed by the Critical Biodiversity Area map for the Overberg District<sup>1</sup> (and adjacent districts). Critical Biodiversity Areas in the surrounding landscape were evaluated in terms of their importance to Bontebok National Park. Key issues are the corridors and linkages down the Breede River via key remaining patches of lowland Renosterveld to De Hoop Nature Reserve, and also north to the Marloth and Boosmansbos Nature Reserves. These areas (especially the corridor down the Breede River) should form the focus for corridor protection initiatives.

The Buffer Zone for Bontebok NP has two overlaying categories, namely priority natural areas, and a visual/aesthetic zone (Map 6).

#### **Priority Natural Areas:**

This zone aims to ensure the long term persistence of biodiversity, within and around the park, by identifying the key areas on which the long term survival of the park depends. This includes areas important to both biodiversity pattern (especially reasonably intact high priority natural habitats) and processes (ecological linkages, catchments, intact hydrological systems, etc.). This does not imply any loss of existing rights (e.g. current agricultural activities or legal extractive biodiversity use such as fishing), but rather aims to ensure the parks survival in a living landscape.

Priority natural areas include areas identified for future park expansion as well as reasonably natural areas of high biodiversity value which are critical for the long-term persistence of biodiversity within the park. These include adjacent natural areas (especially high priority habitats) which function as an ecologically integrated unit with the park, as well as areas critical for maintaining ecological links and connectivity with the broader landscape.

#### *Development guidelines:*

Inappropriate developments and negative land use changes (such as additional ploughing of natural veld, development beyond existing transformation footprints, urban expansion, intensification of landuse through golf estates etc) should be opposed within this area. Developments with site specific impacts (e.g. a lodge on a game farm) should be favourably viewed if they contribute to ensuring conservation friendly land use within a broader area. Further inappropriate developments, such as dam construction, excessive aquifer exploitation, and development resulting in the loss of riparian vegetation, should be opposed. In addition, the control of alien vegetation, the control of soil erosion, and appropriate land care (e.g. appropriate stocking rates) should be promoted.

#### **Viewshed protection:**

These are areas where developments could impact on the aesthetic quality of a visitors experience in a park. This zone is particularly concerned with visual impacts (both day and night), but could also include sound pollution.

#### *Development guidelines:*

Within these areas any development proposals should be carefully screened to ensure that they do not impact excessively on the aesthetics of the park. The areas identified are only broadly indicative of sensitive areas, as at a fine scale many areas within this zone would be perfectly suited for development. In addition, major projects with large scale regional impacts may have to be considered even if they are outside the Viewshed Protection Zone.

#### Overview of the Special Management Overlays of Bontebok National Park:

Special management overlays which designate specific areas of the park that require special management interventions were identified. Two areas were designated (Map 4):

#### **Special Conservation Areas – Rare, endemic and endangered plant species:**

Areas within Bontebok National Park containing key populations of rare, endemic and endangered species were identified as Special Conservation Areas. These areas were identified to ensure that management and development activities do not result in any degradation of habitat for these species, and particularly to ensure that no loss of habitat occurs.

**Heritage Conservation Areas:** The key cultural heritage sites of Bontebok were included into this Special Management Overlay to ensure the protection of cultural resources in this zone.

#### **5. CURRENT STATUS AND FUTURE IMPROVEMENTS:**

The Bontebok National Park CDF will be updated, if required, during the current five year update cycle. Additional work will be undertaken on precinct plans for various sections of the park.

#### **6. REFERENCES:**

Department of Environmental Affairs and Tourism. 2003. National Environmental Management: Protected Areas Act (Act 57 of 2003). Department of Environmental Affairs and Tourism, Pretoria.

SANParks. September 2005. Sensitivity-Value analysis Manual. Unpublished. SANParks , Pretoria.



## Appendix 4: Maps

**Map 1: Regional Context**

**Map 2: Physical Features**

**Map 3: Land Tenure and Expansion**

**Map 4: Zoning**

**Map 5: Buffer Zones**

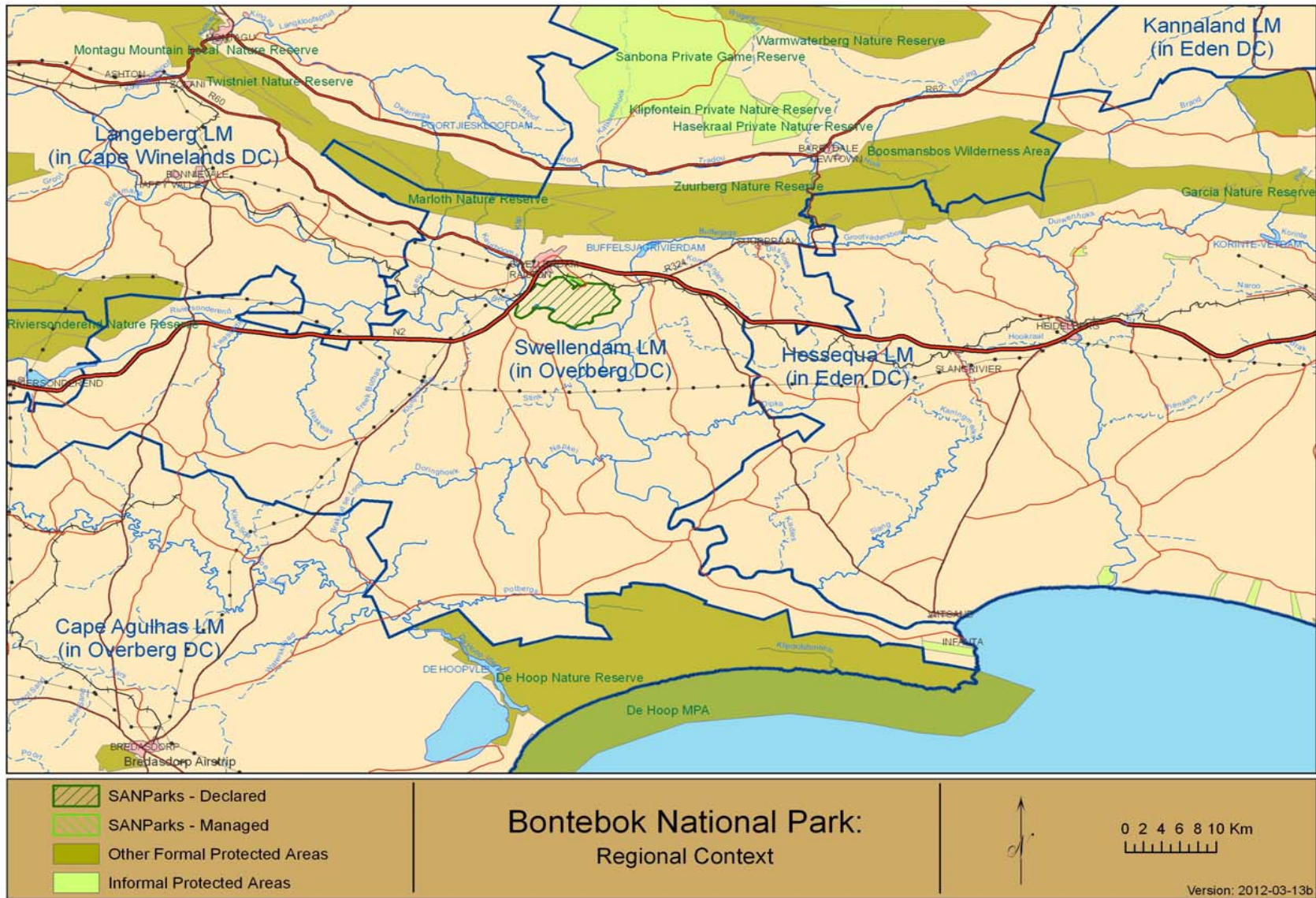
**Map 5b: Buffer Zones (local)**

**Map 6: Park Use Zones and Sensitivity**

**Map 7: Vegetation**

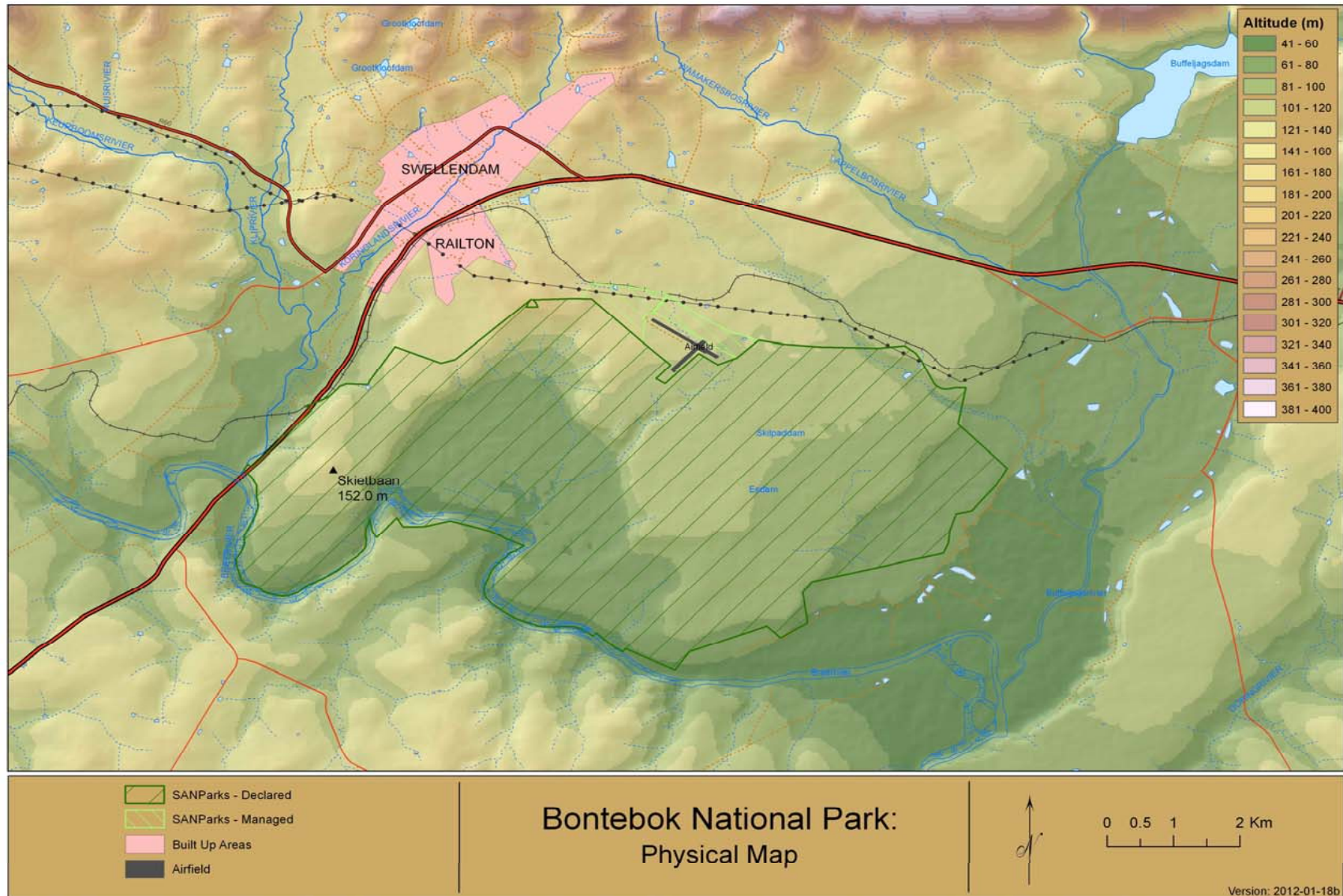
**Map 8: Infrastructure**



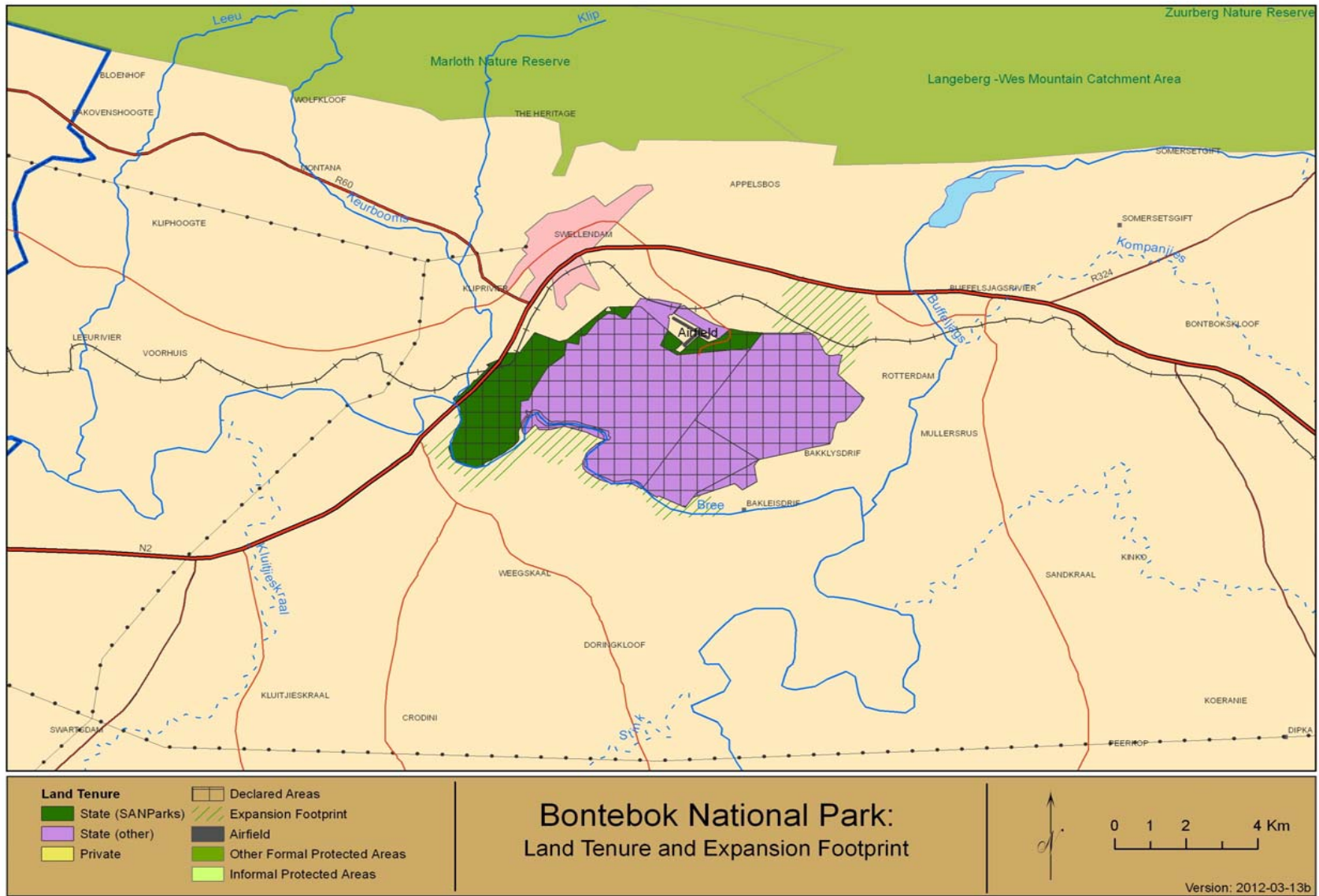


Map 1: Regional context



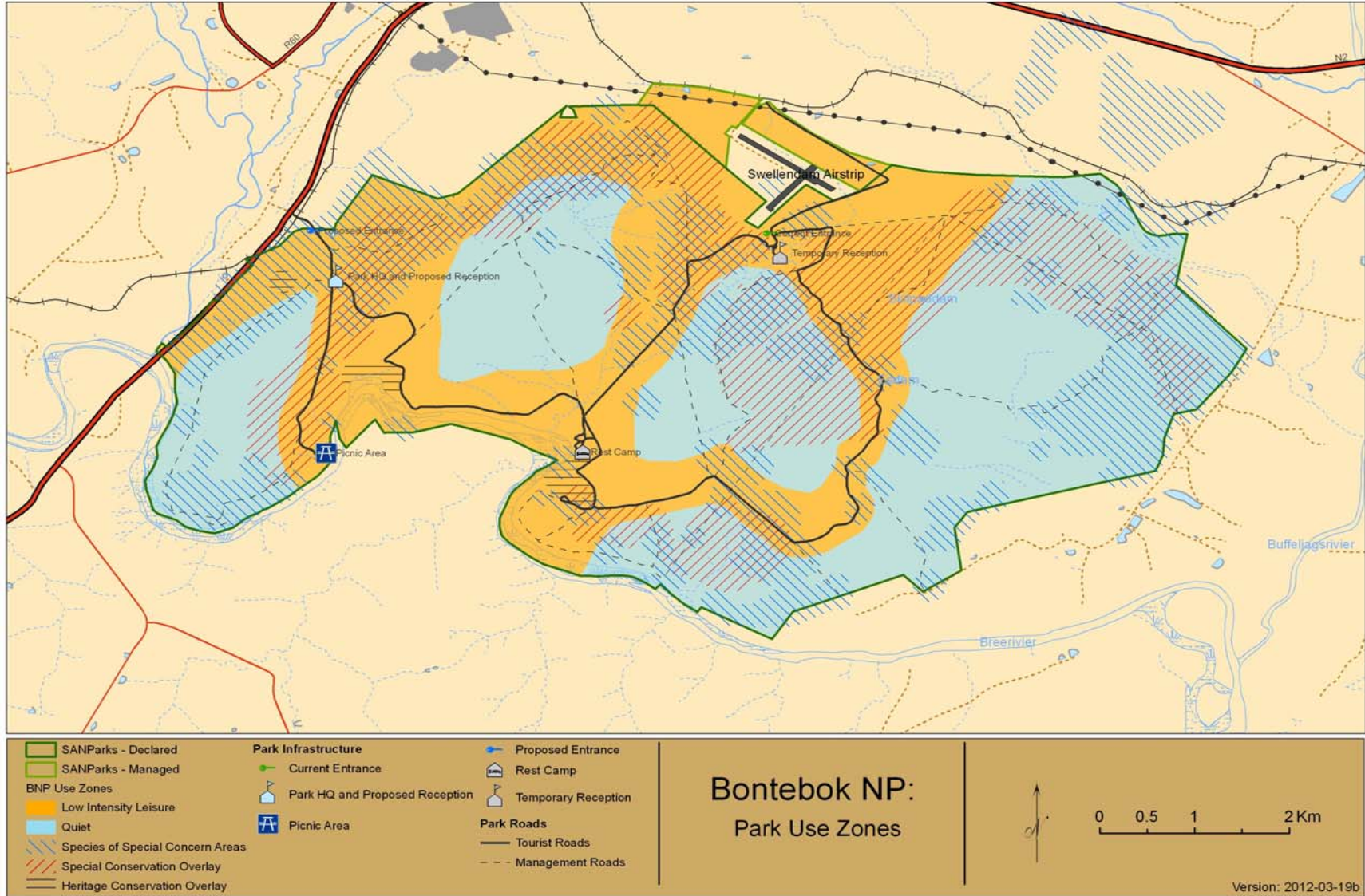


Map 2: Physical features



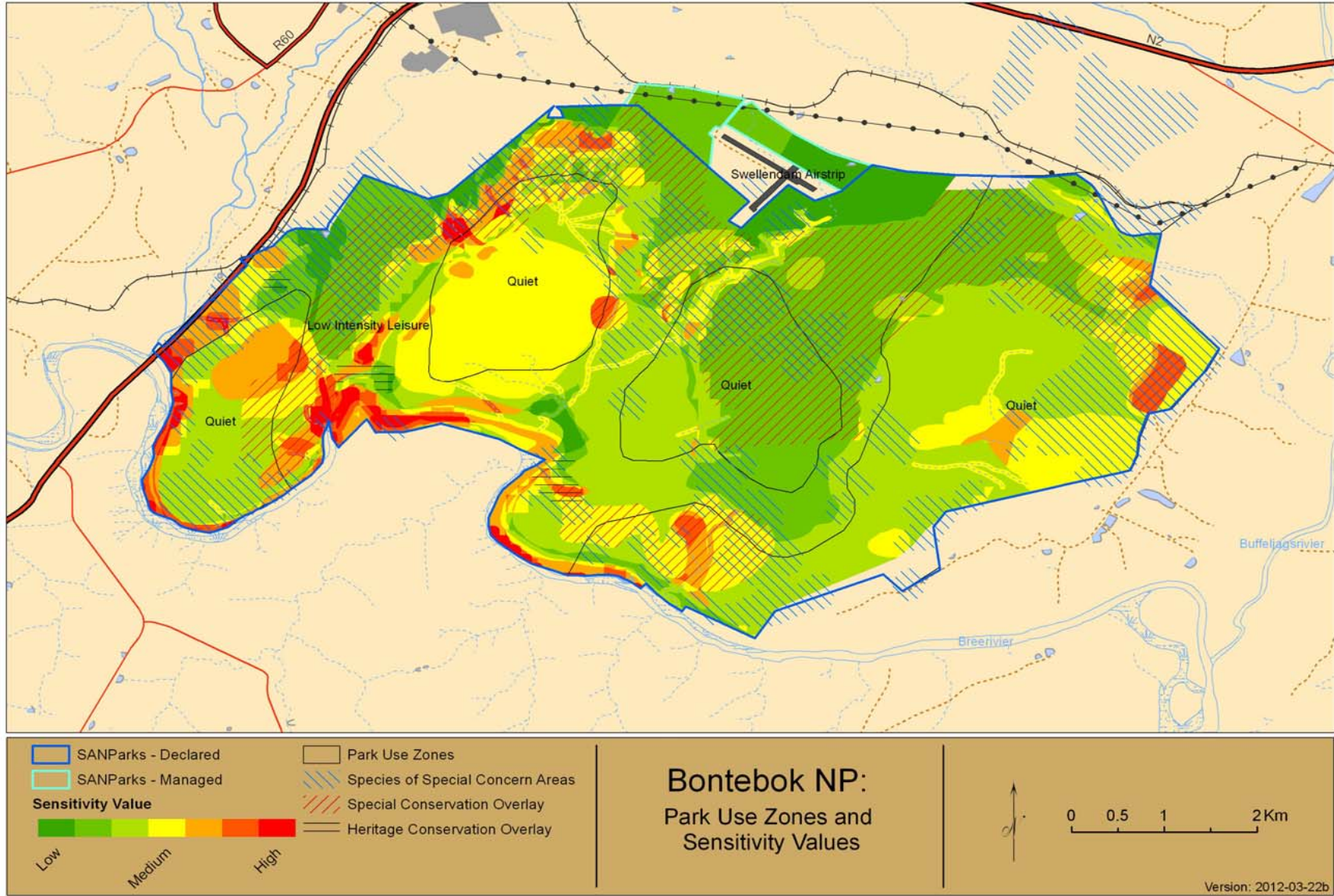
Map 3: Land tenure





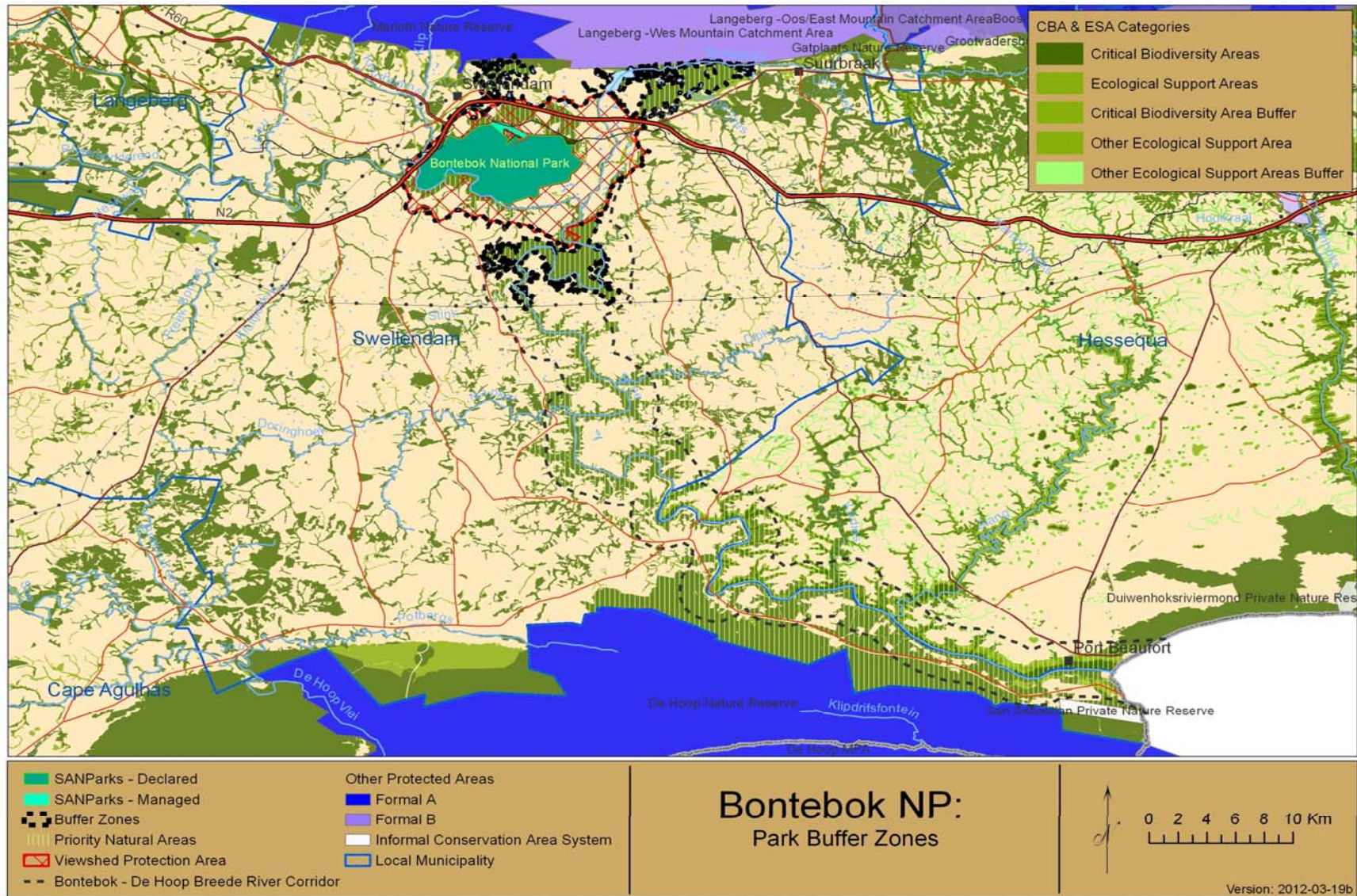
Map 4: Zoning





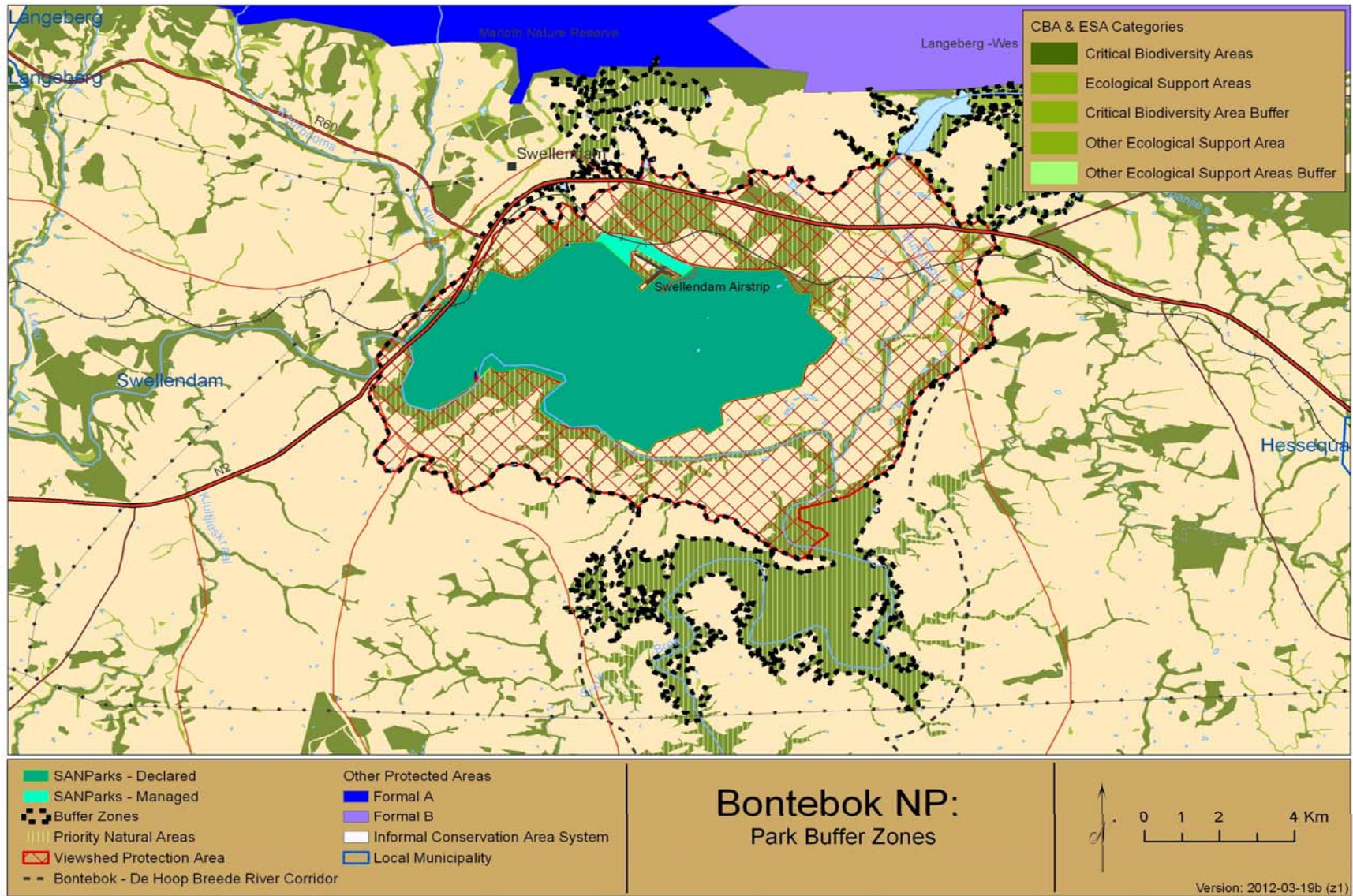
Map of Bontebok NP showing Park Use Zones and Sensitivity Values





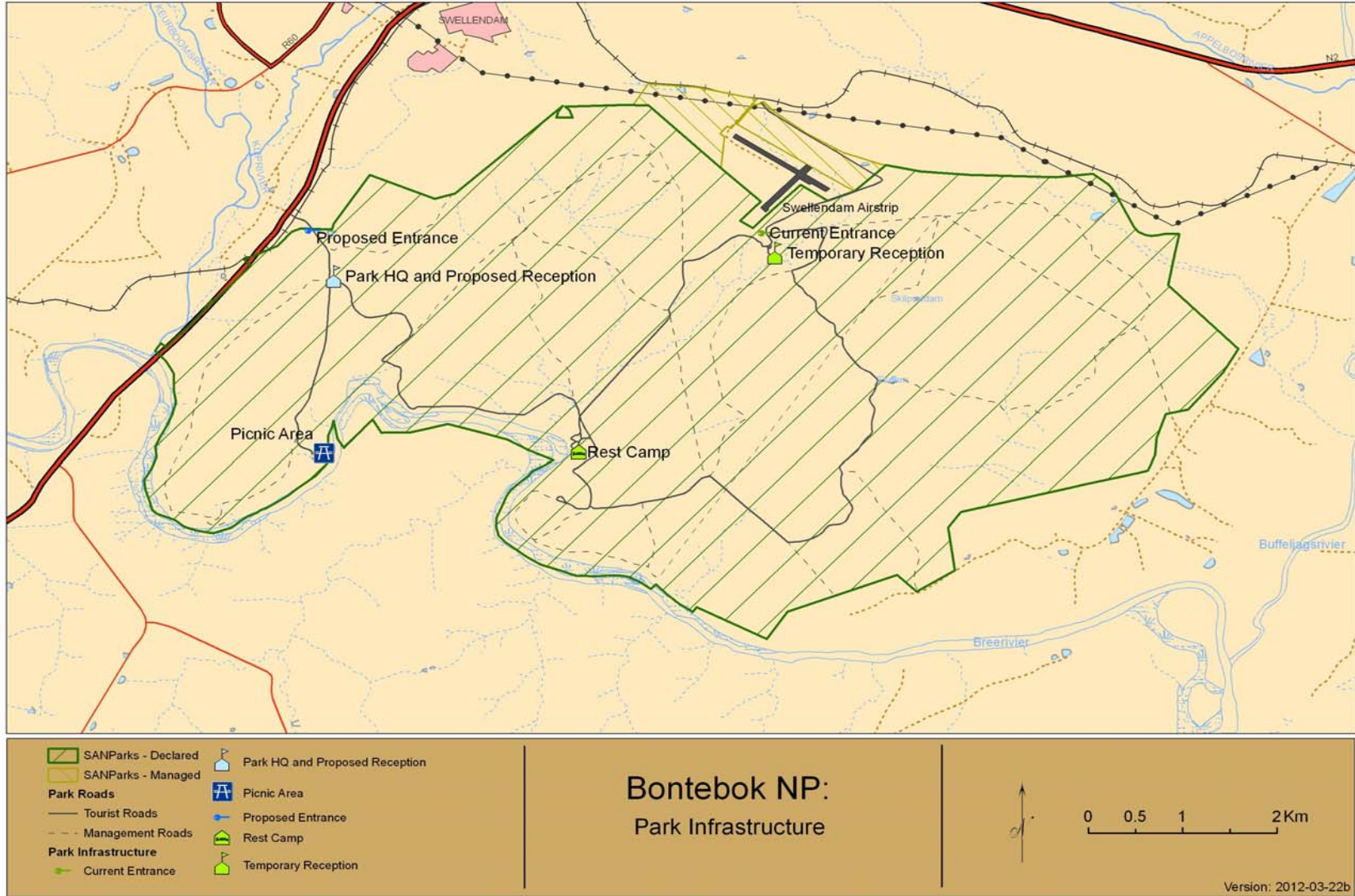
Map 6: Buffer zone





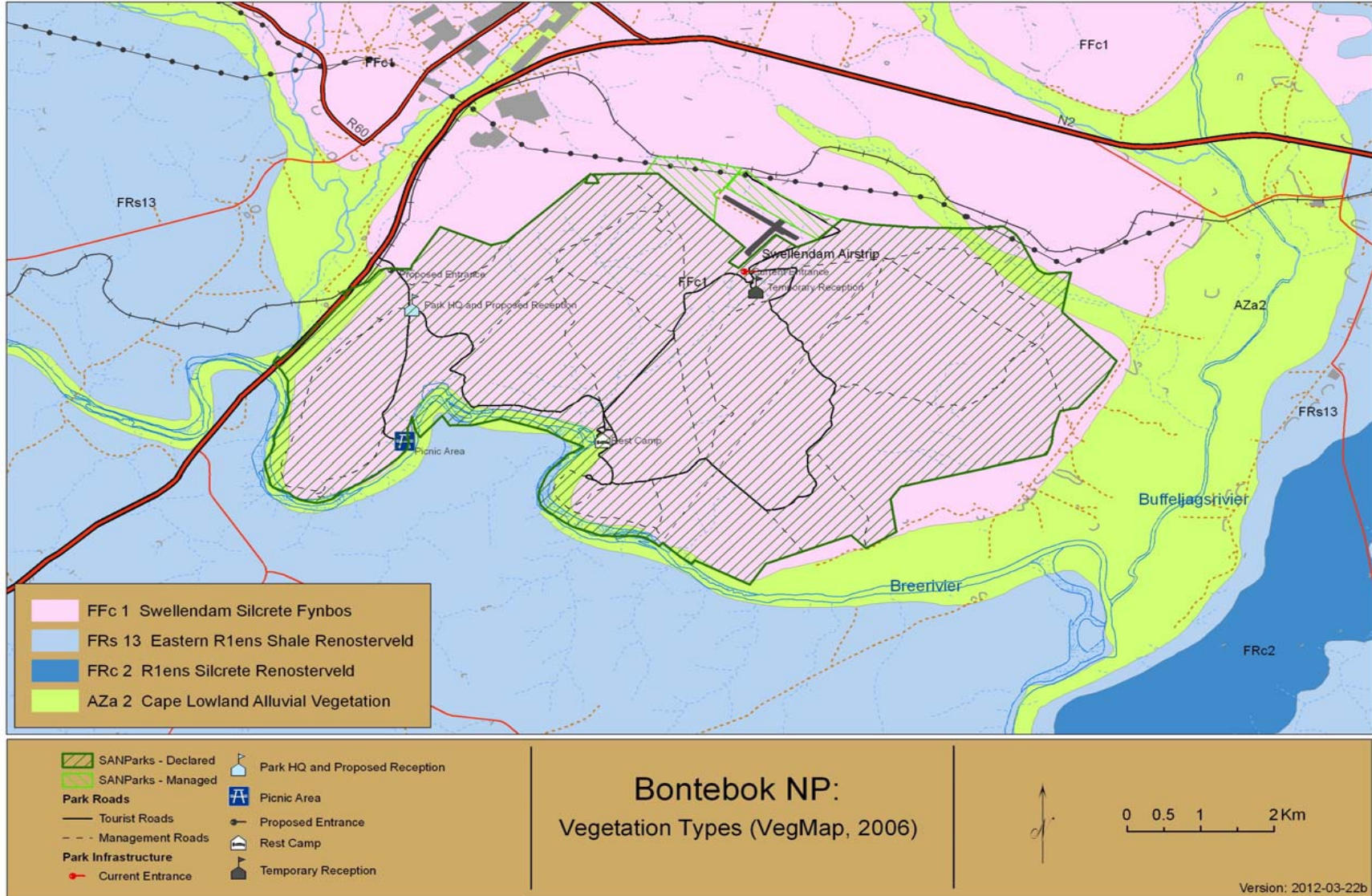
Map 7: Buffer zone local





Map 8: Infrastructure





Map 8: Vegetation