South African NATIONAL PARKS

Namaqua National Park

Park Management Plan

For the period 2013 - 2023

Section 1: Authorisation

This management plan is hereby internally accepted and authorised as required for managing the Namaqua 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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Park Manager: Namaqua National Park

Date: 01 November 2012

Mr Dries Engelbrecht
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Date: 01 November 2012

Mr Paul Daphne
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Date: 01 November 2012

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Date: 05 June 2013

Mr K.D. Dlamini
Chair: SANParks Board

Date:10 June 2013

Approved by the Minister of Water and Environment Affairs

Mrs B.E. E. Molewa, MP
Minister of Water and Environment Affairs

Date: 05 September 2013

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Glossary

Balanced scorecard	The performance management tool used by SANParks to ensure feedback and effective implementation of various management objectives
Desired state	The overall conditions of the park (across the full V-STEEP range) that stakeholders desire
Endemism	Unique or confined to a specific place or area
Objectives hierarchy	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
Mission	An articulation of the Vision that describes why the park exists and its overall philosophy on how to achieve its desired state
Stakeholder	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
Vision	A word 'picture' of the future, or what the stakeholders see as the future for the park
Vital attributes	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
V-STEEP	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
the Guidelines	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	BDM	Business development unit
2	BMP	Biodiversity monitoring programme
3	BMS	Biodiversity monitoring system
4	BSC	Balanced scorecard
5	CARA	Conservation of Agricultural Resources Act (Act 43 0f 1983)
6	CDF	Conservation development framework
7	CPF	Coordinated policy framework
8	CSD	Conservation services division
9	DEA	Department of Environment Affairs
10	EE	Environmental education
11	EIA	Environmental impact assessment
12	EMP	Environmental management plan
13	EMS	Environmental management system
14	EPWP	Expanded public works programme
15	GEF	Global environmental facility
16	GG	Republic of South Africa Government Gazette
17	GN	Government notice
18	HIA	Heritage impact assessment
19	HR	Human resources
20	IDP	Integrated development plan
21	ISCU	Invasive species control unit
22	MPA	Marine protected area
23	NBSAP	South Africa's National Biodiversity Strategy and Action Plan
24	NEM	National Environmental Management Act (Act 107 of 1998)
25	NEM:BA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
26	NEM:ICMA	National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)
27	NEM:PAA	National Environmental Management: Protected Areas Act (Act 57 of 2003)
28	NNP	Namaqua National Park
29	NPT	National Parks Trust
30	P&C	People and conservation
31	PM	Park manager
32	RM	Regional manager
33	RMM	Regional marketing manager
34	SANBI	South African National Biodiversity Institute
35	SANParks	South African National Parks
36	SAPS	South African Police Service
37	SDF	Spatial development framework
38	SMME	Small, medium and micro enterprises
39	SDF	Spatial development framework
40	SKEP	Succulent Karoo ecosystem programme
41	SR	Section ranger
42	SSC	Species of special concern
43	TO	Tourism officer
44	TPC	Threshold of potential concern
45	WftC	Working for the coast
46	WfW	Working for water
47	WWF-SA	Worldwide Fund for Nature South Africa

Lists of figures, tables and appendices

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Executive summary

The first management plan for the Namaqua National Park (NNP) 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 sections 39 and 41 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 Section 10 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 programmes, objectives 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.

The NNP is situated within the Succulent Karoo biome. It is one of 34 internationally recognised biodiversity hotspots, and one of the world's few arid hotspots. The relatively stable but arid climate contributed to the development of a diverse, locally adapted flora characterised by numerous bulb and succulent plant species. The number of species in the region is particularly high (6,356) by comparison with other arid regions of the world with many endemics (40%) and Red data listed (17%) species. The Succulent Karoo biome is also characterised by a unique and dynamic sand dune system in the coastal areas. The positioning of the park within this biome region offers a unique opportunity to conserve these exceptional ecological systems and processes.

2.1 Name of the area

The Namaqua National Park was declared in 2001 (Government Notice 578 in Government Gazette 22414 dated 29 June 2001).

2.2 Location

The Namaqua National Park is situated in the Namaqualand region of the Northern Cape Province of South Africa, and stretches from the Groen and Spoeg Rivers on the Atlantic Ocean to just west of the town Kamieskroon, which is 495 km north of Cape Town (Appendix 4 Map1).

2.3 History of establishment

The park is still in the process of development, with the coastal contractual area between the Groen and Spoeg rivers incorporated recently to expand the park to include more succulent habitats and a coastal section (Table 1 and Appendix 1).

2.4 Contractual agreements

WWF-SA, the National Parks Trust and De Beers Consolidated Mines are contractual partners in the park. In total contractual land contribute 83,799.6 ha to the park (see Appendix 1). Although not declared yet, the park also manages the Admiralty Zone between the Groen and Spoeg Rivers

2.5 Total area

The current area of the park totals 145,892.35 ha of which 110,964.2390 ha has been declared with the rest in the process to be declared (Appendix 1).

Table 1: The history of establishment of the NNP:

Year	Event
1988	WWF-SA purchases a section of the farm Skilpad and start managing it as a wildflower reserve
1998	SANParks takes over the management of the Skilpad Wildflower Reserve and surrounding farms that were purchased by WWF
1999	Official opening of the Namaqua National Park
2000	Working for Water project begins. August 2000 official start of GEF project.
2001	Construction and refurbishments of infrastructure at the Skilpad Section of the park begins
2002	Official declaration of the Namaqua National Park
2002	GEF social ecology projects get under way
2002	The first RARE Environmental Education Campaign in Africa begins
2002	Land consolidation continues and the NNP caracal research project begins
2003	Land consolidation reaches 72,000ha
2003	Work begins to expand the park to the coast
2005	Land acquisitions ongoing to consolidate corridor to the coast, negotiations with De Beers Namaqualand Mines ongoing
2008	Contractual inclusion of the Groen-Spoeg River section as part of the park
2010	Proclamation of De Beers properties
2011	DEA Management Letter for Admiralty zone

2.6 Highest Point

The highest point in the park is Wolfhoek se Berg at 948 m (3,081 feet) above sea level (Appendix 4 Map 2). The airspace above the park as regulated by the NEM:PAA S47.1 is 4,581 feet above sea level.

2.7 Municipal areas in which the park falls

The municipalities surrounding the park are the Kamiesberg Local Municipality, the Nama Khoi Local Municipality and the Namaqua District Municipality.

2.8 International listings

None.

2.9 Biophysical and socio-economic description

2.9.1 Climate

The park falls within the winter rainfall region of South Africa. Rainfall is associated with cold fronts in winter and is not only predictable but more reliable than other arid regions (Lovegrove 1993). The biological uniqueness of the Succulent Karoo biome can be attributed to the low but reliable rainfall patterns (Cowling & Pierce 1999). The average annual rainfall measured over 15 years in the Skilpad section at 700 m above sea level is 340 mm. The average at Soebatsfontein just beyond the parks south-western boundary is 140 mm per annum (Desmet 1996). The Namaqualand coastal duneveld has a mean precipitation of below 100 mm annually (Mucina & Rutherford 2006). No accurate temperature figures are available for the park but according to Lovegrove (1993) the summer maximum and minimum are 40°C and 12°C respectively. In winter the maximum is 20°C and the minimum 0°C. The overall mean annual temperature of the biome of 16.8°C indicates a warm-temperate climate regime (Mucina & Rutherford 2006). Snow falling on the Kamiesberg is common.

Mist is frequent during autumn and winter and the associated moistening of the soil is thought to influence annual plant germination rates (Cowling and Pierce 1999). The wind in winter is usually from the east, which can turn to a cold north-westerly with the approach of a frontal system. In summer the wind is predominantly from the south or east.

2.9.2 Topography

The park covers an altitudinal range from sea level (western boundary) to 710 m on the eastern boundary (Map 2). The topography is dominated by the low-lying Swartlintjies River valley in the west with its catchment in the mountains of the escarpment to the east. On the Skilpad section the Wolwepoort River drains to the northwest ultimately flowing into the Haas River, a tributary of the Buffel River. The Namaqualand coastal plain and the escarpment (Hardeveld) are both features of the area (Desmet 1996). The area between the Groen and Spoeg Rivers include a 60 km stretch of coastline and a 30 km inland coastal plain of sandy material with an aeolian origin (Mucina & Rutherford 2006).

2.9.3 Geology and soils

The bedrock within the park largely comprises quartzo-feldspathic gneiss of the Kookfontein subgroup within the Namaqualand metamorphic complex (Jack 1980). Bedrock outcrops occur on koppies or mountains as smooth rock faces or large rounded boulders typical of the Namaqualand hardeveld. The low-lying areas, particularly of the Swartlintjies River valley comprise of recent Quaternary deposits with colluvial or duplex soils dominate. Plumes of deeper, sandy deposits have covered the heuweltjie veld on the leeward side of ridges and in the valley bottoms due to aeolian reworking (Desmet 1996). Of further geological significance is the Soubattersfontein quartzite that occurs as low laying ridges or koppies in the south and south-western sections of the park. These outcrops typically have large angular quartz pebbles and boulders on the slopes as well as lenses of Zoutpan schist. A relationship exists between the quartzite and the quartzo-feldspathic gneiss and smaller outcrops that occur throughout the park (Jack 1980). Weathering and leaching takes place to a lesser degree in arid regions with the result that large areas of bare rock occur as well as the preservation of very old soils. Coarse soils with sharp boundaries are the result of slow soil formation and are also sensitive to degradation. Organic matter is limited because of the low productivity of arid ecosystems and the broad correlation between rock types and soils is reflected in the associated plant communities (Watkeys 1999).

The following land types occur in the park (Watkeys 1999): Fb 153; Ib 235; Ag 94; Ag 96; Ae 79 and Ae 164. The soils encountered in the park according to these land types are as follows:

- Ag and Ae: Red-yellow apedal, freely drained soils. Less than 300 mm deep.
- Fb: Glenrosa and or Mispah forms. Lime rare or absent in upland soils but generally present on low-lying soils.
- Ib: Miscellaneous land classes. Rock areas with variable soils. The soil is mostly very shallow (0.1 to 0.3 m) with a low clay content (6 to 15 % clay).

Sand movement corridors are a characteristic of the coastal plain landscape and form an integral part of the ecological dynamics of the vegetation and animals that inhabit this landscape. They are regarded as important medium to large scale ecological processes that need to be explicitly considered in conservation plans (Cowling *et al*. 1999; Driver *et al.* 2003).

Elsewhere in South Africa sand movement corridors have been truncated or destroyed by inappropriate coastal development and stabilisation by alien plants. The Namaqualand coastal plain presents the only opportunity in South Africa to conserve these ecosystems. Inclusion of entire sand movement corridors within a reserve is highly desirable.

In view of the park's positioning in the Succulent Karoo biome and its internationally recognised biodiversity hotspot status, the expansion of the park is a priority for SANParks, the South African government and the global conservation community. It is also a top priority for SANParks to include the coastal strip into the park.

The Namaqua marine bioregion is also not represented by any of the already existing marine protected areas (MPAs) and a MPA adjoining the park would complete the representative conservation of the South African coastline.

Further expansion of the terrestrial component of the park is also planned through contractual agreements with landowners. Major biodiversity threats in the region are perpetuated by human activities that include mining, overgrazing, illegal collection of fauna and flora and climate change.

2.9.4 Biodiversity

The Namaqualand region of South Africa falls within the Succulent Karoo biome, identified as one of the world's 34 biodiversity hotspots (one of three hotspots in South Africa), and is the focus of both international and national groups / organisations to conserve this globally unique living landscape *i.e.* the World Wildlife Fund (WWF), the Lesley Hill succulent karoo trust, Global Environment Facility (GEF) and Conservation International (CI) with initiatives such as the SKEP and Arid Eden Project.

Bioregions are represented within the boundaries of the park are (Mucina & Rutherford 2006):

i) Arid estuarine salt marches,
(ii) Kamiesberg mountain scrubland,
(iii) Namaqualand arid grassland,
(iv) Namaqualand blomveld,
(v) Namaqualand coastal duneveld,
(vi) Namaqualand heuweltjiesveld,
(vii) Namaqualand inland duneveld,
(viii) Namaqualand klipkoppe scrubland,
(ix) Namaqualand rivers,
(x) Namaqualand salt pans,
(xi) Namaqualand sand fynbos,
(xii) Namaqualand seashore vegetation,
(xiii) Namaqualand strandveld,
(xiv) Riethuis wallekraal quartz vygieveld
(xv) Oograbies plains sandy grassland

The Succulent Karoo has approximately 6,356 plant species, 40% (2,542) are endemic (Driver *et al*. 2003). Namaqualand alone has about 3,000 species (1,500 are endemic) made up of 648 genera and 107 families (Cowling *et al*. 1998). When compared to regions with similar semi-arid environments the richness of this biome is exceptional. Namaqualand is further distinguished from other desert regions by the presence of the following families: Mesembryanthemaceae (vygies); Iridaceae (irids); Hyacinthaceae (lachenalias) and Crassulaceae (crassulas). There is a strong pattern of dominance by succulents and bulbs (Hilton-Taylor 1996). The Succulent Karoo biome's botanical composition is fascinating and unusually rich (Cowling *et al.* 1994; Cowling *et al*. 1998), it is home to 6,356 species of vascular plants in 1,002 genera and 168 families (Driver *et al.* 2003, Appendix 4 Map 7).

Recent surveys estimate that 1,630 species (26%) are strict endemics and 905 (14%) are near endemics that have the centre of their distribution in this biome (Driver *et al.* 2003).

Seventeen percent are listed as Red data species (IUCN, the World Conservation Union 1994). As part of the park's adaptive management there is a need to build on our existing knowledge of the vegetation by means of research and use of indigenous knowledge to better our conservation management protocols.

It is estimated that the Succulent Karoo bioregion has about 16% of the worlds approximately 10,000 succulent plant species (Van Jaarsveld 1987; Driver *et al*. 2003). The high level of diversity is a result of a number of factors that include:

- occasional droughts that increase generation turnover and population fragmentation
- soil depth, moisture and texture
- chemical composition of the bedrock
- animal related disturbance regimes (*e.g.* heuweltjies)

The NNP plant species list for the park contains 534 species (excluding the new Groen-Spoeg River section). There is a need to update the existing records as the park has expanded since the species list was drawn up.

The Succulent karoo has its own characteristic fauna with the dominant animals being invertebrates, specifically monkey beetles, scorpions, bee flies, bees and masarid and vespid wasps have concentrations of diversity and endemism in the biome. There is a strong faunal relationship between the Succulent Karoo and the Fynbos and Desert biomes and it is considered a transitional region (Vernon 1999).

The floral richness of the Succulent Karoo is mirrored in its faunal diversity especially the invertebrates and reptiles although this is not the case with birds and mammals. This high species-richness has been attributed to events such as the folding of the Cape mountains and the subsequent isolation of specific habitats and the high levels of plant diversity.

The high barriers between the Succulent and Nama Karoo biomes have limited faunal movements even by the more mobile organisms (Vernon 1999).

The movement of birds within the biome appears to be related to the availability of resources, both food and nesting material. Fluctuations in bird and mammal populations (especially rodents) are related to major rainfall events or changes in rainfall seasonality. Historically, mammal numbers would have fluctuated with resource availability and the activity of predators.

The animals that historically occurred in the area and which are now locally extinct include elephant *Loxodonta Africana*, black rhino *Diceros bicornis bicornis*, lion *Panthera leo*, cheetah *Acinonyx jubatus*, wild dog *Lycaon pictus*, eland *Taurotragus oryx*, red hartebeest *Alcelaphus buselaphus*, gemsbok *Oryx gazelle*, springbok *Antidorcas marsupialis* and Hartmann's mountain zebra *Equus zebra hartmannae*. Many of these species were probably not resident but would have moved through the area related to the availability of food and water resources. The largest predator in the park is the leopard *Panthera pardus*.

Existing populations of small mammals still occur within the present boundaries of the park. They include the common duiker *Sylvicapra grimmia*, steenbok *Raphicerus camprestis*, bat-eared fox *Otocyon megalotis*, black-backed jackal *Canis mesomelas*, caracal *Caracal caracal*, baboon *Papio ursinus*, klipspringer *Oreotragus oreotragus*, Cape fox *Vulpes chama*, aardvark *Crycteropus cafer* and African wildcat *Felis silvestris*. Seventy-three mammal species occur within the Succulent Karoo with three endemic. Of these De Winton's golden mole *Cryptochloris wintoni* and Van Zyl's golden mole *Cryptochloris zyli* are insectivorous and the Namaqua dune molerat *Bathyergus janetta* is herbivorous.

2.9.5 Palaeontology, archaeology and cultural heritage

No concise summary of park relevant information on palaeontology, archaeology or cultural heritage is currently available.

2.9.6 Social context

The main industries within the region include small-stock farming and a declining diamond mining industry (Appendix 4 Map 3). Tourism, being associated with the spectacular spring flower displays, is highly seasonal. The region is today characterised by its small and dispersed population, isolated rural settlements, and high levels of unemployment, small livestock production and harsh climatic extremes.

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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. This CPF is currently being revised and will be updated in 2013 (SANParks in preparation). Until updated, the current CPF will remain in force.

This CPF is currently being revised and updated (SANParks *in preparation*). 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 NEM:PAA.
(2) SANParks as an organization: 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 10 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 National Park) report to the Managing Executive: Parks through a regional general manager. In the case of the NNP this is via the Regional general manager for the Arid region. The park's organogram (Figure 1) sets out the reporting structure in the park.

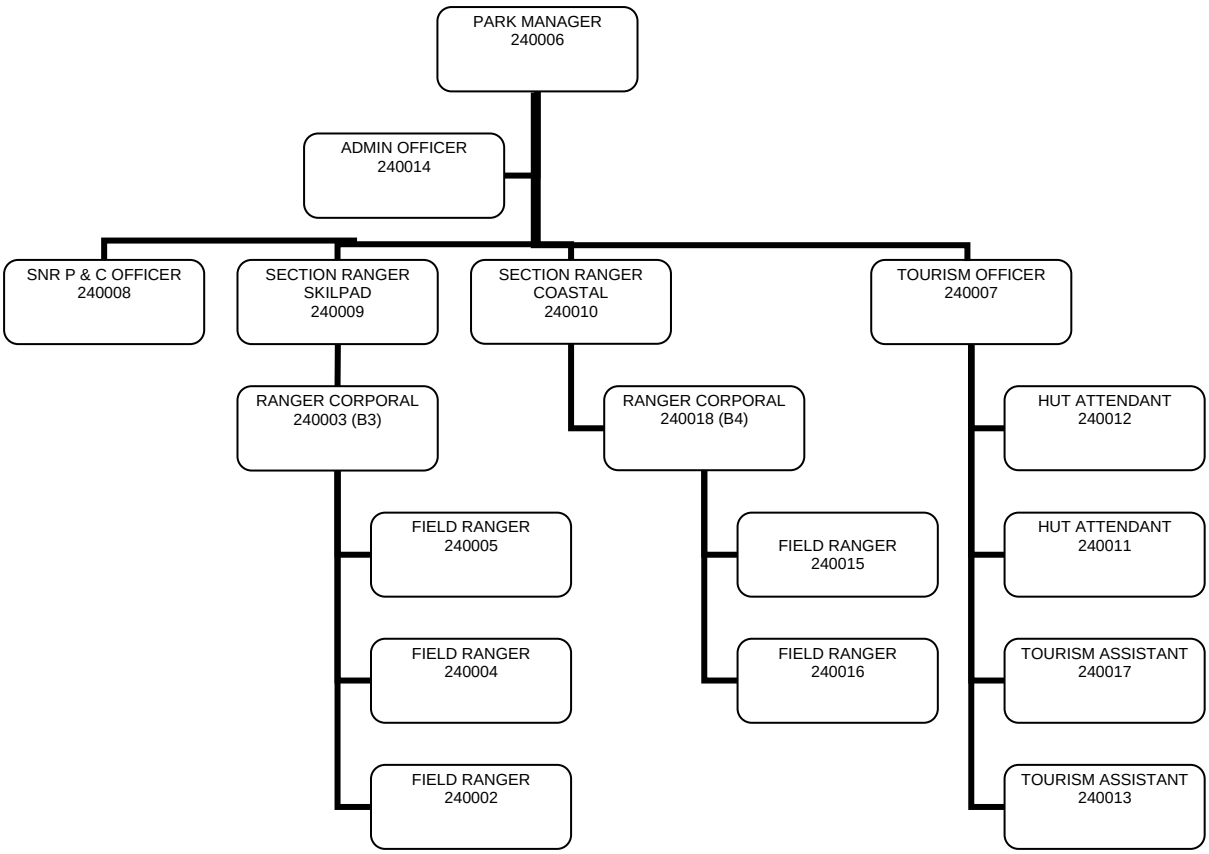

Figure 1: Park Organogram (with post numbers).

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 NNP was guided by a stakeholder workshop held in May 2009, during which a mission, vision and management objectives were formulated (SANParks 2011, included as Appendix 3):

- Reviewing the vision 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 the Park Forum and key stakeholders. These objectives are clustered or grouped into an objectives hierarchy that provides the framework for the management plan. Within the management plan only the higher level objectives are presented. However, more detailed objectives, down to the level of operational goals, have been (or where necessary are currently being) further developed in conjunction with key stakeholders and specialists.

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Section 5: Purpose and vision

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

The park was originally established to protect the diverse succulent and other flora of the region.

5.2 Desired state

In order that the current and future extent of the park be protected and managed effectively, the desired state has been developed to guide park management in its daily operations. The vision and mission statements reflects the high-level essence of what NNP is aspiring towards, and a hierarchy of objectives translating these broad values into strategic, auditable management outcomes (Figure 2). This section of the plan details the setting of the park's desired state, focusing on the determinants and threats to its vital attributes, and translating the maintenance of these determinants and overcoming of these threats from broad objectives into specific management actions.

Specific programmes to achieve the desired state for the park are detailed in the plan. These programmes are the core components of protected area management, categorised by SANParks under four broad headings: biodiversity conservation, sustainable tourism, building co-operation and effective park management. Finally, the plan outlines how the various objectives will be prioritised, integrated and operationalised, and which feedback mechanisms will be used to ensure compliance, auditability and maximum learning, as part of the adaptive management cycle.

5.3 Park vision and mission

"Namaqua National Park will be a safe haven for Namaqua biodiversity and cultural heritage with the support and active participation of all stakeholders enhancing livelihoods of the region"

In order to achieve this vision, the park's mission is:

"To manage Namaqua National Park with stakeholder collaboration that enables the conservation and promotion of Namaqua's internationally significant biodiversity and cultural heritage while supporting sustainable livelihood options in the region "

5.4 Operating principles

NNP takes its biodiversity values from the SANParks biodiversity values:

- Recognition of the value and core function of protected areas, with emphasis of the contribution of the park to the psychological and spiritual needs of people, implies the need for sensitive management of the relationship between protection and use;
- Recognition of the need for active and representative participation and for this to be underpinned by actions such as working together, building trust, cultivating healthy relationships and mutual support between stakeholders.
- Effective, transparent communication is needed to manage conflict, to leverage opportunities for community involvement and training, explore economic opportunities and food security for local communities and facilitate synergy with all activities adjacent to the park, locally and across larger spatial and institutional scales.
- Proactive, integrated and innovative planning is required to support a mountain to coastal park, to enhance synergies and alignment between the park's and other planning processes such as Integrated development plans and Spatial development frameworks and to be ready to respond to anticipated changes such as mine closure.
- Sustainability in park management, emphasising short- medium- and long-term sustainability and working innovatively within financial constraints.
- Management grounded in scientific research but simultaneously recognising the validity of different types of knowledge.
- Respectful management of cultural heritage and respect for the contemporary holders and custodians of this cultural heritage and associated values.
- General commitment to maintaining legal and policy compliance with specific emphasis on effective enforcement and compliance in relation to the marine protected area component of the park.

5.5 Key attributes

Listing the vital attributes of a park is an important step in the objective-setting process as it identifies the fundamental purpose(s) of conservation management for a particular park. For each attribute, the factors which determine it are identified, together with the factors which threaten or constrain it.

The management objectives of the park are then set with the intention of maintaining the determinants of, and on overcoming the constraints and threats to these vital attributes. These vital attributes were listed for the park during a two day workshop in July 2009, and clustered into five themes: (i) Social, (ii) Institutional, (iii) Tourism, (iv) Ecological and (v) Socio-economic themes (SANParks, 2009). The following vital attributes have been identified by stakeholders as making the park unique:

Social theme

- Sense of place (peaceful) and spiritual benefit of the park: "*Namaqualand is soos die blomtuin van God*"
- Cultural heritage: rock art, caves, old buildings, stone age implements, shell middens, archaeological sites
- Opportunities for partnerships in job creation
- The park as an educational resource
- Good stakeholder participation in the Park Forum
- Low levels of crime in general
- Practical innovation: the Anatolian dog project as an example of a collaborative initiative between conservation and stock farmers; also coastcare collaboration.
- Enthusiastic and competent park staff
- Cultural richness of the Namaqua people (including sheep farming) provides additional tourism opportunities as the park is surrounded by this cultural richness.

Institutional theme

- Climate change research and knowledge opportunity – also applicable to other land uses *e.g.* farming.
- National consciousness around the SANParks branding – related to service delivery. Brand is well known and trusted – suggestive of par / conservation values and neat disciplines staff and operations.

Tourism theme

- Wide open landscapes contribute to peacefulness and sense of place
- Flower display and underlying / causal disturbance
- No large or dangerous animals, allowing for a suite of safe activities, *e.g.* walking and cycling, opportunities for direct nature-based experiences.
- NNP is on a 4x4 and national park tourism route (includes Tankwa, Namaqua, Richtersveld and others).
- Four mountain passes inside the park.

Ecological theme

- Coastal upwelling > nutrient rich > marine productivity.
- Little organisms (mammals, insect and plants) as opposed to the 'Big 5'.
- Unique, endemic (plants and other species) and diverse attributes *e.g.* unique kwartzkoppies (biodiversity 'hotspots') ecology and species; high diversity of succulent plants.
- Opportunity to create a 'mountain to coast' park, including connecting ecological conservation corridors.
- The park is a knowledge model for recovery and resilience with reference to climate change. Needs a long-term-perspective in planning.
- Clear day and night skies.
- Three estuaries and associated 'brak' / saline freshwater systems.
- Seasonal contrasts and associated opportunities for tourism
- Pristine quality of the park and especially the coastline

Socio-economic theme

- Up to 300 annual job opportunities through the park
- Park budget spent primarily on services provided locally
- NNP nested within a landscape use mosaic of agriculture, mining, local communities and other conservation areas. This is likely to be a long-term pattern for the park and collaboration must be sustained and nurtured and expectations managed.
- International recognition the park as a biodiversity hotspot with particular reference to the Succulent Karoo biome.

5.5 Formulation of High Level Management Objectives

Objective Hierarchy

The desired state is achieved by means of a hierarchy of objectives, starting with an overall objective aligned with SANParks' organisational structure and the park's vision and mission statements, then broad, high level objectives (this Section) and then to finer and finer levels of detail, ending with specific operational or management actions (section 10).

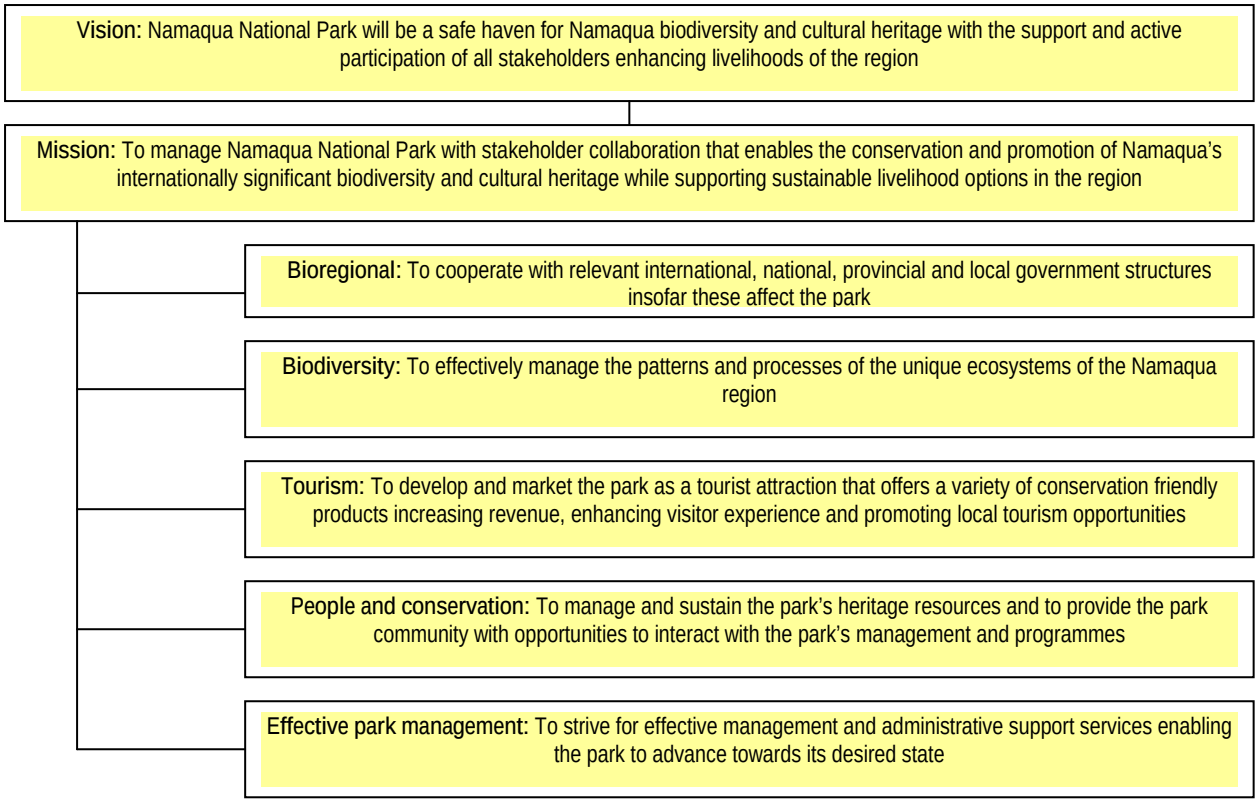

FIGURE 2a: High level objectives

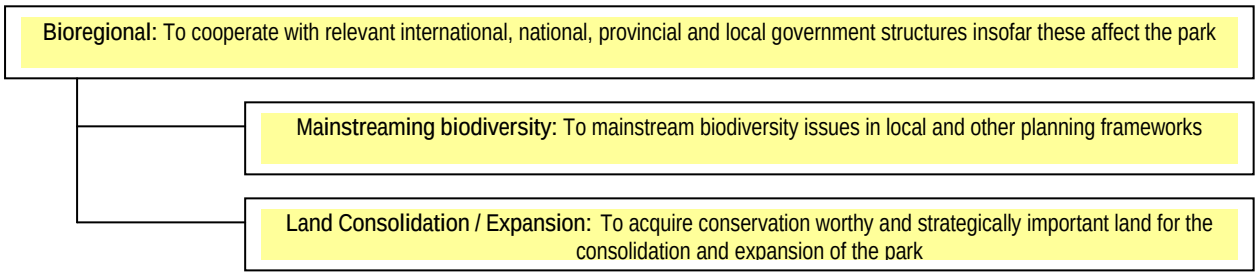

FIGURE 2b: Bioregional high level objectives

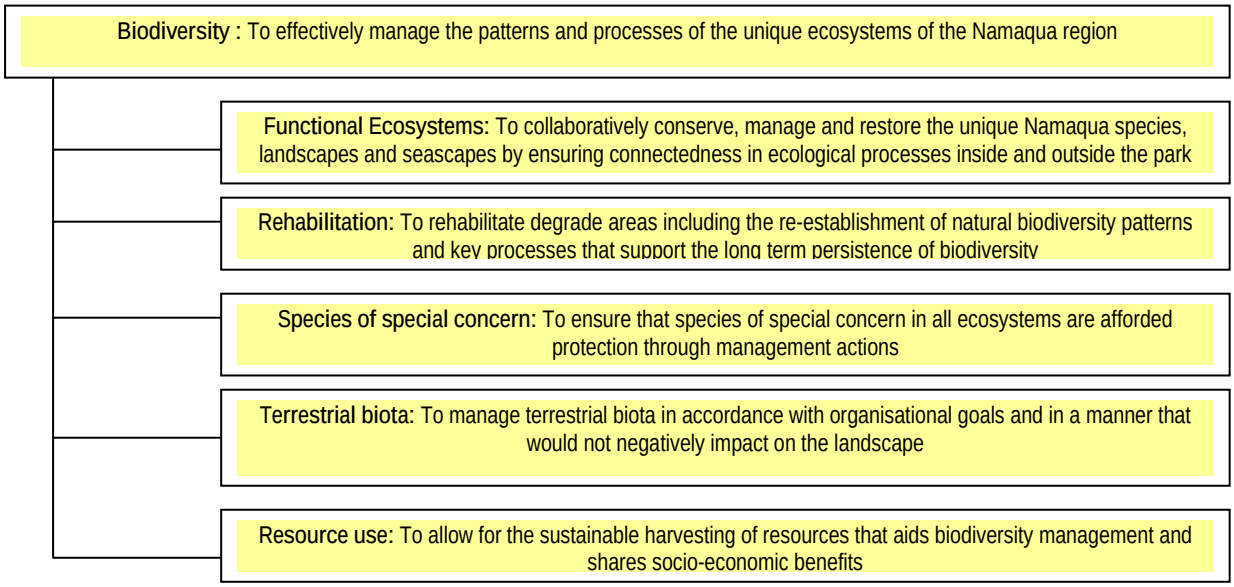

FIGURE 2c: Biodiversity high level objectives

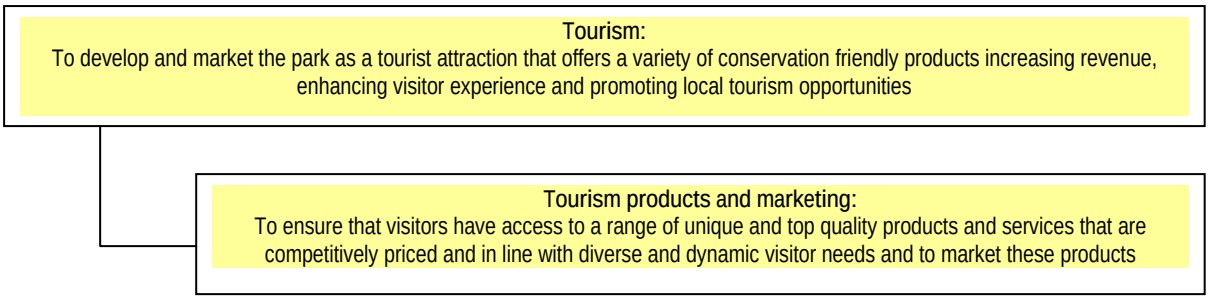

FIGURE 2d: Tourism high level objectives

FIGURE 2e: People and conservation high level objectives

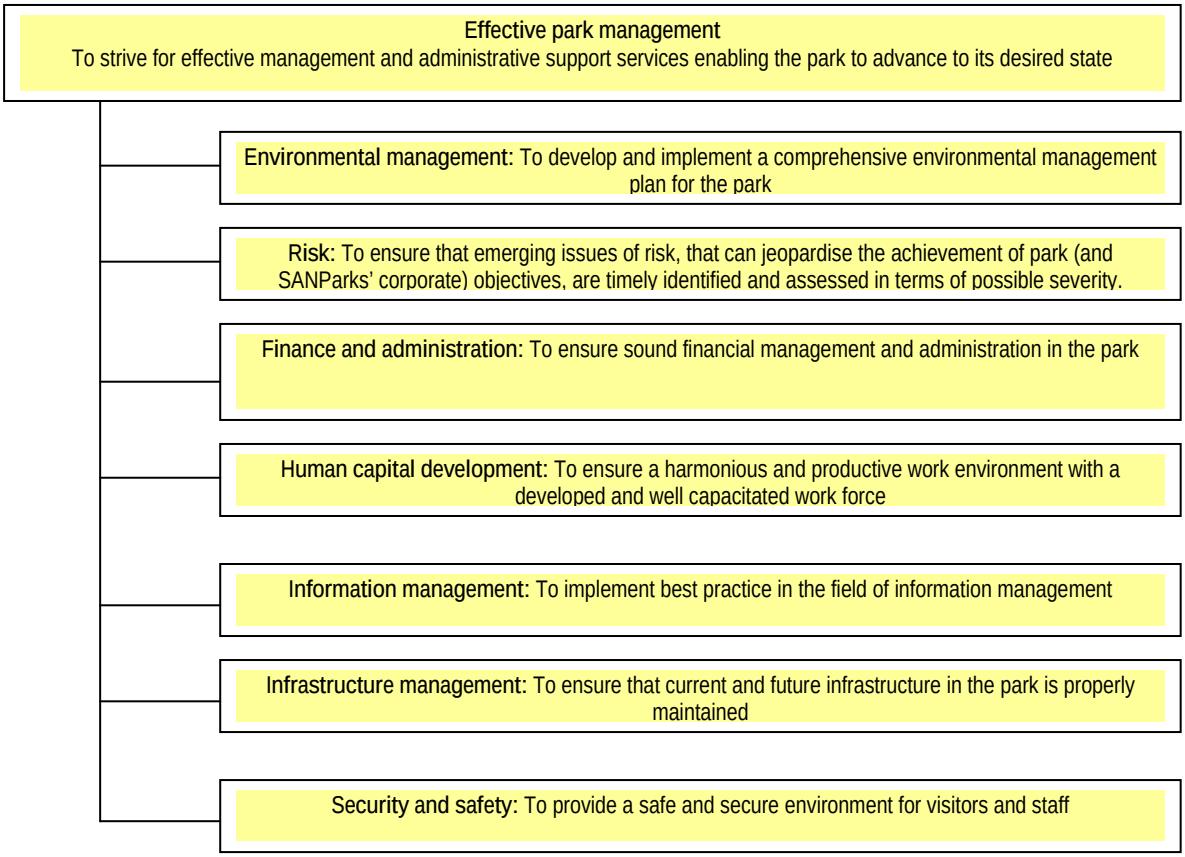

FIGURE 2f: Effective park management high level objectives

Section 6: Zoning plan

The primary objective of a park zoning plan is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives. A zoning plan plays an important role in minimising 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. The zoning of Namaqua 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.

In addition to internal use zoning, the zoning plan also describes how the park interacts with the processes which control land use and activities in the Buffer Zones around national parks (e.g. Spatial Development Frameworks (SDFs) and municipal Integrated Development Plans (IDPs)). The Buffer Zones identify the area within which activities such as landuse change may have an influence on the park (current and future extent), describe responses at a strategic level, and serve to define the Buffer Zone in terms of the DEA Policy on Buffer Zones for National Parks and the SANParks Buffer Zone Policy.

Overview of the use zones of Namaqua National Park:
The summary of the use zoning plan for Namaqua 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 buffer zones (detailing park interaction with adjacent areas) and the underlying landscape analyses are included in Appendix 3: Namaqua National Park zoning plan.

Remote zone: This is an area retaining an intrinsically wild appearance and character, or capable of being restored to such and which is undeveloped and roadless (although limited unimproved management tracks are allowed). There are no permanent improvements or any form of human habitation. It provides outstanding opportunities for solitude, with awe inspiring natural characteristics with sight and sound of human habitation and activities barely discernable and at far distance. The conservation objective is to maintain the zone in a natural state with no impact on biodiversity pattern or processes. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimised. The aesthetic / recreational objectives for the zone specify that activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace *etc*.) will not be tolerated. In the park, remote areas were designated in the mountainous eastern section of the park, in the dunefields, and also to protect much of the extremely sensitive quartz fields. Remote areas include most landscapes with high environmental sensitivity and value with the current park.

Primitive zone: The prime characteristic of the zone is the experience of wilderness qualities with access controlled in terms of numbers, frequency and size of groups. The zone has wilderness qualities, but with limited access roads (mostly 4x4) and the potential for basic small-scale self-catering accommodation facilities or small concession lodges (which would generally have more sophisticated facilities). Views of human activities and development outside of the park may be visible from this zone.

The conservation objective is to maintain the zone in an almost completely natural state with little or no impact on biodiversity processes, and very limited and site specific impacts on biodiversity pattern. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimised. The aesthetic / recreational objectives for the zone specify that activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace *etc.*) should be restricted and impacts limited to the site of the facility. Ideally visitors should only be aware of the facility or infrastructure that they are using, and this infrastructure / facility should be designed to fit in with the environment within which it is located in order to avoid aesthetic impacts. In the park, primitive areas were designated to protect most of the remaining sensitive areas that were not incorporated into Remote zones from high levels of tourism activity. Primitive areas were designated around Remote zones to buffer them from higher use tourist areas and external impacts from outside the park. Primitive areas were also designated in relatively low sensitivity valleys to allow management and controlled tourist 4x4 access on planned routes along existing tracks through the eastern mountains.

Quiet zone: This zone is characterised by unaccompanied (or accompanied under some circumstances) non-motorised 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 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. In the park, this zone is currently of limited extent, with Quiet areas being designated along the coast of the Groen-Spoeg section of the park. This is to allow and encourage non-motorised access to the coastal areas while preventing visitor vehicle use in the sensitive coastal dune cordon.

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. In the park, low intensity leisure areas were designated along existing tourist and public access routes, along the potential corridor route and eastern access roads through to the Groen-Spoeg section, and most of the coastal sections of Groen-Spoeg. The edges of the Low intensity leisure zones were defined in terms of landscape sensitivity and value (as well as topographic) constraints, with most high sensitivity landscapes being excluded from this zone.

High intensity leisure zone: The main characteristic is that of a high density tourist development node with amenities such as shops, restaurants and interpretive centres. This is the zone where more concentrated human activities are allowed and is accessible by motorised transport on high volume transport routes. The main focus is to ensure a high quality visitor experience, however the conservation objectives still require that the high levels of tourism activity and infrastructure that are accommodated within this zone are planned and managed to minimize the effect on the surrounding natural environment, and that the zone must still retain a level of ecological integrity consistent with a protected area. The aesthetic / recreational objectives for the zone specify although the high visitor numbers, 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 generally still provides a relatively natural outdoor experience. In the park, high intensity leisure areas were designated around the main tourist precinct at Skilpad. An additional High intensity leisure zone was designated around the mouth of the Groen River to accommodate potential development of a coastal rest camp.

Overview of the Special Management Overlays of Namaqua National Park:
Special management overlays which designate specific areas of the park that require special management interventions were identified:

Special conservation areas- quartzfield protection: The quartzfields with their high environmental sensitivity and value were identified as requiring special protection. These areas will be managed to prevent any loss of habitat as well as to mitigate any ongoing existing impacts.

Special conservation areas- dune protection: The sensitive mobile dunefield system in the Groen-Spoeg section requires special protection, as will be managed to minimize impacts on sediment transport processes.

Special conservation areas- Renosterveld protection: The small Renosterveld area with its high conservation value is designated as a special conservation area to prevent any loss of habitat.

Special conservation areas- seal protection: The potentially vulnerable seal colony was designated to protect it from any tourist and infrastructure related impacts.

Heritage overlay- cave deposits: Important palaeo-environmental and archeological deposits in coastal caves were designated for special protection.

Summary of the Buffer Zones around Namaqua National Park:
This section describes how the park interacts with the processes which control land use and activities in the Buffer Zones around national parks (*e.g.* SDFs and municipal IDPs). The buffer zone section identifies the area within which activities such as landuse change may have an influence on the park (current and future extent), describes responses at a strategic level, and serves to define the buffer zone in terms of the DEA Policy on buffer zones for national parks and the SANParks buffer zone policy.

The current extent of Namaqua National Park is included in a conservation focused category in the land use maps included in the SDFs of the local and district municipalities in which the park is located. These SDFs are the spatial components of municipal IDPs. The park interacts with the appropriate local government processes such as SDF and IDP development on an ongoing basis as part of the bioregional programme, in order to ensure that issues such as appropriate development of buffer zones around parks are also incorporated into proactive land use planning instruments such as SDFs and IDPs.

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.

The Namaqua National Park has three buffer zone categories (Map 5). The first two are mutually exclusive, but the final visual/aesthetic category can overlay the others.

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. 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.

Catchment protection areas: These are areas important for maintaining key hydrological processes within the park. Inappropriate development (dam construction, loss of riparian vegetation **etc.**) should be opposed. Control of alien vegetation & soil erosion as well as appropriate land care should be promoted.

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 current park use zonation is based on the same biodiversity and landscape analyses undertaken for a Conservation Development Framework (CDF); however certain elements underlying a CDF such as a tourism market analysis are not fully incorporated into the park use zonation. A CDF will be developed for the park once the park approaches its planned final extent. In the interim, as the park is rapidly expanding, it is anticipated that the zoning will need to be updated regularly.

Areas suitable for designation as Wilderness under NEMPA need to be identified, and their formal proclamation pursued where possible.

Section 7: Access and facilities

7.1 Public Access and Control

The park has three access controlled points: the main entrance gate at the Skilpad section, Groen Tiver mouth and the Hondeklip Bay road (only in season). The use of these gates is normally restricted to between 06h00 and 19h00. The park has seven uncontrolled access points: at the Wildeperdehoekpas; Kommaggas; Soebatsfontein and Koingnaas; Kookfontein pass; Wallekraal and Sarrisam, which are all public access roads and used mostly by the local people.

7.2 Areas with restricted access

Certain areas of the park have been zoned as 'Remote' with limited and/ or restricted access (see park zoning). Most management tracks and roads are restricted to authorised staff only.

7.3 Landing fields and flight corridors

The park has no designated landing fields or known flight corridors.

7.4 Facilities for Vessels

There are currently no facilities for vessels.

7.5 Visitor and Administrative Facilities

Administrative offices are situated at Skilpad, the Groen River mouth, Melkboom and Kranzevlei (project office).

Visitor facilities are situated at Skilpad (picnic site and ablutions; Skilpad rest camp with four units); Luiperdskloof guest cottage; Coastal camping sites (35 camp sites); Groen River office (entrance gate and reception) and a control point on the Hondeklip Bay road. There are also two hiking trails at Skilpad; a hiking trail on the coast and a 4x4 trail through the park.

7.6 Mining

There is no mining in the park.

7.7 Commercial activities

Limited facilities for trade in curios can be found at Skilpad and Groen River. Consessions will likely be given out for tourism activities in the park, particularly the coastal area. These include temporary tented camps and activities such as donkey cart trails and hiking trails.

7.8 Community use

The only current community use is the harvesting of alien trees for wood (two contractors). This is done under a signed contract and monitored by the section ranger. No fees are charged. The lifespan of this activity is limited.

7.9 Servitudes

The only service servitudes are for the electricity and phone lines to Melkboom and Skilpad.

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.

Acquisition can be by means of own (SANParks) funding; government funding or donation from a private / NGO donor. In the case of SANParks or state funding the acquired land becomes state land and is declared as national park. In some cases a private entity may acquire the land for national park purposes, but retains ownership and the land is proclaimed as contractual park (such as WWF SA; NPT).

Contractual park areas are generally land where the land owner wishes to stay involved in the park by more than just a donation. In such cases the land is declared part of the national park, and there is a contract in place which describes the conditions (if any) for this inclusion. An example is the De Beers properties.

The objective for the park is to create a park that is ecologically, economically and socially sustainable. The expansion programme is in full congruence with SANParks accepted biodiversity values and follows the SANParks land acquisition framework (Knight *et al*. 2009). With the park currently expanding in the terrestrial environment and plans for the establishment of a marine protected area, the park development impinges upon numerous national acts, some of which require particular attention as to their potential social impacts, especially on the agricultural labour and marine sector. An initial conservation plan was developed for the park by Desmet *et al.* (2002) to provide a defensible conservation planning framework. This has been further developed by the National protected areas expansion strategy (NPAES) (DEAT 2008) that has facilitated the identification of priority expansion areas for the park. Further to this, were motivations around linking the mountains with the coastal sections (Anon 2004), and further eastward extensions around the existing central core. The desired state of the park would include:

- The conservation of a representative sample of the ecological patterns and processes (*e.g.* upland / lowland and biome interfaces, quartzite outcrops, sand movement, land-sea interfaces, rivers, herbivores *etc.*) associated with the Succulent Karoo biome in the Namaqualand Mountains and adjacent coastal plain in a contiguous functional system.
- Conservation of an adjacent marine protected area, interacting with its terrestrial component. There is the intention of developing at a later stage an off-shore MPA given the biodiversity & economic importance of this area.
- Securing the protection of an entire globally unique terrestrial ecosystem, namely the Riethuis quartz fields and the conservation of two other irreplaceable habitats, the Namaqualand sandveld dunes and Namaqualand white sand plains;
- The provision for long-term biodiversity conservation by capturing the rainfall and topographical gradients important in the face of the effects of global climatic change.

- The avoidance of immediate and irreparable threats to biodiversity from a long entrenched (although now dwindling) mining industry.
- The provision of one of the few opportunities to create a wilderness area within the South African extension of the Succulent Karoo hotspot.
- Establishment of an economically sustainable park, with a year round ecotourism attraction. Land parcels are to be consolidated into the park by various means to provide better opportunities for enhanced economic development of the parks ecological assets;
- Developing a socially sustainable park.

Three expansion focus areas have been identified:

- **Eastern section** which focuses on the linkage between the current park and national highway near Kamieskroon, with an extension into the botanically import Kamiesberg mountain area. The latter 21,000 ha area would ideally be incorporated via contractual means. The acquisition component for this section involves about 21,000 ha at an estimated cost of R21m. A further 8,500 ha could be included via contract or acquired, depending upon the funds and land-owner willingness.
- **Southern section** that attempts to consolidate the isolated sections of the wilderness corridor between the main section of the park near Soeboetsfontein and the de Beers Groen – Spoeg contractual section. This involves isolated portions of land surrounded by park owned land or properties that would facilitate fence-straightening, thus enhancing park management efficiency. This involves about 3,200 ha, with about 1000 ha that could be included contractually. It is estimated to cost about R3.2m.
- **Western section** that would attempt to take the park to the coast in the north west area via a combination of 54,000 ha of contractual inclusion (largely with De Beers Consolidated Mines) and a further acquisition of 14,000 ha for about R10m.

Land claims of about 24,000 ha have been registered around the Hondeklipbaai area, with 4795 ha of SANParks/National Parks Trust land, 5,384 ha of De Beers Consolidated Mines contractual land and about 500 ha of state land, a total of 10,700 ha affected. About 2,000 ha of planned southern consolidation areas also overlap with the claim.

This issue need be dealt with great sensitivity and innovative thinking around engaging with the claimants towards achieving positive conservation outcomes.

The park is currently 145,892.35 ha in size, including contractual park components. Some areas still await proclamation. The plan has identified a total area of about 260,000 ha for the park footprint, with a total of about 100,000 ha included via contractual means and the rest via acquisition and possible contracts in some cases. Succulent Karoo, fynbos and azonal vegetation types would account for 90%, 9% & <1% of vegetation for the expanded park. This expansion would also add two further vegetation types not protected in the park, namely, Kamiesberg Granite fynbos and Namaqualand granite renosterveld, both fynbos vegetation types in the Kamiesberg area.

In the next planning cycle period, focus would be on the important linkages to the N7 high way and consolidating the Wilderness corridor land fragments. These specifically involve about 19,000 ha at an estimated cost of R16m. In addition, moves will be started to develop contractual type relationships in the Kamiesberg area.

The development of an inshore MPA along the entire coast of the current De Beers contractual section is to be pursued. This is very much dependent upon the support of the local stakeholders, especially the mining industry. The size and shape of this MPA would be determined via a public participation programme. The development of the planned off-shore component of the MPA is dependent upon discussions with DEA, the mining and deep-sea fishing industry.

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 planned 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(SDFs, all incorporated into the park's consolidation programme and the park's CDF.

9.1 Long term development plan

The long term development plan will aim to increase the park conservation status and management. The NNP is recognised as a major socio-economic contributor to the area, and is recognised as such in the SDF of the Kamiesberg municipality. To balance this with the parks' conservation goals careful planning will be needed. NNP is also a developing park, with boundaries constantly being shifted. Developments in the area will also play a role in the planning process, for instance the recent government decision to pave the Hondeklip Bay road - a major access road through the park (Appendix 4 Map 7).

9.2 Infrastructure development proposals

Destination Development: The SDF of the Kamiesberg municipality aims to develop the region as a tourism destination in light of the declining mining industry. The NNP plays a major role in this. Development nodes around the park have been identified. The main role of the park in terms of tourism would be as a wilderness attraction. Distances and costs preclude the construction of any major, sedan accessible roads through the park. There should be some access for sedan vehicles but the main focus should be on marketing the park as a wilderness experiences, not restricted to any particular time period.

Accommodation: Limited accommodation will be provided within the park, such as small camps and guesthouses. The park currently has a small rest camp at Skilpad, a guest house in the Kamiesberg uplands and 35 wilderness camping sites on the coast.

Day visitors sites: Current day visitor sites are restricted to the Skilpad section, and are mainly used in flower season. The distances and road conditions does not make the area suitable for day visitor areas.

View sites: The park has a few view sites at Skilpad as well as on the coast. The vast vistas make the NNP ideal to develop further sites. The sites should be in line with the parks' wilderness character and infrastructure should be restricted to the minimum.

Environmental education and interpretative Centre: The Skilpad environmental centre caters for groups up to 25 persons and consists of a hostel with 24 beds and a resource centre.

9.3 Development nodes

4 Major development nodes have been identified:
- ***Groen River Mouth;*** includes an office, entrance gate, reception and staff housing. This is the southermost point of the park. A future small restcamp can be considered for this area.
- ***Hondeklip Bay Road***; which will lie in the new paved road and which will be the major access point to the coast. Access will be to the coastal and inland section from here. Planned infrastructure includes an entrance gate, staff housing and a rest camp near the coast.
- ***Skilpad;*** which is the current administrative node. It includes offices, an environmental centre, picnic area and a small (four chalets) rest camp. No new facilities are being planned for this node.
- ***Main Gate*** on the N7 route (planned). The park is being consolidated into the Kamiesberg and will eventually border on the N7. A main entrance gate and associated infrastructure including a camp site should be developed here.

9.4 Communication rRoutes

A new access road will have to be constructed from the N7 to Skilpad. The layout will be determined by the eventual location of the N7 entrance gate. A major future access road will be the Hondeklip Bay road, which will be tarred in 2012. Tourist roads inside the park will mainly be a 4x4 network and tracks.

9.5 Service supply routes

The only current service supply routes are the electricity and telephone lines to Skilpad and the Melkboom ranger station. Future water and electricity supply for new facilities is likely to be local boreholes and self generated power (solar and wind) close to the new developments. Telephone connections will be via satellite.

9.6 Infrastructure development proposals

New infrastructure development is highly dependant on funding. For the current planning cycle an entrance control point and a new rest camp should be developed near the Hondeklip Bay road. Funding proposals has been forwarded for this.

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 off, 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

Objective:

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

The purpose of the bioregional goal is to conserve systems and processes within and around the park by establishing corridors and buffer zones and consolidating the park by acquiring appropriate land for the conservation of threatened biodiversity. It aims to collaborate with relevant international, national, provincial and local government structures, NGO's and land owner groups. Currently there are plans for and developments around the park from urban and industrial sectors. Partnerships with local government require more interaction and working closer on joint issues.

10.1.1 Mainstreaming biodiversity

High level objective

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

The Succulent Karoo biome is recognised as a biodiversity hotspot of international importance. The high levels of plant endemism in particular ensure that the region is one of outstanding conservation value. The existing protected areas in Namaqualand are considered inadequate for conserving the regions biodiversity and therefore important for the park to actively participate in regional planning and development initiatives surrounding the park.

One of the aims of the park is to acquire sufficient land to consolidate and manage the park in order to make a significant contribution to the conservation of the Succulent Karoo. In line with the mission the park will be developed to maintain the faunal and floral assemblages and ecological processes representative of the area and to offer long-term benefits to the region and the country.

The park strives to incorporate and build on the information generated through the Succulent Karoo ecosystem plan in its activities and maintain the partnership it has developed with this bioregional programme and its vision. The park continues its relationship through its involvement with the Conservation International driven Namaqua wilderness corridor.

MAINSTREAMING BIODIVERSITY PROGRAMME					
High level objective: To mainstream biodiversity issues in local and other planning frameworks					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To align, contribute to and participate in relevant structures	Participate in regional planning and development processes affecting land-use of the park and its surrounds, *e.g.* IDP's, SDFs and bioregional planning	PM, P&C	Minutes of meetings	Ongoing	IDP's SDF's
	Participate in Provincial Coastal Committee in order to co-ordinate activities and develoent	PM, Marine SR	Minutes of meetings	Ongoing	
	Pursue, and maintain, the representation of the park in any relevant provincial and local conservation and tourism planning structures *e.g.* SKEP *etc.*.	PM, SRs, TO, P&C	Minutes of meetings	Ongoing	
To main-stream biodiversity priorities into land use planning and decision making within identified buffer zone of the park	Contribute strategically in collaboration with relevant local, provincial and national authorities on any relevant developments within or affecting the park.	PM	Correspondence, minutes	Ongoing	
	To comment on land use change and development applications within the buffer zone and adjacent areas	PM	SANParks comments as I&AP	Ongoing	
	Participate in EIA and other processes regarding proposed land use changes both inside and outside the park	PM	SANParks comments as I&AP	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 Namaqua 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 and 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 effectively manage the patterns and processes of the unique ecosystems of the Namaqua region

10.2.1 Functional ecosystems – marine and estuarine

High level objective

Functional ecosystems: To collaboratively conserve, manage and restore the rich and unique Namaqua species, landscapes and seascapes by ensuring connectedness in ecological processes both inside and outside the park

The National spatial biodiversity assessment (Lombard *et al*. 2004) identified the Namaqua coast as the top priority conservation area along the South African coastline. The Namaqua marine bioregion has no form of protection and should according to government targets have at least 20% under protection. SANParks are planning towards a marine protected area adjacent to the Namaqua National Park.

Planning of this MPA is done in conjunction with DEA and the SA National Biodiversity Institute (SANBI). According to the NEM:PAA where terrestrial and marine protected areas are adjacent to each other they should be managed by one authority.

Connectivity between environments is integral to biodiversity management and therefore the marine, estuarine and coastal terrestrial environments must be managed as a whole.

FUNCTIONAL ECOSYSTEMS PROGRAMME					
High Level Objective: Functional Ecosystems: To collaboratively conserve, manage and restore the rich and unique Namaqua species, landscapes and seascapes by ensuring connectedness in ecological processes both inside and outside the park					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To establish a marine protected area	Engage with coastal mining rights holders to discuss the proposed MPA	Planning	Minutes, Correspondence	Y2	MLRA
	Engage with Oceans and coasts and SANBI to develop a NNP MPA declaration strategy	PM; Marine SR; Planners	Minutes, Correspondence	Y2	MLRA
	Prepare draft Marine Protected Area Proposal	PM and Planners	Draft document	Y3	MLRA
	Initiate Public Participation Process	P&C; PM; Planning; Marine SR	PPP reports	Y3	MLRA
	Develop marine and estuarine lower level plans (Estuarine LLP to include ICMA requirements)	PM; Planning; Marine SR	Plan developed	Y3	MLRA
	Declare marine protected area	DEA Legal	Gazette	Y5	MLRA

10.2.2 Rehabilitation

High level objective

Rehabilitation: To rehabilitate degrade areas including the re-establishment of natural biodiversity patterns and key processes that support the long term persistence of biodiversity

The most common transforming agents have been agricultural operations, pastoralism and crop production. These land use practices have lead to changes in the vegetation cover and infrastructural invasion. Areas that have been historically used for livestock ranching have sparse shrubby vegetation. Agricultural operations have inevitably accompanied by infrastructural developments. There are still remnants of structures such as telephone lines and houses. Their removal and rehabilitation of their locality should form an integral part of rehabilitation strategy of the park.

Although transformed lands (historically ploughed and pastures) do need attention, at the moment there are no immediate plans to rehabilitate previously grazed areas to enhance vegetation recovery. It is therefore recommended that herbivore density should be managed so that it does not depress the opportunities of vegetation recovery. The process that will be followed in their monitoring is:

- Identify and map degraded areas in need of rehabilitation,
- Conduct vegetation assessments to determine their ecological status
- Monitor vegetation recovery

The coastal section between the Groen and Spoeg Rivers has changed hands many in recent history, with limited control for accessing the land. The absence of law enforcement has lead to an extensive network of roads, especially along the coast by mainly kelp harvesters and towards camp sites. Current methods used to dry kelp have pauperised of woody shrubs and succulents with a dominant grass cover. This suggests not only vegetation transformation but also soil transformation. Uncontrolled camping has led to various forms of littering along the coast, most of which are not biodegradable. Rehabilitation activities intended for restoring the natural beauty of the coast are therefore necessary.

The Working for the coast project is performing rehabilitation work on small scale mining sites, as well as old roads and those in ecologically insensitive areas. The Working for Wetlands project is rehabilitating wetlands outside the park, since these are at the source of three rivers running through the park. All restoration and rehabilitation activities should be included in a monitoring framework to establish the effectiveness of the programme and to feedback in the adaptive process to evaluate the success of the programme.

The long-term aim of rehabilitation is to return a transformed system to some form of cover or state that is protective, productive, aesthetically pleasing, or valuable in a conservation sense. The level at which interventions will be made is determined by the current state of the system in relation to biotic and abiotic thresholds.

Alien invasive species

The National biodiversity framework developed by DEA identified the Succulent Karoo biome as a priority for further protected area development. The park is biologically a relatively complex park with 15 identified vegetation units within the park's planning domain.

The 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. 1,970 ha of the park are infested with alien plants. Of this, 1,604 ha are follow up and 366 ha are initial clearing. SANParks has a legal obligation to control and eradicate weeds and invader plants in terms of the Conservation of Agricultural Resources (Act No 43 of 1983) (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.

The table below indicates the alien invasive species (AIP's) that have been recorded in the Namaqua National Park. Densities and status according to CARA guidelines are included.

Table 3: Alien invasive species recorded within the NNP

Botanical name	Common name	CARA status	Density %
Acacia cyclops	Rooikrans	2	5
Acacia saligna	Port Jackson willow	2	unknown
Agave americana	American agave	1	unknown
Argemone mexicana	White flowered Mexican poppy	1	unknown
Argemone ochroleuca	Yellow flowered Mexican poppy	1	0.01
Atriplex lindleyi	Sponge-fruit saltbush	3	0.01
Atriplex nummularia	Old man saltbush	2	0.01
Datura spp.	Thorn apple	1	unknown
Eucalyptus cladocalyx	Gum tree	2	0.1
Nicotiana glauca	Wild tobacco	3	0.01
Opuntia ficus-indica	Sweet prickly pear	1	unknown
Prosopis glandulosa	Mesquite	2	0.1
Ricinus communis	Castor oil plant	1	unknown
Salsola kali	Russian tumbleweed	N/A	unknown
Schinus molle	Pepper tree	3	unknown
Solanum elaeagnifolium	Satansbos	1	0.01

Priority areas for clearing, in order of importance are

(i) The active dune system (Groen and Spoeg River systems) which is mostly infested with large, isolated *Acacia cyclops* trees.
(ii) Inland dunes (Rooileeg) wihere the indigenous *Leucadendron* species occur.
(iii) Kamiesberg uplands (Keikokeis) which is infested with *Eucalyptus* spp.

The main methods of clearing will be a combination of mechanical and chemical methods. For areas with higher densities and mature trees, chainsaws will be initially be used in the clearing operation. For lower densities loppers and bow saws will be used. Herbicide will be applied where necessary. The most common transforming agents have been agricultural operations, pastoralism and crop production.

These land use practices have lead to changes in the vegetation cover and infrastructural invasion. The long-term aim of rehabilitation is to return a transformed system to some form of cover or state that is protective, productive, aesthetically pleasing, or valuable in a conservation sense.

REHBILITATION PROGRAMME					
High level objective: To rehabilitate degraded areas including the re-establishment of natural biodiversity patterns and key processes that support the long term persistence of biodiversity					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To manage and control alien invasive plants in NNP	To develop and continuously update a spatial distribution map of all alien vegetation in and adjacent to the park	ISCU; PM SRs	Distribution and density maps	Ongoing	CARA
	To develop an alien plant management LLP for the park	ISCU; PM SRs	Alien plant LLP	Y1	
	Prioritize alien clearing operations within financial constraints.	ISCU; PM SRs	Priority list	Ongoing	
	Secure additional funding	ISCU; RM; PM	Funding secured	Annually	
	Implement alien clearing plans	ISCU; PM SRs	Annual and quarterly reports	Ongoing	
	Monitoring the effectiveness of the clearing plan; revise if required.	ISCU; PM SRs	Mapping	Ongoing	
To rehabilitate wetland systems associated with the park	To update a spatial distribution map of wetlands in and outside the park and river catchments	ISCU; PM SRs	Distribution and density maps	Ongoing	CARA
	To develop a wetland management LLP for the park	ISCU; PM SRs	Alien Plant LLP	Y2	
	Prioritize wetland operations within financial constraints.	ISCU; PM SRs	Priority list	Ongoing	
	Secure additional funding	ISCU; RM; PM	Funding secured	Annually	
	Implement wetland rehabilitation plans	ISCU; PM SRs	Annual and quarterly reports	Ongoing	
	Monitoring the effectiveness of the rehabilitation plan; revise if required.	ISCU; PM SRs	Mapping	Ongoing	
To rehabilitate degraded areas resulting from human activities, including mining, roads, ex-agricultural land, redundant structures	To compile and continuously update a register of all degraded areas in the park	ISCU; PM SRs	Distribution and density maps	Ongoing	CARA
	To develop site specific rehabilitation plans for the listed areas	ISCU; PM SRs	Alien plant LLP	Y2	
	Prioritize rehabilitation operations within financial constraints.	ISCU; PM SRs	Priority list	Ongoing	
	Secure additional funding	ISCU; RM; PM	Funding secured	Annually	
	Implement rehabilitation plans	ISCU; PM SRs	Annual and quarterly reports	Ongoing	
	Monitoring the effectiveness of the rehabilitation plan; revise if required.	ISCU; PM SRs M	Mapping	Ongoing	

10.2.3 Species of special concern

High level objective

Species of special concern: To ensure that species of special concern in all ecosystems are afforded protection through management actions

Rare species have traditionally been defined as those species with restricted distributions or species that occur at low densities, while the red data concept encompasses an assessment of species rarity and / or population vulnerability. This often forms the basis of regional and even international species-specific conservation actions, underpinning the requirement to afford some species special conservation status and therefore focusing conservation actions. The objectives are:

- To identify the threatened indigenous fauna and flora and their habitat, distribution, abundance and their significance in a local and regional context.
- To prevent the extinction within park of any species on the Red Data List and to work with other conservation initiatives to secure the future of such species within its historic range.
- Maintain viable populations of species of special concern in order to meet SANParks mandate and obligations in terms of international conventions.

The lists for the park include ghaap *Hoodia gordonii* and the Namaqua dwarf adder *Bitis schneideri*. SANBI documented more than 100 plant species of special concern for the park.

SPECIES OF SPECIAL CONCERN PROGRAMME					
High level objective: To ensure that species of special concern in all ecosystems are afforded protection through management actions					
Objectives	Actions	Responsiility	Indicators	Timeframe	References
To define SSC within the NNP context	Identify, locate and develop a database of plant and animal SSC	CSD	Database	Y2	
	Prioritise SSC within the park	CSD	Priority list	Y2	
	Monitor populations of SSC	CSD	Report	Y2; Ongoing	
To conserve and monitor SSC within the NNP	Identify threats to priority species and populations	CSD	Quarterly and annual reports	Y2; Ongoing	
	Compile LLP that describes interventions	CSD	Guidelines, APO	Y2; Ongoing	
	Implement LLP to mitigate threats where possible				
	Monitor and evaluate intervention actions	CSD	Monitoring report	Y3	

10.2.4 Terrestrial biota

High level objective

Terrestrial biota: To manage terrestrial biota in accordance with organisational goals and in a manner that would not negatively impact on the landscape

All faunal introductions and interactions in the park should be addressed. An important component is the interactions between landowners adjacent to the park and wildlife. In many cases wildlife are seen as destructive and may lead to conflict between the park and landowners. This programme addresses these interactions and relationships. An example of the park's commitment is the current Anatolian guard dog project currently running in the park aiming to assist farmers with a more predator-friendly way of protecting their livestock.

A key aspect of the region is that many wildlife species that historically occurred here have been lost, or are present in low abundances. Often these species are incompatible with human activities, particularly when areas are small in size *e.g.* large mammalian predators and many large herbivores. In other cases changes to the habitat brought about by human development have resulted in the disappearance of species. The larger mammalian herbivores may maintain plant community structure and function in the succulent Karoo (Owen-Smith & Danckwerts 1997). The park seeks to restore these disturbance regimes through herbivory, trampling and nutrient cycling at various spatio-temporal scales across the landscape. This implies top-down regulation of plant community structure and function. However, it is likely that both top-down through predation, and bottom-up through nutrient quality of vegetation may regulate herbivores. The absence of large predators may thus pose some constraints on conservationists wishing to restore key ecological processes associated with herbivory and predation.

These challenges epitomise three key aspects of wildlife management in the park. Firstly, herbivory effects of wildlife may be underrepresented due to diminished herbivore species assemblages. Secondly, restricted sizes or fragmentation of the park may accentuate localised wildlife impacts as well as conflicts with neighbours. And thirdly, absence of large predators may increase wildlife impacts locally because spatial and temporal limiting factors on some species are reduced. Although the parkis not a key wildlife viewing attraction, it is likely that diminished large mammal species assemblages could greatly influence tourist experiences. A fourth aspect thus relate to how the absence of certain species may influence the park's capability of generating revenue through tourist experiences and expectations.

The reintroduction of large mammals into the park is in the early stages with small founder populations of certain species reintroduced recently. These species include springbok *Antidorcas marsupialis* gemsbok *Oryx gazella* and red hartebeest *Alcelaphus buselaphus*. Additional species that remain to be reintroduced include the eland *Taurotragus oryx*, Hartmann's mountain zebra *Equus zebra hartmannae*, and black rhinoceros *Diceros bicornis bicornis*. The fact that reintroductions have only recently begun presents a unique opportunity to establish thresholds of ecological impact and human-wildlife conflict for both the mammals as well as vegetation components while collating baseline information that will inform the future management of these ecosystem components. In the past the region was characterised by large herds of migratory ungulates, primarily springbok, driven by seasonal shifts in forage availability (Skinner 1993, Owen-Smith & Danckwerts 1997). There is little chance of re-establishing such large scale movement given the fragmentation of the landscape, but it may be possible to recreate smaller scale local migrations in conservation areas of a significant size that span rainfall and topographical gradients (Cowling *et al.* 1999). The park has the ability to meet these ecosystem process conservation targets given recent consolidations with the Groen and Spoeg River region.

It is SANParks policy, as far as possible, to restore the diversity of species that were present in historical times, provided that habitat conditions have either remained adequate or can be rendered adequate through rehabilitation measures. The restoration of species is one of the priorities for new national parks. Even in some of the long-established national parks, however, it is sometimes necessary to restore populations that have been lost, or to reinforce populations which have declined. The park requires substantial restoration of large mammal communities.

TERRESTRIAL BIOTA PROGRAMME					
High level objective: To manage terrestrial biota in accordance with organisational goals and in a manner that would not negatively impact on the landscape					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To restore the wildlife species assemblages typical of the Namaqua region by mimicking the re-colonisation through species introductions	Identify historic distribution and missing or constraint of species and their colonisation sequence linked to the likely constraints on successful recovery that include source, colonisation, habitat and population persistence effects	CSD	Scientific research report	Y1	
	Develop a re-introduction sequence that mimics assemblage recovery and submit wildlife management proposals through science-management forum	CSD	Scientific research report	Ongoing	
	Implement approved wildlife management proposals	Park management	WMC proposals	Ongoing	
	Measure the population responses spatially and temporally	CSD, Park Management	Census	Ongoing	
	Inform stakeholders on the introduction sequence and progress made with introductions	Park management	Park Forum, newsletters	Ongoing	
To manage wildlife effects on biodiversity and inter-actions with humans through inducing variation	Identify spatial linkages *etc.*	CSD	Scientific report	Y1	
	Evaluate the water resource requirements for wildlife management	PM; SR	Quarterly and annual reports	Ongoing	
	Maintain water points compatible with park policy and objectives	PM; SR	Monthly report	Ongoing	
To manage human-wildlife interactions and conflict	Identify species of potential human-wildlife conflict through science management forums and park forums	SR; PM; CSD	Species list	Ongoing	
	Develop a small predator management response plan	SR; PM; CSD	Response Plan	Y3	
	Implement the small predator response plan following damage causing animals guidelines	SR; PM	Annual report	Ongoing	
	Provide relevant and appropriate training, education and awareness on problem animal issues at all levels	P&C; SR; PM	Quarterly and annual reports	Ongoing	

Objectives	Actions	Responsibility	Indicators	Timeframe	References
To implement mitigation measures to manage huma n/ wildlife conflict	Negotiate and formalise agreements with landowners pertaining to fences, in order to devolve greater authority, responsibility and accountability for problem animal management to affected communities	PM; SR	Agreements in place	Ongoing	
	Motivate and secure funding for priority fencing	RM; PM	Funding secured	Ongoing	
	Erect perimeter fence and maintain to a agreed standard adequate to secure both the safety of the large fauna, adjacent local communities and park visitors, within financial and other constraints	PM; SR	Fence completed	Ongoing	
	Implement Anatolian dog project as per business plan	Project Manager	Project reports	Ongoing	
To evaluate, inform and revise wildlife management through collaborative research and monitoring agreements	Develop and implement an integrated annual monitoring programme which addresses wildlife demography, impact, conflict and consequences for stakeholders	CSD	Research report	Ongoing	
	Provide monitoring report	CSD	Research report	Ongoing	
	Develop end implement an integrated research programme which addresses wildlife demography, impact, conflict and consequences for stakeholders	CSD	Research report	Ongoing	
	Provide research report	CSD	Research report	Ongoing	
	Report to the state of biodiversity assessment	CSD	Research report	Ongoing	
	Identify localities of ecological change associated with wildlife lag-effects	CSD	Research report	Ongoing	
	Propose short- to medium-term reactive fencing, removal, translocation, contraception, culling, including scenarios, opportunities for learning and risk analyses	CSD	Research report	Ongoing	

10.2.5 Resource use

High level objective

Resource use: Allow for the sustainable harvesting of resources that aids biodiversity management and shares socio-economic benefits

South Africa has always had a sustainable use orientation, and its laws reflect this. Both national and provincial legislation create an enabling legal environment for developing policies on natural resource use and the distribution of benefits from biodiversity conservation. SANParks therefore accepts that there is a historical relationship between national parks, their resources and stakeholders, particularly against the backdrop of historical ownership of and access to land and resources

It must be noted that the value of sustainable resource use lies in its ability to add to the diversity of existing livelihood strategies employed by the people of the Namaqua region, and to buffer the socio-ecological system (and park-people interactions) from external shocks and surprises. This links to the bioregional context in which the park is situated, and relates to the vital attribute regarding opportunities for partnerships in job creation and other socio-economic development initiatives.

Resource use in the park is managed through the resource use policy, resource use framework and a resource use committee. The merits of each application is considered on an equitable basis

taking into account legislation, the ecological status of the resource, valid historical rights, and the redress of historical disadvantages (especially poverty).

The park provides a variety of renewable and non-renewable natural resources to people. The majority of current resource use is non-consumptive and provides cultural, spiritual, recreational and aesthetic benefits to park visitors (for example beautiful flower displays, coastline *etc.*). Interaction with the cultural heritage of the park can produce a range of intangible benefits such as cultural reconnection to the land which is difficult to quantify.

Consumptive resource use in the park is minimal. Active grazing by small stock is allowed in the Skilpad section of the park (as per contractual agreement with WWF-SA) to ensure disturbance pressure for flower displays and reported to DEA in compliance of the stipulations of the NEM:BA. Harvesting of alien plant species such as *Acacia Cyclops* for firewood as part of the WfW programme is also allowed. Good stakeholder relations through effective communication and awareness would build better public understanding and acceptance of the park.

The value of the resource use at Skilpad, namely grazing for small stock, to the community has must still be determined.

RESOURCE USE PROGRAMME					
High level objective: To inform, evaluate and understand benefits of ecosystem services, reconciling resource use and protection of the rich and unique Namaqua species, landscapes and seascapes					
Purpose: To prepare and implement a sustainable resource use programme					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To develop a resource use programme	Identify all current forms of resource use at various scales across terrestrial and marine environments	P&C; PM	Inventory	Y1	
	Assess the status, trends, value and threats to current resource use	P&C; PM	Assessment report	Y5	
	Identify flagship resource use projects (eg Soebatsfontein land)	P&C; PM	No of flagship projects	Y1	
	Review and manage contracts for current resource use	P&C; PM		Ongoing	
	Develop monitoring and evaluation systems for current resource use	P&C; PM	Monitoring, evaluation system	Y5	

10.3 Tourism

Objective

Tourism: To develop and market the park as a tourist attraction that offers a variety of conservation friendly products increasing revenue, enhancing visitor experience and promoting local tourism opportunities

Tourism in NNP is in a development phase. This is due to the fact that the park is still expanding and in a development phase, and limited funds for establishing the required infrastructure to sustain tourism. The park is not a year-round destination, with the majority of visitors coming to the area for three months during the annual flower season. It will be essential to change this and make the park a year round destination. The current park development and expansion activities are already attempting to address this, with coastal areas and mountainous areas adding more attractions to the park.

10.3.1 Tourism products and marketing

High level objective

Tourism products and marketing: To ensure that visitors have access to a range of unique and top quality products and services that are competitively priced and in line with diverse and dynamic visitor needs and to market these products

The park is large with little suitable tourism infrastructure, and this would hamper administration and management of tourism if activities and facilities are widely and thinly spread. Activities should, at least initially, be low-key and require little input from management, such as eco-trails and rustic campsites on the coast. Activities should also be developed with this in mind. The park lends itself well to hiking and mountain biking for instance. When tourism facilities are proposed and designed all legal compliances should be taken into account, such as environmental impact assessments (EIA's). Developments should fit in with established styles for the region and blend in with the environment. Planned facilities include a rest camp on the coast, an entrance gate on the N7 national road and camping sites. These facilities are dependant on park expansion and funding at this stage. In accordance with the provisions under NEM:PAA and the Public Finance Management Act, Act 1 of 1999, SANParks has the legal authority to engage in nature based tourism in national parks for the purpose of conveying conservation, public enjoyment, constituency building and income generation to attain financial sustainability. A significant element of ecotourism is the strategic plan for commercialisation which through the implementation of public private partnerships creates access, investment and empowerment.

SANParks align itself with integrated development plans, and tourism initiatives to promote local economic growth.

The area is little known, which is an attraction in itself. There seem to be little available knowledge on what tourists would expect or what would attract tourists. A market study would be needed to establish visitor needs. It would also be required to get information from the current loyal visitor base. This information should then analysed and fed into the tourism strategy, and used for motivation for capital and investment in the park. This must be in line with the park zoning plan.

The policy adopted by SANParks is to align marketing and sales initiatives and ensure synergy among the various activities taking place within these divisions, resulting in the generation of revenue through our tourism offering. The role of marketing is to:

- Maintain the current market.
- Cultivate and sample our product to potential markets.
- Identify and develop new markets to be exploited in future.
- Build a strong brand which can be aligned to current and future offerings.

The role of sales is to:

- Exploit the markets developed through provision of services and packages which addresses the market needs.
- Identify and work with strategic partners who can serve as agents delivering on the revenue generating initiatives to offer professional service to current clients that will serve to maintain the current client base.
- Act as SANParks brand ambassadors through portrayal of professional image desired from brands of similar nature.
- Promote awareness locally, regionally, nationally and internationally.
- Investigate and establish linkages with other parks, particularly in the region in a regional marketing plan drawn up by the Regional marketing manager.

Because of the topography and the large distances in the park, the park should focus on becoming a 4X4 destination. In addition, the focus for the planning horizon will be on developing tourism activities.

TOURISM AND MARKETING PROGRAMME					
High level objective: To develop and market the park as a tourist attraction that offers a variety of conservation friendly products increasing revenue, enhancing visitor experience and promoting local tourism opportunities					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To diversify and package products to accommodate various market segments	Determine visitor needs and review and update tourism strategy and expectations	TO, RMM	Survey	Ongoing	
	Identify different market segments and relevant products	TO, RMM	Marketing report	Ongoing	
	Package products and market to specific interest groups	TO, RMM	Activities, itineraries, products	Ongoing	
	Increase number of Black visitors to the park	TO, RMM	Tourism statistics	Ongoing	
To develop and promote the park as an all-year tourist destination	Identify off-season income generating tourism activities, and promote local tourism business	TO, PM; RM	List of projects	Ongoing	
	Identify possible new tourism opportunities in the park, considering responsible tourism standards	TO; PM; RM	List of projects	Ongoing	
	Conduct feasibility study (including costing study)	BDU; ISCU	Study	Ongoing	
	Explore possible funding mechanisms (PPP, consessions, *etc*.)	TO; PM; RM	Business plan	Ongoing	
	Promote and link the park with external, local attractions (Mountain passes; scenic routes)	TO; PM	Promotional material	Ongoing	
To deliver value for money service to clients	Conduct regular customer feedback surveys	TO; PM	Customer care log, surveys	Ongoing	
	Identify possible management interventions that will improve income-to-cost ratio	PM; TO	Income-to-cost ratio; Interventions	Ongoing	
	Motivate and recommend for appropriate tourism structure for the park (own note: gateway)	RM; PM; TO	Motivation submitted	Y1	
To market the unique tourism experiences offered by the park	Regular update of website	IT, TO	Updated website, No of visitors	Y1; Ongoing	
	Identify strategic distribution of marketing material to ensure essential information reaches target groups (produce brochures, media and display at tourism indaba, Getaway shows *etc*.)	RMM, TO	No of visitors	Ongoing	
	Develop a marketing strategy and plan for the park/region which includes user profile, product development, eco-tourism products and product packaging	RMM, TO	Marketing strategy	Y2	
	Re-design a Kamiesberg flower route linking local communities and farm accommodation	TO, P&C	Customer feedback	Y2	
	Develop partnerships with marketing initiatives undertaken by the regional tourism agencies and local authorities	TO; PM	Joint marketing strategies	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 conservation management.

The key management activities for the next planning cycle include:

- Proactively engage a wide range of park stakeholders on relevant issues.
- Maintain an active park forum to guide the strategic direction of the park.
- Undertake targeted local economic development projects which encompasses 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 environmental education and awareness programmes
- Develop and support the park volunteers such as the SANParks Honorary Rangers and volunteer associations (*e.g*. Global Vision International).

Two overall objectives are discussed under people and conservation, but responsibility for the programmes involves all other park staff. The two overall objectives, each with its own set of high level objectives are set out in this section.

10.4.1 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

Heritage: To incorporate tangible and intangible heritage into the park values and management through increased awareness of links, and limiting the conflicts between natural and cultural heritage management, while optimising responsible tourism development that achieves conservation best practices

Namaqua National Park as a cultural landscape has a rich cultural heritage which complements the parks biodiversity and therefore offers a great conservation opportunity.

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

The cultural landscapes of the Namaqua National Park consists of the following: the San peoples (hunter-gatherers); the Khoekhoen (original herder peoples); communal stock farmers (mostly of Namaqua and mixed descendant brown Afrikaners); commercial stock farmers (mostly white Afrikaners who are descended from various European groups); townspeople and community / village people, from various cultures. The Kamiesberg area, neighbouring the Namaqua NP consists of the following communities: Kamieskroon, Leliefontein, Paulshoek, Rooifontein, Nourivier, Tweerivier, Kheis (Uplands), Garies, Klipfontein, Kharkams, Spoegrivier, Soebatsfontein, Hondeklipbaai and two communities which fall under the Springbok (NamaKhoi) local government; Komaggas and Buffelsfontein (coastal). This covers an area of 1,782 km^2 a round trip.

A ten-day survey was conducted in December 2003 during which 92 cultural and/or heritage sites were recorded inside the borders of the park (Morris & Webley, 2004). The park must compile status files for all sites must be compiled with condition reporting forms and photos. All sites must be assessed for highly sensitive, sensitive or stable condition and monitor accordingly. Files must also be annotated after each visit whilst visitor control measures must be introduced and a cultural heritage monitoring site system implemented.

HERITAGE PROGRAMME					
High level objective: To incorporate tangible and intangible heritage into the park values and management through increased awareness of links, and limiting the conflicts between natural and cultural heritage management, while optimising responsible tourism development that achieves conservation best practices					
Purpose: To manage and sustain the significance, authenticity and integrity of the tangible and intangible cultural heritage resources for which SANParks is responsible for the enjoyment and benefit of all tourists					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To survey, identify, develop and update inventories of heritage resources in the park	Continue the documentation of new sites and updating of the inventory to cover the whole park and future expansion areas	P&C; CHM Park management,	Records of sites	Ongoing	
	Develop GIS maps indicating the location of cultural heritage sites	CSD, CHM P&C	Map, database	Ongoing	
	Research and record the oral history of the park	CSD, P&C; CHM	Report; interpretive material	Ongoing	
To review and update the Site-specific cultural heritage management plan that is aligned with SANParks' policies on heritage	Identify vulnerable sites and make management recommendations aimed at stopping further deterioration	P&C	Priority list	Y4	
	Develop site management plans for sites that are open to park visitors	P&C	Site Plan	Y5	
	Develop routine monitoring and reporting systems on the status of sites	P&C	Status report	Y5	
To optimise responsible tourism; and promote research, education and awareness of the Namaqua heritage	Identify sites that are suitable for cultural heritage tourism	P&C; TO	Inventory	Y2; ongoing	
	Incorporate heritage education into the environmental education programmes	P&C	EE programmes	Y1, ongoing	
	Training of guides to enable them to give correct information to visitors.	P&C; TO	Guiding curriculum	Y3	
	Develop an interpretation plan for cultural heritage	P&C	Interpretation plan	Y5	

10.4.2 Stakeholder engagement

High level objective

Stakeholder engagement: To develop sustained partnerships between conservation agencies, government, adjacent communities and other parties that enhances opportunities for conservation planning and funding on a regional perspective

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.

The park has an established Park Forum comprising a wide range of representative local stakeholders with the primary mandate of guiding the strategic direction of the park. The programme aims to enhance park management through adopting a sound management ethic and actively promoting healthy community custodianship of the park.

The park currently falls within two municipal areas. A sound working relationship exists with the local government structures and all relevant park projects are embedded within the IDPs of the municipalities. The park has three immediately neighbouring communities and with its proposed expansion this number will grow in the future. Stakeholders are engaged with on different levels and in diverse ways according to their needs. It is vital to the existence, development and expansion of the park to maintain good relations with these stakeholders. Therefore, the park aims to establish and maintain meaningful and beneficial relationships with a wide range of stakeholders supporting SANParks core business. The stakeholders include:

- Government - national, provincial and local spheres of government such as Departments of Environmental Affairs, Tourism, Education, Water Affairs, Agriculture, Forestry and Fisheries, South African Police Services
- Conservation entities - national and international conservation agencies, research houses, institutions and universities, and relevant conservation non-governmental organisations
- Business partners – concessionaires, contracted commercial operators, suppliers of key products and services
- Communities - those comprising the Kamiesberg Local Municipality, and NamaKhoi District Municipality
- Employees - all employees, individually and collectively, employee representative bodies and unions
- The media - local newspapers and radio stations
- Customers – visitors, internal staff, external staff, tourists, government, stakeholders and local communities

It is important for the park to develop co-operative governance systems that focus on improving relationships with government / governing bodies in compliance with legislation and promote inclusivity. For this reason the park has established a park forum whilst all relevant park projects are incorporated into local government planning.

It also encourages co-operative, collaborative, mutually beneficial relationships which is essential to sustainability of the park. For this purpose the park has initiated new relationships, whilst maintaining and nurturing existing relationships:
Liaison with stakeholder groups*, e.g.*

- National government, local government, regional structures, landowners, conservancies, NGO's and CBO's
- Bioregional initiatives e.g. CAPE, SKEP, STEP, *etc.*
- Tourism bodies, operators, concessionaires, service providers, volunteer programmes, e.g. Global Vision International
- Associations, e.g. farmers unions.

STAKEHOLDER ENGAGEMENT PROGRAMME					
High level objective: To develop sustained partnerships between conservation agencies, government, adjacent communities and other parties that enhance opportunities for conservation planning and funding on a regional perspective					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To identify, develop, enhance and nurture new and existing relationships between conservation agencies, government, adjacent communities and other parties	Maintain a well functioning Park Forum in line with the charter	PM; P&C	Frequency of engagement	Ongoing	
	Regularly review the Park Forum to ensure that all relevant stakeholders are incorporated	PM; P&C	Stakeholder database	Ongoing	
	Involve park forums in Park Management Plan reviews and park operations	PM; P&C	Minutes	Ongoing	
	Ensure active participation in structured fora applicable to the park such as farmers' unions; PCC; community meetings etc.	All Management Staff	Minutes	Ongoing	
To co-ordinate and support existing Honorary Ranger and other volunteer initiatives	Ensure volunteer activities are aligned with park needs	PM; Tourism Officer; P&C	Volunteer reports	Ongoing	
	Facilitate appropriate allocation of volunteers in park activities	PM	Volunteer reports	Ongoing	
	Identify, monitor and guide volunteer fundraising activities	PM; RM	Priority list; projects	Ongoing	

10.4.3 Local economic development

High level objective

Socio-economic development: To maintain and enhance communication on tourism, livelihood opportunities, participatory activities, and to establish general awareness of management activities that promotes the park's core functions

The Namaqualand region is an extensive rural area with an average population density of less than one person per km² (Map 6). There are few highly urbanised areas. Kamiesberg municipal area, with a population of 10,754, includes the small, rural towns of Kamieskroon, Soebatsfontein and Hondeklipbaai and the mining town of Koingnaas. The economic and administrative centre of the municipality is the town of Garies.

More than one third of households in the area survive on a monthly income of less than R500 and 70% of households survive on an income of less than R2,500 / month. A third of the labour force is unskilled. The area has been negatively affected by the out-migration of economically active residents and job losses in the mining sector since 1996.

With global climatic change expected to have an impact on livestock production and the current down-scaling of mining operations in the area it is essential that the park attempts to facilitate socio-economic opportunities within its footprint.

The park aims to play a significant, targeted and effective role in contributing to local economic development, economic empowerment and social development in communities and neighbouring areas adjacent to park by partnering with local government to form part of the IDPs, participating in government programmes to contribute to local skills development by supporting learnerships, implementing needs related training programmes and by creating business opportunities.

The Expanded Public Works Programme (EPWP) will remain a significant focus area of the organisation to effectively contribute to the creation of temporary jobs in the short term, sustainability by investigating exit opportunities and entrepreneurial opportunities for local communities.

LOCAL ECONOMIC DEVELOPMENT PROGRAMME					
High level objective: To develop sustained partnerships between conservation agencies, government, adjacent communities and other parties that enhance opportunities for conservation planning and funding on a regional perspective					
Purpose: To enable the park community to derive sustainable and equitable socio-economic benefit from the opportunities created through the park and to establish general awareness of management activities that promotes the park's core functions					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To promote and support employment and learning opportunities to enhance livelihoods in the region	Create job opportunities to meet operational needs.	Park management	Number of permanent and contract jobs created.	Ongoing	
	Actively source, support and implement government funded EPWP, WfW, WftC *etc.,*				
	Conduct training interventions aligned with possible business and employment opportunities	ICU, P&C, Tourism	Training report	Ongoing	

Objectives	Actions	Responsibility	Indicators	Timeframe	References
Identify and enable access, on an equitable basis, to sustainable economic and other benefits derived through the park	Support locally owned, especially BEE and SMME enterprises for services required	All management staff	Procurement report	Ongoing	
	Explore, and where appropriate implement, the participation of neighbouring communities in conservation and tourism opportunities	PM, P&C, TO, SR	P&C reports	Ongoing	
	Develop and maintain a database of preferred local service providers as source for contracting opportunities	Finance and Admin	Database	Ongoing	
To contribute towards rural development through CSI	Facilitate the leasing of Graskom (+/- 500 ha) and Soubattersfontein (900 ha) land to the community for agriculture	PM, P&C, Park Planning	Lease contract	Y2	

10.4.4 Environmental education

High level objective

Environmental education: To advocate and support the development of human capacity through awareness, education and training related to the park's objectives and activities

The Namaqua region is one of four regions in the Northern Cape, with its educational headquarters in the provincial capital Kimberley. The Namaqua region is in turn divided into circuits: Diamant, Koper and Southern (Kussa). The schools which the park has interacted with cover an area which stretches from Garies, 50 km to the south to Springbok, 70 km to the north and from the coast to Leliefontein, 70 km to the east. Many schools in the park's 'catchment' fall in the Kamiesberg part of the Kussa circuit (there is also an Onder-Kamiesberg part). The home language of more than 90% of Northern Cape learners is Afrikaans, followed by Tswana (about 3%); only about one percent of learners speak English as home language. (The tiny mine school in Kleinzee is an example of a dual-medium English and Afrikaans school).

Primary schools are 'fully integrated', but often either predominantly 'coloured' or 'white'. The park's immediate neighbouring schools all cater almost exclusively for coloured learners.

Teachers in the Namaqua region are required to conduct environmental education activities. Most of the schools in the area are primary schools, and the park's interaction has been mainly with primary schools. In the larger primary schools, teachers tend to teach all the learning areas to one grade, e.g. there are two Grade 4 teachers who teach all the grades to their single class, and often team teach. In the smaller schools, teachers tend to teach all the learning areas to more than one grade, often an entire phase or half of the school.

Few teachers specialise in particular learning areas; specialisation is by grade or, more often, by phase. There are fewer high schools (for Grades 8-12) in the area, and there is less room for environmental education in these grades, except in science. Environmental clubs are not associated with particular grades.

ENVIRONMENTAL EDUCATION PROGRAMME					
High level objective: To advocate and support the development of human capacity through awareness, education and training related to the park's objectives and activities					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To review and update EE programmes associated with the park and its objectives	Review and update existing EE and interpretation programmes	P&C, Regional P&C	Updated programmes	Ongoing	
	Plan and implement a range of appropriate Interpretive materials to enhance environmental interpretation	P&C; Regional P&C	Range of materials developed	Ongoing	
	Motivate for sources of funding to implement school focused programmes such as kids in parks,, Imbewu, lovelife, junior land care *etc.*	P&C; Regional P&C	Funding secured	Ongoing	
	Enhance schooling and the implementation of curricula through Embewu, KiP and other programmes	P&C; Regional P&C	No of learners attending	Ongoing	

Objectives	Actions	Responsibility	Indicators	Timeframe	References
To review, update and implement environmental awareness outreach programmes outside the park	Review, plan and implement awareness raising and outreach programmes, eg. calendar days	P&C; Regional P&C	No of programmes	Ongoing	
	Develop and encourage youth development programmes *e.g.* enviroclubs, Junior Honorary rangers	P&C; Regional P&C	No of programmes	Ongoing	
	Sustain collaboration with partners on projects	P&C; Regional P&C	No of partnership projects	Ongoing	

10.5 Effective park management

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. Broad programmes are given for the aspects identified as high level objectives.

Objective

Effective park management: To strive for effective management and administrative support services enabling the park to advance towards its desired state

10.5.1 Environmental management

Proper management of development and operational activities within the park can only be achieved through appropriate planning tools and effective controls. A number of management tools are being used to develop and manage the park in a manner consistent with the relevant legislation and the SANParks policy framework. These key tools and controls used by the park forms the basis of an environmental management system and are presented below.

The primary spatial planning tool is the zoning plan (Appendix 3, Appendix 4, Map 4). Zoning provides for a full spectrum for usage of the park, ranging from high-density recreation to a true wilderness experience, while ensuring that the ecological integrity, cultural resources and 'sense of place' of the park are maintained and / or enhanced. Therefore, zoning is an 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 will act as the first "filter" in determining whether a proposed development is compatible and / or complementary in a specific use zone.

NEMA and NEM:PAA and regulations provide guidance regarding a number of activities that are either prohibited or require prior written consent from the park. Environmental impact assessments (EIAs) are viewed as another important management tool in identifying and managing environmental impacts associated with a particular activity. For certain activities, NEMA requires that environmental authorisation is obtained from the competent authority and the process and listed activities requiring such authorisation are contained in the EIA regulations. Depending in which list the activity falls, the environmental impact assessment will either be in the form of a basic assessment or scoping and an EIA. Where such authorisation is not legally required for activities within the park, the minimum of which is the preparation of an environmental management plan (EMP) will be required.

The park will investigate the feasibility and practicability of developing 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 system must be designed specifically as a tool that achieves, improves and systematically controls environmental performance levels. Such a system should accomplish 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.
- Establishment of a structured process to implement policy, achieve objectives and meet targets.
- Planning, control, monitoring and review of policy implementation for continuous improvement.

ENVIRONMENTAL MANAGEMENT PROGRAMME					
Objective: To develop a comprehensive environmental management system for the park so that operational impacts are minimised					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure compliance with environmental legislation and best practice principles for all management activities in NNP	Make all new environmental legislation available to NNP management	PM	Legislation available	Ongoing	
	Develop a set of best practice principles for identified activities as required	PM	Principles developed	Ongoing	
	Conduct internal scoping of all activities that may potentially impact on the environment and ensure that EIA's and HIA's are conducted where required and that EMP's are developed to guided activities	PM	Scoping done	Ongoing	

10.5.2 Risk management

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 management of business risk is regarded by SANParks as an integral part of management across all business operations. In line with corporate governance best practices and as per PFMA requirements, the Board of SANParks has formalised the risk management processes by adopting a corporate risk management framework.

As its foundation, the risk management framework has enterprise-wide risk identification and an assessment process, based on a thorough understanding of the environment in which the organisation operates and the strategic corporate objectives it intends to deliver on.

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.

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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 in 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

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	Responsiility	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	PM	Risk register	Y1	
	Develop responses to address and prevent or mitigate issues of risk.	Park management	Risk response plan	Y1	PFMA, OHS Act NEM:PAA NHBRC reg and other
	Monitor effectiveness in terms of the risk response plan and improve as needed.	Management	BSC	Y2	

10.5.3 Finance and administration

High level objective

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

SANParks adopted 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 10 years 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.

FINANCIAL AND ADMINISTRATION PROGRAMME					
High level objective: To ensure sound financial management and administration in the park					
Objectives / Initiatives	Actions	Responsibility	Indicators	Timeframe	References
To attain sound financial administration of the park	Ensure less than 1% variance on cost of operations	PM; Section managers	Financial Reports	Ongoing	PFMA; Treasury regulations
	Ensure sound financial management of special projects	PM, ISCU	Targets achieved	Ongoing Ongoing	
	Develop support mechanisms and procedures for the park to receive grants and donations	PM	Financial system in place		
To prepare realistic budgets and report financial performance	Prepare a fully motivated annual budget	PM; Regional financial managers; Section managers	Budget prepared	Ongoing	
	Implement the approved annual budget	PM	Achieved financial targets	Ongoing	
	Report on financial statements	PM; Regional FM	Financial reports completed	Ongoing	
To contribute to SANParks so that PFMA requirements are met	Ensure that information contained in quarterly and annual reports on revenues and expenditure is correct	PM; Regional FM	Financial reports correct	Ongoing	
	Ensure that PFMA prescriptions regarding banking is followed	PM; Regional FM	Prescriptions followed and reconciled	Ongoing	
	Ensure that the PFMA and organisational framework re supply chain management is followed	PM; Regional FM	SCM procedures followed	Ongoing	
Ensure financial accountability and align financial management systems.	Facilitate independent audit of park records	PM; Regional FM	Audit report	Ongoing	
	Facilitate access to audited statements by the public	PM; Regional FM	Audit report available	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 administration of procurement, human resource issues, bookings and finances are implemented through the park's offices and all are governed and directed through SANParks' standard processes and procedures.

The park currently has 12 permanent staff on its permanent establishment. This is expected to grow as a result of the park expanding business operations. Two key areas of staff expansion include the expansion of the tourism function to service the tourism products and the expansion of a dedicated marine function.

The management actions would involve:

- Conducting a skills audit and aligning staff development with both park expansion and development objectives. Training needs are also established in this way.
- Annual training calendars are drawn up for implementation (dependant on funding and management issues such as travel restrictions).
- SANParks has established employment equity and skills development forums which the Arid Region and the park should participate.
- Individual development plans are drawn up for every staff member.
- Study bursaries are annually made available for employees.
- Various training interventions are assessed and considered for implementation, such as Abet.

The aim of the institutional 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 operations. Some of the more important policies and procedures are listed in Appendix 2.

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 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 DEVELOPMENT PROGRAMME					
Objective: To manage the process of staff capacity building in a manner that will ensures the essential complimentary function of park effectiveness is maintained while adequate human resources are developed to achieve this goal					
Objectives	Actions	Responsibility	Indicators	Timeframe	References
To ensure the park attracts and retain the most suitable human capital	Recruit staff according to corporate selection and recruitment policy, including employment equity targets	PM	Recruitment records	Ongoing	Employment Equity Act
	Manage and maintain staff and departmental structures effectively to minimise staff turnover	PM	Staff turnover	Ongoing	
	Encourage all staff to improve their skills levels and qualifications in relevant field so as to ensure a competent workforce	PM	Training records	Ongoing	
	Review training needs annually and budget as needed after authorisation	PM	Skills audit	Ongoing	
	Implement performance management system	PM	Performance contracts		
	Perform administration tasks: equal employment report, HR statistics, etc	PM; HR Officer	HR reports	Ongoing	
Implement work place health programmes	Ensure compliance to occupational health and safety requirementts	All managers	OHS reports, minutes	Ongoing	
	Ensure staff has access to ICAS	HR Officer	Access provided	Ongoing	
	Commemorate all events related to wellness (*e. g.* Aids Day *etc*; in conjunction with ISCU)	PM; P&C Officer; HR Officer	ISCU reports, social days	Ongoing	

10.5.5 Information management

High level objective

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

The management and dissemination of information plays a significant role in ensuring the efficient management of the park.

As such the park requires integration with SANParks national information systems, *i.e.* financial, human resources and reservations while acting as a source of spatial and research information for both SANParks and research institutions. In order to keep the information in SANParks databases current, pertinent information systems and management support needs to be set-up for the park.

INFORMATION MANAGEMENT PROGRAMME					
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 within the various areas of the NNP, and implement a single file plan	PM	Draft records management and file plan for park	Year 1	(Act no. 43 of 1996 as amended)
	Implement the WCNP records management and file plan	PM, Admin	Records and documents filed ito 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 ensure that current and future infrastructure in the park is properly maintained

The park is a developing park and most of its infrastructure is inherited infrastructure on land acquired for the park. The region is considered an impoverished area and is sparsely populated. Land acquired for the park usually includes old farm buildings, some more than a 100 years old. Little or no maintenance was done on these buildings and most cannot be used or does not fit in with the requirements for park management. The park currently has a mixture of old buildings which cannot be repaired, old buildings which can be repaired, some old buildings which have been repaired and are in use and some new buildings. Other existing infrastructure includes roads, wind pumps, fences and dams. All roads are gravel and in a state of disrepair. There are numerous roads running though the park which are public roads and the responsibility of the District Municipality, including the road to the park. The park has a perimeter fence of approximately 500 km, of this approximately 190 km has been replaced.

NNP is fenced for various reasons. The main purpose of fencing is for the protection of the parks' biodiversity. The Succulent Karoo evolved together with different herbivore and predatory assemblages and it is essential to restore and maintain these assemblages, particularly with the expected impact of climate change. The main land use is small stock farming, and it is common practice for adjacent land owners to protect their livestock against predators. It is an incorrect perception that all damage causing animals originate from the park. Through shared maintenance the park and its neighbors will ensure that the fence conforms to the agreed standard that will minimise predators traversing between the park and neighbouring land.

Fences also protect the park from outside influences such as grazing by sheep, goats, donkeys and cattle that can cause tremendous 'unnatural' damage to certain vegetation types. Stray dogs are also a problem and the fence will help to protect fauna and flora in the park against these. The fences are thus essential to keep these disturbances out.

The type and standard of fence will depend on the terrain. Currently the park erects a 1.4 m high 'predator proof' fence on the low lying areas. This would be the minimum requirement for any boundary fence in the park. This fence generally has 900 mm high net and four top strands. The fence is electrified and has 1 live wire on top and a live / neutral at the bottom. Where rocks are available the fence is packed as well. In the higher lying areas the minimum fence height is 1.8m. There are generally more opportunities, for example inclines, rocks, trees etc, in these areas for animals, such as kudu and eland to clear the fence.

It is common practice that fences between two land owners are maintained on a 50/50 agreement. The park engages with the relevant land owners in this regard.

Existing infrastructure:

1) The main management infrastructure is located at the Skilpad office complex and consists of seven administration offices, ablutions, one conference centre, one sleeping hostel for environmental educators, and one workshop facility.
2) Four new self catering chalets at Skilpad.
3) The Groen/Spoeg Ranger infrastructure is situated at Groen River (four houses, one office, one workshop, one shed, electricity provided by generators and water provided by a windmill. The water needs purification).

4) The Skilpad ranger infrastructure is at Melkboom (two houses and a workshop).
5) The Kranzevlei office complex (ISCU unit office) consisting of four houses of which one was converted into an office, a shed, and three store outbuildings. Electricity is supplied by a generator.
6) Swartfontein house which is used as a base for the Working for the Coast team. No electricity available.
7) Four farmhouses in relative good condition spread over the park.
8) Fifteen farmhouses which can not be repaired.
9) A hostel and outbuildings at Soebatsfontein.
10) Ablutions and campsite at Kookfontein.
11) Rustic guest cottage at Luiperdskloof.
12) Five camping sites with braai areas and Enviro loo's on the coast.
13) The bulk infrastructure consists of approximately 300 km of roads and vehicle tracks, of which only 5 km is usable by sedan vehicles (Skilpad loop).
14) Approximately 20 km hiking trails and one weather station at Skilpad, as well as six solar pumps and 10 windmills.
15) Five hundred km of fences, of which about 190 km is less than five years old. The remainder is 40+ years old.

Proposed infrastructure depending on park expansion and funding:

1) Ten bed rest camp at the coast
2) Entrance gate and offices on N7
3) Access points at Groen River and Hondeklipbaai road
4) Completion of park fences
5) Upgrading of staff accommodation at Groen River.
6) Camping site on N7/ Skilpad
7) Maintaining the road network to be suitable for 4X4 use

INFRASTRUCTURE MANAGEMENT PROGRAMME					
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 and mechanical and electrical equipment 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.	Park Manager, Technical	Maintenance Plan, Annual schedules	Year 1 and 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 regulate all currently illegal and unwanted structures and facilities	Identify and list all such structures etc.	SSR	List	Year 1	
	To regulate or remove relevant structures	SSR	Reports	Year 2	
	Deproclaim identified provincial roads within the park	PM, Legal		Y5	

10.5.7 Security and Safety

High level objective

Security and safety: To provide a safe and secure environment for visitors and staff

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 South African tourism industry at large.

The strategic safety and security plan is guided by various Acts including the following: National Environmental Management Act 107 of 1998, NEM:PAA, NEM: Biodiversity Act 10 of 2004, Criminal Procedure Act 51 of 1977, Occupational Health and Safety Act 85 of 1993, Basic Conditions of Employment Act 3 of 1997, National Veld and Forest Fire Act 101 of 1998.

The following guiding principles are applicable:

- Enforce applicable legislation transparently, lawfully and fairly
- Resource allocation will be determined by the impact and severity of the environmental crime
- Optimise working relationships with relevant law enforcement agencies, interest groups or individuals
- Recognise that informed communities, neighbours, visitors and staff can assist in the protection of the environment and heritage assets
- Appropriate staff training compliments effective law enforcement

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
- Specialised training for relevant staff to ensure all actions taken are in line with the Criminal Procedure Act, *e.g.* executing an arrest, controlling a crime scene and proper handling of 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

- Proper and sufficient on-going training of tourism staff in terms of visitor gateway management, general awareness of criminal activity trends and the correct action in case of criminal activity taking place
- Ensure that staff working in the marine environment are appropriately trained and qualified

Safety and security must be seen within the broader context of the region. The success of the safety and security programme lays in the co-operation and stakeholder participation from various departments and parties both within SANParks and external departments (South African Police Service, Fisheries, local and provincial traffic departments). 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

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 assessment (a tool in measuring the effectiveness of current safety situation), while heads of departments will undertake regular checks to manage all irregularities

The current park stretches from the coastal lowlands to the mountainous Namaqua uplands in the Succulent Karoo biome. The current shape and land ownership provides a number of challenges in respect of wildlife security and the safety of staff and visitors alike. The safety and security plan is divided into two components. The first component provides for the safety and security of staff and visitors and the second focuses on the protection of the park's wildlife and biodiversity.

Staff and visitor safety

In order to understand the context of the park and the relevant roles and responsibilities and determine scenarios that may require reference to this manual it is important to take cognisance of a number of factors relating to the position of the park and its users.

The park terrain is harsh, dry and in places mountainous area. There are extensive diamond mining activities to the west and north.

The neighbours are made up of private agricultural farmers and communal agricultural farmers. Sheep and goats are the main livestock. Essentially four main public roads cross the park, all being used to some degree by private vehicles. The users of the park can basically be divided into the following categories:

- Self guided tourists in normal and 4x4 vehicles
- Guided tourists utilising various types of trails
- SANParks staff and authorised researchers
- General public on the public roads
- Visitors to the coast

The primary areas at risk are:

- Park entrance complex (Skilpad).
- Soebatsfontein hostel and school.
- Wildeperdehoek, Komaggas and Soebats-fontein public roads within the park.
- Other public roads through the park.
- New rest camp.
- Coastal areas.

Secondary areas at risk are:

- Kookfontein.
- Melkboom.
- Riethuis- extremely important biodiversity area.
- Spoeg River caves.
- Groen River.
- Kranzevlei.

Persons at risk are:

- Visitors walking or jogging alone in secluded areas.
- Individuals walking alone after dark.
- Tourists with expensive cameras and equipment.
- Elderly persons.
- Hikers in small groups or walking alone.
- Personnel on patrol.
- Personnel at observation posts.
- Park informers.

Cash handling points at risk are:

- Skilpad office complex.

Available resources should be focused primarily on these high risk areas.

The area is served by the Provincial Ambulance Service. There is a clinic and ambulance stationed at Kamieskroon. The nearest Hospital is in Springbok. De Beers also have medical facilities at Koingnaas which can be accessed in emergencies. There is an airfield at Springbok for evacuations if needed.

In terms of security and crime related incidents the key responsibility of SANParks personnel is to ensure the safety of themselves, fellow staff, tourists and SANParks property from criminal action.

Conservation staff is also directly responsible for the preservation of fauna, flora and the cultural heritage sites under their jurisdiction in terms of the proclamation of the park. Although the combating of crime is the ultimate responsibility of the SAPS the remoteness and inaccessibility of the area and the conservation law enforcement functions allocated to them it is likely that SANParks personnel will be the first responders to an incident, and that their actions will be crucial to the preservation of evidence and eventual prosecution of offenders.

The aim of this programme is to provide a framework for all staff within the park to take decisive action in the case of emergencies involving employees, visitors and any other individual whose situation can assisted by SANParks personnel. It also caters for the actions to be taken in respect of security related incidents in respect of crimes perpetrated against staff, visitors and SANParks property and wildlife crimes. It is essential that all staff are familiar with the contents of this document and that it is available for quick reference at the following locations:

- Park managers office.
- Resource centre.
- Reception front desk.
- Soebatsfontein ranger.
- Melkboom house.
- Kranzevlei.
- Groen Rver office.

For information purposes it should be circulated to the following:

- SAPS Kamieskroon.
- SAPS Hondeklipbaai.
- Mine manager Namaqua mining (De Beers).
- District conservator: Northern Cape Nature Conservation.
- Project manager Kamiesberg uplands: Conservation International.
- Kamieskroon Municipality.

Wildlife protection plan

The park lies within the Succulent Karoo Hotspot, with numerous rare and endangered species occurring in the area. Succulents are particularly diverse and rare, and as such is an attractive collection point for illegal collectors. Reptiles are also sought after. Furthermore, there seem to be a belief that diamonds are still to be found in the park footprint, and illegal mining activities may take place on a small scale in the park.

All the neighbouring farmers farm with small livestock, and as such conflict with the park and management is not uncommon. There is a general perception amongst farmers that their livestock is being killed by small predators escaping from the park onto their properties. The farmers react in various ways, mostly by placing traps, snares, poison and other means on the park fences and even inside, indiscriminately killing various animal species.

The manpower resources of the park are hopelessly inadequate to effectively manage the vast area of the park. The park includes 55 km coastline and a proposed MPA.

The park is a fairly arid area, with rainfall on the lowlands below 200mm/pa and rainfall in the Kamiesberg averaging 340 mm / pa. This limits the large mammal populations encountered in many other national parks. This obviously reduces the risk of subsistence poaching. However, a number of other threats need to be taken into account when developing a strategy.

The following need to be considered and steps taken to counter them:

- Damage to ecosystems due to illegal off road driving and camping.
- Illegal extraction of rare plants and / or their seeds by collectors to supply the national and international trade.
- The capture and removal of rare birds, reptiles and insects by collectors to supply the national and international trade.
- Biodiversity prospecting.
- The destruction and removal of cultural and historical artefacts.
- The illegal harvesting of all species by collectors for traditional healing.
- Illegal mining activity.
- Poaching, particularly crayfish, in the coastal section.
- Illegal commercial trawling within the MPA.
- Illegal hunting of antelope and predators (caracal, jackal and hyena) by neighbouring stock farmers.
- The park is currently poorly fenced.
- Mining operations at Namaqua sands, west of the park.
- Public roads criss-crossing the park.

The following issues have been identified as crucial to the development and implementation of a wildlife protection strategy for the park:

- There is a need for park management to participate in local statutory security forums.
- Access control of the Groen/Spoeg river section.
- There is a need for SANParks Security Management to update park management on national and international wildlife crime and possible actions to counter threats to the park.
- A specific budget allocation needs to be made for the wildlife protection programme within the park. It is critical that this is linked to performance indicators to enable an audit of compliance effort against budget.
- The park forum needs to be fully briefed and supportive of a wildlife protection strategy and local members need to ensure that the affected communities are aware of the programmes being introduced, and crucially that SANParks has a statutory obligation to enforce the legislation applicable to wildlife protection in the park.

It is important to ensure that systems are in place to facilitate the successful prosecution of the perpetrators of wildlife crime. This involves a working partnership between SANParks, the SAPS and the Directorate of Public Prosecutions. Park management needs to ensure that the correct procedures are followed in respect of the conducting of searches and effecting arrests, as without this most cases will be legally flawed. They also need to ensure that suspects appear in court and that state prosecutors have been briefed on the applicable conservation legislation in order to prosecute the cases efficiently. It is in the interest of management to develop a good awareness of the role of protected areas amongst other law enforcement agencies, and to facilitate this by getting them to visit the park to see the issues first hand.

It is park management's responsibility to ensure that a full range of programmes are instituted and maintained to ensure that community awareness of the role of the park is understood, that the youth in the area are taught the values of the ecosystems protected in the park and that there is a flow of benefits to the community from the park to develop goodwill and trust.

The whole strategy will be ineffective unless operating procedures are updated and evaluated on a regular basis, in particular the park safety and security plan. Contingency plans need to be checked and all staff trained in their implementation. It is critical that other agencies are directly involved with exercises to ensure that effective action can be taken when an incident occurs. All staff must be involved in the debriefing from these exercises so that real input is made to improve the end product.

Management actions to implement the safety and security programme are illustrated in the table below. It is important that these actions are done in conjunction, and integrated into all programmes.

SAFETY AND SECURITY PROGRAMME					
Objective: To provide a safe and secure environment for both visitors and SANParks employees, and 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 security and safety in the park to staff and visitors	Carry out regular SWOT analyses to determine threats and areas of concern in order to update the park safety and security Plan	PM; Section Rangers	Updated SS plan	Ongoing	
	Ensure appropriate and sufficient on-going training of staff in terms of area integrity management and readiness to react to emergency situations	PM; Section Rangers	Training records	Ongoing	
	Increase the intensity of patrols / observations by means of extended and overnight patrols in identified hotspot areas.	Section Rangers	Monthly and Quarterly reports	Ongoing	
	Assess effectiveness of safety and security	PM; Section Rangers	SoiAM report	Ongoing	
	Implement recommendations resulting from SoiAM within financial and other constraints	PM; Section Rangers	Recommendations implemented	Ongoing	
To interact with external roleplayers regarding safety and security	Participate in joint operations with other law enforcement agencies, ie. SAPS, Oceans and Coasts *etc.*	PM; Section Rangers	Minutes	Ongoing	
	Built meaningful relationships with the state judiciary	PM; Section Rangers	Correspondence	Ongoing	

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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, revenue raising activities and expenditure;
- Ensure solid financial management support the achievement of the objectives of this plan;
- 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 R12,978,321 for 2013/2014. These ongoing costs are split according to the programmes listed in table 3.

Table 3: Estimated annual operational costs for year 1.

Programmes	Estimated budget	Percentage of total
Rehabilitation	R 7,157,111	55.1%
Infrastructure	R 2,613,558	20.1%
Environmental education	R 1,012,276	7.8%
Terrestrial biota	R 843,249	6.5%
Tourism operations	R 589,586	4.5%
Safety and security	R 235,771	1.8%
Species of special concern	R 122,449	0.9%
Stakeholder engagement	R 121,935	0.9%
Local economic development	R 53,577	0.4%
Finance and administration	R 45,712	0.4%
Cultural heritage	R 33,986	0.3%
Functional ecosystems	R 33,973	0.3%
Mainstreaming biodiversity	R 29,555	0.2%
Environmental management	R 22,678	0.2%
Risk management	R 20,220	0.2%

Programmes	Estimated budget	Percentage of total
Human capital	R 15,186	0.1%
Information management	R 14 846	0.1%
Resource use	R 12,654	0.1%
Total operations	R 12,978,321	100%

Once off costs
In addition to the above there is a further once-off cost estimated at R 67,175,500 over the next 5 years (see Table 4)

Table 4: Estimated once off cost of the various programs.

Activity	Estimated budget
Park expansion	R 38,200,000
New infrastructure	R 28,200,000
Terrestrial biota programme	R 600,000
Cultural heritage programme	R 125,000
Tourism programme	R 50,000
Total	**R 67,175,500**

Unallocated fixed costs
The unallocated fixed costs for 2013/2014 are R735,176.

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 5. The projected maintenance for existing infrastructure is estimated at R1,731,400 in 2013/2014. This amount has been included under the infrastructure programme. If the new planned infrastructure is developed it will add a further R1,069,900 (at 2013/2014 rates) onto this annual maintenance budget, increasing it to R2,801,300. The maintenance requirement was calculated as a percentage of the replacement value.

Table 5: 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)
Infrastructure	27,642,250	11,000,000	38,642,250	395,240	214,400	609,640
Roads, tracks	7,600,000	0	7,600 000	169,100	0	169,100
Trails	100,000	0	100,000	2,000	1,500	3,500
Fencing	31,650,000	17,000,000	48,650,000	1,125,000	850,000	1,975,000
Water system	1,470,000	150,000	1,620,000	29,400	3,000	32,400
Electricity	533,000	50,000	583,000	10,660	1,000	11,660
Communication	0	0	0	0	0	0
Sewerage	0	0	0	0	0	0
Total	68,995,250	28,200,000	97,195,250	2,011,300	1,069,900	2,801,300

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 making provision for their replacement. Management should make provision for about R277,816 in 2013/2014, this figure is presented in Table 6.

Table 6: Total value based on the original purchase price of various categories of minor assets.

Asset type	Asset value	Provision for replacement
Computer equipment	R 140,117	R, 28,023
Firearms	R 0	R 0
Furniture	R 0	R 0
Machinery and equipment	R 349,571	R 49,939
Office equipment	R 90,047	R 12,864
Vehicles and watercraft	R 1,698,603	R 242,658
White goods	R 12,948	R 1,850
Total	R 2,291,286	R 335,333

Summary
It is estimated that the park will require an annual operating budget of R14,891,760 for 2013/2014, increasing to R18,800,504 in 2017/2018. In addition to this amount the park will also require once off cost of R67,175,500 over the next cycle. A summary is presented in table 7.

Table 7: Summary of the annual and once off operational costs (based on actual expenditure) that is required to fully implement the activities in the Management plan over the next five years.

	2013/2014	2014/2015	2015/2016	2016/017	2017/2018
Recurring costs	R14,891,760	R15, 785,266	R16,732,382	R17,736,324	R18,800,504
Once off costs	R 67,175,500				
SANParks budget	R13,665,193	R 4,485,104	R15,354,211	R16,275,463	R17,251,991
Deficit	R 1,226,567	R1,300,171	R 1,378,171	R 1,460,861	R 1,548,513

Implications:
Should the park be unsuccessful in securing the deficit amount of R 1,226,567 then the maintenance of infrastructure will be affected.

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Appendix 1: Declarations

NAMAQUA NATIONAL PARK

GN 578 / GG 22414 / 20010629 declared the following land to be part of the park:

1. Portion 15 (portion of portion 13) of the farm Keerom 341, division Namaqualand, Northern Cape province, in extent 1047, 1096 ha (one zero four seven comma one zero nine six hectare).

GN 53 / GG 23037 / 20020125 declared the following land to be part of the park:

1. In terms of section 2A (1) (a) of the Act -

   - Portion 1 of the farm Doornfontein, 464, Namaqualand, measuring 3513, 3458 hectare, held by Deed of Transfer No. T75491/2001;
   - Portion 1 of the farm Kookfontein, 466, Namaqualand, measuring 3535, 4786 hectare, held by Deed of Transfer No. T75491/2001;
   - Portion 2 of the farm Kookfontein, 466, Namaqualand, measuring 1305, 9258 hectare, held by Deed of Transfer No. T75491/2001;
   - Portion 3 of the farm Kookfontein, 466, Namaqualand, measuring 2, 0029 hectare , held by Deed of Transfer No. T75491/2001;
   - Portion 4 of the farm Kookfontein, 466, Namaqualand, measuring 997,1303 hectare, held by Deed of Transfer No. T75491/2001;
   - Remainder of the farm Kookfontein, 466, Namaqualand, measuring 3253, 5968 hectare, held by Deed of Transfer No. T75491/2001;
   - The farm Wildepaarde Hoek 340, Namaqualand, measuring 7910, 9296 hectare, held by Deed of Transfer No. T75491/2001.

2. Subject to an agreement entered into between the South African National Park (the Board), as well as the owner of the land defined in the Schedule, the following land in terms of section 2B (1) (b) of the Act:

   - Portion 13 of the farm Wolvepoort 459, Namaqualand, measuring 930, 2412 hectare, held by Deed of Transfer No. T1020/1989.

GN 901 / GG 26615 / 20040730 declared the following land to be part of the park and amended the Schedule accordingly:

1. Portion 5 (a portion of Portion 1) of the Farm Canariesfontein No. 465, Namaqualand Registration Division, Province of the Northern Cape, in extent 963,5410 hectare, held under Title Deed of Transfer T104720/2002

2. Portion 6 (Plat Klip) of the Farm Keerom No. 341, Namaqualand Registration Division, Province of the Northern Cape, in extent 2064, 2421, held under Title Deed of Transfer T104720/2002

3. 0,093750 share in Portion 2 of the Farm Rodeklipheuwel No.470, Namaqualand Registration Division, Province of the Northern Cape, in extent 2187,2544 hectare, held under Title Deed of Transfer T115475/2003

4. Portion 6 (a portion of Portion 1) of the Farm Canariesfontein No. 465, Namaqualand Registration Division, Province of the Northern Cape, in extent 481,7712 hectare, held under Title Deed of Transfer T96065/2000

5. Portion 2 (Niekerkshoop) of the Farm Canariesfontein No.465, Namaqualand Registration Division, Province of the Northern Cape, in extent 2407, 9271 hectare, held under Title Deed of Transfer T96065/2000

6. The Remainder of Portion 1 (Ronde Klip) of the Farm Canariesfontein No. 465, Namaqualand Registration Division, Province of the Northern Cape, in extent 962,6148 hectare, held under Title Deed of Transfer T95852/2000

7. Portion 7 (Portion of 1 ± Zand Vlei) of the Farm Soubattersfontein No. 467, Namaqualand Registration Division, Province of the Northern Cape, in extent 262,0988 hectare, held under Title Deed of Transfer T83030/1999

8. The Farm Oubees No. 339, Namaqualand Registration Division, Province of the Northern Cape, in extent 13170,8926 hectare, held under Title Deed of Transfer T83030/1999

9. Portion 1 (Goedemoed) of the Farm Rodeklipheuwel No.470, Namaqualand Registration Division, Province of the Northern Cape, in extent 6563,6989 hectare, held under Title Deed of Transfer T83030/1999

10. The Remainder of the Farm Kameelboom Vley No.338, Namaqualand Registration Division, Province of the Northern Cape, in extent 1783,8949 hectare, held under Title Deed of Transfer T83030/1999

11. The Remainder of the Farm Taaibosch Vlakte No. 337, Namaqualand Registration Division, Province of the Northern Cape, in extent 1645,5265 hectare, held under Title Deed of Transfer T83030/1999

12. Portion 2 (Euphorbia) of the Farm Kraaifontein No. 312, Namaqualand Registration Division, Province of the Northern Cape, in extent 1605,2559 hectare, held under Title Deed of Transfer T83030/1999

13. Portion 1 (Stapelia of the Farm Kraaifontein No. 312, Namaqualand Registration Division, Province of the Northern Cape, in extent 147,7543 hectare, held under Title Deed of Transfer T83030/1999

GN 1065 / GG 28185 / 20051028 declared the following land to be part of the park and amended the definition accordingly:

Land proclaimed in terms of section 2C(2) of the Act

Portion 7 (Klipbokfontein) of the farm Doornfontein No. 464, Namaqualand Registration Division, Northern Cape Province, in extent 769.2185 hectares, held under Title Deed of Transfer T33480/2003

Portion 9 (Melkboom) of the farm Doornfontein No. 464, Namaqualand Registration Division, Northern Cape Province, in extent 796.0465 hectares, held under Title Deed of Transfer T33480/2003

Portion 16 (a portion of Portion 14) of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 790.3648 hectares, held under Title Deed of Transfer T94550/2002

Land proclaimed in terms of section 2D(1)(b) of the Act

Portion 3 (Nieuwe Puts) of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 1 836.6673 hectares, held under Title Deed of Transfer T95762/2002

Remainder of portion 4 (Kykokeis) of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 981.7906 hectares, held under Title Deed of Transfer T95762/2002

Remainder of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 1 340.9971 hectares, held under Title Deed of Transfer T94550/2002

Portion 10 (portion of Portion 3) of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 330.3586 hectares, held under Title Deed of Transfer T94550/2002

Portion 11 of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 670.4972 hectares, held under Title Deed of Transfer T94550/2002

Remainder of portion 13 of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 378.3595 hectares, held under Title Deed of Transfer T94550/2002

Remainder of portion 14 (a portion of Portion 13) of the farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 66.1623 hectares, held under Title Deed of Transfer T94550/2002

Portion 12 (a portion of Portion 4) of farm Keerom No. 341, Namaqualand Registration Division, Northern Cape Province, in extent 860.0601 hectares, held under Title Deed of Transfer T90891/2002

[Definition of Namaqua National Park amended by GN 578/2001, GN 53/2002, GN 901/2004 and GN 1065/2005]

Land proclaimed under Section 20(1)(a)(ii) of the Act

1. The farm Gemsbok Vlakte 495, Registration Division Namaqualand, Northern Cape Province, in extent 2278,3237 hectares;

2. Portion 1 of the farm Strandfontein 499, Registration Division Namaqualand, Northern Cape Province, in extent 1969,1728 hectares;

3. Portion 2 of the farm Strandfontein 499, Registration Division Namaqualand, Northern Cape Province, in extent 2124,1994 hectares;

4. Portion 3 of the farm Strandfontein 499, Registration Division Namaqualand, Northern Cape Province, in extent 313,4859 hectares;

5. The remaining extent of the farm Strandfontein 499, Registration Division Namaqualand, Northern Cape Province, in extent 4644,6161 hectares;

6. The farm Driekop 500, Registration Division Namaqualand, Northern Cape Province, in extent 6509,9387 hectares;

7. The farm Kwass 501, Registration Division Namaqualand, Northern Cape Province, in extent 6509,9430 hectares;

8. The farm Kwass 546, Registration Division Namaqualand, Northern Cape Province, in extent 1063,8355 hectares;

9. Portion 1 of the farm Klipkuil 547, Registration Division Namaqualand, Northern Cape Province, in extent 1208,8823 hectares, known as De Mond;

10. Portion 3 of the farm Klipkuil 547, Registration Division Namaqualand, Northern Cape Province, in extent 592,0006 hectares, known as Middle Vlakte;

11. Portion 4 of the farm Klipkuil 547, Registration Division Namaqualand, Northern Cape Province, in extent 28,7924 hectares, known as Twee Kuilen;

12. Portion 5 of the farm Klipkuil 547, Registration Division Namaqualand, Northern Cape Province, in extent 397,6150 hectares, known as Twee Kuilen;

13. Portion 6 of the farm Klipkuil 547, Registration Division Namaqualand, Northern Cape Province, in extent 220,6597 hectare, known as Snels Kopms;

Appendix 2: Stakeholder participation

THE STAKEHOLDER PARTICIPATION PROCESS

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.

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 Namaqua National Park

The various stakeholder events and activities carried out during the process are summarized in tables 1 to 7.

STAKEHOLDER EVENTS AND ACTIVITIES

Informing registered stakeholders

All the stakeholders registered during the 2006 management plan revision process were informed (via e-mail and telephonically) of the SANParks intention to review the NNP management plan during the 2009/2010 financial year.

Stakeholder consultation: government and non-government

Table 1: *Organisations identified to participate in the management plan process.*

Identified international stakeholders	Conservation International,
Local government	Kamiesberg Municipality, Nama Khoi Municipality, Namakwa District Municipality
Provincial government	Northern Cape Provincial Government Departments: Tourism, Environmental Affairs and Conservation, Education, Agriculture, Arts and Culture.
National government	DWEA (Department of Water and Environment Affairs)
Park Forum	All members
Visitors to parks	Those registered on the database
Local residents / neighbours	Soebatsfontein, Kamieskoon and Komaggas, Hondeklipbaai, Spoegrivier
Land owners	Surrounding Farmers and communities, De Beers, Farmers Unions
Land claimants	Hondeklipbaai
Community organisations	Komaggas Boerevereniging
Media	Die Plattelander, Rooihaantjie, IDP Nuusbrief,
Research	Universities, SANBI, Geoscience
Education	Teachers, DoE, DTEC
Conservation organisations	SKEP, SANBI, CI, Strandveld Conservation Club, Cape Leopard Trust Foundation, (Wilderness Foundation)
NGO	Surplus peoples project,
Tourist associations	Kamiesberg Tourism Association, NDM, Toerismevereniging, Springbok Toerisme vereniging
Tour operators / guides	Tour guide association – Norman Featherstone, Lita Cole
Other	Mining houses (De Beers)

Registration as an interested and affected party

Table 2 *Stakeholders had the following opportunities to register as interested and affected parties.*

Mechanism to Register	Description	Date
1. Media Advertisements	Registration in response to advertisements in three national newspapers, one local newspaper and announcement on thecommunity radio station. - Sunday Times (English) - Rapport (Afrikaans) - City Press - Plattelander - Radio NFM (Community Radio)	 14/02/2010 14/02/2010 14/02/2010 19/02/2010 18-24/02/2010
2. National registration	At SANParks Head Office via e-mail, fax, telephone, post or via the internet	From 01/04/2009
3. Local registration	At Namaqua National Park. Registration forms were available at reception and were distributed by staff.	From 01/04/2009
4. Registration at meetings	Stakeholders were able to register at the desired state workshop and the public days.	27-28/05/2009 and 24-25/02/2010

Desired state workshop

Table 3 *The desired state workshop took place on 27 and 28 May 2009 and involved a range of stakeholders and SANParks specialists in the development of the desired state. This entails drawing up a vision for the park supported by high level objectives.*

Activities	Description
Invitations Park management, certain SANParks specialists and the Park Forum were invited.	
Desired State Workshop	The workshop took place on 27 and 28 May 2009 at the Kamieskroon Hotel.
Attendance:	23 participants (13 Stakeholders and 10 SANParks Staff) Representing the following constituencies: • Kamiesberg Local Municipality; • Provincial Dept Sports, Arts and Culture – Northern Cape Provence; • Surplus people project; • Conservation International; • Private Strandveld conservation club; • De Beers, Namaqualand; • South African National Biodiversity Institute; • Provincial Dept Tourism, Environment and Conservation - Northern Cape Provence; • CDW: Kamieskroon community; • SANParks.

Hierarchy of objectives workshop

Table 4 *The hierarchy of objectives workshop took place on 29 and 30 July 2009.*

Activities	Description
Invitations Park management and certain SANParks specialists were invited.	
Hierarchy of objectives and zonation workshops	The workshops took place on 29 and 30 July 2009 at the Kamieskroon Hotel
Attendance:	13 SANParks staff members participated representing the following departments: • Parks: Namaqua National Park; • Conservation services: scientific services (Cape Research Centre, Savanha ecosystem unit), people and conservation and park planning and development;

Focus group meetings

Table 5: *These are meetings called with constituencies that are essential in the Park Management Plan process.*

Group	Purpose	Attendants	Date
Park forum	To discuss the draft hierarchy of objectives.	12 individuals (4 SANParks staff members)	20/08/2009
Kommaggas community	To discuss various issues affecting the Kommaggas community.	6 individuals (1 SANParks staff member)	10/03/2010

Table6. Public days to allow comment on the Draft Management Plan

Venue	Date	Number of stakeholders that attended
Hondeklipbaai: Community Hall	24 February 2010	75 stakeholders attended and 24 comments were recorded.
Kamieskroon: Succulent Karoo Centre	25 February 2010	36 stakeholders attended and 26 comments were recorded.

Table 7: Dissemination of Documentation and Feedback to Stakeholders

Item	Action	Date
Dissemination of comment and response document	Emailed, mailed, faxed and delivered by hand where no contact details were supplied.	
Dissemination of finalised management plan	- The Plans will be available on the SANParks Website once approved by the Minister - They will be made available to registered stakeholders by email and post - Copies will be available from the park on request	

Appendix 3: Zoning

1. INTRODUCTION

The primary objective of a park zoning plan is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives. A zoning plan 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 Namaqua National Park was based on an analysis and mapping of the sensitivity and value of the park's biophysical, heritage and scenic resources; an assessment of the regional context; an assessment of the park's current and planned infrastructure and tourist products; and an assessment of the expansion plan for the park and its implication for use zoning. This was undertaken in an iterative and consultative process. This document sets out the rationale for use zones, describes the zones, and provides management guidelines for each of the zones. In addition to internal use zoning, the zoning plan also describes how the park interacts with the processes which control land use and activities in the Buffer Zones around national parks (e.g. Spatial Development Frameworks (SDFs) and municipal Integrated Development Plans (IDPs)). The Buffer Zones identify the area within which activities such as landuse change may have an influence on the park (current and future extent), describe responses at a strategic level, and serve to define the Buffer Zone in terms of the DEA Policy on Buffer Zones for National Parks and the SANParks Buffer Zone Policy.

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 comprising 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 socialise 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 overnight accommodation, 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-utilisation.

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 zoning of Namaqua National Park is shown in Map 4, and summarised in Table One.

The Zoning process and its linkage to the underlying environmental analysis

The park use zonation plan is a lean version of the Conservation Development Framework (CDF). The park use zonation is based on the same biodiversity and landscape analyses undertaken for a CDF. However, certain elements underlying the CDF may not be fully incorporated into the park use zonation. In particular, the park use zonation plan will usually not incorporate elements such as a full tourism market analysis. Typically the park use zonation approach is applied in smaller and developing parks such as Namaqua National Park, though the long term objective is to have a full CDF for all parks.

The zoning for Namaqua 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. This indicates that the zoning in this park was highly successful in including most of the environmentally sensitive and valuable areas into zones that are strongly orientated towards resource conservation rather than tourist use. 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. A very high (compared to some other parks) 90% of the park is covered by zones that are strongly conservation orientated in terms of their objectives (i.e. Remote, Primitive and Quiet), with just under 31% being in the most strongly conservation orientated zone (Remote). The correlation between the spatial distribution of environmentally sensitive habitats and the conservation orientated zones is very strong in this park, with the Remote zone containing almost 80% of the highly sensitive habitats even though it covers under 31% of the surface area. Encouragingly, almost 98% of the park's most sensitive habitats are contained in conservation orientated zones.

Remote Zone:
Characteristics:

This is an area retaining an intrinsically wild appearance and character, or capable of being restored to such, and is undeveloped and roadless. There are no permanent improvements or any form of human habitation. It provides outstanding opportunities for solitude with awe inspiring natural characteristics. If present at all, sight and sound of human habitation and activities are barely discernable and at far distance. The zone also serves to protect sensitive environments from development impacts and tourism pressure.

Visitor activities and experience:

Activities: Access is strictly controlled and on foot. Groups must be small, and can either be accompanied by a guide or unaccompanied. Several groups may be in area at the same time, but if necessary densities and routes should be defined so that no signs can be seen or heard between the groups. The principles of "Pack it in Pack it out" must be applied.
Interaction with other users: There is no interaction between groups. The numbers of groups within the area will be determined by the ability to ensure that there is no interaction between groups.

Zone	General Characteristics	Experential Qualities	Interaction between users	Type of Access	Type of activities	Type of Facilities	Conservation Objectives	Biophysical Conservation Objective	Aesthetics and Recreational Conservation Objective
REMOTE*	Retains an intrinsically wild appearance and character, or capable of being restored to such.	Solitude and awe inspiring natural characteristics	None to very low	Controlled access, only on foot for visitors	Hiking in small groups	Established footpaths where erosion may be a problem. Essentially undeveloped and roadless	Maintain the zone in as near to a natural state as possible with no impact on biodiversity pattern or processes. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimized.	The zone should be kept in as near to a natural state as possible with no impact on biodiversity pattern or processes. Deviation from a natural/pristine state should be minimized, and existing impacts should be reduced.	The area should be kept in a natural state, and activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace etc) should not be allowed.
PRIMITIVE	Generally retains wilderness qualities, but with basic self-catering facilities (concession facilities may be more sophisticated). Access is controlled. Provides access to the Remote Zone, and can serve as a buffer.	Experience wilderness qualities	Low	Controlled access. Accompanied or unaccompanied. Foot; 4x4 vehicles	Hiking; 4x4 drives; game viewing; horse riding	Small, basic, self-catering; or limited concessions with limited numbers (concession facilities may be more sophisticated); 4x4 trails; hiking trails	Maintain the zone in an almost completely natural state with little or no impact on biodiversity processes, and very limited and site specific impacts on biodiversity pattern. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimized.	The zone should be kept in an almost completely natural state, and deviation from a natural/pristine state should be small and limited to restricted impact footprints. Any facilities constructed in these areas, and activities undertaken here should be done in a way that limits environmental impacts. Road and infrastructure specifications should be designed to limit impacts.	The area should be kept in a natural state, and activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace etc) should be restricted and impacts limited to the site of the facility.
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 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.
HIGH INTENSITY LEISURE	The main characteristic is that of a high density tourist development node, with modern amenities, where more concentrated human activities are allowed.	Comfortable and sophisticated facilities while retaining a natural ambiance	High	Accessible by motorised transport (car/bus) on high volume transport routes, including delivery vehicles.	As above. Additional sophisticated infrastructure. Larger, organised adventure activities (orienteering, fun runs). Dining at restaurants.	High density tourist camps with modern amenities. Footpaths, transport systems, accommodation, restaurants, curio and refreshment stalls; education centres. High volume roads.	The zone needs to be managed to ensure that the overall objectives and purpose for proclamation of the park are not compromised by the very high levels of tourism activity and infrastructure that are accommodated within this zone. Activities and infrastructure in this zone should be managed to ensure there is a minimal effect on the surrounding natural environment.	The zone must retain a level of ecological integrity consistent with a protected area. The greatest level of deviation from a natural/pristine state is allowed in this zone, and it is accepted that damage to the biophysical environment associated with tourist activities and facilities will be inevitable, however no activities or infrastructure should be allowed which compromise the overall objectives and purpose for proclamation of the park.	The area should be managed to provide a relatively natural outdoor experience. Although, it is inevitable that the high visitor numbers, activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness etc), the aesthetics of the zone still need to be maintained in a sufficiently natural state to ensure that the overall objectives and purpose for proclamation of the park are not compromised.

Conservation objectives of the zone
The conservation objective is to maintain the zone in as near to a natural state as possible with no impact on biodiversity pattern or processes. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimized. The zone should be managed within the following specific objectives:

Biophysical environment: The zone should be kept in as near to a natural state as possible with no impact on biodiversity pattern or processes. Deviation from a natural/pristine state should be minimized, and existing impacts should be reduced.

Aesthetics and recreational environment: The area should be kept in a natural state, and activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace etc) should not be allowed.

Facilities:

Type and size: No facilities are provided. Should overnight facilities be required to serve this zone, these should be placed in the adjoining zones.

Sophistication of facilities: No facilities except self carried portable tents. Guidelines for washing, ablution and cooking must be defined according to the “Pack it in Pack” it out principles. Camping is permitted only at designated sites.

Audible equipment and communication structures: None.

Access and roads: Public access is non-motorized. Vehicular access and parking is provided in the adjoining Primitive zone. Established footpaths may be provided where erosion risks occur. Where required, limited unimproved management tracks are allowed within this zone.

Location in park:
In the park remote areas were designated in the mountainous eastern section of the park, in the dunefields, and also to protect much of the extremely sensitive Quartzfields. Remote areas were designated to include most landscapes with high environmental sensitivity and value within the current park..

Primitive zone:

Characteristics:

The prime characteristic of the zone is the experience of wilderness qualities with the accent on controlled access. Access is controlled in terms of numbers, frequency and size of groups. The zone shares the wilderness qualities of Wilderness areas and Remote zones, but with the provision of basic self-catering facilities and access. It also provides access to the Remote zone and Wilderness area. Views of human activities and development outside of the park may be visible from this zone.

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
Namaqua National Park			
Conservation orientated zones	Remote	30.9	78.6
	Primitive	58.2	19.1
	Quiet	0.3	0.0
Tourism orientated zones	Low Intensity Leisure	10.4	2.3
	High Intensity Leisure	0.3	0.0

This zone has the following functions:

- It provides the basic facilities and access to serve Wilderness Areas and Remote zones.
- It contains concession sites and other facilities where impacts are managed through strict control of the movement and numbers of tourists, for example all tourists are restricted to concession safari vehicles.
- It serves as a buffer to the fringe of the park and other zones, in particular Wilderness and Remote.
- It serves to protect sensitive environments from high levels of development.

Visitor activities and experience:

Activities: Access is controlled in terms of numbers, frequency and size of groups. Activities include hiking, 4x4 drives and game viewing. Access is controlled either through only allowing access to those with bookings for specific facilities, or alternatively through a specific booking or permit for a particular hiking trail or 4x4 route. Several groups may be in area at the same time, but access should be managed to minimize interaction between groups if necessary.

Interaction with other users: Interaction between groups of users is low, and care must be taken in determining the number and nature of facilities located in the area in order to minimize these interactions.

Conservation objectives of the zone:

The conservation objective is to maintain the zone in an almost completely natural state with little or no impact on biodiversity processes, and very limited and site specific impacts on biodiversity pattern. Existing impacts on biodiversity either from historical usage or originating from outside the zone should be minimized. The zone should be managed within the following specific objectives:

Biophysical environment: The zone should be kept in an almost completely natural state from a biodiversity perspective, and deviation from a natural/pristine state should be small and limited to restricted impact footprints. Existing impacts should be reduced. Any facilities constructed in these areas, and activities undertaken here should be done in a way that limits environmental impacts. Road and infrastructure specifications should be designed to limit impacts.

Aesthetics and recreational environment: The area should be kept in a natural state, and activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace etc) should be restricted and impacts limited to the site of the facility. Ideally visitors should only be aware of the facility or infrastructure that they are using, and this infrastructure/facility should be designed to fit in with the environment within which it is located in order to avoid aesthetic impacts.

Facilities:

Type and size: Facilities are small, often very basic, and are distributed to avoid contact between users. Alternatively facilities designed for high levels of luxury, but limited visitor numbers can be accommodated here (e.g. controlled access private camps or concession sites).
Sophistication of facilities: Generally facilities are small, basic and self-catering, though concession facilities may be significantly more sophisticated.

Audible equipment and communication structures: None.

Access and roads: Vehicular access to facilities is limited to low-spec roads, often 4x4 only. Tourist and game viewing roads are 4x4 only. Established footpaths are provided to avoid erosion and braiding.

Location in Park:
In Namaqua NP, Primitive areas were designated to protect most of the remaining sensitive areas that were not incorporated into Remote zones from high levels of tourism activity. Primitive areas were designated around Remote zones to buffer them from higher use tourist areas and external impacts from outside the park. Primitive areas were also designated in relatively low sensitivity valleys to allow park management access, as well as tourist 4x4 activities on planned routes along existing tracks through the eastern mountains.

Quiet Zone:

Characteristics:
This zone is characterized by unaccompanie control and permits. Visitors are allowed unac foot, for a wide range of experiences. Large Primitive zone and contact between visitors is non motorized access. Larger numbers of visi frequent. It is important to note that this zone m and the CDF documentation for each park sho in some instances horses and mountain bike provide non motorized access within Low and l access roads.

Visitor activities and experience:

Activities: Hiking, canoeing, sailing, 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.

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. In lake and estuary areas, the Quiet zone implies that only non-motorized vessels will be allowed access.

Location in Park:
In Namaqua National Park, this zone is currently of limited extent, with Quiet areas being designated along the coast of the Groen-Spoeg section of the park. This is to allow and encourage non-motorised access to the coastal areas while preventing visitor vehicle use in the sensitive coastal dune cordon. This area is currently being actively rehabilitated to restore impacts associated with previous uncontrolled vehicular access to the coastline.

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 natural landscape. Access roads are low key, preferably gravel roads and/or tracks to retain as much wilderness ambiance as possible. Facilities along roads are limited to basic picnic sites with toilet facilities. In some parks, large busses and open safari vehicles are not permitted.

Visitor activities and experience:
Activities: Self drive motorized game viewing, picnicking, walking, cycling, hiking, and possibly rock climbing and 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 basic (including camping) camps of low to medium density (25-35 beds). Additional facilities can include swimming pools. Trails for 4x4 trails 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. In some parks, large busses and open safari vehicles are not permitted. 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:
In Namaqua NP, Low intensity leisure areas were designated along existing tourist access routes, along the potential corridor route and eastern access roads through to the Groen-Spoeg section, and most of the coastal sections of Groen-Spoeg. The numerous public roads which currently cut through the park were also zoned Low intensity leisure to accommodate currently unavoidable higher levels of activity, and recognize that they form part of the current access network of the park. The edges of the Low intensity leisure zones were defined in terms of landscape sensitivity and value (as well as topographic) constraints, with most high sensitivity landscapes being excluded from this zone.

High Intensity Leisure Zone:

Characteristics:
The main characteristic is that of a high density tourist development node with modern amenities such as restaurants and shops. This is the zone where more concentrated human activities are allowed. As impacts and particularly cumulative impacts are higher, such facilities should be placed on the periphery of the park. Staff not directly associated with tourism facilities should be accommodated outside of the park if possible. All industrial type facilities such as laundries, abattoirs, maintenance depots and workshops should ideally be located outside of the park within suitably zoned adjoining urban or rural areas. Accessible by motorized transport (Car/bus) on high volume transport routes. More concentrated activities occur here than in than Low Intensity leisure.

Visitor activities and experience:
Activities: Traditional game viewing routes with associated more sophisticated infrastructure, sight seeing at tourist destinations, picnicking, walking, cycling, rock climbing, hiking, adventure activities (orienteering, scuba diving, fun runs), activities associated with amenities such as dining in restaurants.

Interaction with other users: High

Conservation objectives of the zone:
The zone needs to be managed to ensure that the overall objectives and purpose for proclamation of the park are not compromised by the very high levels of tourism activity and infrastructure that are accommodated within this zone. Activities and infrastructure in this zone should be managed to ensure there is a minimal effect on the surrounding natural environment. The zone should be managed within the following specific objectives:

Biophysical environment objective: The zone must retain a level of ecological integrity consistent with a protected area. The greatest level of deviation from a natural/pristine state is allowed in this zone, and it is accepted that damage to the biophysical environment associated with tourist activities and facilities will be inevitable, however no activities or infrastructure should be allowed which compromise the overall objectives and purpose for proclamation of the park.

Aesthetics and recreational environment objective: The area should be managed to provide a relatively natural outdoor experience. Although, it is inevitable that the high visitor numbers, activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness etc), the aesthetics of the zone still need to be maintained in a sufficiently natural state to ensure that the overall objectives and purpose for proclamation of the park are not compromised.

Facilities:
Type and size: High density camps providing tourist accommodation with modern amenities. Restaurants, shops, education centres, botanical gardens. Day visitor sites are provide outside of main camps. Day visitor sites or picnic sites may provide catered facilities and kiosks. In some parks it may be necessary to provide high density recreational sites with a wide range of intensive activities (edutainment centres) close to the periphery of the park. Picnic sites, view sites, information centres, ablution facilities, parking areas, education centres etc. Staff villages and administrative centres restricted to core staff. Non essential staff housing, administration and industrial activities positioned outside of or peripheral to the park.

Sophistication of facilities: Moderate to high density facilities. Self catering and catered. These camps have modern facilities such as shops and restaurants.

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: The zone is highly motorized including busses and delivery vehicles on designated routes which are often tarred. Care must be taken to distinguish between roads that serve as high access delivery routes to camps, link roads between camps, and game viewing roads to minimize conflict between users.

Location in Park:
In Namaqua NP, High intensity leisure areas were designated around the main tourist precinct at Skilpad. An additional High intensity leisure zone was designated around the mouth of the Groen River to accommodate potential development of a coastal rest camp and management facilities.

Overview of the Special Management Overlays of Namaqua National Park:

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

Special Conservation Areas- Quartzfield Protection: The quartzfields with their high environmental sensitivity and value were identified as requiring special protection. These areas will be managed to prevent any loss of habitat as well as to mitigate any ongoing existing impacts.

Special Conservation Areas- Dune Protection: The sensitive mobile dunefield system in the Groen-Spoeg section requires special protection, as will be managed to minimize impacts on sediment transport processes.

Special Conservation Areas- Renosterveld Protection: The small Renosterveld area with its high conservation value is designated as a Special Conservation Area to prevent any loss of habitat.

Special Conservation Areas- Seal Protection: The potentially vulnerable seal colony was designated to protect it from any tourist and infrastructure related impacts.

Heritage Overlay- Cave Deposits: Important palaeo-environmental and archeological deposits in coastal caves were designated for special protection.

THE PARK BUFFER ZONE
This section describes how the park interacts with the processes which control land use and activities in the Buffer Zones around national parks (e.g. Spatial Development Frameworks (SDFs) and municipal Integrated Development Plans (IDPs)). The Buffer Zone section identifies the area within which activities such as landuse change may have an influence on the park (current and future extent), describes responses at a strategic level, and serves to define the Buffer Zone in terms of the DEA Policy on Buffer Zones for National Parks and the SANParks Buffer Zone Policy.

The current extent of Namaqua National Park is included in a conservation focused category in the land use maps included in the Spatial Development Frameworks (SDFs) of the local and district municipalities in which the park is located. These SDFs are the spatial components of municipal Integrated Development Plans (IDPs). The park interacts with the appropriate local government processes such as SDF and IDP development on an ongoing basis as part of the Bioregional Programme, in order to ensure that issues such as appropriate development of Buffer Zones around parks are also incorporated into proactive land use planning instruments such as SDFs and IDPs.

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.

The Namaqua National Park has three Buffer Zone categories (Map 5). The first two are mutually exclusive, but the final visual/aesthetic category can overlay the others.

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. Guidelines applicable for the Catchment Protection Section would also apply to these areas.

Catchment Protection:
These are areas important for maintaining key hydrological processes (surface and groundwater) within the park.

Development guidelines:
Within these areas inappropriate development such as dam construction, loss of riparian vegetation and excessive aquifer exploitation 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.

CURRENT STATUS AND FUTURE IMPROVEMENTS:

The current park use zonation is based on the same biodiversity and landscape analyses undertaken for a Conservation Development Framework (CDF); however certain elements underlying a CDF such as a tourism market analysis are not be fully incorporated into the park use zonation. A CDF will be developed for Namaqua NP once the park approaches its planned final extent. In the interim, as the park is expanding, it is anticipated that the zoning will need to be updated regularly.

Areas suitable for designation as Wilderness under NEMPA need to be identified, and their formal proclamation pursued where possible.

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

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Appendix 4: Maps

Map 1: Regional Context

Map 2: Physical Features

Map 3: Land tenure and Park Expansion

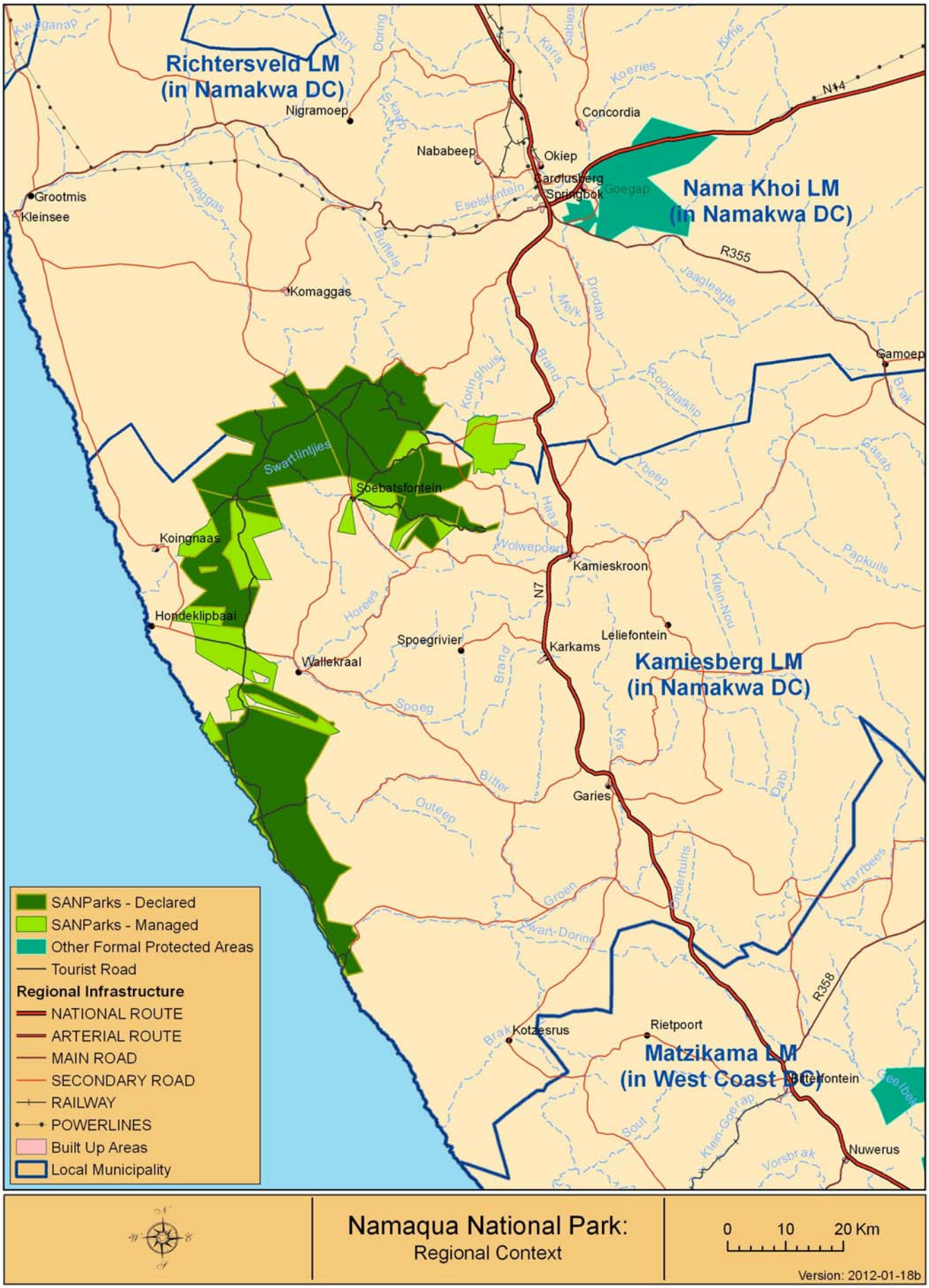
Map 4: Zoning

Map 5: Zoning with Sensitivity Value

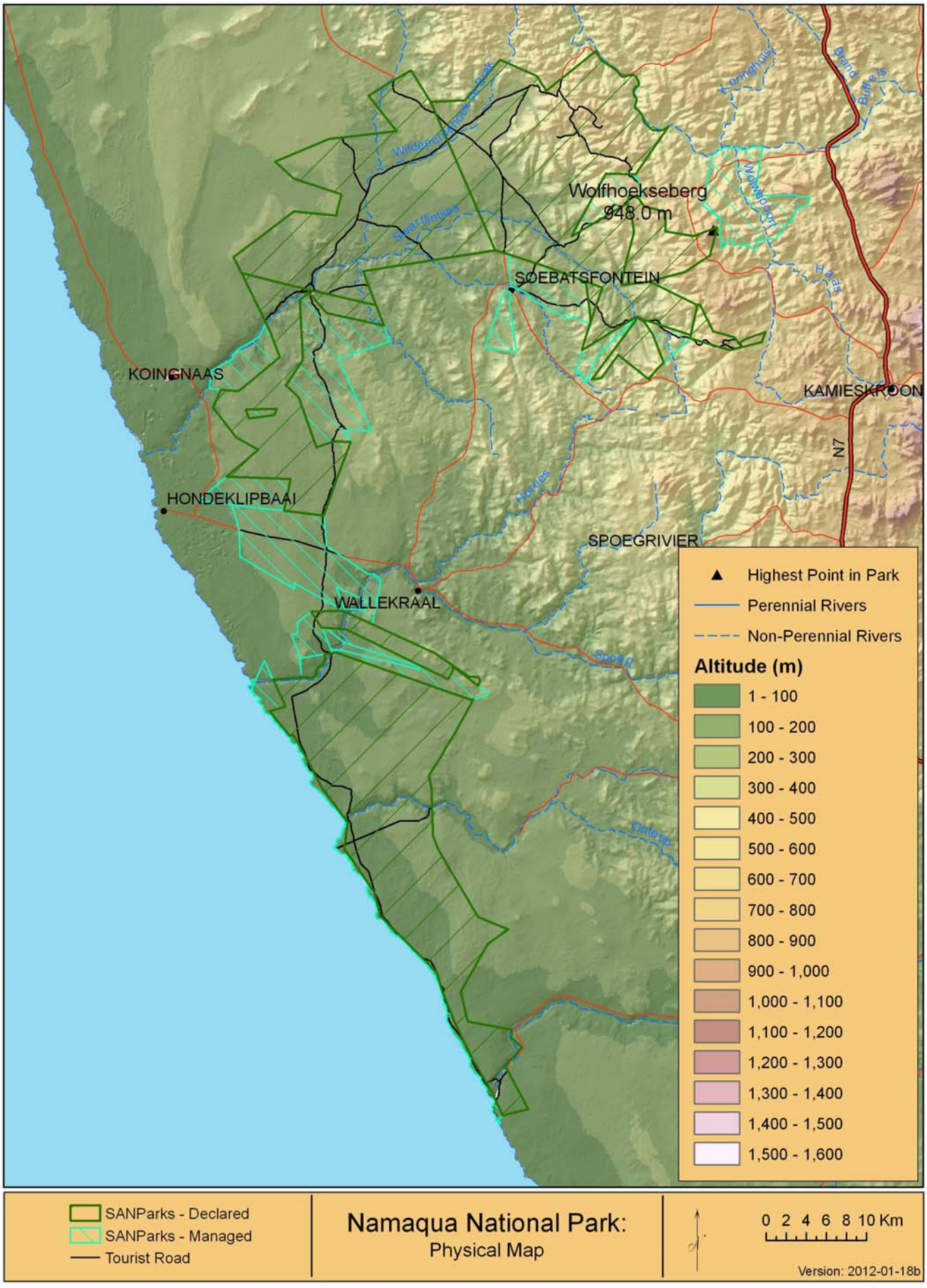
Map 6: Buffer Areas

Map 7: Infrastructure and Development

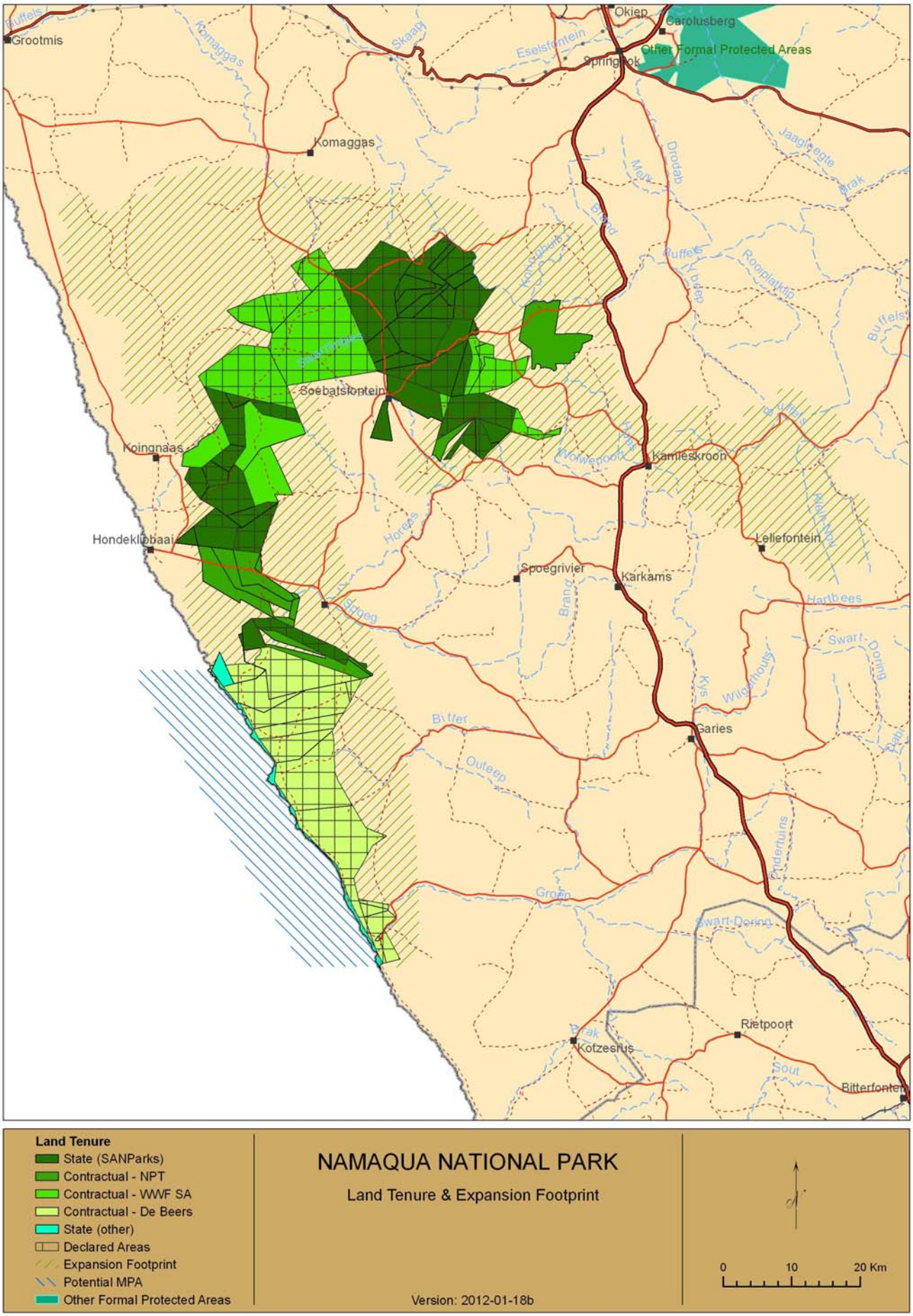
Map 8: Vegetation



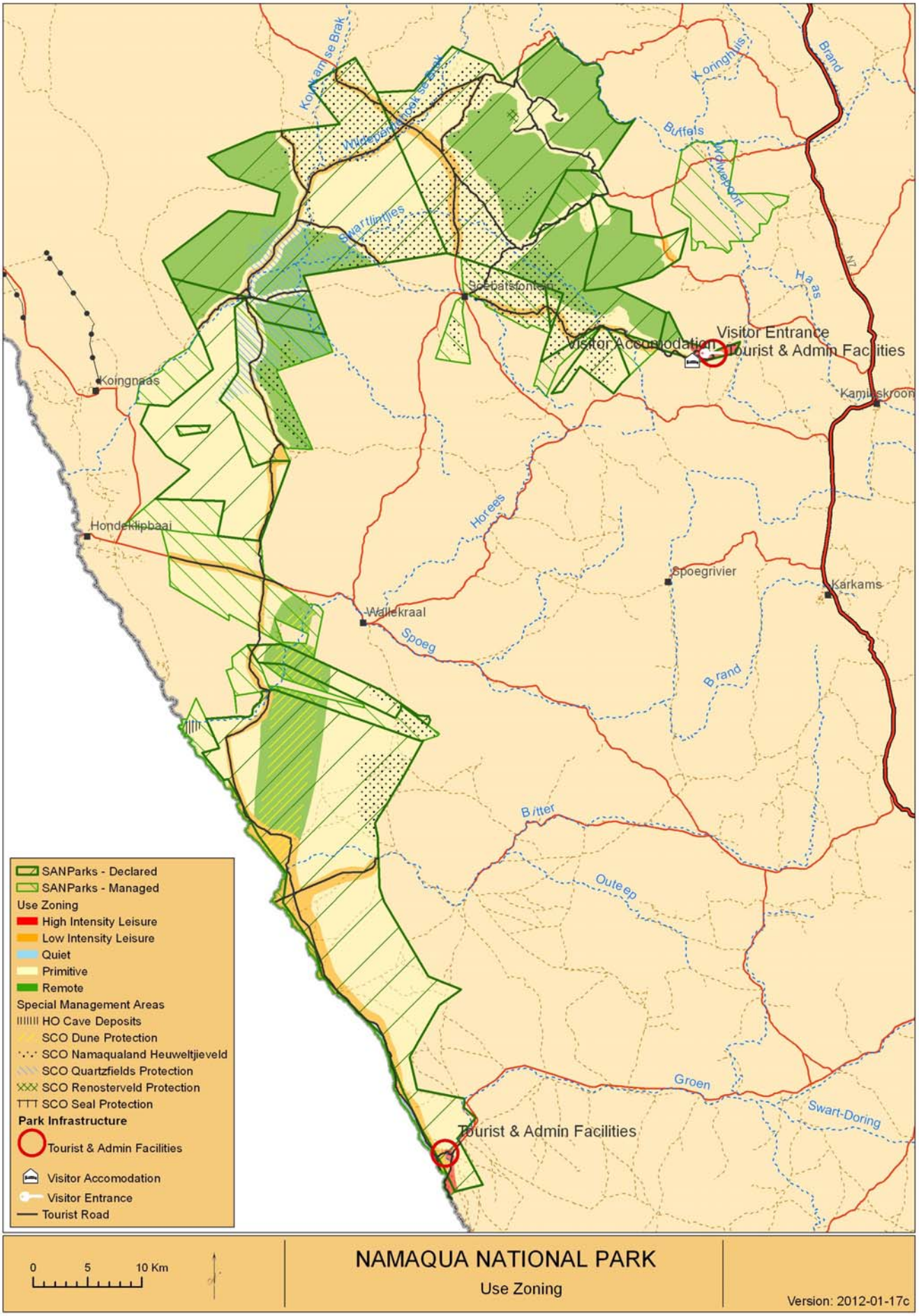
Map 1: Regional Context



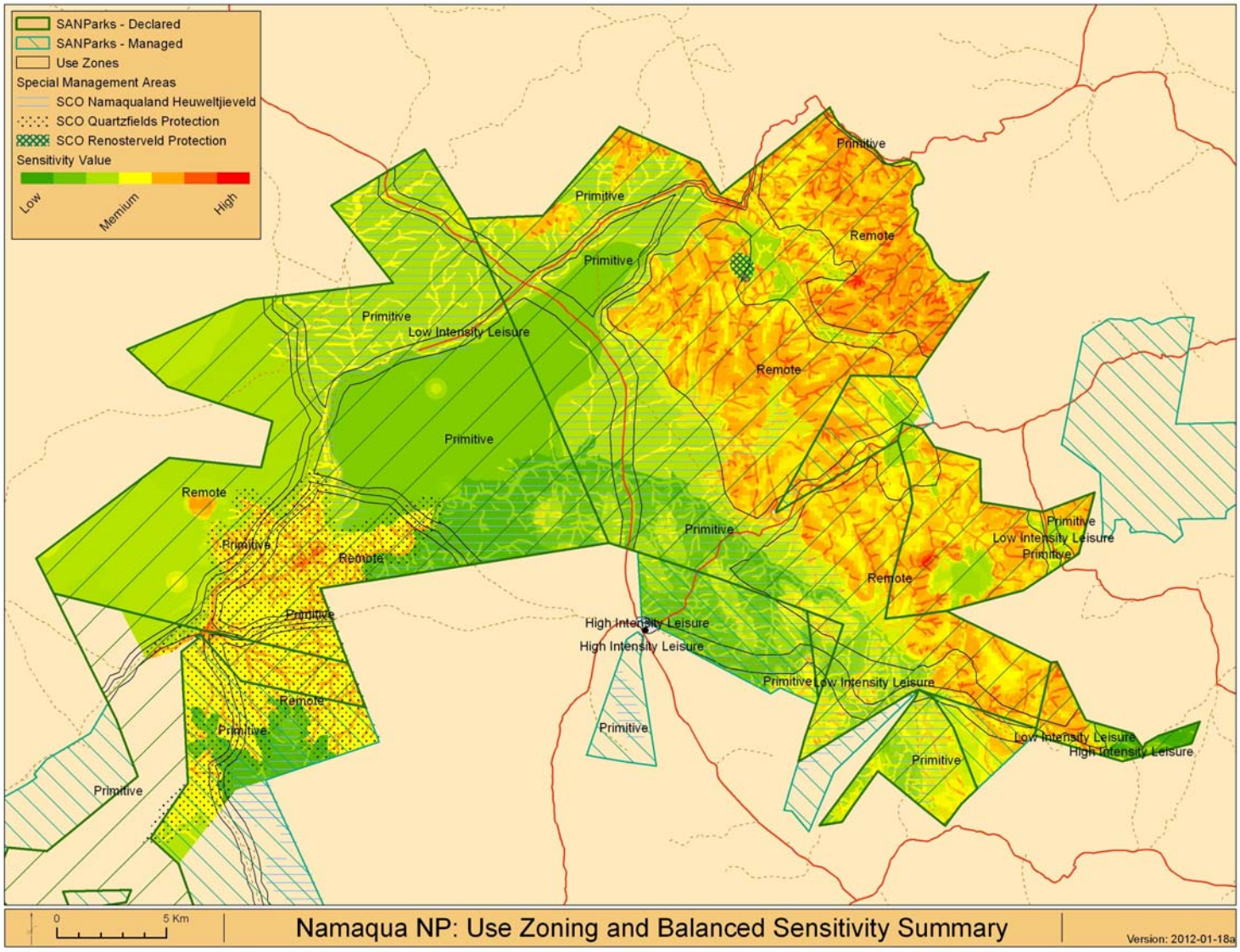
Map 2: Physical Features



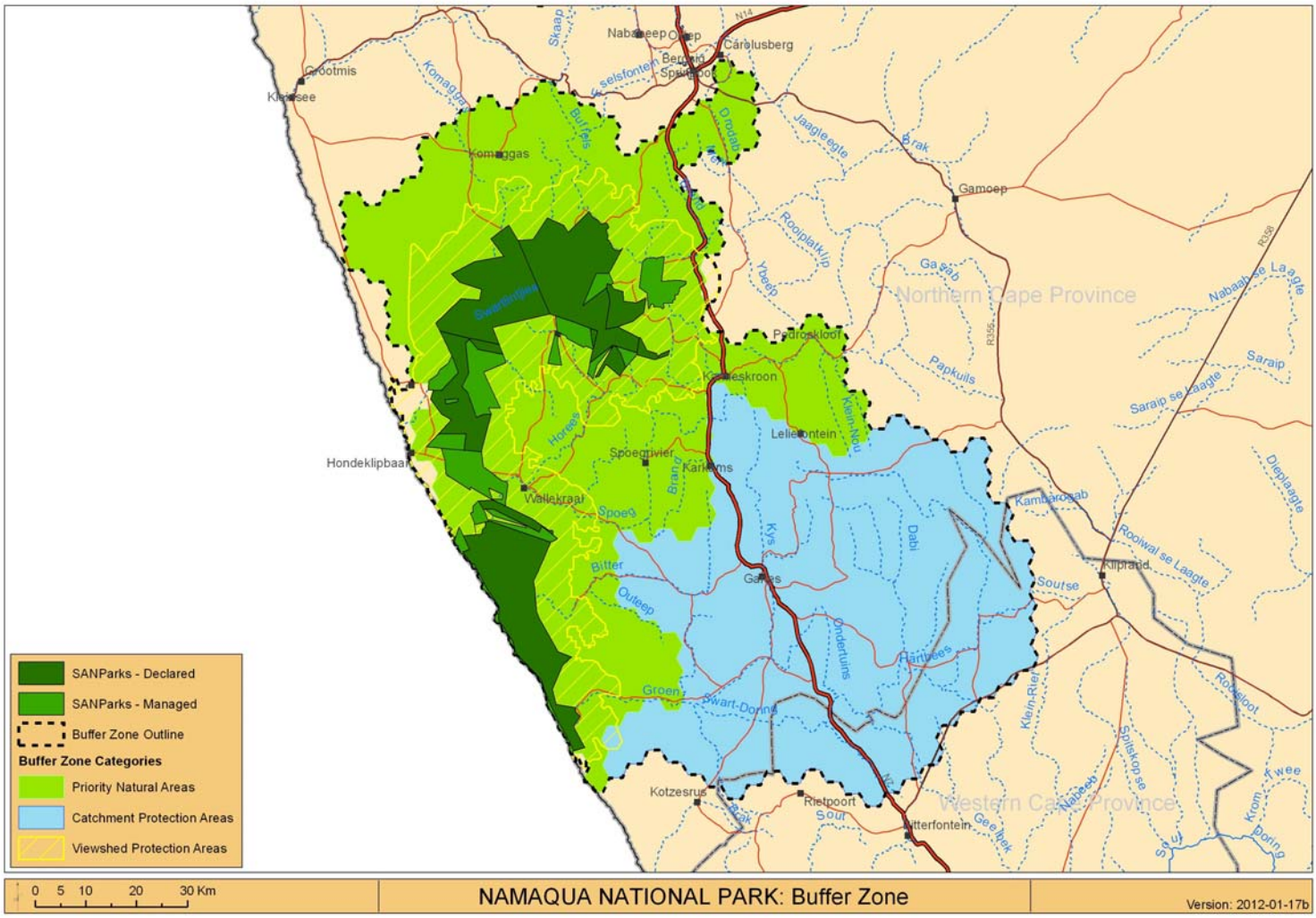
Map 3: Land Tenure and Potential Expansion


Koringhuis
Brand
Buffels
Swartlintjies
Haas
N7
Visitor Entrance
Visitor Accomodation
Tourist & Admin Facilities
Koingnaas
Kamieskroon
Hondeklipbaai
Horees
Spoegrivier
Karkams
Wallekraal
Spoeg
Brand
Bitter
Outeep
Groen
Swart-Doring
SANParks - Declared
SANParks - Managed
Use Zoning
High Intensity Leisure
Low Intensity Leisure
Quiet
Primitive
Remote
Special Management Areas
HO Cave Deposits
SCO Dune Protection
SCO Namaqualand Heuweltjieveld
SCO Quartzfields Protection
SCO Renosterveld Protection
SCO Seal Protection
Park Infrastructure
Tourist & Admin Facilities
Visitor Accomodation
Visitor Entrance
Tourist Road
0 5 10 Km
NAMAQUA NATIONAL PARK
Use Zoning
Version: 2012-01-17c

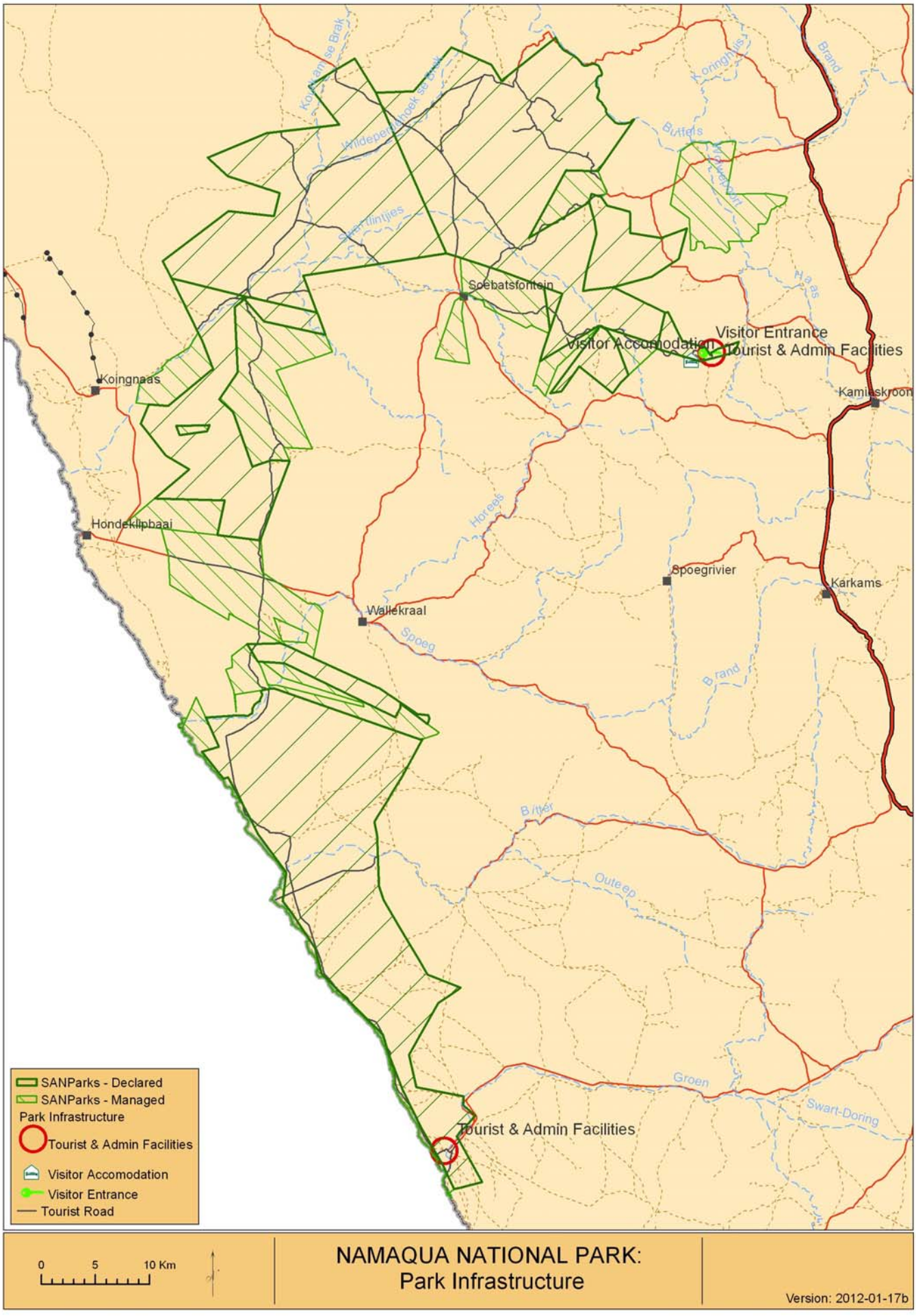
Map 4: Zoning



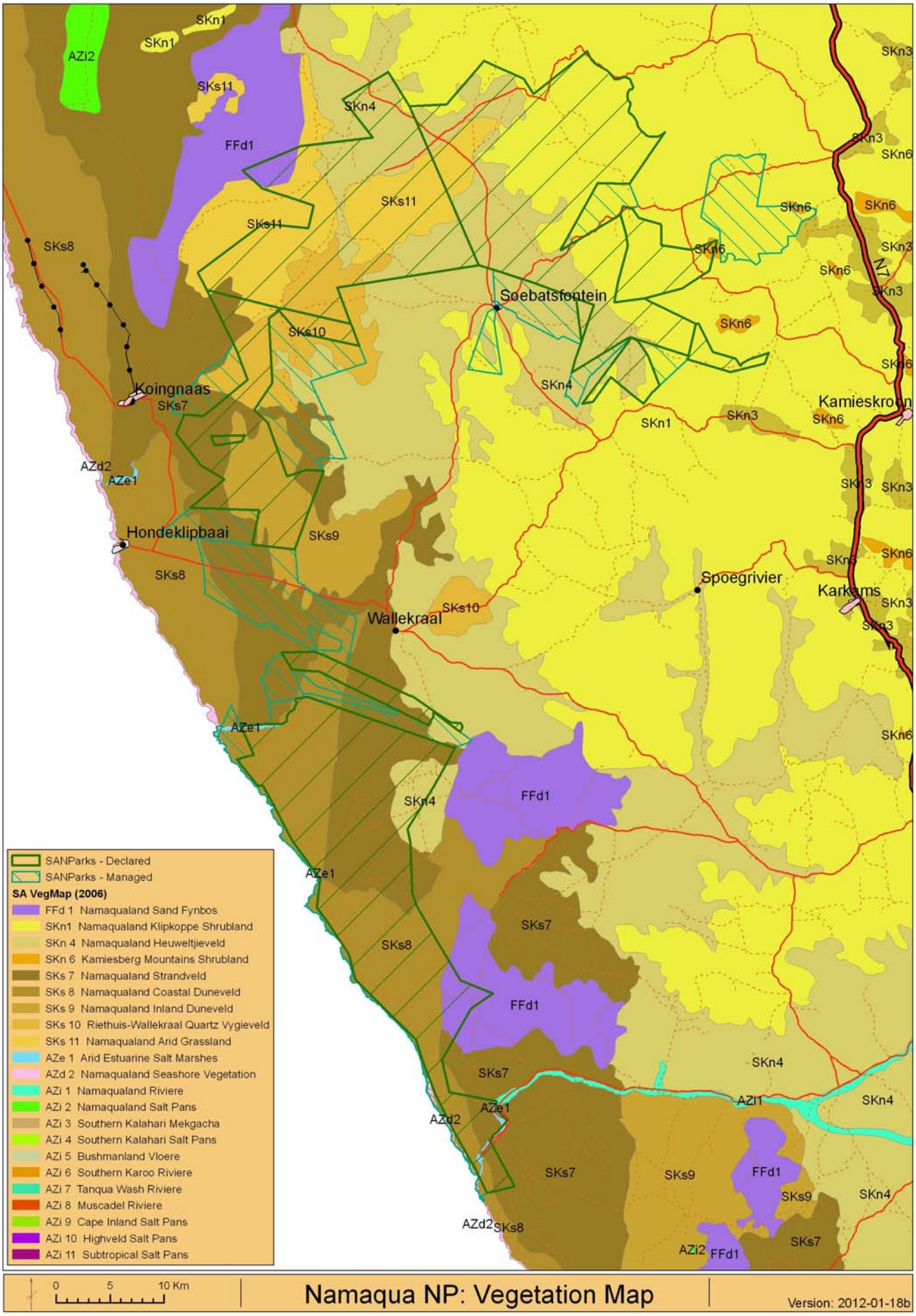
Map 5: Zoning and Balanced Sensitivity



Map 6: Buffer Zone



Map 7: Park Infrastructure



Map 8: Vegetation