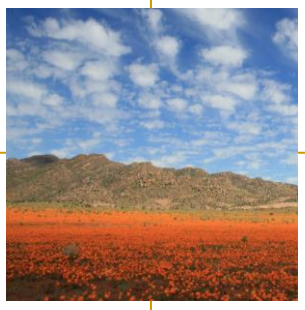
South African
NATIONAL PARKS

Namaqua National Park

Park Management Plan

For the period 2024 - 2033





Acknowledgement

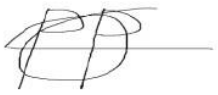
This plan was prepared by Mr André Spies, with significant input and help from Mr Trevor Adams, Dr Hugo Bezuidenhout, Mr Nicholas Cole, Mr Ernest Daemane, Ms Fahiema Daniels, Ms Pheladi Chuene, Mr Giel de Kock, Mr Zishan Ebrahim, Ms Ruth-Mary Fisher, Dr Wendy Foden, Dr Marna Herbst, Mr Thabo Kgomommu, Dr Alison Kock, Ms Priscilla Magerman, Ms Shannon Manuel, Ms Kristal Maze, Mr Lucius Moolman, Ms Elizabeth Mhlongo, Dr Ané Oosthuizen, Mr Oscar Osberg, Mr Piet Schreuder, Mr Russel Smart, Mr Trinity Tshisevhe, Dr Nicola van Wilgen-Bredenkamp, Ms Natasha Wilson and various stakeholders.

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Section 1: Authorisation

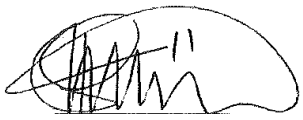
This management plan is hereby internally accepted and authorised as required for managing the NNP in terms of Sections 39, 40 and 41 of the National Environmental Management: Protected Areas Act No. 57 of 2003 (NEM: PAA).



Ms. P.P. Chuene
Park Manager: Namaqua National Park — Date: 01 July 2023



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Chair: SANParks Board — Date:

Approved by the Minister of Environment, Forestry and Fisheries

Ms. B.D. Creecy, MP
Minister Forestry, Fisheries and the Environment — Date:

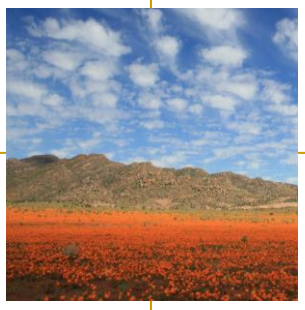
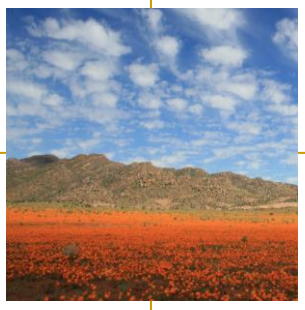


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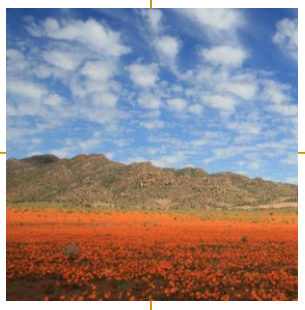
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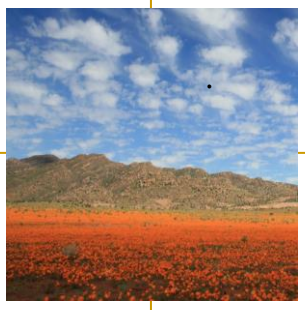
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Glossary

Climate change	Any significant long-term change in the expected pattern of temperature, precipitation, wind and/or other measures of climate in a particular region, as a result of changes in the earth's atmosphere.
Climate change adaptation	Anticipating the negative effects of climate change (e.g. uncertain rainfall, increased temperatures) and taking appropriate action to reduce vulnerability, i.e. preventing or minimising the damage of predicted change, or taking advantage of opportunities that may arise.
Contractual park	An area declared as National Park through the Minister, which contributes to the objectives of a National Park, but of which SANParks is not the landowner. Contractual National Park agreements and/or co-management agreements are signed, and SANParks may be assigned to be part of a joint management authority through a range of possible institutional arrangements.
Desired state	The park desired state is based on a collectively developed vision and set of objectives of the desired future conditions (that are necessarily varying, across the full V-STEEP range) that stakeholders desire.
Interpretation	Interpretation is the communication of information about, or the explanation of, the nature, origin, and purpose of historical, natural, or cultural resources, objects, sites and phenomena using personal or non-personal methods.
MICE	Meetings, Incentives, Conferences and Events. Used to refer to all function types available.
Mission	An articulation of the Vision that describes why the park exists and its overall philosophy on how to achieve its Vision.
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.
Responsible tourism	Tourism that maximises benefits to local communities, minimises negative social or environmental impacts, and helps local people conserve fragile cultures, habitats and species.
Servitude	A servitude refers to a registered right that an entity / person has over the immovable property of another. It allows the holder of the servitude to utilise the other person's property, which may infringe upon the rights of the owner of that property.
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 the National Environmental Management: Biodiversity Act, (Act No. 10 of 2004) (NEM: BA).
Strategic adaptive management	Strategic adaptive management integrates research, planning, management and monitoring in repeated cycles of learning how to better define and achieve goals. Built on the assumption that natural systems are complex, our knowledge is imperfect, but we can learn from purposeful goals and actions.
Universal access	Refers to the design of products, devices, services, or environments to cater for people with disabilities.

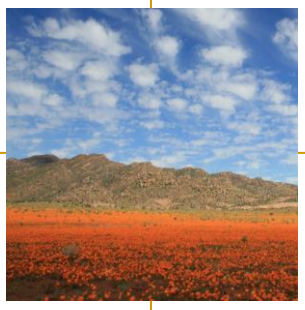
Vision	A word ‘picture’ of the future, or what the stakeholders see as the desired long-term future for the park.
Vital attributes	Unique or special characteristics of the park, the determinants which management should strive to protect, and the threats which management should strive to minimise.
V-STEEP	The values (social – including cultural heritage, technological, ecological, economic 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 aspects provide context and are used to develop a broadly acceptable vision for the future.



Acronyms and abbreviations

1	AMSL	Above Mean Sea Level
2	AO	Administration Officer
3	BDU	Business Development Unit
4	BSC	Balance Scorecard
5	BSP	Biodiversity Social Projects
6	CBA	Critical Biodiversity Area
7	CBD	Convention on Biological Diversity
8	CDF	Conservation Development Framework
9	CML	Coastal Management Line
10	CPA	Communal Property Association
11	CPF	Co-ordinated Policy Framework
12	CRMF	Corporate Risk Management Framework
13	CSI	Corporate Social Investment
14	DEA	Department of Environmental Affairs
15	DEAT	Department of Environment Affairs and Tourism
16	DFFE	Department of Forestry, Fisheries and the Environment
17	EC	Electric Conductivity
18	EEA	Environmental Education and Awareness
19	EIA	Environmental Impact Assessment
20	EM	Environmental Monitor
21	EPWP	Expanded Public Works Programme
22	FEPA	Freshwater Ecosystem Priority Area
23	GEF	Global Environment Facility
24	HIL	High Intensity Leisure
25	HOD	Head of Department
26	IAP	Invasive and Alien Plants
27	IAS	Invasive and Alien Species
28	IDP	Integrated Development Plan
29	IUCN	International Union for Conservation of Nature
30	km	Kilometre
31	KLM	Kamiesberg Local Municipality
32	LIL	Low Intensity Leisure
33	LLP	Lower-level Plan
34	LUMS	Land-use Management Scheme
35	MEC	Member of the Executive Council
36	METT	Management Effectiveness Tracking Tool
37	MPA	Marine Protected Area
38	NDM	Namaqua District Municipality
39	NGO	Non-Governmental Organisations
40	NKLM	Nama Khoi Local Municipality
41	NBSAP	National Biodiversity Strategy and Action Plan
42	NEMA	National Environmental Management Act (Act No. 107 of 1998)
43	NEM: BA	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
44	NEM: ICMA	National Environmental Management: Integrated Coastal Management Amendment Act (Act No. 36 of 2014)
45	NEM: PAA	National Environmental Management: Protected Areas Act (Act No. 57 of 2003)
46	NHRA	National Heritage Resources Act (Act No. 25 of 1999)
47	NNP	Namaqua National Park

48	NPTSA	National Parks Trust of South Africa
49	NTSS	National Tourism Sector Strategy
50	OHS	Occupational Health and Safety
51	PFMA	Public Finance Management Act (Act No. 1 of 1999)
52	PM	Park Manager
53	PoE	Portfolio of Evidence
54	PPD	Park Planning and Development
55	PPP	Public Private Partnership
56	RCM	Regional Communication Manager
57	RMM	Regional Marketing Manager
58	RT	Responsible Tourism
59	SAHRA	South African Heritage Resources Agency
60	SAM	Strategic Adaptive Management
61	SANParks	South African National Parks
64	SANS	South African National Standard
65	SDF	Spatial Development Framework
66	SED	Socio-Economic Development
67	SET	Socio-Economic Transformation
68	SHR	SANParks Honorary Rangers
69	SHEQ	Safety, Health, Environment and Quality
70	SMME	Small, Medium and Micro Enterprise
71	SoAIM	State of Area Integrity Management
72	SOP	Standard Operating Procedure
73	SR	Section Ranger
74	SSR	Senior Section Ranger
75	SS	Scientific Services
76	SSC	Species and Habitats of Special Concern
77	TM	Tourism Monitor
78	TPC	Threshold of Potential Concern
79	V-STEEP	Values - Social, Technological, Ecological, Economic and Political
80	WfE	Working for Ecosystem
81	WfW	Working for Water
	WWF-SA	World Wildlife Fund South Africa



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Executive summary

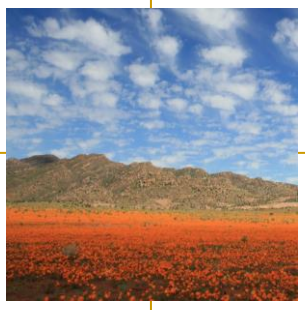
In compliance with the NEM: PAA, SANParks is required to develop a management plan for each of its protected areas. The objective of a management plan is to ensure the protection, conservation and management of the protected area concerned in a manner which is consistent with the directive of the NEM: PAA and for the purpose for which it was declared. During the revision of the current management plan for the park, SANParks has reviewed the biodiversity conservation, Responsible Tourism (RT) and socio-economic components that make up its core business, whilst ensuring increased emphasis on strengthening stakeholder relationships and communication, continual learning, adaptive management and good governance.

An important objective for SANParks is to promote responsible experiential opportunities and products for visitors to appreciate and value national parks. Whilst the primary mandate of SANParks is the conservation of biodiversity, it also recognises that RT offers SANParks the best possible opportunity to supplement much needed funding for operational needs but also provides South Africa with an internationally recognised nature-based tourism destination of choice, further constituting an economically and culturally valuable asset to the region in which it occurs.

The desired state of the park is based on its vision, mission, vital attributes and objectives, whilst fully acknowledging that the park is embedded within a broader land-use mosaic. It encompasses the characteristic biodiversity components, including ecosystem services, processes and associated cultural, historical and scenic features, while facilitating the sharing of benefits with the neighbouring communities, creating a range of consumptive and non-consumptive benefits such as job opportunities, other forms of income generation, access to resources and other opportunities, while remaining informed and constrained by its biodiversity values. Programmes to achieve the desired state fall within eight categories, i.e. Regional Integration, Biodiversity Conservation, RT, Cultural Heritage, Stakeholder Engagement, Access and Benefits and Effective Park Management.

The focus on integrated land-use over the next ten years will seek to deliver on the consolidation and development of the park in pursuit of resilient ecosystems and the protection of cultural and historic heritage associated with the park. Major focus will also be placed on sustainable ecosystem services and the unlocking of socio-economic benefits, as well as to strengthen the park's position as a drawcard for tourism in the region and the unlocking of the tourism potential within a consolidated park. Equally important will be the emphasis placed on stakeholder engagement to improve communication, co-operation and mutually beneficial relationships with communities and all spheres of government where applicable. Simultaneously the park will strive to improve access to the park and diversify benefits in the region resulting from the park's existence in the Namaqualand region. Heritage tourism opportunities, including natural and cultural, have been identified and the park will endeavour to improve the current products and activities, while also aiming to launch new and upgraded products and activities within the next ten years.

The first management plan for the park was submitted to and approved by the Department of Environment Affairs and Tourism (DEAT) in 2008. The first revised management plan was approved by the Department of Environmental Affairs (DEA) in 2013. This second review builds on the foundation of the previous plans and seeks not only to improve it but also to ensure that it remains relevant in a continually changing society. The layout of the plan follows the format provided in the guideline drawn up by the DEA (Cowan & Mpongoma, 2010), whilst also incorporating the adaptive planning process adopted by SANParks. Stakeholders from local and district municipalities, other organs of state, traditional authorities, local and metropolitan areas were consulted through public meetings, focus groups meetings, and written inputs (see Appendix 4).



Introduction

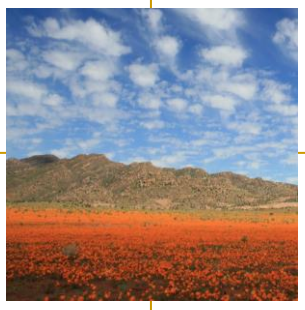
This Management Plan will provide the broad strategic and operational framework for the management of the park, thereby ensuring the protection of the SANParks values and achievement of the goals and objectives of the park within the context of the broader regional landscape over the next 10 years. The plan serves as the key driving document and 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, programmes at strategic and operational levels and costing.

This Management Plan will come into effect following the approval by the Minister of the Department of Forestry, Fisheries and the Environment (DFFE) in terms of sections 39, 40 and 41 of the NEM: PAA. It is intended to be implemented over a timeframe of 10 years after commencement but may be replaced earlier by a subsequently approved plan. SANParks will review this plan no later than 10 years after the commencement date.

The plan contains the following sections**:**

- **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, and 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 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; and
- **Appendices** to this plan contain further details such as declarations, stakeholder participation report, park development framework, internal rules and maps.

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Section 2: Legal status

2.1 Name of the area

The Namaqua National Park (NNP) was declared on 29 June 2001 (Government Notice 578 in Government Gazette 22414 dated 29 June 2001). A full list of the declarations appears in Appendix 1.

2.2 Location

The park is situated in the Namaqualand region of the Northern Cape Province of South Africa, and stretches from the Groen- and Spoegriviere on the Atlantic Ocean to just west of the town Kamieskroon, which is 495 kilometres (km) north of Cape Town (Appendix 7, Map1).

2.3 History of establishment

In 1988 the World Wildlife Fund South Africa (WWF-SA) purchased a section of the farm Skilpad, roughly about 930 hectares in size and started managing it as the Skilpad wildflower reserve. Further farms were purchased by WWF-SA in the following years and in 1998 SANParks was appointed as the management authority and took over the management of the reserve which was renamed the NNP in 1999.

In August 2000 the park began its Global Environment Facility (GEF) funded project, implemented through the World Bank, which aimed at developing infrastructure, doing refurbishments and implementing a social ecology strategy to build relationships with other role players within the landscape.

In 2002 the park was officially declared, social ecology initiatives and poverty alleviation projects were launched, the caracal research project begun, and the park implemented its first environmental education campaign.

Land consolidation continued and following the rising conflict with commercial farmers around the caracal predation of lambs, the park introduced an innovative caracal research project to build relationships and search for mutually beneficial solutions. This eventually evolved into a highly successful Anatolian sheepdog breeding programme and the introduction of the dogs into the landscape in partnership with farmers.

By 2003 land acquisition had reached 72,000 ha and some of the expansion focus shifted to extend the park to the coast. This would in essence secure the rainfall, altitudinal and temperature gradients within the park, thus specifically catering to mitigate the impacts of global climatic change.

By 2005 the corridor to the coast was well underway with negotiations with the De Beers Group to investigate the acquisition of farms from them and by 2008 the Groen-Spoeg coastal corridor was subsequently included into the park.

In 2010 the De Beers properties were proclaimed as part of the park. The coastal area between the Groen- and Spoegriviere was incorporated to expand the park to include more succulent habitats and a coastal section.

Between 2010 and the present, land inclusion continued but was now focussed on consolidating key outstanding properties based on opportunities arising and farmer willingness to sell. The jigsaw puzzle of the park is almost complete, and it remains the first National Park to be specifically designed to mitigate the impacts of global climate change.

2.4 Contractual agreements

A contractual inclusion refers to private land declared as National Park in terms of Section 20(1) of NEM: PAA, in which the landowner has consented to by way of written agreement with the Minister or SANParks, in terms of Section 20(3) of NEM: PAA. Contractual inclusions remain one of the options available for communities, private landowners and state entities to become part of the park and to improve the ecosystem services and connectivity of the park, whilst contributing to other core functions such as RT, socio-economic benefits and management considerations e.g. safety and security, invasive and alien species management and countering other risk factors. In this regard the De Beers Group, National Parks Trust of South Africa (NPTSA) and WWF-SA have acquired land for inclusion into the park. As per the notarial lease agreements, these land parcels are fully managed by SANParks. Appendix 3 provides a summary of the land parcels that have contractually been included into the park.

2.5 Co-management agreements

As of 2024, no co-management agreements have been entered into.

2.6 Total area

The park is currently 159,112.7884 ha in size of which 134,661.6590 ha are declared whilst 24,451.1294 ha are in the process of being declared (Appendix 7, Map 3).

2.7 Highest point

The highest point in the park is Rondekop at 1,055 m (3,460 feet) above mean sea level (AMSL). The latter is of note, for the airspace above the park up to 2,500 feet above the highest point, as per legislation (NEM: PAA S47), is also deemed national park (Appendix 7, Map 2). Therefore, the park's airspace ranges from ground level to 5,960 feet AMSL.

2.8 Municipalities within which the park falls

The park is situated within the following district and local authority boundaries:

- Namaqua District Municipality (NDM);
- Kamiesberg Local Municipality (KLM); and
- Nama Khoi Local Municipality (NKLM).

2.9 Land claims

Three properties inside the park were claimed by 56 households from the Hondeklipbaai community in 1998. The claimants agreed to relinquish their claim in lieu of financial compensation as the alternative form of settlement. SANParks also donated portion 3 (a portion of Portion 2) of the Farm Graskom No 483, in extent of 408.5175 ha. The proposal for both financial compensation and donation of land was approved by SANParks in 2017, and the claimants were required to register a Communal Property Association (CPA) with the Land Claims Commission for the land claim to be finalised. The process to establish the CPA is still in progress. No further properties have been claimed inside the park.

2.10 International, national and provincial listings

None.

2.11 Environmental authorisations

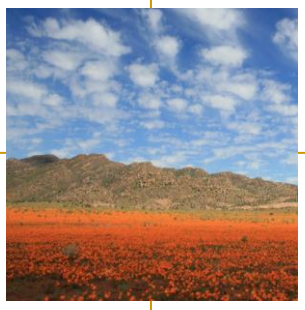
No environmental authorisation has been issued.

2.12 Biophysical description

2.12.1 Climate

2.12.1.1 Historic

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 consistent rainfall patterns (Cowling



& Pierce, 1999). The average annual rainfall measured over 15 years in the Skilpad section, 700 m above sea level, is 340 mm. The average at Soebatsfontein, just beyond the park's southwestern boundary, is 140 mm per annum (Desmet, 1996). The Namaqualand coastal duneveld has a mean precipitation of below 100 mm annually (Mucina & Rutherford, 2006). Average high temperature in summer is around 30°C, with maximum summer temperatures around 40°C and minima averaging around 16°C, although temperatures can drop below 10°C on cold summer days (based on data from Springbok and Lovegrove, 1993). Winters are cool, with temperatures averaging between 8 and 17°C daily, while temperatures around or just below 0°C are recorded occasionally. The overall mean annual temperature of the biome of 16.8°C indicates a warm-temperate climate regime (Mucina & Rutherford, 2006). Snowfall 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 & Pierce, 1999). The wind in winter is usually from the east, which can turn to a cold northwesterly with the approach of a frontal system. In summer, the wind is predominantly from the south or east.

2.12.1.2 Future

While data have not been available to analyse trends in rainfall and temperature, data from other parts of the Succulent Karoo show significant increases in temperature of more than 1°C over the past 50 years (van Wilgen *et al*., 2016). Future increases in mean annual temperature of between 1.2°C (best case), 1.8°C and 2.4°C (worst case) are predicted by 2050 for the area (Driver *et al*., 2012; DEA, 2013). Rainfall trends are less clear, with no clear pattern in data from Kamieskroon. It is however possible that fronts may shift their distribution, influencing the timing and frequency of rainfall. The general prediction for climate change projects more erratic rainfall, with higher occurrence of extreme events such as floods and droughts. In addition, surface and groundwater are expected to be impacted by higher evaporation rates that result from increased temperatures. Despite such changes, the climate within the park is predicted to remain within the bounds of what is currently observed for the Succulent Karoo, although earlier climate change predictions saw this biome being worst off. Individual species are still likely to be at risk as a result of the changes predicted (van Wilgen & Herbst, 2017).

Changes in the marine environment could also have profound effects on land. The cold, nutrient rich Benguela current runs up the west coast of South Africa, while the warm, nutrient poor Agulhas current runs down the east coast. A stronger warm Agulhas current would result in wind changes that increase the upwelling of nutrient rich cold water (van Wilgen & Herbst, 2017). In fact, the inshore sea surface temperature along the west coast has been observed to be getting colder due to this and related processes. These two currents have major impacts on the circulation of heat and nutrients in the oceans globally. They also affect atmospheric pressure systems that determine air movements, rainfall, wind speed and wind direction (Scholes *et al*., 2015). Therefore, any changes in temperature and chemical composition of the water in these currents can change the way in which they flow and the dynamics of associated wind and rainfall over the oceans and adjacent land. Current observations and generic predictions for the South African coast include a cooling west and south coast and a warming east coast (Scholes *et al*., 2015; van Wilgen & Herbst, 2017). These changes in turn have profound impacts on the distribution and life cycle of species dependent on the oceans, and therefore also on people and animals that rely on these marine resources (Potts *et al*., 2015; van Wilgen & Herbst, 2017).

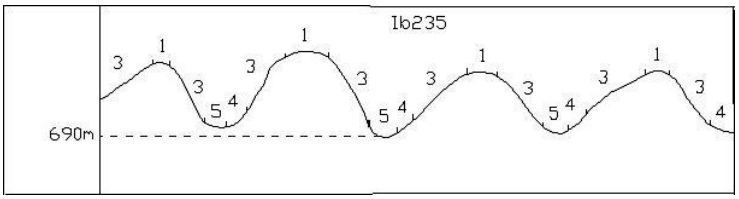
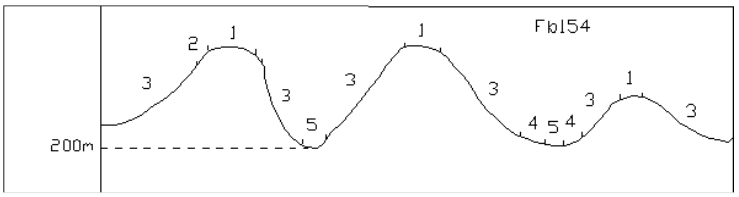
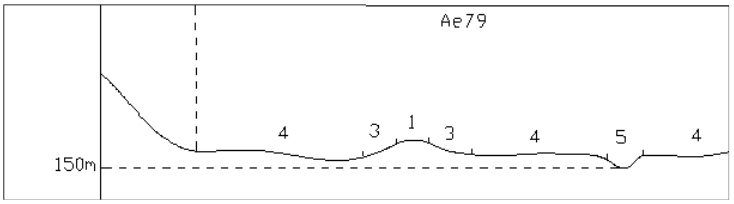
2.12.2 Topography

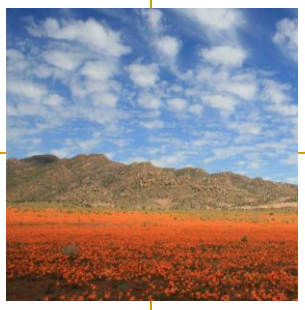
It is hypothesised that the Namaqualand region could be regarded as an example of a high elevation passive continental African margin (edge) (Brown *et al*., 2011). The margin has evolved from the split between the South American and African continents about 130 million years ago that led to the formation of the South Atlantic Ocean. Viola *et al*. (2011) and Kounov *et al*. (2009) both

suggest that these margins, with the Namaqualand sector, are more complex as previously believed and are not as “passive”. There is specific evidence that major faulting has affected the Namaqualand region at various times since the break-up and formation of the South Atlantic Ocean.

Therefore, the geology is one of many major factors that forms the basis for flora richness and presence of rare and endangered plant species, some of them yet to be discovered. The park has an altitude range from the southwestern section (0m AMSL) to the Kamiesberg Mountain (>900m AMSL) in the northeastern section. The Kamiesberg Mountain is also the source of several rivers such as the Groen-, Spoeg-, Buffels- and Swartlintjies Riviere. The topography can be divided into three distinctive landscape terrain units, summarised in the Table below (Land Type Survey Staff, 1987):

Table 2. Landscape terrain units occurring in the park.

1. Kamiesberg Two major land types are dominating the topography of the Kamiesberg landscape terrain unit.	
1.1 The higher-lying Kamiesberg with plateau (1) sometimes a ridge or plain, steep midslopes (3), steep footslopes (4) and steep relatively small drainage line (5) which is the source of the rivers. Although the terrain form sketch might indicate that the mountain seems as if it is a rolling mountain terrain, it is rather rugged terrain.	.  Figure 1: The terrain form sketch of the dominant Ib235 land type of the higher-lying Kamiesberg
1.2 The lower-lying Kamiesberg with a rugged terrain with steep or plain plateau (1), scarp (2) lower-lying steep midslope (3), smaller floodplain (4) and drainage line or rivers (5).	 Figure 2: The terrain form sketch of the dominant Fb154 land type of the lower-lying Kamiesberg
2. Rolling hills foot slopes of the Kamiesberg Two major land types are dominating the topography of these rolling hills landscape terrain unit. Also known as the Hardeveld because of shallow and rocky soil.	
2.1 The Ae79 land type is dominated by the footslope plains (4), which also link to the rivers or drainage lines (5) as floodplains (4) of the area. Small, isolated hills with plateau or ridges (1) and midslopes (3). These small, isolated hills (1) are sometimes quarzitic outcrops, and densely covered by angular quartz gravel. It is home to endemic, rare and endangered plant species and plant communities that show strong species turnover at their boundaries (Schmiedel *et al.,* 2012).	 Figure 3: The terrain form sketch of the dominant Ae79 land type of the lower-lying Kamiesberg



2. Rolling hills foot slopes of the Kamiesberg

Two major land types are dominating the topography of these rolling hills landscape terrain unit. Also known as the Hardeveld because of shallow and rocky soil.

2.2 The lower-lying rolling hills footslopes of the Kamiesberg is dominated by the moderate steep midslopes (3), with rivers (5) and floodplains (4), with footslopes (4 right in Figure 4) of the hills. Small, isolated hills with a plateau or sometimes ridges (1).

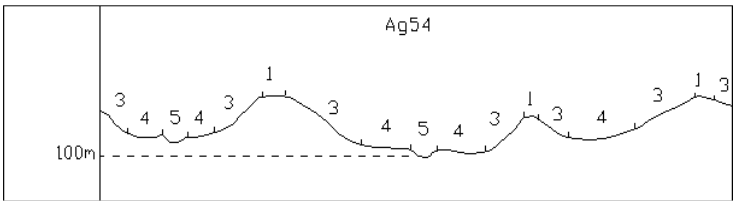


Figure 4: The terrain form sketch of the dominant Ag54 land type of the lower-lying Kamiesberg

3. Sandy plains

Three major land types are dominating the topography of the sandy plain landscape terrain unit; another very important and interesting terrain unit is the Bitterriver terrain unit because of its distinctive different land type features.

3.1 The Ah46 land type is dominated by the footslope plains (4), which links to the rivers or drainage lines (5) as floodplains (4) of the area. Small, isolated hills with plateau or ridges (1) and midslopes (3) are present.

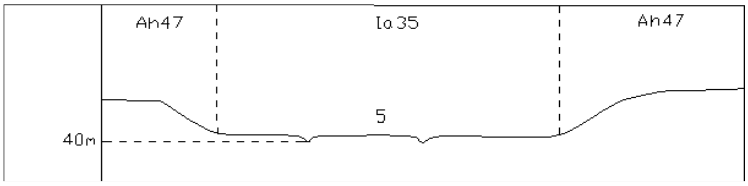


Figure 5: The terrain form sketch of the dominant Ah46 land type of the higher-lying sandy plains

3.2 The terrain form sketch of the Ia35 land type represents the major rivers (5) of the sandy plain landscape terrain unit. It is adjacent to the Ah46 and Ah47 land types.

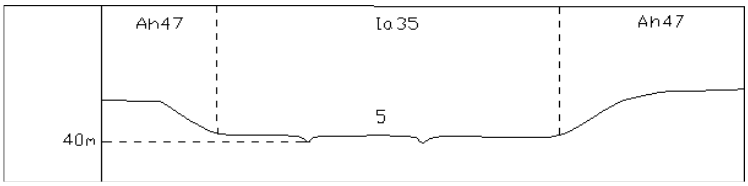


Figure 6: The terrain form sketch of the dominant Ia35 land type of the lower-lying sandy plains

3.3 The sandy coastal plains are represented by the Ai23 land type terrain with the sandy plains (4) being the dominant terrain unit. Small, isolated hills with plateau or ridges (1) and midslopes (3) also occur in this land type.

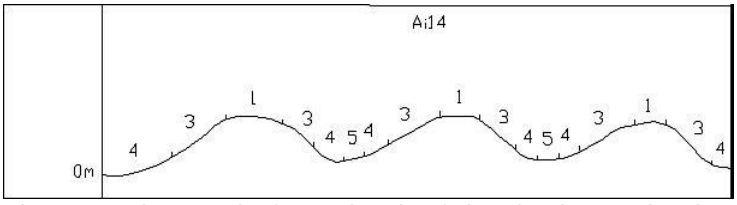
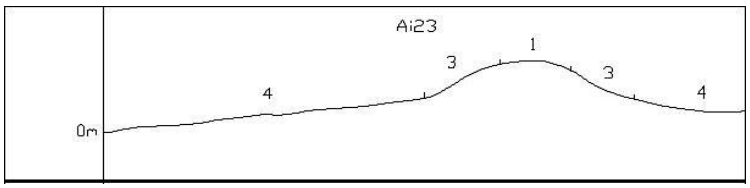


Figure 7: The terrain form sketch of the dominant Ai23 land type of the sandy coastal plains

3. Sandy plains Three major land types are dominating the topography of the sandy plain landscape terrain unit; another very important and interesting terrain unit is the Bitterrivier terrain unit because of its distinctive different land type features.	
3.4 The Ai14 land type represents the rolling topography of Bitterrivier dune ecosystem with the crest (1), midslope (3) and the dune street (4 & 5) of a typical sand dune ecosystem. It is important to note that these dunes sometimes move in this unique dune ecosystem and frequently cover roads with sand.	 Figure 8: The terrain form sketch of the Ai14 land type of the Bitterrivier sand dunes ecosystem

2.12.3 Geology and soils

Due to the complexity of the geology across the park's landscape only the three major landscape terrain units, as well as two other important ecosystems that are the main features of the park's geology and soil, are summarised below (Land Type Survey Staff, 1987).

1. Kamiesberg

   The geology of the Kamiesberg landscape terrain unit is dominated by granites and gneisses of the Okiep Group of the Namaqualand Metamorphic Complex. The dominant terrain unit is the midslope (3). The soil-rock complex is represented by Rock, Mispah and Glenrosa soil forms (MacVicar *et al*., 1977). These soil forms are shallow (< 0.3m) and very rocky with the clay content of the A-horizon less than 3% (Figures 1 & 2) (Land Type Survey Staff, 1987).

2. Rolling hills footslopes of the Kamiesberg

   The geology of the rolling hills landscape terrain unit is dominated by the undifferentiated granites and gneisses of the Okiep Group as well as the migmatite of the Namaqualand Metamorphic Complex. The dominant terrain units are midslope (3) and footslopes / floodplains (4). The soil-rock complex is represented by the Hutton soil form (MacVicar *et al*., 1977). The Hutton soil form varies in depth from 0.15-0.3m and 0.4-1.2m with a clay content between 2-8% (Figures 3 & 4) (Land Type Survey Staff, 1987).

   An important and significant ecosystem in the central section of NNP is the Soubattersfontein quartzite outcrops, with large angular quartz pebbles and rocks that occurs as ridges or hills. In this harsh environment with high temperatures (> 30 ^{o}C), these white quartzite outcrops could be as much as 15 ^{o}C cooler (Schmiedel *et al*., 2012).

3. Sandy plains

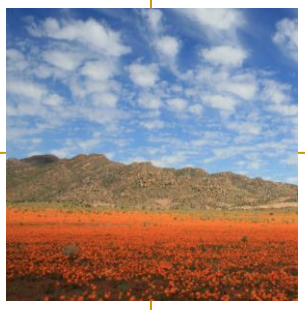
   The geology of the sandy plains landscape terrain unit is dominated by aeolian material overlying marine sediments, as well as undifferentiated granites and gneisses of the Namaqualand Metamorphic Complex. The soil-rock complex is represented by the Clovelly and Fernwood soil forms with midslope plains (3) and floodplains (4). The soil forms are deeper than 0.6 m with a clay content between 0-6% (Figures 5 & 7) (Land Type Survey Staff, 1987)

4. Rivers

   The geology of the rivers in the sandy plains landscape terrain unit is alluvium and undifferentiated granites and gneisses of the Namaqualand Metamorphic Complex. The soil-rock complex represented by the Oakleaf and Dundee soil forms (MacVicar *et al*., 1977), is deeper than 1.2m with clay content in B-horizon between 6-25% (Figure 6) (Land Type Survey Staff, 1987).

5. Bitterrivier sand dunes

   The geology of the Bitterrivier in the sandy plains landscape terrain unit is aeolian (wind-blown sand) material overlying Tertiary and Quaternary marine sediments. The soil-rock complex is



represented by the midslope (3) with the dominant soil form Clovelly (MacVicar *et al*., 1977). The soil is deeper than 1.2m with clay content between 1-4% in the B-horizon (Figure 8) (Land Type Survey Staff, 1987).

2.12.4 Freshwater ecosystems

The arid nature of the park's location sets the scene for the inland aquatic systems found in the park. The rivers are all ephemeral and only flows after rainfall events. Similarly, the wetlands are mostly dry. Some wetlands are groundwater fed with the soil moist for longer periods. As with most arid regions, residents are dependent on groundwater for water provisioning. Very little information is known about the groundwater systems inside the park. Research outside the park showed that the groundwater is of good quality with low salinity levels. The estuaries are dependent on both surface and groundwater flows to maintain moderate salinity levels to maintain the ecological integrity of the systems.

The inland aquatic waterbodies are threatened by climate change reduced rainfall in the area. Water abstractions and road crossings damming water behind it restrict flows further downstream to estuaries. The coastal areas are also threatened by mining activities by disrupting groundwater flows and dust from mining activities smothering wetland and estuarine vegetation.

Groundwater

Groundwater data for the park is limited. A groundwater hydro census conducted from February 2015 to April 2015 located 15 groundwater sites (14 boreholes and one open water sample). According to local landowners, groundwater use is almost exclusively for livestock watering, with minor use for domestic purposes such as washing and cleaning. A hydrogeological and geochemical investigation was conducted on groundwater sites close to the Groenrivier estuary to determine potential impacts on the Groenrivier estuary resulting from mining activity outside the park. Inside the park, water for human consumption is provided by boreholes.

The groundwater quality is good. The pH values for all 15 sites fell into the Class 0 – ideal water quality for pH 5 – 9.5. Nine of the 15 sites did not have data for electric conductivity ((EC) a proxy used for salinity). Of the six remaining sites, five had Class 0 – ideal EC values of <70 mS/cm while one site had 503 mS/cm. This site had Class III poor water quality for EC of 370 – 520 mS/cm. The water levels in the boreholes were <10 m below casing height at the time of the survey (Schlumberger Water Services, 2015).

Rivers

All the rivers in the parks are classified as ephemeral (van Deventer *et al*., 2019) due to the arid nature of the park's location. The major rivers occurring in the park are the Swartlintjies (54.9 km), Spoeg (16.4 km), Bitter (9.2 km) and Groen (6.4 km). The Buffelsrivier (3.9 km) forms the northern border while the Wolwepoortrivier (10.4 km) and Haasrivier (4.6 km) are found on the northeast and eastern side of the park. The Kourkam se Brakrivier (6.8 km) and Wildeperdehoek se Brakrivier (28.5 km) are flowing towards the north of the park. Several unnamed rivers make up 13.8 km of river systems (van Deventer *et al*., 2019). The rivers fall in two Level 1 Ecoregions, the Namaqua Highlands and Western Coastal Belt. The Bitter, Groen, Spoeg, Swartlintjies, and sections of the Wildeperdehoek se Brak fall within the Western Coastal Belt while the Buffels, Haas, Kourkam se Brak, Wolwepoort and sections of Wildeperdehoek se Brak fall within the Namaqua Highlands.

The ecological state of the Bitter- and Haasriiviere have been deteriorating over time. The five key pressures on rivers in the park are (i) modifications to the natural variation of the hydrological regime, (ii) modifications in water quality, (iii) loss of natural habitat, habitat degradation and

fragmentation (iv) the spread of invasive species and (v) the over-exploitation of species. These pressures, their degree and magnitude on inland aquatic ecosystems are poorly understood and not well monitored. Changes in climate, particularly rise in temperature and changes to the amount and intensity of precipitation, seasonal timing and peak, are expected to exacerbate the impacts of pressures on inland aquatic ecosystems (van Deventer *et al.,* 2019).

Wetlands

The park has four types of wetland ecosystems within its boundaries. The Namaqualand Hardeveld Bioregion Depression wetlands have a Least Concern conservation status. The Namaqualand Hardeveld Bioregion Seep wetlands are Critical. The Namaqualand Sandveld Bioregion Depression wetlands are also Critical. The Northwest Fynbos Bioregion Depression wetlands have Endangered conservation status (van Deventer *et al*., 2019). Limited information on these wetlands was compiled through the Working for Wetlands project, but wetland ground truthing has not yet been done in the park. Most of the wetlands are in an A/B ecological state meaning, Natural to Near Natural with very little modification.

The National Biodiversity Assessment (NBA) of 2018 (NBA, 2018) (van Deventer *et al.,* 2019) showed that despite the threats, all the inland water ecosystems inside the park are in a good ecological condition. However, most of the data used for the NBA were desktop based. The description of each of these ecosystems above states the lack of information on them.

2.12.5 Terrestrial flora

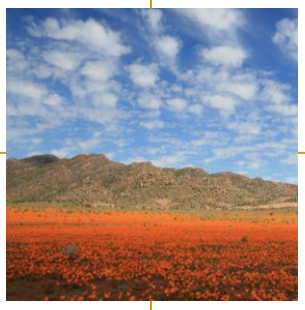
The Namaqualand region of South Africa falls within the Succulent Karoo biome, identified as one of the world's 34 biodiversity hotspots (one of three hotspots in South Africa) (Mittermeier *et al*., 2004), and is the focus of both international and national groups / organisations to conserve this globally unique living landscape, i.e. the WWF-SA, the Lesley Hill Succulent Karoo Trust, GEF and Conservation International (CI) with initiatives such as the Succulent Karoo Ecosystem Programme and Arid Eden Project.

The vegetation of the park falls within two biomes, namely the Succulent Karoo, which covers the largest section of the park and Fynbos, restricted to a relatively small area as well as very important Azonal vegetation. The Namaqualand Sandveld Bioregion unit is represented by the Namaqualand strandveld, Namaqualand coastal duneveld, Namaqualand inland duneveld, Riethuis-Wallekraal quartz vygieveld and Namaqualand arid grassland vegetation types. The Namaqualand Hardeveld Bioregion unit represents the Kamiesberg mountain shrubland, Namaqualand blomveld, Namaqualand heuweltjieveld and Namaqualand klipkoppe shrubland. The Fynbos biome is only represented by the Namaqualand sand fynbos vegetation type, which make it unique for Namaqua. In the park the Azonal vegetation consists of the Namaqualand seashore vegetation, Arid estuarine salt marshes, Namaqualand rivers and the Namaqualand salt pans. All these Azonal vegetation types are sensitive and threatened vegetation types (Mucina & Rutherford, 2006; Appendix 2; Appendix 7, Map 10).

The Succulent Karoo has approximately 6,356 plant species, in 168 families and 1,002 genera (Desmet, 2007), 40% are endemic (Luther-Mosebach *et al*., 2012). Namaqualand alone has about 3,500 species made up of 724 genera and 135 families (Desmet, 2007; Davis *et al*., 2016). 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 (iris family); Hyacinthaceae (lachenalias) and
Crassulaceae (crassulas / stonecrop family). There is a strong pattern of dominance by succulents and bulbs (Hilton-Taylor, 1996).

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). It is estimated that the Succulent Karoo biome has about 16% of the world's approximately 10,000 succulent plant species (Van Jaarsveld, 1987; Driver *et al.*, 2003). The preliminary park plant species list contains 629 species (Adams *et al*., 2015). Of these, 17% are listed as Red Data species by the International Union for the Conservation of Nature (IUCN). The high level of diversity is a result of several factors that include:

- Climate (e.g. winter rainfall and fog);
- Soil depth and texture;
- Geology (e.g. chemical composition of the bedrock);
- Animal related disturbance regimes (e.g. heuweltjies); and
- Historical human land-uses.



Wetlands and seepage areas (Azonal vegetation) are very important and sensitive habitats which are key in supporting ecosystems located below the wetlands and seepage areas. One of the features of an intact wetland system is its ability to absorb rainfall, store it, and release it slowly. According to Helme & Desmet (2006) some of the wetlands in the Kamiesberg are very heavily grazed and trampled, and / or burnt too regularly, and are consequently not in a good condition whilst others are in almost pristine condition. Only a field survey could confirm the status of the wetlands in the park. Another important habitat related to the wetlands but on a smaller scale is the extensive granite domes that have numerous cracks and drainage lines. These channel runoffs create tiny, highly seasonal wetlands, with a thin layer of soil (< 10 cm), which is often saturated with water for long periods during spring and winter. Moss, lichen and liverwort coverage is high. A variety of different micro-habitat exist with different plant species that exploit these niches. Because the soil is so shallow, seed plants such as bulbs, succulents and restios are dominant. All three life form categories have endemic species virtually restricted to this habitat in the Kamiesberg. It is important to note that this habitat is vulnerable to trampling (Helme & Desmet, 2006).

The Riethuis-Wallekraal quartz Vygieveld of the rolling hill landscape terrain unit and the Bitterrivier sand dunes have unique micro-habitats which create ideal habitat for threatened and endangered plant species. The origin of the Namaqualand heuweltjieveld has been studied by several well-known scientists with different opinions about its origin (Jürgens 2013; Schmiedel *et al*., 2016).

The flower display in early spring (end of August-late October) is an important tourist attraction and the main display is on the Skilpad section (< 800ha) previously known as the Skilpad Wildflower Reserve. This is mainly old degraded ploughed agricultural land which has not been rehabilitated when the land was transferred from WWF-SA to SANParks. The flower display is due to mainly endemic annual short life cycle plant species. To keep it flowering by multi-plant species SANParks has to use an adaptive approach to ensure the land is not being colonised by certain opportunistic, densifying specific annual plant species (Van Rooyen, 2002).

2.12.6 Terrestrial fauna

The floral richness of the Succulent Karoo is mirrored in its faunal diversity especially for the invertebrates and reptiles which in many cases are agents of pollination for the rich plant diversity. This high species-richness is attributed to events such as the folding of the Cape mountains, causing a barrier between the Succulent and Nama Karoo that limits faunal movements and the subsequent isolation of specific habitats and the resultant high levels of plant diversity (Vernon, 1999). The area is a known centre of richness and speciation in solitary bees (including oil bees (*Melittidae*)), scorpions and monkey beetles (*Hopliinae*). Reptiles are well represented, with several endemic species. Birds and mammals are far less unique to the environment. Historically large mammals would have migrated through the area in search of resources (food and water) and influenced by predator movements. Birds are typical of the dry arid western regions of the country.

Amphibians
Amphibians are poorly represented in the Succulent Karoo with just over 20 species (CEPF, 2003). All these species are frogs, including one endemic, the desert rain frog *Breviceps macrops*, which occurs along the Namaqualand coast of South Africa north to Luderitz in coastal south-western Namibia.

Birds
The movement of birds within the biome appears to be related to the availability of resources, both food and nesting material. Fluctuations in bird populations are related to major rainfall events or changes in rainfall seasonality (Wright *et al*., 2019).

The avifauna of the Succulent Karoo includes more than 294 species, of which the following eight species are endemic: Karoo korhaan *Eupodotis vigorsii*, Karoo lark *Calendulauda albescens*, Black-eared sparrow-lark *Eremopterix australis*, Karoo eremomela *Eremomela gregalis*, cinnamon-breasted warbler *Euryptila subcinnamomea*, Namaqua warbler *Phragmacia substriata*, Karoo long-billed lark *Certhilauda subcoronata* and Barlow's lark *Certhilauda barlowi*.

The following species have core ranges that are strongly centred in the Succulent Karoo (Karoo Near-endemic): Cape long-billed lark *Certhilauda curvirostris*, large-billed lark *Galerida magnirostris*, Ludwig's bustard, *Neotis ludwigii*, grey tit *Melaniparus afer*, sickle-winged chat *Emarginata sinuata*, Karoo chat, *Cercomela schlegelii* Karoo scrub robin *Tychaedon coryphoeus*, rufous-eared warbler *Malcorus pectoralis*, black-headed canary *Serinus alario*, Layard's tit-babbler *Sylvia layardi* and pale-winged starling *Onychognathus nabouroup*.

The Nama Karoo is also home to several important species like the black harrier *Circus maurus*, Verreaux's eagle *Aquila verreauxii*, Ludwig's bustard *Neotis ludwigii*, Cape cormorant *Phalacrocorax capensis*, martial eagle *Polemaetus bellicosus*; the vulnerable southern black bustard *Afrotis afra*; and the near-threatened ground woodpecker *Geocolaptes olivaceus*.

Fish
Most of the rivers are dry and only flow seasonally after good rainfall events and information about fish is limited.

Invertebrates
Invertebrate diversity is very high and evidence suggests that more than half of the species in some insect groups are endemic to the region (CEPF, 2003). Monkey beetles, largely endemic to southern Africa are important pollinators of the flora in the Succulent Karoo, together with *Hymenoptera* and masarine wasps, colletid, fideliid and melittid bees. Perhaps the most unusual invertebrates found in this biodiversity hotspot are the long-tongued flies (*Memestrinidae*), which can have mouthparts up to 50 millimetres long. The flies are the exclusive pollinators of 28 different plant species in Namaqualand.

The scorpion fauna of southern Africa (south of 15° latitude) is very diverse, especially in the arid western half of the subcontinent (Prendini, 2005) and of the 70 species of scorpions found in the Succulent Karoo, nearly 20 are endemic (CEPF, 2003).

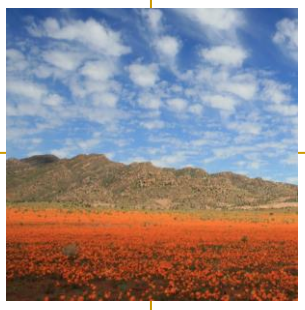
Mammals
The larger mammals that historically occurred or moved through the area and which are now locally extinct include elephant *Loxodonta africana*, black rhino *Diceros bicornis bicornis*, lion *Panthera leo*, cheetah *Acinonyx jubatus*, wild dog *Lycaon pictus*, eland *Taurotragus oryx* and Hartmann's mountain zebra *Equus zebra hartmannae*. The mammal numbers would have fluctuated with resource availability and the activity of predators (Skead, 2007, 2011).

Herbivores that were reintroduced into the park included red hartebeest *Alcelaphus buselaphus*, gemsbok *Oryx gazelle* and springbok *Antidorcas marsupialis*. Existing populations of mammals were still present within the boundaries of the park. These 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 *Orycteropus afer* and African wildcat *Felis lybica*. The largest predator in the park is the leopard *Panthera pardus*.

Seventy-three small mammal species occur within the Succulent Karoo with three endemic species, the De Winton's golden mole *Cryptochloris wintoni* and Van Zyl's golden mole *Cryptochloris zyli* are insectivorous and the Namaqua dune mole-rat *Bathyergus janetta* is herbivorous (Skinner & Chimimba, 2005).

Reptiles
The reptile diversity in the Succulent Karoo is relatively high, with an estimated more than 90 species, of which about 15 are endemic. All the endemics are geckos and lizards and include seven species of girdled lizards of the genus *Cordylus*, including the armadillo girdled lizard *Cordylus cataphractus*, which has a heavily armoured body and spiny tail and is known for rolling into a tight ball when threatened. The Succulent Karoo is also rich in many snake species and a very high tortoise diversity with seven taxa, two of which are endemic: the Namaqualand tent tortoise *Psammobates tentorius trimeni* and the Namaqualand speckled padloper *Homopus signatus signatus* (Marais & Graham, 2007).

2.13 Coastal and estuarine environments
The Namaqua National Park Marine Protected Area, hereafter referred to as the MPA, stretches from just south of the Spoegrivier in the north to Eiland Punt, south of the Groenrivier, adjacent to the park. The MPA



was declared on 23 May 2019 as one of 20 MPAs declared nationally by the South African government and was the result of an extended stakeholder negotiation process of Operation Phakisa. The MPA is managed by the Namaqua National Park management. The coastal and marine section of the park falls within the Namaqua bioregion (Griffiths *et al*., 2010). The region is influenced by the cold, north flowing Benguela current and by local wind-induced upwelling and is best described as being cool-temperate.

The cold, nutrient-rich waters support high biological productivity, which in turn supports high biomass of commercially important species such as kelp *Ecklonia maxima*, west coast rock lobster *Jasus lalandii* and various pelagic and demersal fish species such as sardines *Sardinops sagax* and anchovies *Engraulis encrasicolus* (Griffiths *et al*., 2010; Hutchings *et al*., 2002; Majiedt *et al*., 2013). The region is also an important nursery ground for Cape hake *Merluccius capensis* (Hutchings *et al*., 2002). Commercial fishing contributes substantially to the economy of the area, but overexploitation has resulted in the decline of several species (Majiedt *et al*., 2013). There is a breeding colony of Cape fur seals *Arctocephalus pusillus pusillus* inside the park and the park is an important area for several threatened seabirds such as the Cape cormorant *Phalacrocorax capensis* and bank cormorant *Phalacrocorax neglectus* (Crawford *et al*., 2018).

The MPA provides the first protection to several threatened ecosystem types in the region. Due to the region's "productivity", "importance for threatened, endangered or declining species and/or habitats" and "naturalness" characteristics, it is also classified in the Namaqua Coastal Area Ecologically or Biologically Significant Marine Area (MARISMA Project, 2020). The Namaqualand coastline is heavily impacted by mining activities, specifically diamond mining (legal and illegal), but 11 of the 14 habitat types found along this coastline are represented inside the park and MPA. The park has some of the most pristine sandy beaches and rocky shores in South Africa, and one of the last active, functioning dune systems (Sink *et al*., 2012, 2019).

Three predominantly closed estuaries are located inside the park, namely the Groen (southern boundary), Bitter (middle of the park) and Spoeg (northern boundary) estuaries, with the Groen and Spoeg estuaries considered to be in good condition and national priorities for estuarine protection (Department Water and Sanitation, 2017; van Niekerk *et al*., 2020). Both these estuaries are important for water birds and waders with 25 species recorded in the Spoeg estuary and 40 in the Groen estuary (Department Water and Sanitation, 2017). Up to three species of fish have been recorded in the Spoeg estuary, namely, two mullet species *Mugil cephalus* and *Chelon richardsonii* and gobies *Caffrogobius sp*. and the two mullet species in the Groen Estuary (Department Water and Sanitation, 2017). Habitat loss, grazing, loss of freshwater input from groundwater abstraction, and mining are major pressures on both estuaries (Department Water and Sanitation, 2017).

More information on the marine ecology can be found in the NNP MPA Management Plan.

2.14 Cultural heritage

In 2004, archaeologists Morris and Webley documented over 90 heritage sites around the park (Morris & Webley, 2004). These include Stone Age period sites (including Rock Art), graves / cemeteries, small structures (such as ovens) relating to colonial settlement, farm buildings, springs, wells and stone basins.

There is also living heritage associated with sites in the park (Morris & Webley, 2004). Living heritage sites are defined by the National Heritage Resources Act of 1999 broadly to include cultural tradition, oral history, performance, ritual, popular memory, skills and techniques and indigenous knowledge systems. It can be seen as a collection of practices, traditions, expressions, skills, and knowledge that are passed from one generation to the next. Natural features such as a mountain, tree, pond, rock, river, and others may have cultural significance to specific communities. An example is the story of the snake around Soebatsfontein, which is purported to change into different beings and sometimes, emits some light (Morris & Webley, 2004).

There is very little published information on the prehistory and history of the area falling within the borders of the park (Grobbelaar, 2002; Morris & Webley, 2004). The historical information available is from a combination of early travellers' accounts, information on early loan farms from the archives, the published and unpublished accounts of Atherstone, as well as information on copper mining and the South African War. In November 1854, William Atherstone of Grahamstown travelled to Namaqualand to investigate the reports of a great copper find. Atherstone's diaries are at the Albany Museum in Grahamstown and it is from these diaries that Morris found some information on cultural heritage within the park (Atherstone, W.G. Diaries. Albany Museum, Grahamstown; Morris & Webley, 2004). Extensive information also comes from `Die Noordweste' (van de Waal-Braaksma & Ferreira, 1986) on traditional practices in Namaqualand (Morris & Webley, 2004).

According to available sources, the cultural history of the Namaqua area dates back to hundreds of years. Namaqualand has been a meeting point between San hunter-gatherers, Khoekhoen pastoralists, Dutch trekboers, Irish miners, and Wesleyan missionaries over the last several thousand years (Grobbelaar, 2002). Technology also became part of the Namaqua cultural landscape due to copper and diamond mining. One of the important archaeological sites related to the park is the Spoegrivier Caves. The caves are large, and contain almost two metres of archaeological deposit. The caves contain some of the earliest evidence of domestic sheep in South Africa with sheep bones dating to 2,100 years ago (Morris & Webley, 2004). Pottery from the top layers suggest that the ancestors of the Namaqua Khoekhoen (Morris & Webley, 2004) also settled the caves.

The three rock art sites that have been discovered in the park are inaccessible to visitors, however some colonial settlement sites (Koeroebees and Kookfontein) are open to visitors and are used for educational purposes. There are plans to open these sites to the public in the future. A complete survey of cultural heritage in the park will also take place in accordance with the Cultural Heritage Management Strategy for 2019 to 2028.

2.15 Socio-economic context

The park falls with the NDM, KLM and NKLM. There are four communities located close to the park namely, Soebatsfontein, Kamieskroon, Komaggas and Hondeklipbaai. The region is characterised by its small and dispersed population, isolated rural settlements, high levels of unemployment, dependence on government grants and projects, small livestock production and harsh climatic extremes.

The main industries in the region include small-stock farming and a declining diamond mining industry, which has to a large extent been replaced by small-scale mining. Tourism, being associated with the spectacular spring flower displays, is highly seasonal but is regarded as an opportunity to be developed and expanded in the region.

Unemployment and poverty affect many people in the region with only 35% of its employable inhabitants being employed (Kamiesberg Local Municipality Integrated Development Plan (IDP), 2021/22). The declining mining industry has resulted in the park being the prominent economic driver, especially in the KLM, through its Biodiversity Social Legacy projects and tourism offerings. The development of tourism in the region is also largely centralised around the park's ability to draw visitors. The park is regarded as a valuable tourism asset in the KLM and is seen as key attraction in the region (Kamiesberg Local Municipality IDP, 2021/22).

2.16 Tourism

The park is a destination of choice for tourists who want to enjoy wide open spaces, fields of flowers, star-studded nights and the allure of this mesmerising landscape, and to find rejuvenation and connect with nature. The park offers unique camping opportunities, albeit in complete isolation at a coastal campsite or glamping in luxury while 4x4 enthusiasts can enjoy the pristine coastline. Table 1 summarises the overnight facilities available, as well as the unit / room occupancy for year ending 31 March 2022:

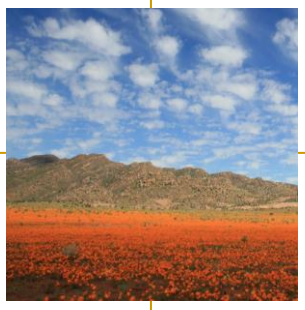
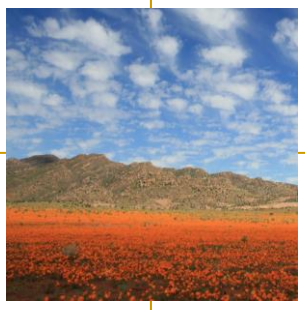


Table 1. Overnight facilities and unit / room occupancy figures.

Accommodation summary as of 31 March 2022						
Camp	Description	Number of			Category	Unit occupancy (2021 / 2022 financial year)
		Units	Beds	Total beds person capacity		
Skilpad	Chalet	4	2	8	Economy	60.0%
Luiperdskloof	Cottage	1	6	6	Economy	0.82%
Groenrivier coastal	Rustic campsites	51	6	306	Budget	33.3%
Total inventory	Units accommodation	56		320		
Overall occupancy		Accommodation				48.1%
		Camping				33.3%

During the 2021 / 2022 financial year, the park achieved a unit occupancy of 48.1%, which is lower than the SANParks average of 57.6%. There was a total of 20,851 visitors in 2021 / 2022, of whom 14,294 (68.6%) were day visitors and 6,557 overnight visitors. Of these, 1.7% were international visitors, 1% from Southern African Development Community countries and 97.4% local. South African visitors are mostly from the Western Cape, Gauteng and Northern Cape, and 5.5% of South African visitors were black. Of the 537 international visitors, most were from Namibia, Germany and Switzerland.

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Section 3: Policy framework

3.1 Introduction

SANParks, like all protected area management authorities, is subject to the Constitution of the Republic of South Africa, international agreements and treaties, legislation, national policies and government priorities. The NEM: PAA states the following: The purposes of the declaration of areas as protected areas are (a) to protect ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes in a system of protected areas; (b) to preserve the ecological integrity of those areas; (c) to conserve biodiversity in those areas; (d) to protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa; (e) to protect South Africa's threatened or rare species; (f) to protect an area which is vulnerable or ecologically sensitive; (g) to assist in ensuring the sustained supply of environmental goods and services; (h) to provide for the sustainable use of natural and biological resources; (i) to create or augment destinations for nature-based tourism; (j) to manage the interrelationship between natural environmental biodiversity, human settlement and economic development; (k) generally, to contribute to human, social, cultural, spiritual and economic development; or (l) to rehabilitate and restore degraded ecosystems and promote the recovery of endangered and vulnerable species.

Section 41 of the NEM: PAA requires that management plans be nested within the context of a Co-ordinated Policy Framework (CPF) (SANParks, 2018a). The CPF can be downloaded from the SANParks website using the following link: http://www.sanparks.org/conservation/park_man/.

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

- 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;
- SANParks as an organisation: including its organisational structure, vision, mission, biodiversity values and performance management system (by means of the balanced scorecard), and its approach to strategic adaptive management; and
- Policies and guiding principles:
    - Finances and commercialisation;
    - Responsible Tourism;
    - Zoning system in parks;
    - Stakeholder relationships;
    - Management to maintain biodiversity and ecosystem processes;
    - Risk management;
    - Safety and security;
    - Cultural heritage resources;
    - Resource use; and
    - Research.

SANParks policies are guided by its vision and mission statements. As a public entity, SANParks is committed to act in pursuit of transformation of South Africa’s society in support of entrenching South Africa’s democracy. As such, this policy framework is available to stakeholders.

The relationship between the park-specific adaptive management planning cycles and the SANParks CPF is outlined in Figure 9, where the planning cycle for management plans in SANParks is 10 years. The programmes and costing could be revised at shorter time intervals, as required.

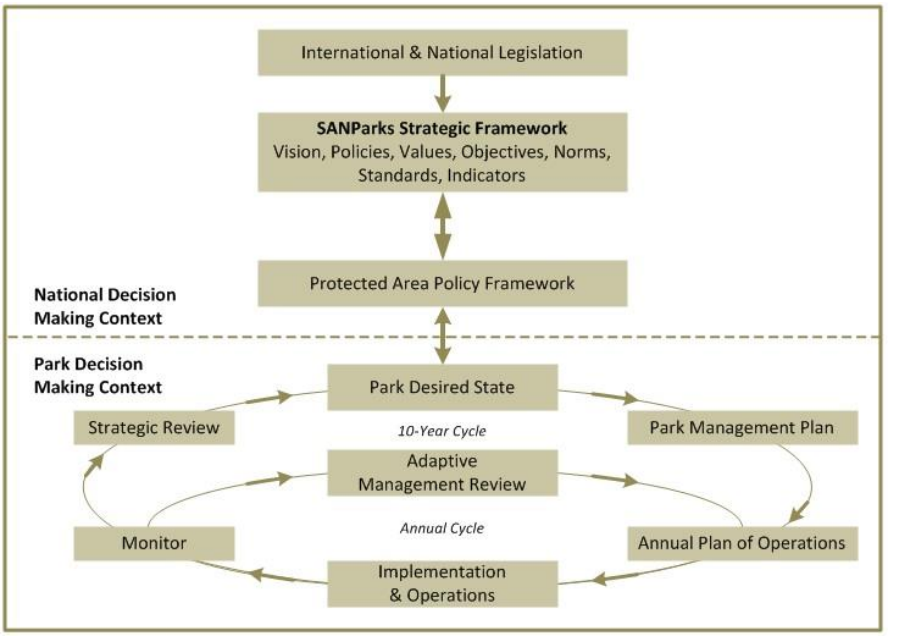
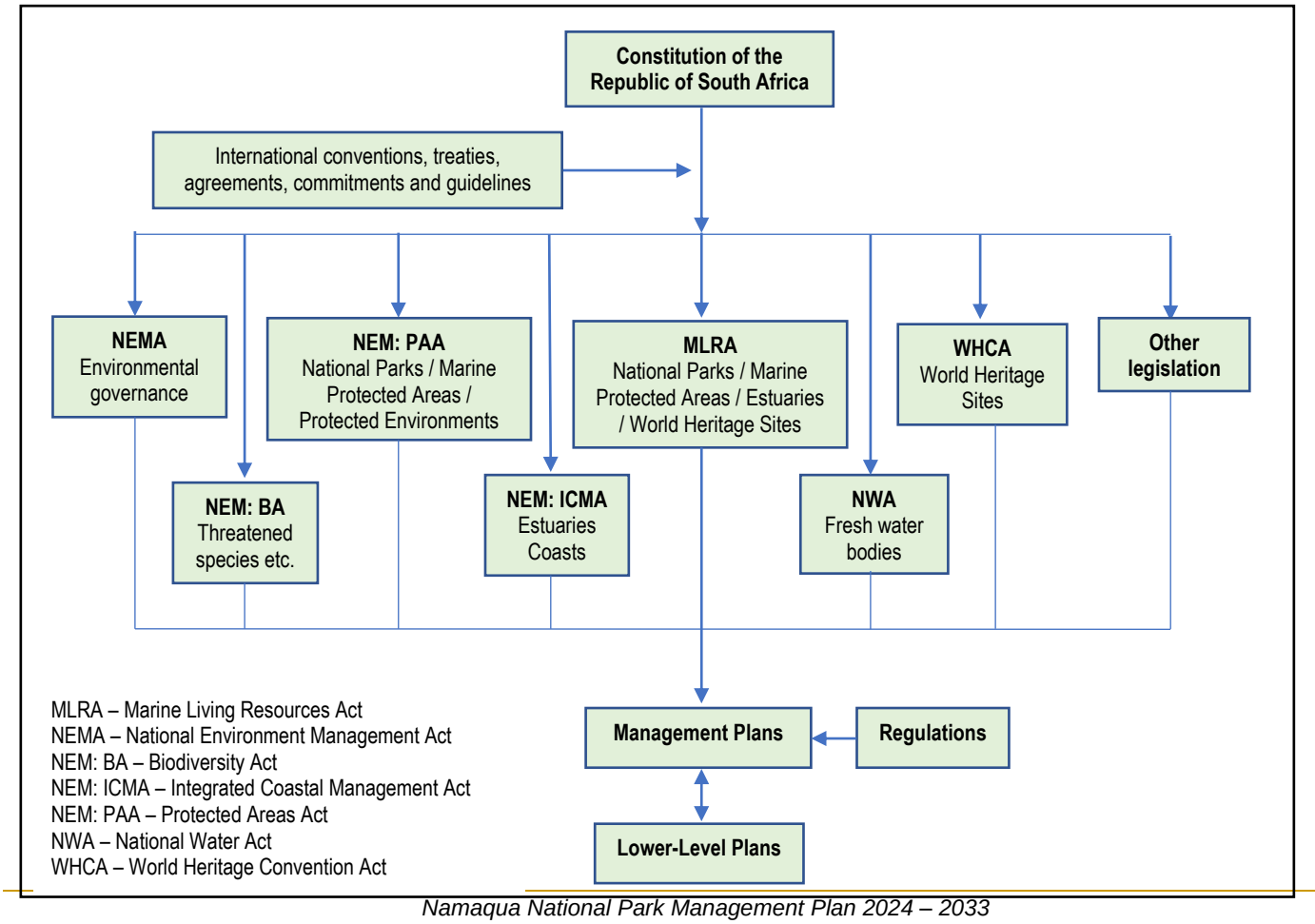
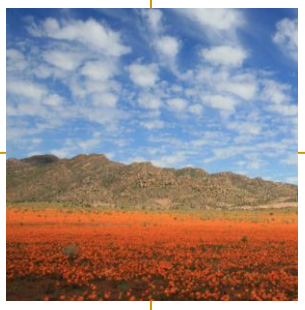


Figure 9. SANParks protected area planning framework.

3.2 Legislative context

Protected areas are subject to the principles and provisions of relevant international treaties and conventions, national legislation and policy, and any applicable contractual agreements. It is important to note that the park is a protected area in terms of the NEM: PAA. In terms of this Act, any conflicts with other legislation must be dealt with in accordance with article 7 of NEM: PAA. In essence it stipulates that where a provision of NEM: PAA specifically concerns the management or development of protected areas, and there is conflict with other national legislation, the relevant section of NEM: PAA prevails. The administration and management of the park is subject to the adherence to various legislative requirements. Figure ? below outlines the relationship between the key pieces of legislation that governs the management of protected areas for which SANParks is responsible and the associated Management Plans.





3.3 White Paper on Conservation and Sustainable Use of South Africa's Biodiversity

The White Paper on Conservation and Sustainable Use of South Africa's biodiversity (gazetted on 14 June 2023) was developed to promote the conservation of the rich, diverse biodiversity and ecological infrastructure, which supports ecosystem functioning for livelihoods and the well-being of people and nature. It is envisaged that this White Paper will set the country on a strong path of sustainable development, considering the historical, socio-economic, and environmental context of South Africa, including the aspirations and needs of her people.

The White Paper has the following vision: "*An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations*." The White Paper is aspirational and advocates for a society where all people have a high quality of life, a voice, and a nurturing earth supporting them. As such, the policy sets out the following impact statement: "Thriving People and Nature".

The White paper has four overarching goals and intentions as follows:

Goal 1 Enhance Biodiversity Conservation: Conserve all biological diversity and its components.
The intention of this goal is to improve the conservation of the unique megadiverse nature of our biodiversity, including the diversity of land- and seascapes, ecosystems, habitats, ecological communities, species, populations, and genes.

Goal 2 Sustainable Use: Ensure that sustainable use of all biodiversity values enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while environmental duty of care avoids, minimises, or remedy adverse impacts on biodiversity.
The intention of this goal is to ensure that sustainable of all values of biodiversity use avoids, or minimises and remedies, adverse impacts on biodiversity, and enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being.

Goal 3 Equitable Access and Benefit Sharing: Ensure that benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the nation's interests.
The intention of this goal is to ensure that benefits derived and shared from the use and development of South Africa's genetic and biological resources are shared equitably and serve national interests.

Goal 4 Biodiversity Conservation and Sustainable Use is Transformative: Gives effect to the environmental right as contained in Section 24 of the Constitution, facilitates redress, and promotes transformation.
The intention of this goal is to give effect to Section 24 of the Constitution, the environmental right, and other human rights, facilitate redress, and promote transformation. Furthermore, the intention of this goal is to capitalise and leverage on the megadiverse nature of biodiversity, and key biophysical attributes, and wild landscapes and seascapes to drive rural socio-economic development.

This Park Management Plan aligns with all the goals of the White Paper with a major focus on Goals 1 and 4. Section 10 provides more detail on the strategic plan, projects and actions that will be implemented to achieve this. This Management Plan will contribute substantially to Goal 1 Enhance Biodiversity Conservation through the extensive expansion of the protected area system and buffer zone management that is planned for the park. The Management Plan will also result in improved management effectiveness of the park overall. Bioregional integration and mainstreaming of park buffer zone biodiversity values into municipal planning processes

(e.g. Integrated Development Plans, Strategic Development Frameworks and Land Use Zoning schemes) is also a key focus of investment. The Management Plan will also substantially contribute to Goal 4 Biodiversity Conservation and Sustainable Use is Transformative through tourism development and associated job creation that in turn contributes to rural socio-economic development. The socio-economic opportunities programme aims to strive for equitable employment and business development by promoting fair access to a range of opportunities. This will be achieved through a significant, targeted and effective contribution to local economic development, economic empowerment and social development in communities and neighbouring areas adjacent to the park.

3.4 Strategic adaptive management

Protected areas are increasingly viewed as complex social-ecological systems. The social-ecological coupling acknowledges multiple interactions that take place between people and natural landscapes – even fenced-off protected areas are influenced by external social issues. These systems are regarded as complex because the results of interactions between the social and ecological components, as well as between components within each of these sub-systems, are often unpredictable. A further complication in the management of protected areas is that the suite of stakeholders may have widely varying or even conflicting expectations, based on different worldviews and values. Under these conditions of divergent stakeholder interests and limited predictability, it might be impossible to agree on an optimal solution and similarly it may be unrealistic to expect certainty in terms of management outcomes. Strategic adaptive management (SAM) has emerged as the SANParks approach of choice to deal with the complexity and multi-stakeholder tensions that characterise park management decisions (Figure 10). SAM is designed to be strategic (facilitate action with foresight and purpose), adaptive (facilitate learning whilst we are doing) and participatory (facilitate engagement and co-learning with stakeholders) (Grant *et al*., 2008).

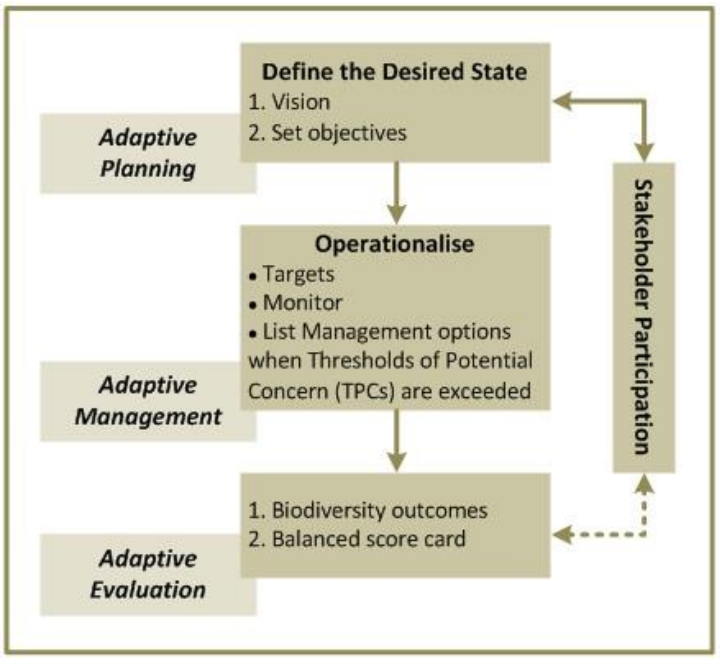
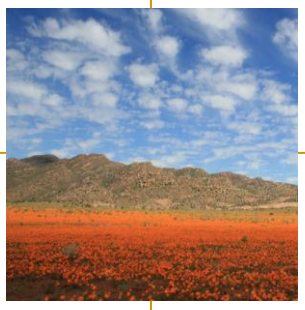


Figure 10. Steps in the adaptive management cycle as used by SANParks.

SAM begins with determining the desired future state of a particular social-ecological system (Figure 11). The aim of this step is to build a sense of common purpose among all relevant stakeholders and to develop a collective roadmap for moving from a current reality to a more desirable social-ecological system. This desired state or vision needs to be described within the context of associated stakeholders and their respective values, as well as social, technological, environmental, economic and political (V-STEEP) influences. Description of the future state is further enriched by deliberating the distinctive and special features (called vital attributes) of the park.



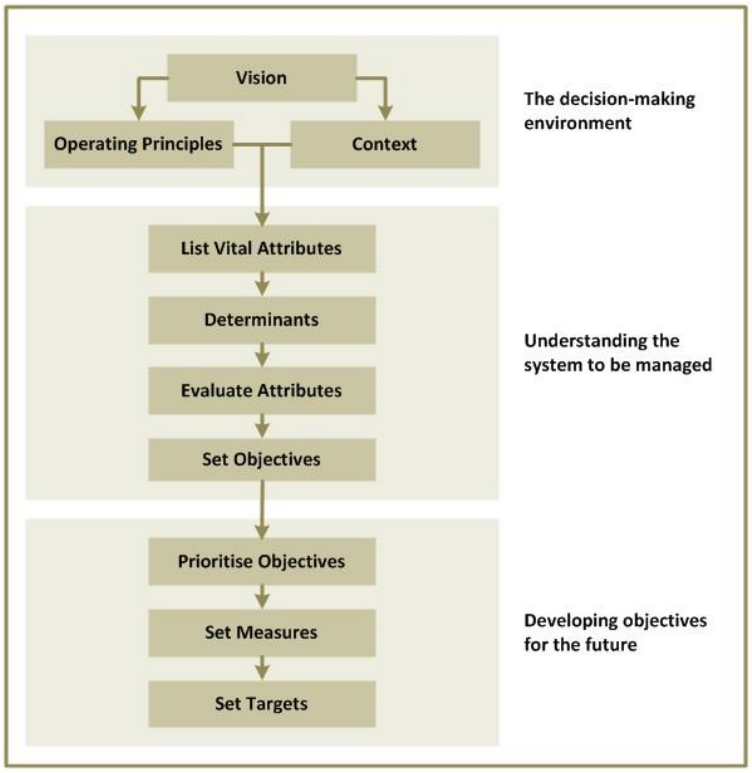


Figure 11. The adaptive planning process as used by SANParks.

The mission, together with the vital attributes of the system to be managed, informs the setting of objectives. A nested hierarchy of objectives starts with high-level objectives that are deconstructed into a series of lower-level objectives and, ultimately, management options for achieving those objectives. Alternative management options are considered by looking at resources, constraints, potential threats and risks associated with a particular management option, while anticipating likely results. From these options, the most appropriate is selected, followed by a planning stage and implementation.

A critical component of SAM is to monitor and evaluate the consequences of management decisions. Constant scrutiny of emerging results and evaluation against objectives are essential to allow strategy and methodology to be adjusted as new understanding and knowledge emerges (see section 10.8). Of critical importance is the participation and engagement of all relevant stakeholders. One central construct of SAM within SANParks over the last 18 years has been that of thresholds of potential concern (TPCs) (Biggs & Rogers, 2003). The challenge with TPCs has been that even if a state change is predicted, the approach does not always link the TPC to the hypothesised mechanisms of change explicitly (Ferreira *et al*., 2011), and does not always consider the complex social and economic drivers affecting the ecological parameters and are often merely social preferences rather than ecological thresholds. TPCs are therefore now used in more predictable fields, such as river biotic responses and fire management and are coupled with a mechanisms approach in other instances.

3.5 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 park, reporting is done via the Regional General Manager for the Arid Cluster. The park's future organogram (Figure 12) sets out the reporting structure in the park.

3.6 Park regulations and internal rules

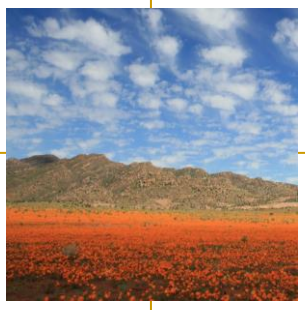
In addition to the regulations for the proper administration of special nature reserves, national parks and world heritage sites, as gazetted on 28 October 2005 in Government Gazette 28181, the park has also drafted applicable internal rules in terms of Section 52 of the NEM: PAA, (Appendix 6).

3.7 Support to the park

Park management is primarily supported by head office, providing human resource, financial, supply chain management, tourism and marketing, review and auditing services. The park also receives support from functions such as park planning and development, veterinary wildlife service, scientific services (SS), etc.



Figure 12. Namaqua National Park organogram.



Section 4: Consultation

SANParks recognises that parks must serve societal values and that parks need to be part of and interrelate with the broader landscape and socio-economic context within which they are situated. The goal of the park within the public participation process is to work directly with stakeholders to ensure that stakeholder concerns and aspirations are consistently understood and considered (Spies & Symonds, 2011). Therefore, affected and interested stakeholders were included in the revision process of the park management plan by notifying them of participation processes through mechanisms suitable for the different stakeholder groups. These processes provided the opportunity for input from all stakeholders within reasonable timeframes, with the emphasis on sharing of information and joint learning. Processes also aim to recognise all knowledge forms, as well as the diversity of values and opinions that exist between stakeholders. The commitment to the incorporation of public opinion into this plan is rooted in the park's management activities and is therefore geared towards promoting conservation values (and society's connection with those values, as also outlined in the NEM: PAA) and promoting this goal in part, by engaging the broader context in which the park is situated. The adaptive planning process that was followed was designed to (i) help stakeholders express opinions and values in a structured way, (ii) to use the opinions and expressed values to formulate a vision for the park, (iii) to translate the vision into management objectives that reflect the values as expressed by stakeholders and (iv) comment on the draft park management plan.

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 parties;
- Provide the opportunity for stakeholders to give meaningful input into the decision-making processes that drives the development of the park management plan.

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);
- The National Environmental Management Act (Act No. 107 of 1998 (NEMA)); and
- The NEM: PAA (Act No 57 of 2003) as amended.

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 timely 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; and
- Give particular attention to ensuring participation by marginalised communities, communities with specific concerns, or communities that have contractual rights in the national park.

The stakeholder participation process followed during the revision process of this management plan is depicted in Figure 13 below.

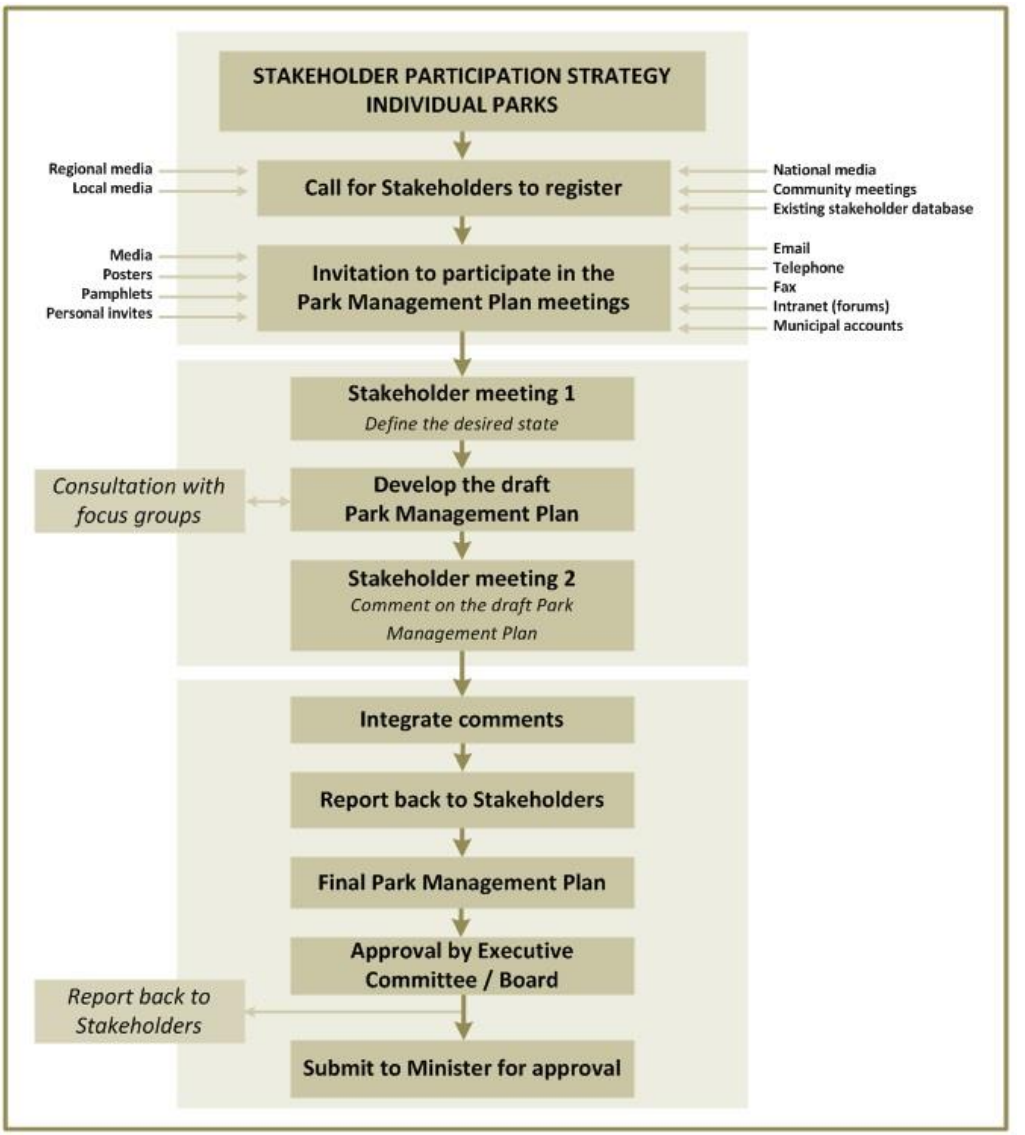
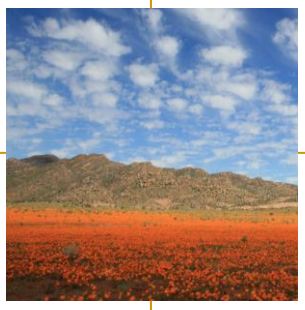


Figure 13. SANParks stakeholder participation process as applied in the NNP management plan revision process.

Details regarding the stakeholder process that was followed are outlined in Appendix 4.



Section 5: Purpose and vision

5.1 Purpose of the park

The NEM: PAA requires that the park be managed in accordance with the purpose for which it was declared. The original purpose of the park was not officially specified, neither in the first gazetted declaration nor in any subsequent addition. However, the initial motivation for establishing the park was to protect and conserve the succulent karoo vegetation type. SANParks will manage the park, firstly in accordance with its organisational vision and secondly in accordance with the mission and objectives hierarchy that were derived through consultation with stakeholders, as set out in this section.

5.2 Desired state for the park

Reconciling the need for participatory planning and governance and enabling ongoing adaptation, the adaptive planning process is an essential early component of strategic adaptive management. It is an easy and effective tool for enabling actual stakeholder participation in producing an effectively shared rationale or overall big picture 'desired state' for a national park. It requires an expression of the various stakeholders' value systems and then builds on the shared values to consider all possible system drivers (STEEP - social, technological, economic, environmental and political). The process enables stakeholders to consider opportunities to strengthen the vital attributes of the park and to counter and constrain threats to these. These opportunities are formulated as the high-level objectives of the park management plan. This ensures that the desired state of the park, its vision and mission, and high-level objectives are co-constructed with stakeholders. This strategic-level guidance obtained through stakeholder consultation is then unpacked into further detail and articulated as sub-objectives, either in-house or with relevant experts.

For more than a decade SANParks has been using the adaptive planning process with stakeholders. This often requires dealing with individual and/or group values, prejudices and sensitivities. Nevertheless, the process provides all participants with a space to express their own views and understand others' views. This ensures mutual understanding and commitment to both the process and the end product, namely the park management plan.

The purpose of the adaptive planning process is to source and incorporate stakeholder input into a more technical planning process. However, this purpose is situated within a broader context of forming and sustaining relationships with the public to secure mutual understanding and ongoing support and legitimacy. The desired state process reported here has therefore been an event in an ongoing, dynamic public engagement process.

5.2.1 Vision and mission

SANParks' corporate vision for all national parks including NNP, revised in 2022, is as follows:

VISION

"A world class system of sustainable national parks reconnecting and inspiring society."

The mission of a national park defines its fundamental purpose, succinctly describing why it exists and what it hopes to achieve (i.e. the collective dream). The following mission was developed after consultation with stakeholders during two public workshops held on 10 and 11 May 2022:

MISSION

"To manage Namaqua National Park in collaboration with stakeholders to enable the conservation and enhance the experience of Namaqua's internationally significant biodiversity and associated cultural heritage across the mountain-to-ocean landscape while supporting sustainable livelihoods in the region."

5.2.2 SANParks Strategic Plan

The SANParks Strategic Plan is focused on all aspects of management of the organisation from the core areas of the mandate to corporate governance and business operational support management. The Balanced Scorecard (BSC) performance management approach has been followed to ensure consistent, effective and efficient execution of the organisational strategy and performance management regime. The strategic plan sets out the organisation's key strategic objectives necessary for the effective and efficient delivery of its mandate along the BSC perspectives. Park management must ensure an integrated approach is followed regarding the implementation of the SANParks Strategic Plan and the Management Plan.

5.2.3 SANParks corporate vision of the desired state

Examined from the perspective of the entire system of national parks, SANParks has identified a broad vision and strategic direction for each individual park. This corporate strategic direction is intended to complement the role of other parks in adding overall value to South Africa's national park system in terms of biodiversity conservation, recreational opportunities and regional socio-economic contribution.

Thus, the following strategic direction for the park has also informed the programmes of implementation (Section 10) of this management plan:

The biodiversity and scenic value of the park is high, as is its role as a socio-economic catalyst in the region. It has potential to be an important bank of rare and endemic species. Cultural heritage is currently of low value. The diversity of tourism products is low. The importance of the park as a local socio-economic catalyst will be maintained and developed. This will be aided by the development of high impact Corporate Social Investment projects. Cultural heritage value has also been targeted for significant improvement. Attention will also be given to improving environmental education. The diversity of tourism products will be extended. There is little prospect of generating surplus income, but the deficit will be reduced. There is an expectation of a definite increase in national biodiversity value over the next twenty years. Climate change and poaching of succulents are the known risks to biodiversity.

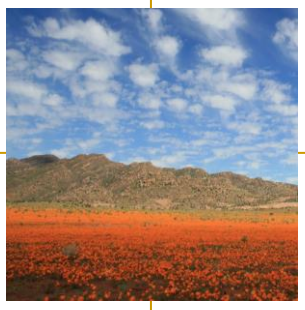
5.2.4 Operating principles or values

SANParks has adopted eleven corporate values which serve as guiding principles which shape and govern all employee behaviour and actions. Stakeholders recognised and endorsed the SANParks corporate and conservation values as outlined in the CPF. These corporate principles or values are:

1. Show **leadership** in all we do;
2. Be guided by **environmental ethics** in all we do;
3. Promote **transformation** within, and outside of the organisation;
4. Strive for **scientific** and **service excellence** at all times;
5. Act with **professionalism** at all times;
6. Adopt, and encourage **initiative** and innovation by all;
7. Treat all our stakeholders with equity and **justice**;
8. Exercise **discipline** at all times;
9. Show **respect** to all;
10. Act with **honesty** and **integrity**; and
11. Strive for **transparency** and open **communication** at all times.

In addition to the above, SANParks has also adopted biodiversity values as set out below:

1. We adopt a **complex systems view** of the world while striving to ensure the **natural functioning** and **long-term persistence** of the **ecosystems** under our care;
2. We aim at persistent achievement of **biodiversity representivity** and **complementarity** to promote **resilience** and ensure **ecosystem integrity**;
3. We can **intervene in ecosystems responsibly and sustainably**, but we focus management on **complementing natural processes** under a **"minimum interference"** philosophy; and
4. We accept with humility the **mandate of custodianship** of biodiversity **for future generations** while recognising that both natural and social systems change over time.



At the above-mentioned workshop, the participants suggested adding additional values. SANParks agreed to adopt the following:

1. We acknowledge our responsibility to act as guardians of the unique biodiversity and cultural heritage assets occurring in NNP and treat it with the necessary respect;
2. We recognise the uniqueness of this park and how it is positioned within the landscape;
3. We will strive for inclusivity in all we do;
4. We acknowledge the value of indigenous knowledge inherent in local communities, particularly the elders, in the management of the NNP;
5. We will be approachable and friendly in all our dealings with each other;
6. We will take pride in implementing our diverse functions, including public mandates and individual / private responsibilities; and
7. We will strive to provide assistance to those in need, where possible.

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5.2.5 Park context

The context refers to the current circumstances and the conditions that determine these circumstances. The context is therefore important as a set of agreed-upon realities that will influence the setting of management objectives. During the workshops, stakeholders were asked to reflect on the current and emerging context that is considered important for the development of the park management plan. All five STEEP categories were considered, namely social, technological, environmental, economic and political. The context is summarised under sections 2.1 to 2.16.

5.2.6 Vital attributes

The vital attributes of the park are the important characteristics and/or properties of the park that describe the key features of the park, or “what makes the park special". Vital attributes are in turn informed or strengthened by determinants and offset by constraints and / or threats. This information helps to focus the exact formulation of park objectives, which must strengthen positive determinants and reduce or mitigate threats, so that objectives are appropriate to the uniqueness and special nature of this national park. In this way, the Management Plan is customised in its fullest local extent, without detracting from some of its more generic functions. These are:

1. Sparkling quartz koppies and associated “groen diamante” (succulents);
2. Unique Namaqua cultural heritage;
3. Spectacular seasonal flower display;
4. A globally significant biodiversity hotspot (succulent karoo and fynbos biomes);
5. Expansive landscape spanning from mountains-to-sea with wide-open vistas providing peacefulness and a unique sense of place; and
6. Largest remaining intact coastal system in the Northern Cape.

5.2.7 Determinants and risks to the vital attributes

A major component of management’s responsibility is to ensure the maintenance of the determinants or strengths of the vital attributes and to limit the influence of threats to the system.

The tables below reflect the vital attributes, determinants and threats.

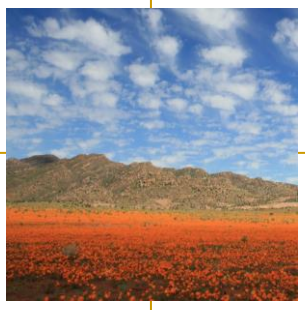
1. Sparkling quartz koppies and associated “groen diamante” (succulents).	
Determinants: Geology, geomorphology, weathering, climate, micro-climate	
Threats	
• Poaching (plants and semi-precious stones) • Trampling	• Illegal mining • Climate change • Inappropriate development

2. Unique Namaqua cultural heritage.	
Determinants: Oral histories, cultural practices (e.g. use of plants), Maclear’s beacon, Spoegrivier caves, shell middens, rock art, Koeroebees cultural heritage site, Kookfontein fountain, Riethuis mill, grave sites, local knowledge, Wildeperdehoekpas, stone age implements	
Threats	
• Natural weathering and weathering exacerbated by climate change • Poor maintenance and lack of site management plan • Lack of documentation • Tourism pressure	• Loss of traditional and institutional knowledge • Poor stakeholder relations • Inappropriate development • Incompatible use • Vandalism and illegal collection/looting • Uncontrolled access

3. Spectacular seasonal flower display	
Determinants: Geology, climate, controlled disturbance, seed bank	
Threats	
• Climate change • Change of management objectives	• Inappropriate disturbance management • Uncontrolled tourism impacts

4. A globally significant biodiversity hotspot (succulent karoo and fynbos biomes)	
Determinants: High endemism, geology, elevation, habitat diversity, landscape connectedness, climate, topography, evolutionary history, hydrology, plant animal interdependency	
Threats	
• Invasive alien plants and animals • Breakdown in ecological mutualisms (e.g. loss of pollinators) • Unsustainable resource use • Incompatible land-use (e.g. mining) adjacent to park • Illegal mining • Plant and animal diseases • Inappropriate development in park • Poor management	• Climatic change (e.g. temperature increase, unseasonal rainfall) • Extreme weather events • Degraded landscapes (e.g. old farmsteads, quarries and old fencing) • Abstraction of ground water • Undue political influence • Erosion • Overgrazing • Poaching

5. Expansive landscape spanning from mountains-to-sea with wide-open vistas providing peacefulness and a unique sense of place	
Determinants: Geology, geomorphology, topography, viewshed, sense of place, lack of dangerous game, low population density in surrounding area, clear day and night skies	
Threats	
• Loss of protected area status • Losing connectedness • Change of management objectives	• Inappropriate development. • Escalation in crime



6. Largest remaining intact coastal system in the Northern Cape.	
Determinants: Undisturbed natural vegetation, three micro estuaries, connected marine and terrestrial protected areas	
Threats	
• Loss of protected area status • Climate change • Inappropriate tourism activities	• Inappropriate development • Mining in the buffer zone • Poor management

5.2.8 High-level objectives

While the mission sets out the "Where do we want to go", high-level objectives act as the roadmap to achieve the mission. These high-level objectives flow naturally from the vital attributes. The desired state is achieved by means of a hierarchy of objectives (Figure 14), starting with an overall objective aligned with SANParks' organisational structure and the park's vision and mission statements, to broad, high-level objectives (this section) and to more detailed levels, ending with specific operational or management actions (Section 10). Discussions at the stakeholder meeting gave rise to an initial set of high-level objectives. These were refined to reflect the following:

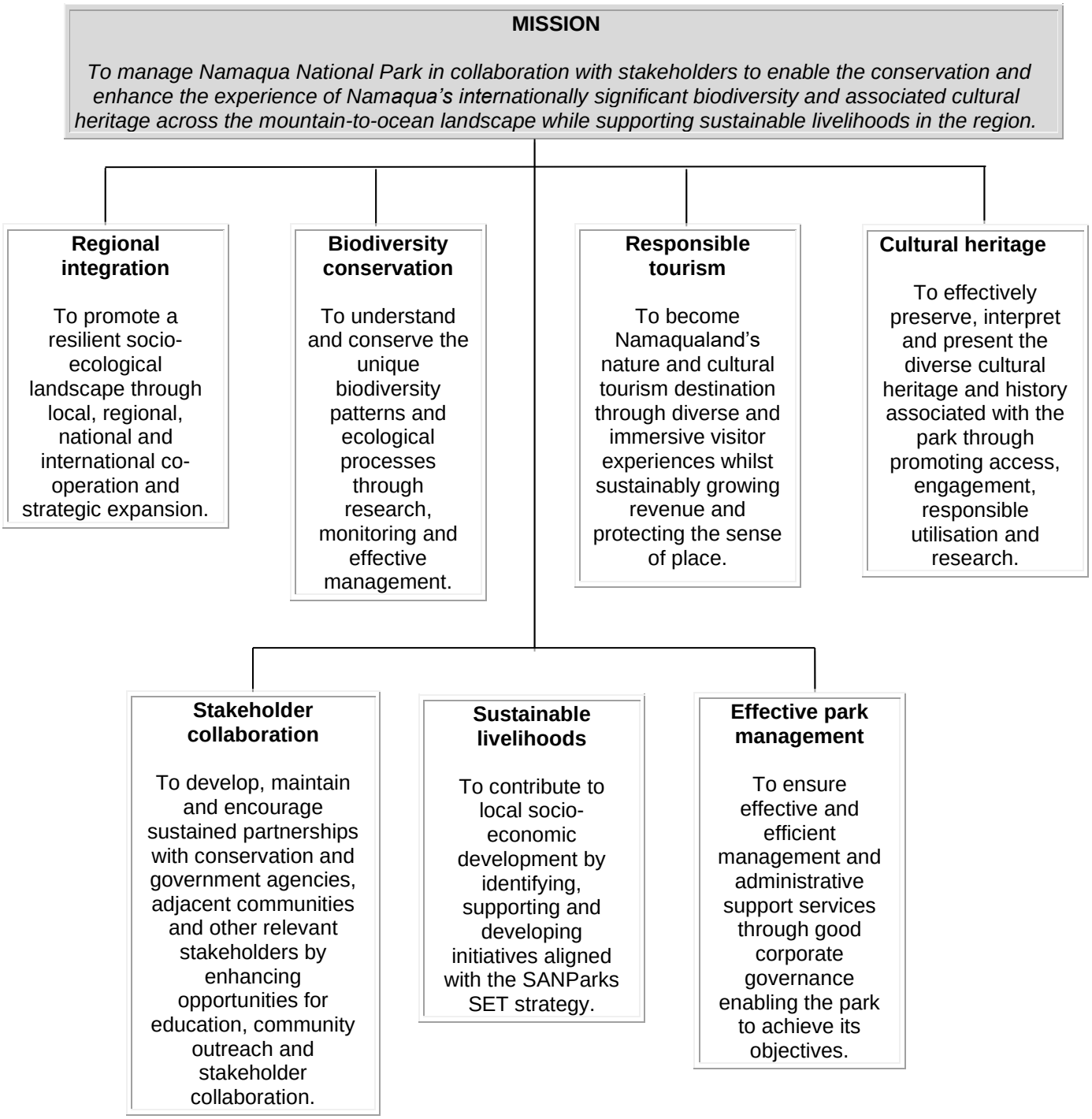
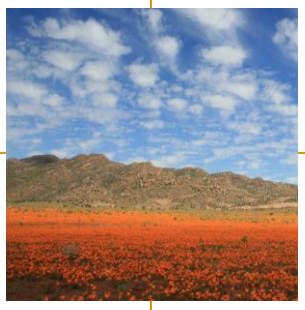


Figure 14. Park high-level objectives.

5.2.9 Unpacking the high-level objectives

The following unpacks the high-level objectives through a series of "objectives" of increasing focus. These are set out in Figures 15 – 22 below.



1. Regional integration high-level objective: To promote a resilient socio-ecological landscape through local, regional, national and international co-operation and strategic expansion.

- **1.1 Park consolidation and expansion objective:** To consolidate and expand the park by incorporating conservation worthy and strategically important terrestrial and marine areas.
- **1.2 Mainstreaming biodiversity objective:** To mainstream biodiversity issues in local and other planning frameworks by active engagement with governmental and non-governmental partners.

Figure 15. Regional integration high-level objective and supporting objectives.

2. Biodiversity conservation high-level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.

- **2.1 Degradation and rehabilitation objective:** To restore the functionality of natural systems by identifying, prioritising, monitoring and effectively rehabilitating of degraded areas.
- **2.2 Invasive and alien species objective:** To reduce the impact of invasive and alien species through the prevention, control and where possible eradication thereof.
- **2.3 Aquatic systems objective:** To understand and conserve groundwater, wetlands, rivers and estuarine ecosystems through research, monitoring and effective management.
- **2.4 Species of special concern objective:** To protect habitats and species of special concern through the identification, prioritisation, monitoring, and effective management thereof.
- **2.5 Functional ecosystems objective:** To maintain functional ecosystems by effectively managing wildlife and vegetation through monitoring, research and effective management.

Figure 16. Biodiversity conservation high-level objective and supporting objectives.

3. Responsible tourism high-level objective: To become a unique nature-based and cultural tourism destination of choice by enabling and growing diverse visitor experiences whilst sustainably growing revenue and protecting the sense of place.

- **3.1 Responsible Tourism performance objective:** To establish, maintain and continuously improve the park's Responsible Tourism performance, by implementing SANS1162.
- **3.2 Visitor experiences objective:** To continually enhance the authentic visitor experience within the park, by effective visitor management, interpretation and by providing quality facilities.
- **3.3 Service excellence objective:** To enable relevant customer-focused service excellence, by understanding and responding appropriately to market expectations and preferences.
- **3.4 Grow tourism revenue objective:** To sustainably grow income through tourism by providing visitors with an appropriate and a diverse range of products and services, whilst protecting the tranquillity and sense of place.

3. Responsible tourism high-level objective: To become a unique nature-based and cultural tourism destination of choice by enabling and growing diverse visitor experiences whilst sustainably growing revenue and protecting the sense of place.

- **3.5 Operational effectiveness objective:** To enable cost savings within tourism operations, by ensuring effective management and controls.
- **3.6 Promotion objective:** To promote the unique cultural and natural landscape of the park by developing and implementing a variety of sales, marketing, and communication initiatives.
- **3.7 Universal access objective:** To enable appropriate access for differently abled visitors by providing adequate infrastructure and services.

Figure 17. Responsible tourism high-level objective and supporting objectives.

4. Cultural heritage management high-level objective: To effectively preserve, interpret and present the diverse cultural heritage and history associated with the park through promoting access, engagement, responsible utilisation and research.

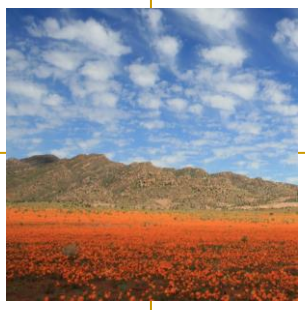
- **4.1 Heritage site accessibility objective:** To provide access to heritage sites through facilitating sensitive and appropriate use of sites for tourism and education purposes.
- **4.2 Site management objective:** To identify and effectively manage cultural heritage sites by developing and implementing a cultural heritage management plan for the park.
- **4.3 Intangible heritage objective:** To preserve intangible heritage through identification, documentation, presentation, knowledge management and enabling access for cultural practices.
- **4.4 Research objective:** To improve and diversify the cultural heritage knowledge of the park through quality and inclusive research partnerships with communities, universities and researchers.

Figure 18. Cultural heritage management high-level objective and supporting objectives.

5. Stakeholder collaboration high-level objective: To develop, maintain and encourage sustained partnerships with conservation and government agencies, adjacent communities and other relevant stakeholders by enhancing opportunities for education, community outreach and stakeholder collaboration.

- **5.1 Stakeholder engagement objective:** To promote collaboration with key stakeholders through continuous engagement in fora and other events.
- **5.2 Environmental education and awareness objective:** To review, update and maintain educational opportunities by implementing environmental education and awareness programmes relevant to the park and its objectives.

Figure 19. Stakeholder collaboration high-level objective and supporting objectives.



6. Sustainable livelihoods high-level objective: To contribute to local socio-economic development by identifying, supporting and developing initiatives aligned with the SANParks SED strategy.

- **6.1 Employment, business opportunities and skills development objective:** To promote and support employment, business opportunities and skills development by implementing and supporting EPWP and other initiatives.

Figure 20. Sustainable livelihoods high-level objective and supporting objectives.

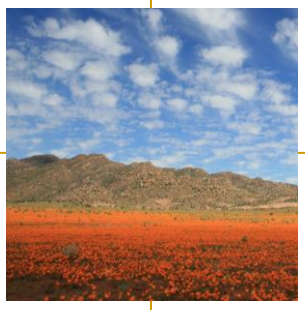
7. Effective park management high-level objective: To strive for effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.

- **7.1 Environmental management objective:** To strive for best practise and ensure compliance with environmental legislation through improved governance and environmental risk management.
- **7.2 Risk management objective:** To establish and maintain effective, efficient and transparent risk management systems by creating an enabling environment for the management of risk.
- **7.3 Financial management and administration objective:** To ensure sound financial management and administration through proficient budget management, effective internal controls and compliance to corporate governance prescripts.
- **7.4 Human capital management objective:** To ensure sufficient and effective staff capacity to achieve management objectives by adhering to legislation, corporate human capital management policies and guidelines.
- **7.5 Information and records management objective:** To achieve best practice in the field of information and records management by complying to the Records Management Legislative Framework and policies and thereby ensuring care of all vital records in SANParks.
- **7.6 Infrastructure objective:** To maintain, upgrade and develop new park infrastructure through proper planning and efficient management.
- **7.7 Safety and security objective:** To provide a safe and secure environment for both visitors and employees and to ensure the protection and integrity of natural, cultural and physical assets and resources, by implementing a Park Safety and Security Plan.
- **7.8 Safety, health, environment and quality objective:** To continuously reduce the disabling injury frequency rate through the implementation of an efficient and effective Occupational Health and Safety management system.

7. Effective park management high-level objective: To strive for effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.

- **7.9 Communication objective:** To build, maintain and constantly improve relations of the park by engaging and sharing information with internal and external stakeholders
- **7.10 Disaster management objective:** To ensure that all disaster situations that may occur in the park are addressed and managed through pre-determined contingency plans and pre-planned actions.
- **7.11 Climate change objective:** To adapt and mitigate negative impacts of climate change through monitoring, research and implementing the SANParks climate change preparedness strategy.
- **7.12 Outcomes objective:** To evaluate outcomes of management interventions related to protected area management through regular assessment.

Figure 21. Effective park management high-level objective and supporting objectives.



Section 6: Zoning

6.1 Introduction

The primary objective of a park zonation plan is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives, and minimise potential conflict resulting from activities. A zoning plan is also a legislated requirement of the National Environmental Management: Protected Areas Act (57 of 2003), 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 park and the conservation objectives of those sections".

The zoning of the park was based on an analysis and mapping of the sensitivity and value of the park's biophysical, heritage and scenic resources (SANParks, 2005a); 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 the park objectives. This was undertaken in an iterative and consultative process. This section – which is guided by the Conservation Development Framework (CDF) planning manual (SANParks, 2005b) – sets out the rationale for use zones, describes the zones, and provides management guidelines for each of the zones. The use zoning of the park is shown in Appendix 7, Maps 4 & 5 and summarised in Table 3 below.

6.2 Synopsis of updates to the 2013 zonation

The overall pattern of use zones in the 2013 Management Plan has been retained, and in areas where the park has expanded, updates were made. In some areas changes have been made based on updated sensitivity, which include:

- The remote zones have largely remained the same as in 2013, however, a few additional remote areas have been added to properties that have been incorporated into the park. These include the extension of the remote zone to the new property added adjacent to Graaf Se Put, close to Wildeperdehoek in the north of the park and properties around Kanariesfontein due to their high sensitivity. A small portion near Skilpad has also been zoned as remote.
- The Low Intensity Leisure (LIL) zones were added / updated to coincide with tourist transport routes. Along the coast, the LIL zone was extended to ensure all campsites and planned camp sites are zoned LIL, along with the tourist road that runs along the coast.
- The High Intensity Leisure (HIL) zone was modified around the Groenrivier area. The footprint was substantially reduced from the 2013 footprint and now only extends to cover the existing administrative infrastructure. The remaining footprint was zoned as Low Intensity Leisure given the activities planned and the sensitivity of the Groenrivier and estuary at the site. Additionally, a HIL section was added to the recently added part of the park, with the section closest to the N7 zoned as HIL.
- The primitive zone was extended to newly added parts of the park in a few places, which includes extending some of the primitive zonation to the area adjacent to Graaf Se Put, extending it to the newly added properties in the west of the park, just above Koingnaas and De Riet, additional primitive zoning around the Swartfontein area, and a small extension of the primitive zoning below Koeroebees and around Skilpad. A portion of the newly added properties adjacent to the N7 was also zoned as primitive (the area just south of Blyderus).
- The quiet zone footprint along the coast was reduced in places where there was an overlap with campsites. In these places they were zoned as LIL to ensure that camping related facilities and activities could be catered for. An additional quiet zone was also added as transition between HIL and primitive zones to the newly added area adjacent to the N7.

The buffer zone of the park has been slightly updated, as follows:

- The buffer zone has been aligned with the significantly changed park expansion footprint;
- Buffer zone categories have been aligned with the provincial biodiversity plan (Holness & Oosthuysen, 2016). Buffer zone categories have also been aligned with those of the provincial plan;
- The buffer zone has been aligned with additional freshwater spatial data, particularly National Freshwater Ecosystems Priority Areas (Nel *et al*., 2011a, 2011b), and the updated wetlands data from the NBA 2018 (Skowno *et al.,* 2019);
- The buffer zone has been adjusted to align with the Renewable Energy Development Zones (Government Gazette no 41445, 2018); and
- It has been adjusted to align with a number of existing designated Protected Areas (Northern Cape Department of Land Reform, Agriculture and Nature Conservation and Environmental Affairs) nature reserves, private nature reserves and local reserves) in the area.

6.3 Guiding principles underpinning the zonation

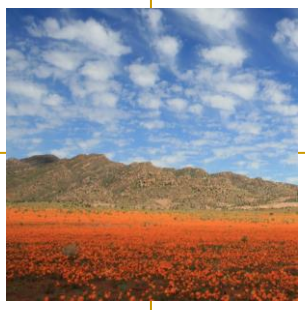
The principles underpinning the park zonation, as listed below, were informed by the SANParks CDF planning manual (SANParks, 2005b), the Guidelines for Strategic Environmental Assessment in South Africa, Integrated Environmental Management (DEAT, 2004) and the NEM: PAA. Accordingly, the zoning principles are:

- The foundation of all planning and development within a park, with the aim of ensuring its long-term sustainability;
- Accommodate strategic, flexible and iterative planning procedures;
- A “framework for planning” not a “plan for implementation” (i.e. implementation is dealt with through lower level plans and programmes);
- Risk-averse and promote a cautious approach, which takes into account the limits of current knowledge about the consequences of decisions and actions;
- Recognise that the mandate of SANParks is to conserve biodiversity and heritage resources of national and international significance, in terms of both the NEM: PAA and the National Heritage Resources Act;
- Ensures the integrity of the park’s scenic quality by limiting human intrusions into the landscape;
- Accommodate a wide range of unique opportunities for experiences of solitude and nature-based recreation which limit conflict with the desired social and environmental states;
- Confine development within the park to areas that are robust enough to tolerate transformation and without detracting from the “sense of place”;
- Rationalise and channel access into the park and internal movement through it;
- Set the limits of acceptable change to minimise the loss of biodiversity and to reduce conflict between different park uses;
- Recognise that park boundaries are not static in time and that there are factors beyond the current or future boundaries that can positively or negatively influence the park; and
- Recognise that the park cannot exist in isolation and that planning needs to ensure that the park is integrated with the surrounding landscapes, as well as the economic and social structures at local and regional scales.

6.4 Rationale for use zones

The primary 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 park, could potentially conflict with and compromise this primary function. Use zoning is the primary tool to ensure that visitors could have a wide range of quality experiences without comprising the integrity of the environment.

Furthermore, the expectations and recreational objectives of individuals that visit the park may differ. Some individuals visit the park purely to see the wildlife and natural landscapes. Other individuals wish to experience the intangible attributes such as solitude, remoteness, wildness and serenity (which can be grouped as wilderness qualities), whilst some visit to engage in a range of nature-based recreational activities, or to socialise in a rest camp. Different people have different accommodation requirements ranging from basic to luxury-catered accommodation. There is often conflict between the requirements of different users and different activities. Appropriate use zoning serves to minimise 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 negatively impact on the park's vital attributes and objectives (especiallythe 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.

6.5 The zoning system

SANParks has adopted a multiple zoning system for its parks. The system consists of:

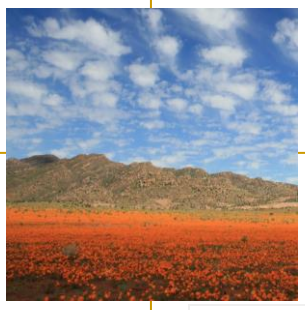
- Use zones covering the entire park;
- Special management overlays covering portions of the park (where needed); and
- A buffer zone surrounding the park.

6.5.1 The zoning process and its linkage to the underlying environmental analysis

The zoning for the park was underpinned by an analysis and mapping of the sensitivity and value of its biophysical, heritage and scenic resources. This analysis examined the park's biophysical characteristics which include habitat value (in particular, the contribution to national conservation objectives) and vegetation vulnerability to physical disturbance; hydrological sensitivity (areas vulnerable to disruption of hydrological processes such as floodplains and wetlands); topographic sensitivity (steep slopes); and soil sensitivity (soils that are vulnerable to erosion). In addition, the heritage value and sensitivity of the sites were examined (mostly archaeological and cultural aspects). The visual sensitivity of the landscape was also surveyed to identify sites where infrastructure development could have a strong aesthetic impact. This analysis was used to inform users of the appropriate use of the different areas of the park, and assisted in defining the boundaries between zones. The zoning was also informed by the park's current infrastructure and tourism products and the regional context (especially linkages to neighbouring areas and impacts from activities outside the park). 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's objectives and undertaken in an iterative and consultative process.

Table 3. Use zones and use zone characteristics for the park.

	Remote	Primitive	Quiet
General characteristics	Retains an intrinsically wild appearance and character, or capable of being restored to such	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.	This zone allows non-motorised access to areas which generally retain a natural appearance and character. Access is not specifically controlled.
Experiential qualities	Solitude and awe-inspiring natural characteristics	Experience wilderness qualities	Wide range of activities; relaxation in a natural environment
Interaction between user groups	None to very low	Low	Moderate to high
Types of access	For visitors, only access on foot	Foot; 4x4 vehicles	Unaccompanied non-motorised access.
Types of activities	Hiking in small groups	Hiking; 4x4 drives; wildlife viewing	Hiking; walking; rock climbing; where relevant non-motorised aquatic activities; bird watching; possibly mountain biking and horse riding.
Types of facilities	Established footpaths where erosion may be a problem. Essentially underdeveloped and roadless	Small, basic, self-catering; or limited concessions with limited numbers (concession facilities may be more sophisticated); 4x4 trails; hiking trails	Hiking trails; footpaths; management tracks. No accommodation; and no tourist access by vehicle.
Limits of acceptable change: Biophysical	The zone should be kept near to natural state as possible with no impact on biodiversity pattern or processes. Existing impacts on biodiversity either from historical use or originating from outside the zone should be reduced or minimised.	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 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.
Limits of acceptable change: Aesthetics and recreational	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.	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.	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 proximity of larger numbers of visitors and the adjacent facilities, may impact on the feeling of wildness found in this zone.
Guidelines for management infrastructure	Ideally, there should be no management infrastructure in this zone.	Permanent management infrastructure is permissible in this zone, but these should be relatively small and isolated. Park operations staff may need to service tourist facilities in this zone.	Ideally, there should be no management infrastructure in this zone.



	Low intensity leisure	High intensity leisure
General characteristics	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.	The main characteristic is that of a high-density tourist development node, with modern amenities, where more concentrated human activities are allowed.
Experiential qualities	Comfortable facilities in a relatively natural environment.	Comfortable and sophisticated facilities while retaining a natural ambiance
Interaction between user groups	Moderate to high	High
Types of access	Motorised self-drive access.	Accessible by motorised transport (car/bus) on high volume transport routes, including delivery vehicles.
Types of activities	Motorised self-drive wildlife viewing, picnicking, walking, cycling; rock climbing; hiking; adventure activities.	As with LIL. Additional sophisticated infrastructure. Larger, organised adventure activities (orienteering, fun runs). Dining at restaurants.
Types of facilities	Facilities limited to basic picnic sites; ablution facilities; information/education centres; parking areas. Small to medium (including camping) rest camps with basic facilities. Low specification access roads to provide a reasonably wild experience.	High-density tourist camps with modern amenities. Footpaths, transport systems, accommodation, restaurants, curio and refreshment stalls; education centres. High volume roads.
Limits of acceptable change: Biophysical	The zone should be kept in a largely natural state. Deviation from a natural/pristine state should be minimised 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 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.
Limits of acceptable change: Aesthetics and recreational	The zone should be maintained in a largely natural state from an aesthetics point of view. Although it is inevitable that activities and facilities will impact on the wild appearance and reduce the wilderness characteristics of the area (solitude, remoteness, wildness etc), these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience.	The 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.
Guidelines for management infrastructure	Where HIL already exists, attempts must be made to concentrate the development of park management and operational infrastructure in the highest usage zone of the park, where feasible, and especially when this is situated close to the boundary of the park. Where it may be preferable to include non-industrial components of management infrastructure on the periphery of the park, these can be accommodated in LIL.	As HIL is, by definition, a high use area, and must be in an area of low sensitivity, the development of management and operations infrastructure in this zone is preferable.

The sensitivity map (Appendix 7, Maps 6 & 7) shows the relationship between the use zoning and the summary of the biodiversity and landscape sensitivity-value analysis. This indicates that in general it was possible to include most of the environmentally sensitive and valuable areas into zones that are strongly orientated towards conservation rather than intensive tourist use. In addition, in numerous cases the boundaries between zones are based on changes in environmental sensitivity. Table 4 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 within each zone. This indicates that 89.1 % of the park is covered by zones that are strongly conservation orientated in terms of their objectives (i.e. remote and primitive). The table demonstrates a good correlation between the spatial distribution of environmentally sensitive areas and conservation-orientated zones, with 91.7 % of highly sensitive areas in the conservation-orientated zones. Conversely, the tourism-orientated zones cover just under 10.9% of the park while containing 8.3 % of sensitive areas.

Table 4. Park percentage area summary covered by each zone, as well as the percentages of the highly environmentally sensitive and valuable areas (defined as areas with values in the top quartile of the sensitivity value-analysis) that is within each zone.

Zone emphasis	Use zone	Zone as a % of park area	% of highly sensitive areas that are in a zone
Conservation orientated	Remote Primitive	34.1 55.0	79.5 12.2
Tourism orientated	Quiet Low intensity leisure High intensity leisure	0.5 9.8 0.6	2.3 5.8 0.2

6.6 Overview of the use zones

6.6.1 Remote zone

Objective

The objective of this conservation-orientated zone is to protect sensitive environments from almost all development impacts and tourism pressures.

Characteristics

This is an area retaining an intrinsically wild appearance and character, or capable of being restored to such and which is essentially undeveloped and roadless. There are no permanent improvements or any form of human habitation. The remote zone provides outstanding opportunities for solitude with awe-inspiring natural characteristics. Sight and sound of human habitation and activities are barely discernible and at a far distance.

Visitor activities and experience

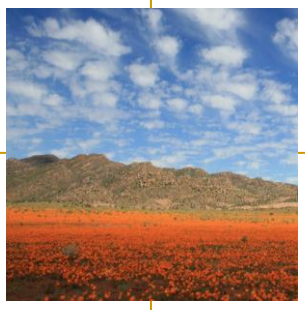
Activities: Access is strictly controlled and non-motorised. Groups must be small and can be either accompanied by a guide or unaccompanied. Several groups may be in an area at the same time, but if necessary, densities and routes must be defined so that groups are unaware of each other. The principle of "Pack it in Pack it out" must be applied. Specially arranged once-off events such as an adventure race may involve higher visitor numbers for a brief limited period, but these events are not the norm.

Interaction with other users: There is no interaction between groups. The number of groups within the area will be determined by the ability to ensure that there is no interaction between groups.

Limits of acceptable change

Biophysical environment: Deviation from a natural / pristine state should be avoided, else minimised and where unavoidable, existing impacts must be reduced.

Aesthetics and recreational environment: 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.) are not allowed.



Facilities

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

Sophistication of facilities: Except for self-carried portable tents, no other facilities are permitted. Guidelines for washing, ablution and cooking must be defined according to the "Pack it in Pack it out" principles. Camping is allowed only at designated sites.

Audible equipment and communication structures: None.

Access and roads: Public access is non-motorised. Vehicular access and parking are provided in the adjoining zones. Established footpaths may be provided where erosion risks occur. Limited low specification management tracks (i.e. not built-up roads) are acceptable within this zone, though these tracks should be rationalised, and eventually removed.

Location in park

Remote zones are situated around the sensitive dune areas in the south, near Swartfontein and Kalkvlei, all the way through to Baksteenhoek. In the northwestern part of the park the remote zone extends from the Jantjieskop region towards the Swartlintjiesrivier and upward. A smaller zone of remote exists just next to Graaf se Put, with the majority of the remote zoned area in the park on the east, from Wildeperdehoek, up to as far as northeast of Hardevlei and going as far eastward as beyond the Wolwepoortriver near Kanariesfontein. Some of the remote zone also reaches as far southeast as the Skilpad area.

Guidelines on management infrastructure and utilisation

Ideally, there should be no management infrastructure, and natural processes must be allowed to function without management intervention. However, in reality, most parks are too small to allow ecological processes (fire, fecundity – particularly of large predators, etc.) to continue without management intervention, which would eventually impact biodiversity negatively. Furthermore, in young or expanding parks, farm management infrastructure might still be apparent. For this reason, concessions are made on management infrastructure in this zone, principally to prevent loss of biodiversity or restoration. Infrastructure might include footpaths where erosion might be a problem or identified (barely) traversable management 4x4 routes for fire management or ensuring area integrity. Temporary management infrastructure, as might be used for game capture or anti-poaching activities, such as temporary bomas or helicopter landing sites would be permissible, as would vehicular access by staff for specific management interventions, although this must be exercised circumspectly.

6.6.2 Primitive zone

Objective

The objective of this conservation-orientated zone is to protect sensitive environments from development impacts by limiting the size, number and sophistication of infrastructure, and by reducing tourism pressure through controlled access and visitor numbers.

Characteristics

The primary characteristic of this zone is the experience of wilderness qualities with the emphasis on controlled access. Access is controlled in terms of numbers, frequency and group sizes. The zone shares the wilderness qualities of wilderness areas and the remote zone, but with the provision of small basic self-catering facilities with controlled access. It also provides

access to areas zoned as remote or wilderness. Views of human activities and development outside of the park may be visible from this zone.

This zone serves to protect sensitive environments from high levels of development, and acts as a buffer between conservation-orientated and tourist-orientated zones, e.g. remote (or wilderness areas) and LIL respectively. The primitive zone may contain concession sites and other facilities where impacts are managed through strict control of the movement and numbers of tourists, for example if all tourists are in concession safari vehicles.

Visitor activities and experience

Activities: Access is controlled in terms of the number, frequency and group sizes. Activities include hiking, 4x4 drives and game viewing. In the park, access control is mostly passive, with 4x4 trails marked as restricted to 4x4 vehicles only, thus limiting visitor numbers on these routes. Access may also be controlled either through only allowing access to those with bookings for specific facilities, or alternatively through a specific booking or permit for a hiking trail or 4x4 route in more sensitive areas. Several groups may be in the area at the same time, but access should be managed to minimise interaction between groups if necessary.

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

Limits of acceptable change

Biophysical environment: Deviation from a natural / pristine state must be small and limited to restricted impact footprints. Existing impacts must 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 must be designed to limit impacts.

Aesthetics and recreational environment: 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.) must be restricted and impacts limited to the site of the facility. Ideally, visitors must only be aware of the facility or infrastructure that they are utilising, and this infrastructure / facility must be designed to fit in with the environment within which it is to avoid aesthetic impacts.

Facilities

Type and size: Facilities are small, often basic and are distributed to avoid contact between users. To achieve this, camp development must be limited to 15 beds, alternatively facilities can be designed for high levels of luxury, but with limited visitor numbers (e.g. controlled access 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.

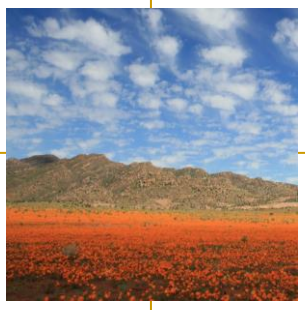
Access and roads: Vehicular accesses to facilities are mostly limited to low-specification roads, often 4x4 only. Tourist and game viewing roads are usually suitable for 4x4 vehicles only. Established footpaths are provided to avoid erosion and braiding.

Location in park

Primitive areas were designated to buffer remote areas and to protect most of the remaining sensitive areas from high levels of tourist activity. The primitive areas are located across the park.

Guidelines on management infrastructure and utilisation

Permanent management infrastructure is permissible in this zone, but these should be relatively small and isolated. Park operations staff may need to service tourist facilities in this zone. Examples may include non-improved management tracks, permanent bomas for wildlife, ranger camps and outposts, and possibly even permanent helipads. The responsibility is on park management to co-ordinate the tourist road network usage in such a way that tourists do not encounter management infrastructure in this zone, such as by using of no entry signs. Low volume access gates or entrances to access 4x4 routes could be accommodated in this zone.



6.6.3 Quiet zone

Objective

The objective of this conservation-orientated zone is to allow non-motorised access whilst retaining a natural appearance and character through limited infrastructure development.

Characteristics

This zone is characterised by unaccompanied non-motorised access without specific access control and permits. Visitors are allowed unaccompanied (or accompanied) access, mainly on foot, for a wide range of experiences. Larger numbers of visitors are allowed than in the Primitive zone and contact between visitors is frequent. The main accent is on unaccompanied non-motorised access. Larger numbers of visitors are allowed and contact between visitors is frequent. It is important to note that this zone may have different interpretations in different parks and the CDF documentation for each park should set the objectives specific to that park. Thus, in some instances horses and mountain bikes could be accommodated. This zone can also provide non-motorised access within LIL and High Intensity Leisure (HIL) zones away from vehicular access roads.

Visitor activities and experience

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

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

Limits of acceptable change

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 to accommodate park recreational and tourism objectives. The zone should be managed within the following limits of acceptable change:

Biophysical environment: Some deviation from a natural/pristine state is allowed, but care should be taken to restrict the development footprint. 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: Activities which impact on the relatively natural appearance and character of the area should be restricted, though the presence of larger numbers of visitors and the facilities they require, may impact on the feeling of “wildness” found in this zone.

Facilities

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

Sophistication of facilities: Where provided these should be basic.

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

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

Location in park

Quiet areas were designated in the lower use pedestrian areas. In the park the Quiet zone is located largely along the coast, in a thin strip stretching from north of the Groenrivier mouth to just below the Kwass camp site. Additionally, a small Quiet zone also exists near the N7, directly opposite Kammieskroon, where it servers as transition from HIL to Primitive. These quiet zones provide active and passive non-motorised recreation space for the relatively large numbers of park visitors that will be accommodated there.

Guidelines on management infrastructure and utilisation

Ideally, there should be no management infrastructure in the quiet zone.

6.6.4 Low intensity leisure zone

Objective

The objective of the tourist-orientated zone is to provide infrastructure for day and overnight visitors in a natural environment. While game viewing areas may be zoned LIL to allow for flexibility of the game viewing road network, in reality, development footprints must be localised, with some areas having more of a primitive or even remote zone "feel." Impacts must be mitigated by using infrastructure to direct and manage the movement of park visitors away from the more sensitive areas that may occur within this zone.

Characteristics

The underlying characteristic of this zone is motorised self-drive access, with basic self-catering facilities. Small or seasonal commercial or catered facilities can be accommodated; however, these facilities must be small and aligned to the general ambiance of the zone. Numbers of visitors are higher in the low intensity leisure zone as compared to the remote and primitive zones. Relatively comfortable facilities are positioned in the landscape retaining an inherent natural and visual quality, which enhances the visitor experience of a more natural and mostly self-providing experience. Access roads are low key, preferably gravel roads and / or tracks to provide a more natural experience, however higher volume roads may be tarred. Facilities along roads are generally limited to basic self-catering picnic sites with toilet facilities. Large busses and open safari vehicles may be permitted subject to certain conditions.

Visitor activities and experience

Activities: Self-drive motorised game viewing, guided game drives, picnicking, walking, cycling, rock climbing, hiking and adventure activities.

Interaction with other users: Moderate to high.

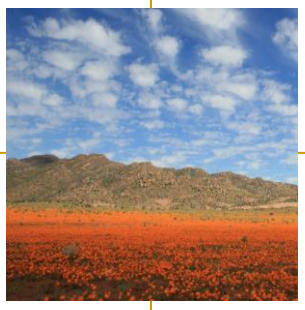
Limits of acceptable change

Biophysical environment: Deviation from a natural / pristine state must be minimised 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: Although it is inevitable that the activities and facilities will impact on wild appearance and reduce wilderness characteristics of the area (solitude, remoteness, wildness, etc.), these activities and facilities must 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 self-catering camps (including camping and caravanning) of low to medium density (up to 50 beds). Additional facilities can include swimming pools. Trails for 4x4 vehicles can also be provided. Small or seasonal (facilities are only open as required or during peak season) commercial facilities can be provided, such as kiosks, small tourist convenience stores, or tea gardens. However, these facilities must still fall within the general ambiance of the zone– and as such may make use of converted or restored farmhouses. Larger commercial facilities and larger concessional operators (e.g. Cattle Baron Steakhouse and Mug & Bean), must be placed in the High Intensity Leisure (HIL) zone. Day visitor sites are not placed within the camps, and must be compliant with the general self-catering or smaller-scale catered characteristics of the zone.



Sophistication of facilities: Mostly self-contained self-catering accommodation units with bathroom facilities. Camp sites mostly include ablution and kitchen facilities. Tourist facilities may include modern commercial facilities such as shops, kiosks, tea gardens and small tourist convenience stores, as long as these are small.

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: Motorised self-drive access (traditional game viewing) on designated routes, which are preferably gravel roads. Large busses and open safari vehicles are restricted to high volume roads designed to accommodate them, and indicated as such. Roads may be tarred, secondary gravel tourist roads, or minor game viewing roads.

Location in park

Low intensity leisure areas were designated to ribbons along current and planned access routes, around frequented beaches and accommodation, inclusive of the rest camps along the coastal section including Delwerskamp, Moonbay, Groenrivier, etc.

Guidelines on management infrastructure and utilisation

The placement of permanent management infrastructure is encouraged in this zone, particularly when it is the highest-level use zone within the park. Where HIL already exists, attempts must be made to concentrate the development of park management and operational infrastructure in the highest usage zone of the park, where feasible, and especially when this is situated close to the boundary of the park. Where it may be preferable to include non-industrial components of management infrastructure on the periphery of the park, these can be accommodated in LIL. Examples may include moderate to high volume access or main entrance gates, park reception, or park management / administration offices (preferably close to park reception facilities). This will allow management and operations to make use of high-volume access routes, which will be built to accommodate high traffic volume, and if positioned close to the boundary of the park, will involve shorter commuting distances, limiting disturbance to both wildlife and tourists, and limiting wear and tear to roads.

6.6.5 High intensity leisure zone

Objective

The main objective of this tourist-orientated zone is the concentration and containment of commercial, tourism, managerial, operational and industrial park activities within a restricted and designated area, which is robust enough to tolerate development, and where these diverse activities can share multi-use infrastructure (roads, plumbing, power), thus reducing their overall footprint. As impacts and particularly cumulative impacts are higher, where possible the HIL zone must be placed in areas that have low sensitivity values and are sufficiently robust to tolerate development, and ideally be close to the periphery of the park. Staff not directly associated with tourism facilities must be accommodated outside of the park where possible. When inside a park, all industrial type facilities such as laundries, abattoirs, maintenance depots and workshops, must be ideally located nearby to the park boundary or, where possible, outside of the park but within municipally suitably zoned adjoining urban or rural areas.

Characteristics

The main characteristic is that of a high-density tourist development node with modern commercial amenities such as restaurants and shops. This is the zone where more concentrated human activities are allowed. High intensity leisure is accessible by motorised transport (car / bus) on high

volume transport routes. More concentrated and commercialised (concessional) activities occur here than in LIL areas.

Visitor activities and experience

Activities: Traditional game viewing routes with more sophisticated infrastructure, sightseeing at tourist destinations, picnicking, walking, cycling, rock climbing, hiking and activities associated with amenities such as dining in larger or concessional restaurants.

Interaction with other users: High

Limits of acceptable change

Biophysical environment: 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, care must be taken to ensure that the zone retains a level of ecological integrity consistent with a protected area.

Aesthetics and recreational environment: Although it is inevitable that high visitor numbers, activities and facilities will impact on wild appearance and reduce wilderness characteristics of the area (solitude, remoteness, wildness, etc.), these must be managed and limited to ensure that the area generally still provides a relatively natural outdoor experience.

Facilities

Type and size: High-density camps providing tourist accommodation with diverse modern amenities. Restaurants, shops, education / information centres, view sights, ablution facilities, parking areas and botanical gardens. Day visitor sites are provided outside of rest camps. Day visitor sites or picnic sites may provide catered facilities and kiosks. Where it may be necessary to provide high-density recreational sites with a wide range of intensive activities, an attempt must be made to concentrate these sites close to the periphery of the park. Staff villages and administrative centres must be restricted to core staff. Non-essential staff housing, administration and industrial infrastructure must, where possible, be positioned outside of or close to the periphery of the park.

Sophistication of facilities: Moderate to high-density facilities. Self-catering and catered. Camps often have diverse modern facilities such as shops and restaurants, which may be concessional.

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

Access and roads: The zone is highly motorised, and traffic includes 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 minimise conflict between users.

Location in park

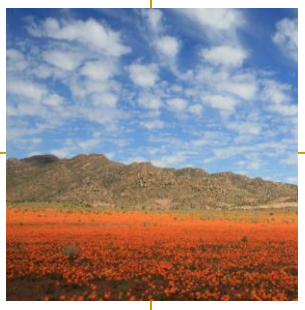
High intensity leisure areas are designated around the Skilpad area, part of the park adjoining the N7, so visitors can use it as an entry point, and to reach the offices at the Groenrivier mouth / estuary.

Guidelines on management infrastructure and utilisation

Management guidelines that apply to LIL also apply to the HIL zone. Generally, the presence of HIL in a park indicates higher or more intense utilisation or development, with a higher diversity and concentration of facilities, and thus may require additional management or operational facilities. As HIL is, by definition, a high use area, and must be in an area of low sensitivity, the development of management and operations infrastructure in this zone is preferable. In the park, most operations and administration infrastructure are situated in existing and well-established HIL tourist node at the rest camp.

6.7 Overview of the special management overlays

Special management overlays for the park include conservation overlays for dune protection, seal protection and a heritage overlay for cave deposits at the coast near Swartfontein.



6.8 The park buffer zone

The buffer zone shows areas outside the park within which land-use changes can affect the park. The guidelines for the buffer zone will serve as a basis for: (i) identifying focus areas in which park management and scientists must respond to Environmental Impacts Assessments (EIAs), (ii) helping to identify types of impacts that will be important at a particular site, and most importantly (iii) integrating long-term protection of the park into the Spatial Development Frameworks (SDFs) of municipalities and other local authorities. Park management will interact with all spheres of government, whether local, provincial, or national, as required, to achieve a positive conservation outcome in the buffer zone. In terms of EIA responses, the buffer zone serves largely to raise red flags and does not remove the need for carefully considering the exact impact of a proposed development. In particular, it does not address activities with broad regional aesthetic or biodiversity impacts e.g. renewable energy development projects. The buffer zones are aligned with the most applicable fine-scale systematic conservation plans in the area. In the park's case, these are the Critical Biodiversity Areas (CBAs) from the Northern Cape (Holness & Oosthuysen, 2016). From an aquatic perspective, the buffer zone is aligned with freshwater priority catchments, rivers and wetlands from the National Freshwater Ecosystem Priority Areas project (Nel *et al*., 2011a, 2011b).

There are three main categories within the park buffer zone, namely priority natural areas (consisting of other protected areas, critical biodiversity areas and ecological support areas), water resource protection areas, and view shed protection areas (Appendix 7, Map 8).

6.8.1 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 patterns (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 park's 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.

The priority natural areas are designed to align with the best available fine-scale systematic conservation plan(s) for the area. For the park this is the Critical Biodiversity Areas map (CBAs) for the Northern Cape (Holness & Oosthuysen, 2016) and the recent National Coastal and Marine Spatial Biodiversity Plan (Harris & Sink, 2019). These plans identify areas which must be kept intact (critical biodiversity areas) and areas which need to be kept at least functional (ecological support areas). The principal objective of critical biodiversity areas and ecological support areas is to guide decision-making about the best location for development, informing land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity.

Priority natural areas consist of three categories:

- *Other protected areas.* Protected Areas managed by other agencies (e.g. the Northern Cape Department: Agriculture, Environmental Affairs, Rural Development and Land Reform) or by private landowners are included in this category. These areas contribute to meeting biodiversity targets for ecosystems, species and

ecological processes, and for the purposes of buffer interventions should be treated as CBAs. Although these areas should be controlled by their own NEM: PAA management plans, developments may impact on the park and park management should work with the respective managers of these areas to ensure alignment;

- *Critical biodiversity areas* from the Northern Cape CBA map (Holness & Oosthuysen, 2016) and the recent National Coastal and Marine Spatial Biodiversity Plan (Harris & Sink, 2019). Critical biodiversity areas are areas required to meet biodiversity targets for ecosystems, species and ecological processes, as identified in a systematic biodiversity plan. Within the buffer zone, these areas are additionally important for park expansion or for supporting biodiversity within the park and park landscape; and
- *Ecological support areas* from the Northern Cape CBA map (Holness & Oosthuysen, 2016) and the recent National Coastal and Marine Spatial Biodiversity Plan (Harris & Sink, 2019). Ecological support areas play a key role in supporting the ecological functioning of critical biodiversity areas and / or in delivering ecosystem services. Within the buffer zone, these areas are additionally important for park expansion and for supporting biodiversity within the park and park landscape.

Development guidelines: Inappropriate developments and negative land-use changes (such as additional ploughing permits for natural veld, development beyond existing transformation footprints, urban expansion, intensification of land-use through golf estates, etc.) must be opposed within this area. Developments with site-specific impacts (e.g. a lodge on a game farm) must be favourably viewed if they contribute to ensuring conservation friendly land-use within a broader area. Additional water specific guidelines applicable for the water resource protection areas will also apply to these areas.

Response to development should be aligned with the guidelines for the spatial category in the appropriate conservation plan i.e. the Northern Cape CBA map (Holness & Oosthuysen, 2016) and the National Coastal and Marine Spatial Biodiversity Plan (Harris & Sink, 2019). Park management should ideally coordinate responses to development in consultation with the appropriate provincial authorities to ensure consistency in response to developments from different agencies.

Biodiversity offsets: These areas should be considered as offset receiving areas where possible, especially in identified park expansion areas.

6.8.2 Water resource protection areas

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

These areas consist of:

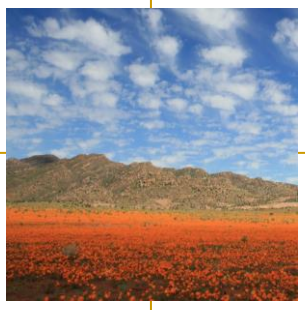
- Freshwater priority catchments, rivers and wetlands from the National Freshwater Ecosystem Priority Areas project (Nel *et al*., 2011a, 2011b) and wetlands from the NBA 2018 (Skowno *et al.*, 2019). Freshwater priorities are largely located in the northern and southern expansion areas; and
- Other areas adjacent to the park where effects of hydrological processes and water quality could impact on the park.

Development guidelines: Within these areas, inappropriate development such as dam construction, loss of riparian vegetation and excessive aquifer exploitation must be opposed. In addition, the control of alien vegetation, control of soil erosion, and appropriate land care (e.g. appropriate stocking rates) must be promoted.

6.8.3 View shed protection

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

Development guidelines: Within these areas, any development proposals must 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 will be perfectly suited for development. Further, invasive developments outside this zone will also have to be considered.



6.9 Future improvements

6.9.1 General

Special management overlays which designate specific areas of a park that require special management interventions (e.g. areas requiring rehabilitation) may need to be identified.

6.9.2 Coastal management lines

The coast lies at the interface between the land and the sea and thus face pressure from both sides. Given the importance of the Namaqua coastal biodiversity, including three estuaries, care should be taken to ensure that both marine and land-based tourism activities are managed appropriately. More information on the terrestrial coastal zonation, infrastructure associated with tourism and coastal priority biodiversity areas are available in the NNP MPA Management Plan, section 6. Some of these management issues will be addressed once the coastal management lines come into effect

The National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008), as amended by the National Environmental Management: Integrated Coastal Management Amendment Act (Act No. 36 of 2014) (hereafter jointly referred to as the NEM: ICMA) was promulgated to, among others, promote the conservation of the coastal environment and maintain the natural attributes of coastal landscapes and seascapes, to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable and to define rights and duties in relation to coastal areas.

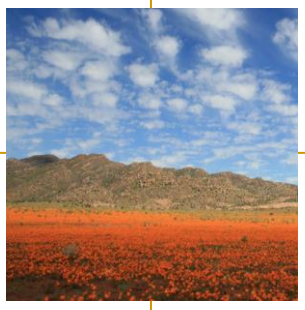
One of the mechanisms the NEM: ICMA provides is the establishment of coastal management lines (CMLs). Section 25(1) states that CMLs must be established or changed *"(a) to protect coastal public property, private property and public safety; (b) to protect the coastal protection zone; (c) to preserve the aesthetic values of the coastal zone; or (d) for any other reason consistent with the objectives of this Act"*. Additionally, regulations may be established to prohibit or restrict the building, erection, alteration or extension of structures that are wholly or partially seaward of a CML and such a CML may be situated wholly or partially outside the coastal zone.

Establishment and implementation of coastal management lines

As a national protected area under NEM: PAA, the Minister responsible for Environmental Affairs must establish CMLs that fall within the park boundary. SANParks will therefore provide recommendations to the Minister responsible for Environmental Affairs for consideration and adoption when establishing CMLs. Such CMLs must, inter alia, align with the approved protected area management plan of the NNP. The responsibility for designating CMLs adjacent to protected areas e.g. where an estuarine body is a declared protected area but the terrestrial sections adjacent to it are not, SANParks will engage with the Member of the Executive Council (MEC) of the relevant province and provide comment on the CMLs, as CMLs for these areas must be developed by the relevant provincial MEC.

As section 25 (1) of the EM: ICMA requires the establishment of CMLs by notice in a Government Gazette, the establishment of CMLs fall outside the scope of the management plan review process and will follow a separate process in which, once the CMLs have been determined, they will be Gazetted and subjected to public scrutiny in terms of section 53 of the NEM: ICMA before being adopted. Once the CMLs have been finalised, they will be incorporated as an overlay in the zonation of the management plan.

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Section 7: Access and facilities

7.1 Public access and control

Visitors driving via Upington can use the N14 to Springbok and then follow the N7 south to Kamieskroon. Visitors travelling from either Cape Town or Vioolsdrif can use the N7 to Kamieskroon.

The park has three access-controlled points: the main entrance gate at the Skilpad section, Groenrivier mouth and the Hondeklipbaai road (only in season). The use of these gates is normally restricted to between 08:00 and 17:00. Visitors arriving late need to make arrangements with the office in advance. The park has seven uncontrolled access points: at the Wildeperdehoekpas, Komaggas, Soebatsfontein, Koingnaas, Kookfonteinpas, Wallekraal and Sarrisam, which are all public access roads and used mostly by the local communities.

7.2 Areas with restricted access

The management tracks within the park are for management purposes only.

7.3 Airfields and flight corridors

The park has no designated landing strips. No need has been identified to establish flight corridors through the park's airspace as allowed for in section 47 of NEM: PAA.

7.4 Administration and other facilities

The facilities listed in Table 5 below are utilised for operational purposes enabling the park to fulfil its legal mandate. Map 9 in Appendix 7 shows all the infrastructure in the park.

Table 5. Current administrative infrastructure in the park.

Infrastructure	Current status	Zone
Groenrivier section		
Administrative offices at Groenrivier mouth	Operational	LIL
Boundary fence of ±90 km		Various
Entrance gates at Groenrivier, Hondeklipbaai and Driekop		Various
Management road network of ±70 km		Various
Parking area for boats and vehicles at Groenrivier mouth		LIL
Sewerage system with evaporation ponds		LIL
Solar and wind power systems at Groenrivier mouth		LIL
Staff accommodation at Groenrivier mouth		LIL
Temporary accommodation for staff at Kranzevlei farmhouse		Primitive
Two wind pumps with associated earth dam storages		Various
Skilpad section		
Administrative offices at Skilpad	Operational	HIL
Boundary fence of ±150 km		Various
Entrance gates at Skilpad and Soebatsfontein		LIL
Four wind pumps with associated water tank storages for human consumption		HIL
Management road network of ± 84 km		Various
Parking area for vehicles at Skilpad administrative office complex		HIL

Infrastructure	Current status	Zone
Skilpad section		
Seven wind pump and solar pump systems with troughs for animals	Operational	Various
Sewerage system with evaporation ponds		HIL
Staff accommodation at Skilpad administrative office complex		HIL
Storage space at Melkboom farmhouse		Primitive
Temporary accommodation for staff at Luiperdskloof cottage		Remote

7.5 Visitor facilities

Visitor facilities including all non-commercial facilities and points of interest available to visitors are set out in Table 6 below.

Table 6. Visitor facilities and points of interest in the park.

Infrastructure / visitor sites	Current status	Zone
Groenrivier section		
Boardwalks at Groenrivier mouth, Abjoel and Spoegrivier mouth	Restricted access	LIL
Bird hides at Groenrivier mouth and Spoegrivier mouth		LIL
Picnic site at Groenrivier mouth		LIL
Tourist road network of ±120 km		Various
Skilpad section		
Rest point at Koeroebees	Restricted access	LIL
Picnic site at Skilpad camp		LIL
Roof of Namaqua look-out point		HIL
Tourist road network of ±75 km		Various

7.6 Commercial activities

For the purposes of this management plan, commercial activities include all income-generating facilities, products and services offered.

7.6.1 Accommodation

Accommodation facilities in the park are currently limited. Existing facilities include those listed in Table 7, below.

Table 7. Accommodation facilities available in the park.

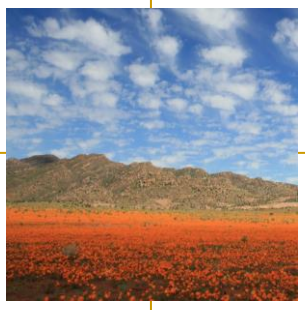
Infrastructure	No of units	Current status	Zone
Groenrivier section			
Camp sites	11	Self-catering - serviced - economy accommodation	LIL
Skilpad section			
Chalet	4	Self-catering - serviced - economy accommodation	HIL

7.6.2 Public private partnerships

There are currently (2024) two seasonal flower camps at Groenrivier and Skilpad.

7.6.3 Retail and other facilities

There are currently (2024) no shop or retail facilities in the park.



7.6.4 Activities

There are various non-income generating activities available in the park, as listed below:

- Abjoel to Kwass Se Baai hiking trail self-guided (10 km);
- Caracal 4x4 trail self-guided (between 176 and 200 km depending on route);
- Koeroebees hiking trail self-guided (1 km);
- Korhaan hiking trail self-guided (6 km);
- Peak flower season (August – September);
- Self-drive game viewing in own vehicle;
- Skilpad chalet hiking trail self-guided (3 km); and
- Skilpad hiking trail self-guided (4 km).

7.7 Cultural heritage sites

Several sites as listed in Table 8 below, are accessible to visitors.

Table 8. Cultural heritage sites in the park open to the public.

Sites	Current status	Zone
Groenrivier section		
Spoegrivier caves	Restricted access	Primitive
Skilpad section		
Koeroebees farmhouse with information boards	Restricted access	Primitive
Kookfontein farmhouse and associated spring with information boards		Primitive
Riethuis farmhouse and mill		LIL

7.8 Community use

Community members visit the park for education purposes to learn more about certain plant and animal species and to improve their general knowledge of the environment.

7.9 Mining

No commercial mining takes place in the park. No mining rights/permits have been issued on park property. Five old gravel pits exist in the park.

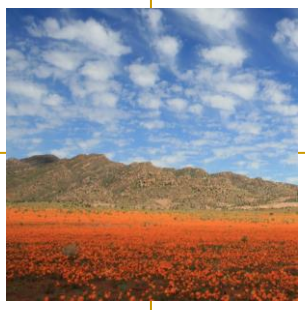
7.10 Servitudes

Servitudes allow landowners or representatives of organisations access to the park to perform certain duties. Servitudes have been registered on properties within the park and are located as per Table 9 below.

Table 9. Servitudes in the park.

Property description	Servitude diagram number	Type
Remaining extent of the Farm Diknek No 486	1288/2007	Road
Portion 1 of the Farm Diknek No 486	1289/2007	Road

Property description	Servitude diagram number	Type
Remaining extent of the Farm Graskom No 483	2400/2008	Borehole; pipeline
Portion 4 of the Farm Canariesfontein No 465	45/2013	Borehole; pipeline
Portion 1 of the Farm Kliphuis No 496	1986/2008	Lease area
Portion 2 of the Farm Mitchells Bay No 495	1985/2008	Lease area
Portion 1 of the Farm Zoutpan No 471	F4882/1954	Stock drinking area
Portion 3 of the Farm Zoutpan No 471	F4884/1954	Stock drinking area
Portion 13, a portion of Portion 3, of the Farm Wolvepoort No 459	F459/1913	Stock drinking area
Remaining extent of Annex Kanoep No 491	1984/2008	Lease area



Section 8: Expansion / Consolidation

The expansion and consolidation of the park remains a strategic priority for SANParks, given its recognised biodiversity, landscape interface and regional socio-economic importance. In general, expansion and consolidation strengthen the ecological integrity, incorporate a more representative and resilient suite of areas that supports biodiversity conservation (especially threatened species and ecosystems) that can contribute to national biodiversity targets, contribute to the protection of fresh water and marine environments (particularly Strategic Water Source Areas - SWSA) and support resilience to climate change effects.

Park expansion addresses objective SO1.1 of South Africa's National Biodiversity Strategy and Action Plan 2015 – 2025. This outcome seeks to secure a representative sample of ecosystems and species (biodiversity assets) in a network of protected and conservation areas that may be managed by government, private or communal landowners (Appendix 5, Map 4). Expansion also plays a key part in South Africa's contribution to meeting the "30x30" Target 3 of the of the United Nations Convention on Biological Diversity Kunming-Montreal Global Biodiversity Framework adopted in December 2022. This ambitious target calls for 30% of the earth's land and sea to be conserved by 2030 through the establishment of protected areas and other effective area-based conservation measures. The target aims to secure a representative 30% of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, and ensure that these are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures that are integrated into wider landscapes.

The objective is to create a park that represents under-protected ecosystems, climate change linkage priorities and contribute towards freshwater ecosystem protection. Expansion of the park to its 465,816 ha desired state would see the incorporation of large additional areas of under-protected ecosystems. Twelve of the 15 terrestrial ecosystem types (three fynbos, two azonal vegetation and 10 Succulent Karoo vegetation types) within the expansion footprint are not protected or poorly protected. There is a need to expand the terrestrial component to align with the southern end of the NNP Marine Protected Area. The park includes the Groen-, Spoeg- and Bitterrivier, and has FEPA priority sub-catchments in the park expansion footprint. Park expansion will go a long way to improving the protection level of freshwater ecosystems in the region.

The desired state for the park would include the consolidation of priority biodiversity areas in the buffer zone. It is envisaged to:

- Ensure the conservation of a representative sample of the ecological patterns and processes (e.g. upland-lowland interfaces, biome interfaces, quartz outcrops, sand movement, land-sea interfaces, river processes, mammalian herbivores, etc.) associated with the Succulent Karoo biome in the Namaqualand mountains and adjacent coastal plain in a contiguous functional system;
- Ensure seamless integration between marine, coastal and terrestrial conservation given the biodiversity and economic importance of this area;
- Provide for long-term biodiversity conservation by capturing the rainfall and topographical gradients important in terms of global climatic change;
- Avoid immediate and irreparable threats to biodiversity from a well-entrenched mining industry and developing renewable energy industry; and
- Provide an opportunity to create a wilderness area within the South African extension of the Succulent Karoo Hotspot.

The park is important for achieving protected area targets, and the expansion of the park is critical for the conservation of under-represented ecosystems that characterise the area (SANBI, 2019). Importantly, the park expansion footprint is a priority focus area identified in the National Protected Area Expansion Strategy (DEA, 2018). The terrestrial footprint of the park covers three biomes, namely the fynbos, azonal (alluvial) vegetation and Succulent Karoo biomes. Although the NBA

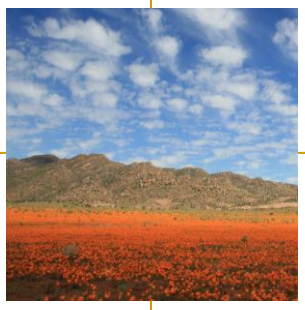
(2018) assessed all the terrestrial ecosystem types that are in or around the park as least concern, all but two are under-protected (Skowno *et al*., 2019) while one (Riethuis-Wallekraal Quartz Vygieveld) that is well protected, has a relatively small spatial footprint.

It is particularly important for rare and threatened plants of the Succulent Karoo. The footprint for the park expansion desired state (465,816 ha inclusive of the current park) encompasses an area stretching from the low-lying coastal areas to the mountainous areas just outside of Kamieskroon. The expansion footprint strongly focusses on the opportunities for securing Critical Biodiversity Areas (CBAs) adjacent to the park. The Northern Cape Critical Biodiversity Area map is divided into CBA 1 and CBA 2 (Holness & Oosthuysen, 2016). The former represents natural landscapes, with high irreplaceability or no flexibility for meeting biodiversity targets elsewhere. If these areas are lost, then targets will not be met. Critical Biodiversity Area 2 are near-natural landscapes with intermediate irreplaceability or some flexibility in terms of area required to meet biodiversity targets. This means that there are options for biodiversity loss without compromising target achievements. The expansion footprint for the park strongly focuses on the opportunities for securing CBAs adjacent to the park, expanding largely southward with smaller northern consolidations and eastern expansions. The expansion area is almost entirely CBA (99%), with limited amount of ecological support area (1%) in the expansion footprint.

Climate change is a critical issue for park expansion. The key issues that need to be addressed are corridors / linkages and their importance for allowing species, ecosystems and ecological processes to operate at sufficiently large scales under different climate change scenarios. The current expansion footprint was examined in the context of critical climate change linkages between the core park and the surrounding landscape. Supporting resilience to climate change, and its increasing threat to biodiversity, is a key criterion that has been incorporated through larger scale regional landscape linkages, which will ensure that the park is large enough to function ecologically in this extensive arid landscape. The expansion includes more landscapes to encompass priority areas identified in the Spatial Planning for Protected Areas in Response to Climate Change Conservation Biodiversity project (SPARC, 2019). The park is in relatively close proximity to other protected areas such as the Pleroma Nature Reserve that borders the park. There is also a potential for linkages to the Goegap Nature Reserve to the northeast of the park. This could facilitate a corridor to other nature reserves such as the Smorgenskadu Nature Reserve and Marietjie van Niekerk Nature Reserve, and potentially over the longer term to the Lower Gariep and eventually Augrabies Falls National Park. The lower part of Richtersveld National Park is less than 90 km away from the park, with a potential for a corridor. The park and surrounding landscape are fairly intact, with lots of fragmentation at the coast due to mining.

The expansion programme is fully congruent with SANParks accepted biodiversity values (SANParks, 2006) and follows the SANParks Land Inclusion Policy (2017a). The ecological aspects of the park's vision render the park as an integral part of a wider functional land-use mosaic which delivers sustainable ecosystem services, to maintain the natural and cultural heritage of the park for the benefit of all, especially local communities.

The approach that the park will follow can be found in section 10.2.1 on page 73.



Section 9: Concept development plan

9.1 Long term development plan

Currently the park is seen as a seasonal destination that is closely tied to the flower season. Moving forward it is expected that this development trend will continue with specific focus on emerging market needs as well as the increasing demand for meaningful experiences and adventure.

Development is not considered lightly and is only embarked on in order to fulfil a real operational need or tourism opportunity. The park is not financially sustainable, however, it has the potential to improve its occupancy and to offer additional products to visitors in future. The current development plan focuses on ways to attract additional visitors to the park.

From a RT perspective, green building methods, energy efficiency technology and water savings measures will be implemented and monitored in both existing and new infrastructure.

Caution will be exercised when considering any development. All development must be conducted in a responsible and sustainable manner, be aligned to the zonation plan of the park and is dependent on the availability of funds.

9.2 Development nodes

There is no development node at this stage, and none has been earmarked for development.

9.3 Communication routes

Communication facilities need to be improved in the park, including radio, telephone, data network, free and metered Wi-Fi and cellular access.

9.4 Service supply routes

The main service route to the park is the N7 national tar road with secondary service routes via the DR2938 to Groenrivier and to Skilpad.

9.5 Infrastructure development proposals

All infrastructure development proposals, including activity development, are presented in Tables 10 - 13 below.

9.5.1 Administration and other facilities

The identified facilities set out in Table 10 below will be utilised for operational purposes.

Table 10. Proposed administrative infrastructure development in the park.

Infrastructure	Status	Zone	Priority	Probability
Groenrivier section				
Extension of office facilities at Groenrivier mouth	Upgrade	LIL	Medium	Medium
Staff accommodation at Groenrivier mouth	New	LIL	High	High

Infrastructure	Status	Zone	Priority	Probability
Skilpad section				
Upgrade water storage system at administration complex	Upgrade	HIL	High	Medium
Staff accommodation at various sites	New / upgrade	Various	High	High

9.5.2 Visitor facilities

Visitor facilities include all non-commercial and semi-commercial facilities and points of interest available to visitors are set out in Table 11 below.

Table 11. Proposed visitor facility development in the park

Infrastructure	Status	Zone	Priority	Probability
Groenrivier section				
Environmental education facility at Groenrivier mouth	New	LIL	Medium	Low
Information centre at Groenrivier mouth	New	LIL	Medium	Medium
Skilpad section				
Information centres at Skilpad administration complex	New	HIL	Medium	Medium

9.5.3 Commercial facilities and activities

There are a limited number of commercial activities and / or products that could be developed in the park, or currently in operation that could be expanded / upgraded, in order to improve the tourism experience. All proposed opportunities will be individually investigated, and the priority determined based on feasibility and income potential. There may be opportunities for development that are excluded, as they are considered unlikely to be developed within the term of this plan. However, should the market change or a third party present an opportunity, products may be considered based on the agreed terms and locations, as per the park product development framework (Appendix 5).

9.5.3.1 Accommodation

The new accommodation infrastructure that is envisaged for the park is set out in Table 12 below.

Table 12. Proposed accommodation development in the park.

Infrastructure	Status	Zone	Priority	Probability
Groenrivier section				
Rest camp at Delwerskamp	New	LIL	High	High
Skilpad section				
Caravan and camping site near Kamieskroon	New	HIL	High	High

9.5.3.2 Public private partnerships

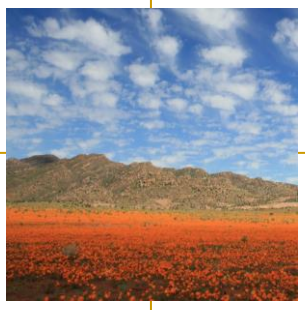
The public private partnerships (flower camps) located in the coastal and Skilpad sections will both end in 2024 where after a tender process will be initiated.

9.5.3.3 Retail and other facilities

None is envisaged.

9.5.3.4 Activities

Leisure activities provide an opportunity for income generation, with the potential for community development and without the high capital investment required for accommodation. Key challenges regarding provision of leisure activities in future will be diversity of offering, customer demand and



increasing the 'adventure' element of activities in order to engage the younger markets and markets with a high disposable income. Activity development will need to take the visual impact of each activity into account, in order to ensure the unique selling proposition of remoteness of the park is maintained. Certain activities will also need to cater for different product grades and visitor experience levels. Additional activities have been identified (Table 13) for possible development.

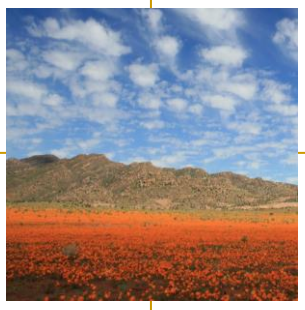
Table 13. Proposed activity development in the park.

Infrastructure	Status	Zone	Priority	Probability
Skilpad section				
Expand the Caracal 4x4 route	Existing	Various	High	High
Additional 4x4 route	New	Various	Medium	Medium
Cycling trails at Agtertuin and Koets	New	Various	Medium	Medium

9.5.4 Cultural heritage sites

No additional cultural heritage sites have been identified to be opened for tourism purposes.

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Section 10: Strategic plan

10.1 Introduction

Sections 3, 4 and 5 of this document outline the policy framework, the consultation process and vision, mission and high-level objectives for the park. In this section the high-level objectives of the park are unpacked into objectives and sub-objectives and finally into operational actions. In this way, decision-making, even at the operational level, can be linked back with the core values and inputs from stakeholders on which they have been based. This approach conforms to the requirements of the NEM: PAA and the NEM: BA, SANParks policy and ratified international conventions.

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

- Regional integration;
- Biodiversity;
- Responsible Tourism;
- Cultural heritage;
- Engagement and access;
- Benefits; and
- Effective park management.

Each programme is presented as follows:

- **Programme name:** A name describing 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:
    - **Objectives**: The various objectives derived from the hierarchy of 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;
    - **Portfolio of evidence (PoE)**: Proof whereby the achievement of the objective can be evaluated. Where applicable, the PoE documents will be on official letterheads, dated and properly referenced. Documents will also be approved by the responsible staff member/s;
    - **Timeframe**: An indication of when the action is likely to be completed (indicated by year in the planning cycle); and
    - **References**: References to relevant programmes, lower-level plans (LLPs) or other documents.

In certain instances, a detailed LLP supports the individual programmes. These LLPs could be reviewed on a frequent basis depending on the changing circumstances and requirements.

The commitments outlined in the various programmes under section 10 are aligned with the performance management system of the operational staff. Progress and impact will be tracked, and the work plan will be reviewed annually to prioritise implementation activities, to be responsive to emerging matters and to inform the risk response strategy.

10.2 Regional integration

Regional integration promotes resilient regional outcomes across boundaries, through enabling institutional arrangements and co-operative support to transfrontier and bioregional programmes, growing a conservation domain through contractual and co-operative landscape planning and management, for sustainable benefits, socio-economic upliftment of communities and peace and stability in the region. This approach requires a systemic method for the integration of national parks into the broader economic and social landscapes through appropriate strategies, mechanisms and incentives and through encouraging complementary economic activity. It promotes and improves conservation and ecosystem services, allows for sustainable natural resource use, whilst unlocking direct commercial benefits to communities, and developing the necessary skills and capacity.

10.2.1 Park expansion programme

The purpose of this programme is to achieve the SANParks goal of conserving ecological patterns and processes typical of the region by acquiring land suitable for conservation. The rationale for this programme can be found in section 8 on page 62.

Expansion is constrained by changes in overall landcover and landscape fragmentation. In line with the accepted expansion plan over the next decade, SANParks will remain open to opportunities and as such, consider approaches from neighbouring landowners and state entities. This will mainly be achieved through contractual inclusion, biodiversity offsets or purchase, or by other means in line with the SANParks land acquisition framework.

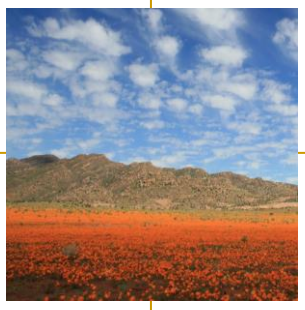
The proposed short, medium-, and long-term extensions of the expansion footprint include:

- Short-term consolidation – The 22,523 ha northern consolidation area includes the poorly protected Namaqualand Sand Fynbos, Namaqualand Strandveld, Namaqualand Heuweltjieveld and Namaqualand Inland Duineveld. The 70,679 ha eastern expansion short term priorities include the poorly protected Namaqualand Heuweltjieveld, Namaqualand Klipkoppe Shrubland and the unprotected Kamiesberg Mountains Shrubland.
- Medium-term consolidation - A total of 91,894 ha of the southern expansion area is prioritised for medium-term consolidation, along with just over 50,515 ha in the northern consolidation area. This will focus on the poorly protected Namaqualand Klipkoppe Shrubland, Namaqualand Sand Fynbos, Namaqualand Strandveld, Namaqualand Strandveld Namaqualand Heuweltjieveld.
- Long-term expansion - The majority of the long-term expansion focusses on the southern expansion (28,179 ha) and the eastern expansion (70,679 ha) areas of the park. These areas include the poorly protected Namaqualand Heuweltjieveld and the unprotected Namaqualand Klipkoppe Shrubland.

The closest protected area is Pleroma Nature Reserve, which is adjacent to the park, and with Goegap Nature Reserve less than 50 km away, there is a good possibility for linkages toward the Goegap Nature Reserve and the three other nature reserves within close proximity to Goegap.

A detailed lower-level plan outlining the rationale and operational approach supports this programme. This programme links with high-level objective 1 and objective 1.1 on page 42. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

PARK EXPANSION PROGRAMME					
High-level objective: To promote ecological linkages and minimise potential impacts that arise from incompatible land-uses through targeted park expansion and engagement					
Objective: To consolidate and expand the park by incorporating and supporting conservation worthy and strategically important properties.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To acquire strategically identified properties that are of conservational importance to consolidate the park	Motivate and prioritise contractual inclusions / acquisitions	Park Planning and Development (PPD), Park Manager (PM)	Land Inclusion Plans	Ongoing	Expansion LLP
	Participate in offset negotiations	PPD, PM	Offset agreements	As required	



PARK EXPANSION PROGRAMME					
High-level objective: To promote ecological linkages and minimise potential impacts that arise from incompatible land-uses through targeted park expansion and engagement					
Objective: To consolidate and expand the park by incorporating and supporting conservation worthy and strategically important properties					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To acquire strategically identified properties that are conservational important to consolidate the park	Target the incorporation of 35,000 ha over 10 years	PPD, PM	Contractual inclusions / purchase agreements	Ongoing	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, Heads of Departments (HODs)	Assessment tool	Annually	Standard Operating Procedure (SOP) for the assessment of the implementation of Management Plans

10.2.2 Landscape integration programme

The purpose of this programme is to promote and support regional ecological and social landscape linkages through active engagement with governmental and non-governmental partners. The aim of the regional integration concept is to cooperate with relevant international, national, provincial and local government structures insofar as these affect the park. A further aim 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 also aims to collaborate with relevant international, national, provincial and local government structures, Non-Governmental Organisations (NGOs) and landowner groups to work towards a shared vision across the Namaqua landscape.

The park is an integral contributor to the region's tourism, employment and conservation efforts and can positively influence processes in its buffer zone by strengthening integration of activities and enhancement of natural processes and critical biodiversity areas, by partnering with stakeholders on aspects such as conservation, sustainable tourism, development, education, innovation, economical farming and the sustainable use of natural resources.

Through strengthening relationships with neighbouring park communities, management of cultural resource and indigenous knowledge, environmental education, awareness and interpretation, social science research, youth outreach and resource use**,** the park is contributing towards developing a people-centred approach to conservation management. 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 cultural landscapes of the Namaqua National Park consist 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 or village people, from various cultures.

It must be noted that the value of sustainable resource use lies in the 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 negative effects. This links with 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 (SED) initiatives.

The park currently falls within two local municipal areas (Nama Khoi and Kamiesberg) and one district municipality. A sound working relationship exists with the local government structures and all relevant park projects are embedded within the IDPs of the municipalities. The current extent of the park is included in a conservation focused category in the land-use maps of the SDFs of the local and district municipalities in which the park is located. These SDFs are the spatial components of the municipal IDPs. The park interacts with the appropriate local government processes such as SDF and IDP revisions on an ongoing basis, to ensure that issues such as appropriate development in the buffer zone are addressed.
.
The park has established social linkages with communities through social programmes recognising the rich history and vibrancy of the communities of the Namaqualand landscape and the park can utilise these interactions to strengthen the unique land- and seascape of the park by continuing biodiversity education and collaboration with the communities to enhance and evolve historic practices and secure resilience in ecology and social upliftment.

Various organisations, forums and agencies are operating within the landscape. The park is either part of, or actively engaging these organisations, whilst also serving on several municipal and district level structures. This allows the park to collaborate with and support efforts of the various governmental and non-governmental partners in the region to achieve integrated implementation of activities and responses to the various impacts on a regional scale.

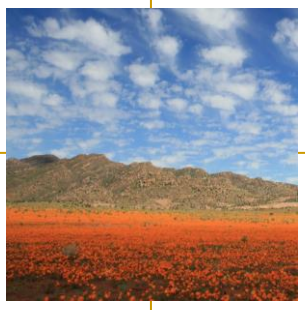
This recognition underscores the importance of the park's continued active engagement of and collaboration with authorities and other stakeholders and partners of the park to ensure that important bio-regional aspects are addressed and potential impacts on the park are mitigated. The bio-regional value of ecosystem services in the park, its buffer zone and the wider region, remains a key component in the IDPs and SDFs of local, district and provincial authorities. This will ultimately ensure that biodiversity is a key aspect in land-use planning and decision-making.

Through continued collaboration and integration at a local and district level, biodiversity issues, threats, pressures and opportunities related to the park, such as preventing non-compatible land-use practices, invasive alien plant clearing and the protection of important ecological processes and ecosystem services, can effectively be addressed.

The objective of biodiversity stewardship is to conserve and manage biodiversity priority areas through voluntary agreements with landowners and communities. As such, several such arrangements exist and are currently managed by Wilderness Foundation Africa with SANParks ensuring a leading role in the future by offering guidance and performing the required annual audits.

This programme links with high-level objective 1 and objective 1.2 on page 42. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

LANDSCAPE INTEGRATION PROGRAMME					
High-level objective: To promote a resilient socio-ecological landscape through local, regional, national and international co-operation and strateg expansion					
Objective: To integrate biodiversity into local and other planning frameworks and respond to land-use development proposals through activ engagement with governmental and non-governmental partners					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure the conservation of systems and processes within the park and buffer zone (including land, air and water)	Identify, prioritise and map ecological corridors and buffer zones for the conservation according to national criteria	PM, Senior Section Ranger (SSR), Section Ranger (SR), PPD	Maps	Year 1	
	Identify and update relevant lists of structures and entities with a possible impact and influence on the biodiversity of the park	PM, SET Officer	List of stakeholders	Year 1, ongoing	



LANDSCAPE INTEGRATION PROGRAMME					
High-level objective: To promote a resilient socio-ecological landscape through local, regional, national and international co-operation and strategic expansion					
Objective: To integrate biodiversity into local and other planning frameworks and respond to land-use development proposals through active engagement with governmental and non-governmental partners					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure the conservation of systems and processes within the park and buffer zone (including land, air and water)	Collaborate with relevant structures by communicating, participating with and contributing to actions and activities	PM, SET Officer, PPD	Minutes of meetings	Ongoing	
	Implement actions that promote conservation outcomes in buffer zone and corridors	PM, SSR, SR, PPD	SDFs, IDPs	Ongoing	
To mainstream biodiversity into land-use planning and decision-making to ensure that SANParks is timely notified of land-use changes and development applications that may negatively impact the park	Identify possible external threats from any activities including developments, land-use changes etc.	PM, SSR, SR, PPD	List of threats	Ongoing	
	Participate in the activities of a network of relevant authorities at all levels including IDP and SDF processes	PM, SETO, PPD	Minutes of meetings, documents	Ongoing	
	Engage and submit comments to relevant forums and participate in EIAs, scoping etc.	PM, SSR, SR, PPD	Scoping, EIA reports, Records of Decision	Ongoing	
	Monitor compliance with environmental authorisations where appropriate	PM, SSR, SR	Reports, RODs	Ongoing	
To support regional ecological and social landscape linkages	Identify governmental and non-governmental structures, organisations and entities operating in the region with a possible impact and influence on the biodiversity of the park	PM, SETO, SSR, SR, PPD	List	Year 1, ongoing	
	Collaborate with relevant structures and participate in the actions and activities at all levels of activities	PM, SETO, PPD	Minutes of meetings	Ongoing	
	Implement actions that promote conservation outcomes in the buffer zone and corridors as agreed for the FPAs, CMA, SDFs and IDPs	PM, SSR, SR, PPD	Reports	Ongoing	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.3 Biodiversity conservation

South Africa is a signatory to the United Nations Convention on Biological Diversity (CBD) and therefore subscribes to the strategic plan for biodiversity (2011 - 2020) which includes the development and implementation of a National Biodiversity Strategy and Action Plan (NBSAP). Many of the SANParks and park's biodiversity conservation actions are therefore nested within South Africa's NBSAP. SANParks subscribes to the broad definition of biodiversity as described by Noss (1990) which includes structural, functional and compositional diversity at all scales. In managing the heterogeneity and diversity in the park it is emphasised that ecological systems function across a full hierarchy of physical and biological components, processes, and scales in a dynamic space-time mosaic (Pickett *et al*., 1997). A challenge faced by park management is how to manage such a complex array of species richness, environmental and climatic variables with limited management tools available. Park management therefore attempts to identify key agents, drivers and controllers of change that can be manipulated if the need to influence the nature and direction of heterogeneity change arises as Biggs & Rogers (2003) suggest. Experience has shown that allowing ecosystem processes and drivers to function as naturally as possible (or simulating such where need be), has better conservation outcomes than to only manage at a species level. As such, several biodiversity management programmes have been developed to effectively manage the diversity and patterns, as well as processes of the characteristic elements of a typical arid landscape.

10.3.1 Degradation and rehabilitation programme

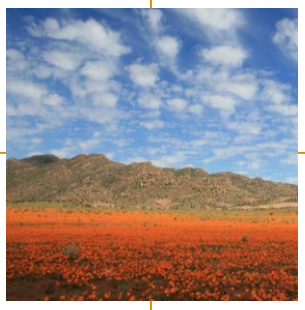
The purpose of this programme is to identify degraded land and guide the implementation of ecological rehabilitation measures to restore the functionality of the degraded natural systems.

Desertification has been defined by the United Nations Convention to Combat Desertification as "land degradation in arid, semi-arid and dry sub-humid areas through natural processes as well as human activities". The natural factors are largely associated with climate variability, especially droughts, while human activities in the drylands are the major cause, especially in Africa. The national policy on the conservation and sustainable use of South Africa's biodiversity, produced by the DFFE calls for the identification of key sites for rehabilitation based upon biological and socio-economic criteria, and the development and implementation of rehabilitation plans for identified sites. Similarly, the CBD lists rehabilitation as an important tool for promoting the conservation of biodiversity.

Typically, the bio-physical processes identified for assessment and monitoring of desertification are wind erosion, water erosion, waterlogging and other forms of chemical degradation of the land leading to soil quality degradation, degradation of soil physical condition, degradation of natural vegetation, desiccation of the land and other factors (Brown & Nickling, 2003). The acceleration of these processes beyond certain long-term threshold values can lead to excessive loss of soil cover and soil fertility, changes in vegetation ecology, and a host of other changes that result in a decline in land production and productivity (Brown & Nickling, 2003). These types of degradation are not only dealt with in the degradation and rehabilitation programme, but interlinked with other programmes such as habitat change, invasive alien plants, climate change, and freshwater ecosystems.

Arid ecosystems and species have developed unique strategies to cope with low and sporadic rainfall. They are highly resilient and recover quickly from prevailing disturbances such as herbivore pressure and drought. These attributes have great significance for the global system, especially in the context of climate change (Lean, 1995). A major driving force of biological diversification in dryland environments is relative aridity. Within each aridity zone, significant variations between sites are influenced by topography and geology and by variations in the most limiting factors such as water and soil nutrients. Types and intensities of these environmental drivers combine to determine the main selection pressures in arid ecosystems. These include low and highly variable rainfall in time and space; recurrent but unpredictable droughts that may persist for several consecutive years; high temperatures; inherently low soil fertility; high incidence of salinity; prevailing herbivore pressure; and fires. These stresses have been selected for a large diversity of adaptive traits.

Climate change including local climate variabilities has been identified as a serious risk to the Southern African region (Zietsman, 2011). Local climate variabilities are still tolerable, but extreme climatic events and pro-longed climate change would prove to be serious in terms of the impact on natural biomes and ecosystems, and good governance structures and policies are needed to deal with these issues. Arid environments are defined by the dominant role of water in limiting the activities of life. Not only are water supply rates low, but they are also highly variable in time and space, reflecting local and regional precipitation patterns. Single rainfall events usually cause brief pulses of soil moisture with limited infiltration depth. However, precipitation events are never evenly spaced in time, with the probability that they will be clustered increases during rainy



seasons or floods (Loik *et al*., 2004). Erodible soils may also be prone to degradation, especially during flash floods.

Under semi-arid climatic conditions, even a few degrees increase in temperature and a few millimetres decrease in rainfall could cause a decline in the biodiversity of plants and animals (Guo *et al*., 2016a, b). In South Africa, for instance, about 10 million hectares, thus 8% of the land surface area of the country, are infested by invasive alien plants which use about 7% more water than native vegetation. It can be assumed that losses of species richness, the declining functionality of ecosystems, the invasion of new species, as well as changes to biomass production will continue and might accelerate in the future.

The most common transforming agents in the park have been agricultural operations, such as pastoralism and crop production. These land-use practices have led to changes in the vegetation cover and infrastructural invasion. Areas that were historically used for livestock ranching have sparse shrubby vegetation. Former agricultural operations inevitably associated with infrastructural developments. The long-term aim of the rehabilitation programme 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 old, cultivated lands currently transformed to daisy field will be excluded in the rehabilitation plan as they are part of tourists' attraction during flowering season. In general, the level at which interventions will be made is determined by the system's current state in relation to biotic and abiotic thresholds.

The main causes of erosion identified in the park are exacerbated by water flow from the mountainous area leading to the development of rills and gully. These areas are characterised by sheet erosion and the lack of vegetation cover contributes to accelerated soil erosion. The park has contributed significantly to jobs for local communities through the Biodiversity Social Projects Working for Ecosystems in rehabilitation of degraded lands. In so doing, it contributes to the Land Degradation Neutrality targets for Succulent Karoo biome in South Africa. Restoration efforts recommended by SANParks Scientific Services and implemented by Biodiversity Social Projects (BSP) have been evaluated using ecologically relevant methodology including Land Function Assessment as well as Remote Sensing. Evidence from the data collected since 2015 shows how the prolonged drought of 2017 - 2019 impacted negatively on landscape productivity, heterogeneity and soil surface condition across the various rehabilitation treatments that included soil micro-catchments, silt netting, a mixture of the two compared to near pristine conditions. Most change occurred in Sandvlei compared to other two sites followed by Melkboom. Erosion pegs have been installed to track soil accumulation and loss in the various treatments.

In relation to invasive and alien species monitoring, the focus will be on the impact of bioclimatic variables influencing the distribution of alien invasive plants over time. Vegetation communities will also be monitored for degradation including soil degradation due to factors such as grazing pressure. Digitised natural history collection occurrence data from the Global Biodiversity Information Facility will be used to map the historical distribution and prediction of future distribution of the alien invasive species in the park area as influenced by climate change (cross-linked with alien invasive species and climate change programmes). The alien invasive species programme will focus on implementing the rehabilitation measures through Biodiversity Social Project (Working for Water) whereas Scientific Services will be responsible for monitoring and research.

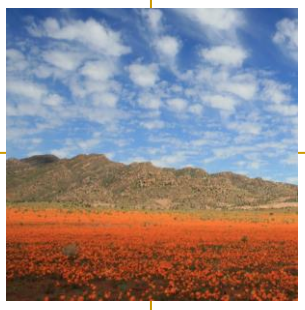
This programme links with high-level objective 2 and objective 2.1 on page 40. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

DEGRADATION AND REHABILITATION PROGRAMME					
High-level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management					
Objective: To restore the functionality of natural systems by identifying, prioritising, monitoring and effectively rehabilitating degraded areas					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To determine the spatial distribution of selected alien invasive species in the arid zone by predicting future suitable habitats using bioclimatic data	Map the occurrence of alien invasive species in the arid region, predict their future habitat suitability, and monitor emerging species	SS, BSP	Habitat suitability map of selected alien invasive species	Ongoing	Alien invasive species LLP, National Land Degradation Neutrality Targets, Desertification Land Degradation and Drought (DLDD)
	Source world climatic data for current and future climatic variables	SS	Bioclimatic data	Ongoing	Climate change LLP
To monitor areas affected by soil erosion (sheet, gully, rills) by assessing vegetation degradation in key areas experiencing grazing pressure	Use vegetation condition index (VCI) to detect vegetation change over time	SS	VCI maps	Annually	FE & SSC LLPs
	Map soil degradation and prioritise severely affected areas for rehabilitation measures	SS, BSP	Soil Degradation Maps	Ongoing	
	Assess old lands and recommend best intervention measures to either promote daisy field on newly incorporated farmlands or restore to functional natural system	SS, SSR, SR, BSP	Degradation & rehabilitation plan	Year 3	Tourism programme
	Undertake land function analysis to assess ecosystem functionality and effectiveness of rehabilitation measures implemented	SS	LFA report and research undertaken	As required	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SSR, SR, SS	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.3.2 Invasive and alien species programme

The purpose of this programme is to reduce impacts and mitigate threats posed by invasive and alien species (IAS) on the park and the immediate buffer area. Further objectives include preventing re-infestation of IAS into the park as well as protecting the park from new and emerging invasive species. Due to the lack of resources, (Working for Water (WfW) funding is being allocated to the management of invasive plant species), the low threat of invasive animals as well as the free movement of the listed invasive animal species, no formal management of non-plant invasive species is undertaken in the park.

South Africa, as a signatory to the Convention on Biodiversity as well as other international conventions, is required to manage IAS within its borders. In South Africa, the management of IAS is mandatory under the NEM: BA. There are sixteen legislative statutes (national acts, provincial ordinances and municipal by-laws) that govern the management of IAS. Of these, the most relevant are the NEM: BA and the Conservation of Agricultural Resources Act (Act No. 43 of 1983) [CARA] and regulations emanating from these acts. The CARA provides additional guidance for the management of IAS plants. The NEM: BA Alien and Invasive Species Regulations (2016) are of direct relevance. Further, the NEM: PAA requires that all protected areas have plans for the management of IAS. The SANParks Policy for the Management of IAS (2018c) provides the context within which all management of IAS is implemented. Within SANParks the context for the management of IAS is set out in the Alien and Invasive Species Regulations (2018b) and a framework for the management of invasive alien plants (IAPs) provided in the SOP for the Implementation of Invasive Alien Plant Management Projects (2017b). The SANParks Alien and Invasive Species Regulations (2018b) provides an integrated approach to alien and invasive species management. The framework includes five components, which have been incorporated into this plan, namely(i) assessment and risk analysis, (ii) priority setting, (iii) early detection and rapid response, (iv) control and (v) restoration.



Protected areas are increasingly becoming islands in transformed landscapes where changes in land-use across the wider landscape impact directly on the primary objectives of protected areas (Foxcroft *et al.,* 2019). Invasive and alien species, specifically plants, impact on biodiversity by altering natural patterns and processes, competing for resources, altering nutrient cycles as well as change fire intensity and frequency resulting in native species population declines and extinctions (Lukács & Valkó, 2021; Foxcroft *et al.,* 2013; Foxcroft *et al*., 2017). These impacts are often more cryptic in arid areas (Milton & Dean, 2010). Further, invasive and alien species negatively impact on ecosystem services (e.g. water quality and quantity) which potentially impacts directly on human well-being (Orimoloye *et al*., 2021). The impact of invasive and alien species on protected areas is not limited to ecological or human well-being; the financial cost of invasions on protected areas can be calculated through the cost of control and erradication programmes, as well as financial loss due to negative effects on revenue earning activities (e.g. tourism, cultural heritage sites) and physical infrastructure (Gallardo *et al.* 2019; Courtois *et al.,* 2018; Lukács & Valkó, 2021; Milton & Dean, 2010).

Effective management of IAP requires sound planning and implementation, which is dependent on well-grounded ecological knowledge, an understanding of risks and effective collaboration between interconnected and effected parties (Tu & Robison, 2013). The effectiveness of implementing management plans and the successful outcome thereof is dependent on sound management structures, adequate resources, structured monitoring, and reporting, with strategic adaptive management through feedback and communication loops (Foxcroft & McGeoch, 2011). The implementation of an effective rapid response mechanism is also important to mitigate the introduction of new species and thus its potential threats and impacts adjacent to and within the broader buffer of the park (Tu & Robison, 2013).

List of invasive species occurring in the park

A total of 22 IAS, excluding marine species, are listed for the park; two mammals, 17 plants and three birds. Of these, 16 are listed under NEM: BA (Category 1b = 11, Cat. 2 = 2 and Cat. 3 = 2) (Foxcroft *et al*., 2017). Seven of the listed species are considered as potential transformer species (Foxcroft *et al.,* 2019) with five species having been registered as biocontrol agents (Table 14). In addition, a total of 22 invasive alien plant species have been recorded in the South African Plant Invader Atlas database (2020) within the broader landscape of the park, these species are not recorded in the parks published IAS list. The status of these species within the park is currently unknown, however awareness of these potential threats is an important consideration for management. Eleven of these species are listed under NEM: BA (Category 1b = 9, Cat. 2 = 1 and Cat. 3 = 1), eight are considered as potential transformer species (Foxcroft *et al.,* 2019) with two species having registered biocontrol agents.

Due to the number of invasive alien plant species occurring within and adjacent to the park, as well as limited resources, it is not possible to implement control on all species and areas across the park. A process of prioritisation has been developed so focusing management efforts on species that potentially have a greater impact on the park's objectives. Three levels of priority have been identified, category (A) are species of national concern, (B) those species that must be controlled as part of normal contract work and (C) high priority species not yet in the park, or in the process of being eradicated or where populations are small and receiving intense efforts to be reduced. Species may be added, removed or reprioritised within the list as knowledge on threat status and population dynamics informs change or when funding availability allows (Table 14). All species reported on the 'watch list' that are detected within the park and where populations are limited enough in distribution and infestation rates are low (rare) these species should be considered as category C.

Table 14: Invasive alien plant species identified for priority control

Category A	Category B	Category C
Eucalyptus cladocalyx (sugar gum)	*Acacia cyclops* (rooikrans)	*Opuntia ficus-indica* (sweet prickly pear)
Eucalyptus globulus (blue gum)	**Atriplex nummularia*	
Nicotiana glauca (Brazilian tree tobacco)		
Prosopis glandulosa (honey mesquite)		

* Indicates that the species may provide an ecological function in the landscape where the benefits outweigh the impacts, for example soil retention in areas prone to erosion. Areas where the species are to be retained must be delineated and documented in the relevant management plans (NEM: BA Control Plans and Ecosystem Rehabilitation Plans). Species need to be managed under an integrated implementation programme. Where species are not being managed monitoring of the species population dynamic is a prerequisite.

Description of land infested and the extent of invasion of IAP

In arid regions, drainage-lines, seeps and depressions are considered to have higher resource availability (e.g. moisture) than upland areas (Milton & Dean, 2010). Resources such as moisture and nutrient availability are drivers for invasions by non-native species. Areas with higher resource availability are also likely to have a higher rate of anthropogenic and wild animal activity resulting in a greater disturbance as well as increased propagule pressure. These regions of the park form the priority areas for monitoring and management interventions. In addition, the provincial and district roads that transect the park, as well as arterial roads are primary conduits for invasive alien plants, related hotspots include points where roads cross/run adjacent to rivers or seeps.

The coastal zone, including river mouths, tourist facilities, active dune systems and previously disturbed areas are prone to invasions, notably by *A. cyclops*. Inland dune systems are also invaded with *A. cyclops*. The Kamiesberg along with associated drainage-lines and seep areas are prone to invasions by *Eucalyptus* species. The Swartlintjies, Spoeg, Bitter and Groenrivier systems leading out of the Kamiesberg are conduits for invasive and alien species into the lowland areas and coastal zone of the park. Much of the upper catchments of these river systems are extensively transformed by agricultural, are crossed or run adjacent to the N7 highway, and other provincial and secondary roads, increasing the pressure of infestation by invasive alien plant species.

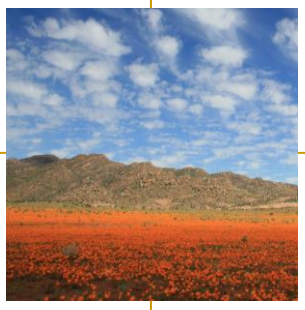
Status report on the efficacy of past control measures

The WfW programme, implemented by the BSP, first started managing invasive plants within the park in 2002. There were two periods of interventions between 2002 and 2016, the last allocation of funding for the management of invasive alien plans was in the financial year 2015/2016. In total R3.6 million has been invested into the park which has resulted in an accumulative total of 12,200 ha being 'worked' providing a total of 13,955 person-days, equating to an average of seven 'jobs' (full time equivalent) per annum.

The focus of WfW interventions has been predominantly along the coastal sections of the park with the target species being *A. cyclops* across the broader area with wild tobacco *Nicotiana glauca and P. glandulosa*, predominantly in the river reaches. Anecdotal evidence indicates that the management of *A. cyclops* was effective in reducing the pressure on the coastal dunes and associated habitat. A total of 14 invasive plant species have been treated, most species recorded as rare (<2% density) across their distribution in the park (SANParks submission to the National status report submission 2020). There has been no formal assessment of areas where invasive and alien species management was previously undertaken since the end of the 2015 / 2016 financial year.

Current measures to monitor, control and eradicate invasive and alien species

In 2022/2023 no formal funding allocation was made through BSP for the management of invasive and alien plants. As a result, there is no control of invasive alien plants undertaken in the park. As resources permit 'monitoring' of invasive and alien species is undertaken during assessments of areas under dryland rehabilitation (BSP Working for Ecosystem (WfE) programme). Observations in changes in species dynamics will trigger management actions as required.



The framework set out in SANParks IAS management policy as well as the SOP for the Implementation of IAP management projects ensures that SANParks complies with legislation, including the identification and prioritisation of activities which include:

a. Awareness of invasive and alien species threats;
b. Assessment of current and potential threats and pathways;
c. Prevention practices and procedures;
d. Early detection and rapid response;
e. Management control and restoration; and
f. Secured and maintained funding.

Monitoring is key for the management of IAS, specifically IAP dispersal into and within the park, and needs to be focussed on the potential pathways identified within the parks landscape. Foxcroft *et.al* (2019) identified a total of eight different potential pathways that IAS may follow to enter and/or disperse within a park, and the three primary pathways are (i) rivers and (ii) roads etc. and (iii) contaminated construction material, equipment and soils specifically in the surfacing of existing provincial roads transecting the park. In addition, (iv) agricultural areas adjacent to the park, as well as (v) movement of wildlife and possibly domestic animals between these areas and the park need to be monitored. (Foxcroft *et al.*, 2019). Non-ecological asset areas that need to be protected from the threats of IAP and other associated threats include the park tourism and management facilities. Monitoring is done through the BSP baseline data on invasive alien plants that is reviewed annually. Changes in the dynamics of species triggers management action. Eradication is not expected in the long term.

Control methods, or an integrated combination thereof, are designed to suit the target species and environment in which they occur. The following methods may be used within the park, cadastral and broad alien plant footprint boundaries but will depend on the circumstances:

1. Initial treatment.

    - Chainsaw – fell, debranch and stack;
    - Foliar spray – application of herbicide; and
    - Biocontrol release - collection of clean cladodes, propagation of biocontrol and deployment of biocontrol agents.

2. Follow-up treatment.

    - Loppers and hand saws;
    - Foliar spray – application of herbicide; and
    - Biocontrol release - collection of clean cladodes, propagation of biocontrol and deployment of biocontrol agents.

Indicators of progress and success, indications of when the programme is to be completed

The long anthropogenic history of the region brings with it a long history of introductions of non-native species, especially plants providing fodder and other resources for early settlers, resulting in the establishment of, though sparse, potentially invasive plants (Milton & Dean, 2010).

Pressures from burgeoning regional tourism, marginalised agriculture, and land-use changes, such as mining, potentially lead to increasing risks of invasive alien plant invasions. As a result the monitoring and management of IAS, specifically plants, will remain an ongoing required management action.

To sustain the gains made in the management of IAP, it is essential that funding is secured over the long term to allow management to retain a focus on priority species and areas across the park and to monitor and respond to external threats identified through a proactive management approach.

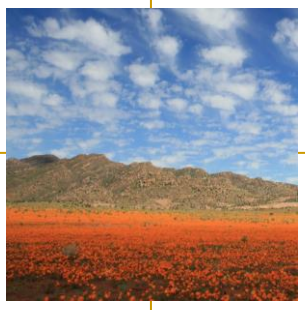
A detailed lower-level plan outlining the rationale and operational approach supports this programme. This programme links with high-level objective 2 and objective 2.2 on page 40. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

INVASIVE AND ALIEN SPECIES PROGRAMME					
High-level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.					
Objective: To reduce the impact of invasive and alien species through the prevention, control and where possible eradication thereof.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To develop a spatial layer of potential invadable habitats and pathways along which IAP may be distributed	Map areas with a medium to high probability for establishment of IAP as well as potential pathways of dispersal	BSP	WIMS spatial layers with linked baseline data	Year 1	NEM: BA
	Maintain a dedicated spatial IAP baseline database	BSP	WIMS spatial layers with linked baseline data	Year 1	NEM: BA
	Assess all identified areas where the probability of invasion by IAP is deemed medium to high as well as pathways and record in a dedicated parks baseline database	BSP	Baseline database	Year 1, ongoing	
To Implement an Invasive Alien Plant Management programme	Review of the park's NEM: BA Control Plan	BSP	Revised Control Plan	Year 1	NEM: BA
	Implement actions identified in the NEM: BA Control Plan	BSP, Park Management	WIMS monthly reports	As required	SOP: Implementation of Invasive Alien Plant management projects
To monitor and evaluate the impact of the implementation programmes and adapt as required	Monitor and evaluate progress and impact against actions as set out in the LLP: IAP and NEM: BA Control Plan	BSP, PM	Tool	Annually	SOP: Assessment of implementation of Management Plans

10.3.3 Freshwater ecosystem programme

The purpose of this programme is to have an improved understanding of the inland water ecosystems through collaborative participation, research, monitoring and effective management to ensure the persistence of inland water systems and associated biota. This programme deals mainly with surface water (i.e. rivers), groundwater, wetlands and estuaries due to the sensitive linkages and interconnectivity between these various entities. Aquatic ecosystems are complex systems with many interrelated components. Understanding these systems in a systemic way requires input from various disciplines, for example groundwater science, environmental chemistry, geomorphology, hydrology, entomology, ichthyology and increasingly social sciences.

South Africa is a signatory to several international conventions, agreements and protocols governing water resources. Therefore, SANParks' strategic plan, management plans and conservation policies are informed by the CBD Programme of Action on Protected Areas. The CBD's post-2020 Global Biodiversity Framework's goals and targets, for the 2021-2030 decade, were finalised in December 2022. The newly adopted "Kunming-Montreal Global Biodiversity Framework" includes four goals and 23 targets for achievement by 2030. One of the overarching global goals is for the integrity, connectivity and resilience of all ecosystems to be maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050. **Target 3** of the new framework is particularly relevant for protected areas: "Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed …". **Target 2** is similarly important: "Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective



restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity."

South Africa was pro-active in adopting a freshwater conservation target. This target emerged from a series of participative workshops involving several government departments and national agencies (SANParks, the Council for Scientific and Industrial Research and the South African National Biodiversity Institute (SANBI), during which it was stated that at least 20% of each inland water ecosystem type should be conserved (Roux *et al.,* 2006). The endorsement of a quantitative target was followed by a national planning exercise to identify strategic spatial priority areas to reach the 20 % target. The resulting conservation priorities, known as FEPAs, comprise 22 % of South Africa's river lengths and 38 % of wetland areas (Nel *et al*., 2011a).

The Department of Water and Sanitation lists SANParks as an implementation partner of its National Water Resource Strategy. Relevant actions include: (a) investment in strategic water source areas, (b) strategic investment in the maintenance and rehabilitation of freshwater ecosystems, (c) maintenance of FEPAs in good condition, protected riparian and wetland buffers and critical groundwater recharge areas, (d) monitoring ecological health to inform management, and (e) establishing commitment to sustainable water resource management through e.g. among others, stakeholder awareness programmes.

All the rivers in the park are ephemeral and only flow after rainfall events. Groundwater plays an important role as most households inside and outside the park are dependent on boreholes. Some of the wetlands and estauries are also depended on groundwater. The NBA done in 2018 (SANBI, 2019) and Skowno *et al*. (2019) showed that the ecological state of some rivers (Bitter and Haas) were deteriorating, some improved (Buffels, Groen, Spoeg and Swartlintjies) while some remained in similar states (Wildeperdehoek se Brak, Wolwepoort). Most of the wetlands were in a natural to near natural state with no measurable modifications. The Spoegrivier estuary was in a near-natural to natural state while the Groenrivier estuary was in a good state with few modifications. However, the NBA for the park was desktop reviewed and very little information exists on the rivers, wetlands and groundwater ecosystems inside the park. Research has been done on the estuaries, but no continuous monitoring programme exists currently. Climate change predictions for the park indicated that there was a significant increase in the daily temperature range. This increase could place multiple species at risk due to water loss from the environment.

The park conserves six river ecosystem types. However, the ephemeral nature of the rivers makes it difficult to implement processes monitoring conventional basic ecosystem health, water quality and quality parameters. Of the four wetland ecosystem types found within the park, two are classified as critically endangered, one is endangered and one has a least-concern conservation status. Groundwater systems are dynamic and adjust continually to short-term and long-term changes in climate and groundwater withdrawal. The NBA (SANBI, 2019) showed there are no FEPAs within the park buffer zone. However, there are CBA1, CBA2 and ESAs found within the park buffer zone.

Freshwater ecosystems are highly connected systems and can be summarised as such:

- Longitudinal connectivity (along the length of a river): Rivers form ecological corridors from source areas all the way to the sea, with several environmental gradients along their lengths (e.g. in nutrient concentrations, temperature, flow dynamics, salinity and habitat structure) which are critical to their overall functioning and health;
- Lateral connectivity (from terrestrial to aquatic): The health of rivers and wetlands is susceptible to changes in runoff, as well as sediments and contaminants from upstream and upland runoff. Rivers and wetlands cannot be conserved without taking care of their surrounding environments. Of importance is to maintain buffers or riparian zones of natural vegetation around these ecosystems; and

- Vertical connectivity (between groundwater and surface water): Groundwater sustains river flows ("base flows") and supports refuge pools in the dry season. Refuge pools are critical in seasonal rivers, as they support water-dependent biota that would otherwisenot survive when the rivers dry up. Groundwater further supports a wide variety of groundwater dependent ecosystems such as wetlands. Reductions in groundwater stores because of abstraction, particularly from riverbeds, close to streams, and from shallow alluvial aquifers, will have a direct influence on river flow and on groundwater dependent ecosystems.

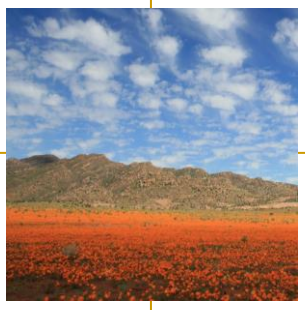
The most effective way that SANParks can conserve freshwater systems within the park is through strategic relationships with catchment management agencies, other water management fora and stakeholder groups. Strategic relationships serve to facilitate co-operation, knowledge-sharing and resource mobilisation to advance effective conservation of aquatic ecosystems. Prominent activities would include, lobbying for and active participation in determination and implementation of ecological reserves; facilitating assessment of ecosystem and river health; providing information and insight obtained through research; monitoring to facilitate informed decision-making; and, the successful implementation of catchment-scale adaptive management systems.

A detailed LLP outlining the rationale and operational approach supports this programme. This programme links with high-level objective 2 and objective 2.3 on page 40. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

FRESHWATER ECOSYSTEM PROGRAMME					
High level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management					
Objective: To understand and conserve groundwater, wetlands, rivers and estuarine ecosystems through research, monitoring and effective management					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To improve basic knowledge of groundwater, estuaries, rivers and wetland ecosystems within the park	Contribute to the update of national river and wetland databases	SS, SSR, SR, external researchers	Updated GIS layers (Feed into NBA)	As required	Fieldwork reports
	Monitor groundwater levels at priority boreholes	SS, SSR, SR	Groundwater level data	Annual	Hydro- census reports
	Develop estuary monitoring programme with relevant stakeholders	SS, SSR, SR, DFFE, External Researchers	Estuary monitoring programme for NNP	Year 2	Report, communications
	Implement monitoring programme	SS, PM, DFFE	Updated GIS layers (Feed into NBA)	Year 2 onwards	Reports
To engage with relevant stakeholders and raise awareness of inland waters	Participate in river management forums - aim to participate in high-level inter-governmental and transboundary forums	PM, SSR, SR	Attendance at river forums	As required	
	Incorporate awareness of inland waters into education and outreach programmes and activities	SET Officer	Organised education and outreached programmes	As required	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SS	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.3.4 Species and habitats of special concern programme

The purpose of this programme is to enable park management to deliver on the objectives for monitoring Species and Habitats of Special Concern (SSC), and thereby support the effective management and successful conservation of these species. SANParks considers species of special concern to include species that are endemic, threatened, locally threatened, in decline, reintroduced or a management concern (Rebelo *et al*., 2011). Sensitive species, which are species at risk of being harvested, are also considered SSC.



SANParks' biodiversity values stipulate that, except in crucial instances for the survival of globally critically endangered species, management for system integrity and biodiversity must take precedence over species management. However, within national parks, SANParks will strive to prevent the extinction of species on the global IUCN critically endangered or endangered lists and will work with other conservation initiatives to secure and strengthen the future of such species over their historic distribution ranges (IUCN, 2022).

Global environmental change drivers, such as habitat change or encroachment, excessive resource use, climate change, pollution, disease and invasive species play key roles, impacting on species becoming threatened and then listed as SSC, including habitats. Species and habitats of special concern are defined as being threatened or endangered due to a combination of threats, or requiring special attention. This applies to species, sub-species, populations and habitats that are threatened by biological or anthropogenically-induced biological threats and consequently require protection.

Arid environments are generally resilient and can shift from one state to another because of disturbance (Yair *et al.,* 2013). Aridity, as well as ecological and evolutionary diversity, plays a role in species distribution. The aridity of the area makes the terrestrial species occurring in the area vulnerable to limitations of population growth and dispersion (Gedir *et al*., 2015). The faunal species are either adapted behaviourally or physiologically to the environment or can migrate during times of unfavourable conditions such as low rainfall or high daytime temperatures. The emergence of illegal resource-use has recently also become a key element (Egan, 2014; Frantz *et al.,* 2022). Emerging diseases (Holmgren *et al.,* 2006) may also pose new challenges. Although invasive species, alien plants and pollution are threats, climate change impacts result mostly from unpredictable weather patterns and consequently become challenging to predict and mitigate. Drought and other climatic events within an arid environment are still considered a disturbance (Holmgren *et al*., 2006). Degradation and desertification can lead to a range of detrimental consequences (UNCCD, 2014). Inside protected areas, habitat change is primarily driven by tourism development and ecological management that could impact on how resources that species use are distributed. Several species that are not rare, play key roles in maintaining ecological resilience (keystone species) (Winfree *et al.*, 2015). Ensuring the role of these species is thus a key requirement.

The park lies within the Succulent Karoo hotspot, with numerous rare and endangered species occurring in the area. It has been identified as the park that, more than any other, could be an indicator of global (and regional) climate change. The monitoring of the reproductive success and movement of species – especially those of special concern – is vital to understanding the dynamics of the park and its surrounding ecosystems.

Management actions should thus concentrate on identifying SSC, locate and map their populations, and maintain viable populations of SSC to meet SANParks' mandate and obligations in terms of international conventions. Management actions should focus on communities in which SSC are found, continuously assessing adverse factors and changes, to prevent local extinctions.

At least two of the plant species in the park are critically endangered (*Aspalathus rectistyla* and *Lampranthus coccineus)*, 22 more species are endangered, about 58 are vulnerable, 34 are near threatened and about 1,215 are considered species of Least Concern.

Table 15 below contains the Red Data List of other species with distribution ranges in the park.

Taxonomic group	Scientific name	Common name	IUCN category – global
Birds	*Afrotis afra*	Southern black bustard	VU

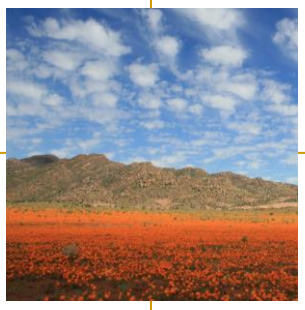
Taxonomic group	Scientific name	Common name	IUCN category – global
Birds	*Anthropoides paradiseus*	Blue crane	VU
	Ardenna grisea	White-chinned petrel	VU
	Ardeotis kori	Sooty shearwater	NT
	Calendulauda burra	Red lark	VU
	Calidris ferruginea	Kori bustard	NT
	Circus maurus	Black harrier	EN
	Morus capensis	Cape gannet	EN
	Neotis ludwigii	Ludwig's bustard	EN
	Phalacrocorax capensis	Cape cormorant	EN
	Phalacrocorax neglectus	Bank cormorant	EN
	Phoeniconaias minor	Curlew sandpiper	NT
	Polemaetus bellicosus	Martial eagle	EN
	Sagittarius serpentarius	Secretary bird	EN
	Spheniscus demersus	African penguin	EN
	Terathopius ecaudatus	Lesser flamingo	NT
Mammals	*Cryptochloris zyli*	Van Zyl's golden mole	EN
	Felis nigripes	Black-footed cat	VU
	Panthera pardus	Leopard	VU
	Parahyaena brunnea	Brown hyaena	NT
Reptiles	*Chersobius signatus*	Speckled padloper	EN
	Dermochelys coriacea	Leatherback turtle	VU
	Psammobates tentorius trimeni	Namaqualand tent tortoise	EN

Critically Endangered – CR, Endangered – EN, Vulnerable – VU, Near Threatened – NT, Least Concern – LC, Data Deficient – DD.

Both fauna and flora SSC are at risk of illegal harvesting and poaching. The uniqueness and vulnerability of the vegetation specifically of the quartz fields are important. These tiny succulents are particularly diverse and rare, and as such is an attractive collection point for illegal collectors. Reptiles and tortoises are also sought after. Potential development pressure such as wind farms to generate electricity and mining minerals in sensitive habitats and changes in climatic conditions with extreme climatic events can have a detrimental effect on endemic and specialist species, both fauna and flora.

This programme links with high-level objective 2 and objective 2.4 on page 40. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

SPECIES OF SPECIAL CONCERN PROGRAMME				
High level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.				
Objective: To protect habitats and species of special concern through the identification, prioritisation, monitoring and effective management thereof.				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Identify, locate and continue a database of plant and animal SSC	SS, PM	Database	Ongoing	
Prioritise SSC within the park	SS, PM	Priority list	Ongoing	
Identify and prioritise habitats of special concern	SS, PM	Report Priority list	Ongoing	FE LLP
Collaborate and liaise with external researchers and experts on SSC monitoring	SS, PM	Registered research projects and research reports	Ongoing	



SPECIES OF SPECIAL CONCERN PROGRAMME				
High level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.				
Objective: To protect habitats and species of special concern through the identification, prioritisation, monitoring and effective management thereof.				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Identify threats to priority habitats, species and populations	SS, PM	Documentation	Year 2, ongoing	
Identify actions and scenario planning to understand and reduce the risks of these threats.	SS, PM	Report	Year 3	SANBI-CREW, DENC
Conduct active anti-poaching patrols	PM	Incident / evidence-based reporting	Ongoing	
Monitor and evaluate progress and impact against programme objectives and targets	PM, SS	Assessment tool	Annually	SOP: Assessment of implementation of Management Plans

10.3.5 Functional ecosystem programme

The purpose of this programme is to maintain functional ecosystems by effectively managing wildlife, especially larger mammals through monitoring, research and effective management. For the purpose of this document, wildlife refers to large mammals – small and larger herbivores, as well as carnivores.

Developments within the field of wildlife management witnessed the adoption of a conservation paradigm that acknowledges the flux of nature and importance of spatio-temporal patchiness and habitat heterogeneity (Stalmans *et al*., 2001). Consequently, the shift away from the 'carrying capacity' concept to one that considers the dynamic equilibrium and change inherent within such complex systems (Wu & Loucks, 1995; van Rooyen, 2002) is adopted to manage these ecosystems to meet biodiversity conservation objectives. This is particularly relevant in the park given that the maintenance of constant levels of herbivore numbers on the landscape is likely to lead to degradation of the vegetation communities (Richardson *et al*., 2005).

The context provided above reflects the mechanisms of mammal effects that are driven by how intensely large mammals use landscapes. Intensity of use is primarily driven by the distribution of key resources, often affected by management actions such as the provision of water or fences. However, mammal effects are also usually altered when population regulating mechanisms are interfered with. Managing wildlife effects should thus focus on managing the drivers of effects which focus on features in landscapes like water and fences before focusing on population features such as density. This is in line with the large mammal management direction for SANParks (Ferreira *et al*., 2009). In the park's case, wildlife management initially focussed on the missing species aspect and the spatial component of wildlife effects rather than only numerical aspects.

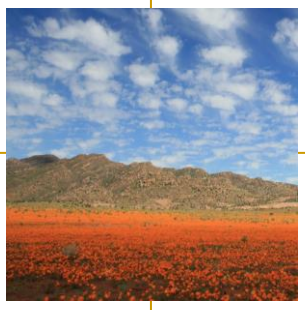
As the park has an exceptional high diversity of endemic flora species, it is essential to effectively manage the large herbivory component This programme is subsequently closely aligned with the species and habitats of special concern programme. Wildlife management in the park is guided by park-specific objectives, primarily aiming at the conservation and promotion of values of the unique Namaqua landscape. 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 movements given the fragmentation of the landscape, however 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 larger mammalian herbivores may maintain plant community structure and function in the Succulent Karoo (Owen-Smith & Danckwerts, 1997). SANParks 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.

Reintroductions present 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. The reintroduction of large mammals into the park occurred in the early stages of the park's establishment, with small founder populations of certain species. These species included springbok *Antidorcas marsupialis*, gemsbok *Oryx gazella*, and red hartebeest, *Alcelaphus buselaphus* and are monitored through bi-annual aerial census surveys. Additional species such as eland, *Taurotragus oryx*, Hartmann's mountain zebra, *Equus zebra hartmannae*, and black rhinoceros, *Diceros bicornis bicornis* might have been present in the historic landscape but are not likely to be reintroduced in the next management plan cycle. Mammalian predators have not been introduced and although historically part of the landscape there is no intention to reintroduce any predators. It is however known that leopard and caracal are present in the Namaqua region. The absence of large predators may pose some constraints on restoring key ecological processes associated with herbivory and predation. Large predators do impact on neighbouring farming activities around protected areas and these impacts will need to be mitigated. Park management has experimented with an Anatolian dog project to mitigate predator impact on farming activities. The project was however not successful in the long run as there was limited capacity to care for the dogs in the park and it was found to not be feasible to train and maintain the dogs inside a protected area. Currently many free access and public roads traversing through the park and most fences are inadequate to contain large predators.

A detailed lower-level plan outlining the rationale and operational approach is available. This programme links with high level objective 2 and objective 2.5 on page 42. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

FUNCTIONAL ECOSYSTEM PROGRAMME				
High-level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.				
Objective: To manage wildlife impacts on biodiversity through spatial and temporal variation in use of landscapes.				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Conduct bi-annual census surveys and provide census reports for recommendations on the management of large mammal numbers	SS, PM	Census report, WMC proposals	Bi-annually	SET, SSC
Support and collaborate with internal and external research projects	SS, PM	Registered research projects	Ongoing	
Objective: To evaluate, inform and revise wildlife management through monitoring and research.				
Science and management engagements to keep abreast of management challenges and update, discuss and review research results	SS, PM	Census report, WMC proposals, research reports, minutes of meetings	Annually	



FUNCTIONAL ECOSYSTEM PROGRAMME				
High-level objective: To understand and conserve the unique biodiversity patterns and ecological processes through research, monitoring and effective management.				
Objective: To engage with neighbouring stakeholders and farmers on the impact of damaging causing animals by building trust and relationships and mutual understanding and support.				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Actively engage with neighbours and building a trusting relationship	PM, SETO, SR	Emails, attendance registers	Ongoing	Effective Park Management programmes
Promote Environmental Education awareness regarding conservation matters (damage-causing animals) and legislations	PM, SETO, SR	Emails, attendance registers	Ongoing	Effective Park Management programmes
Attend farmer association meetings, community forums and meet individually to attend to farmer grievances.	PM, SETO, SR	Minutes of meetings, attendance registers	Ongoing	Effective Park Management
Objective: To monitor and evaluate the impact of the implementation programmes and adapt as required.				
Monitor and evaluate progress and impact against programme objectives and targets.	PM, SS, SR	Assessment tool	Annually	SOP for the assessment of the implementation of MPs

10.4 Responsible tourism programme

The purpose of the RT programme is to grow diverse tourism experiences towards culture, experiential and nature-based RT in the park for the promotion of conservation, greater public enjoyment, constituency building and income generation.

In March 2011 Cabinet approved the National Tourism Sector Strategy (NTSS) that further entrenched the principles of RT in the development and operation of businesses in the field of tourism. The NTSS further identified specific areas with the following 15 areas relating to SANParks and influencing its tourism business operations:

- Strengthening collaboration and partnerships within the tourism industry;
- Developing domestic tourism;
- Enhancing quality assurance and universal accessibility;
- Ensuring a co-ordinated approach to product development;
- Facilitating investment, including enterprise development and development finance;
- Ensuring sound environmental management and triple bottom line reporting;
- Growing business and events tourism;
- Developing African Tourism;
- Improving general awareness of tourism among South Africans;
- Enhancing domestic airlift;
- Transforming the industry;
- Developing people;
- Ensuring service excellence;
- Improving community benefits from, as well as community participation in tourism; and
- Providing decent work in tourism.

SANParks, as a major provider of tourism accommodation and natural experiences in the country, recognises that by implementing RT principles, the organisation will not only continue to benefit from enhanced income, but also from improved tourism products, better development and management practices, and higher levels of local involvement along with much needed sustainable benefits flowing to local communities.

To this end, SANParks continually evaluates the alignment of policies, strategies and operations with the principles of RT and strives to put measures in place that will enhance this process. Following an extensive review of existing policies, guidelines and plans, as well as information gathered through interviews with personnel and stakeholders, the 2022 Responsible Tourism Strategy and Implementation Plan was approved in 2012. SANParks has adopted the national Responsible Tourism Standard, South African National Standard (SANS) 1162:2016. The RT programme thus considers all aspects of the current and potential tourism product and service offering to ensure that the park meets the required standards for environmental and financial sustainability, local community beneficiation and customer service excellence, and this starts by establishing the park's RT baseline.

The establishment of this baseline serves to identify a clear point of departure from which to work. Customer service excellence is measured through criteria such as customer feedback, tourism quality standards, and universal access (UA) standards, as well as evaluating the visitor management and interpretation aspects relating to the park. The implementation of RT promotes operational efficiency and thus creates the environment for new product development, packaging and dynamic pricing to maximise yield, though challenges such as the availability of advanced technologies do exist. In order to align the SANParks tourism operations to the 2022 Responsible Tourism Strategy, SANParks seeks to base all its planning and decision-making on the following guiding principles and values:

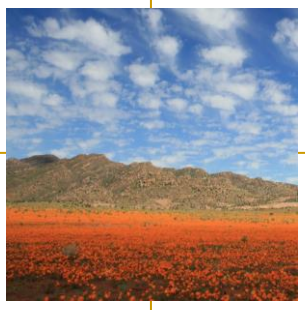
- Provide nature-based responsible, value for money tourism experiences, whilst promoting our biodiversity, cultural and where applicable, wilderness qualities, to our strategic advantage;
- Contribute to building a broad-based constituency for the long-term sustainability of conservation in a people-centric conservation; and
- Use appropriate nature-based RT as the best possible commercial opportunity to support and supplement conservation of biodiversity. This commercial aspect should never become the focal point and erode the core conservation values of the organisation. Viewed together with other commercial sources, the overall outcome must effectively enable SANParks to fulfil its constitutional mandate.

As stated above, park management must establish a RT baseline to measure progress of the effective implementation of the responsible tourism standard. Environmental damage must be minimised to maintain the ecological integrity of the park and counteract the potentially negative societal perceptions. RT should maintain a high level of tourist satisfaction and ensure a meaningful experience to tourists, raising their awareness about sustainability issues and promoting sound tourism practices amongst them.

Apart from the limitations of the biophysical environment and the park's desired state, park management recognises that tourist density and experiences must be managed through a strong but flexible visitor management protocol. This protocol is informed by a sound research programme as well as the experiential expectation and perceptions of the broader market environment. Furthermore, in partnership with its key stakeholders, the park will seek to provide real and tangible benefits to communities that lie adjacent to the park, thereby facilitating effective SET and growth.

As a national park, with rich cultural history and diversity any new development must be aligned with the SANParks product development strategy and must conform to the zoning prescripts. This will ensure RT practises that balance conservation values with the need to generate income to sustain both their integrity and significance. The potential for new tourism products whereby the significance of the park's attributes can be showcased, would contribute greatly towards the promotion of tourism in the Northern Cape. However, the impact of tourism must be monitored to identify potential threats that can be addressed in the management plan to avoid degradation of the pristine landscapes and unique natural assets.

The park hosted 20,851 visitors during the (2021 / 2022) financial year. NNP is the largest remaining intact coastal system in Northern Cape and is the only national park in the Northern Cape with expansive landscape spanning from mountains-to-sea with wide-open vistas providing peacefulness and a unique sense of place. NNP is a globally significant biodiversity hotspot (Succulent Karoo and fynbos biomes) with sparkling quartz koppies known locally as "groen diamante".



Namaqua National Park may be best known for its annual explosion of bright carpets of wildflowers in spring. During August and September, the valleys of Namaqualand are transformed into a floral wonderland with over 3,500 species of flowers attracting local and international visitors. The exact timing, quantity and variety of flowers are directly dependent on the winter rainfall received.

Products identified and listed in the management plan will feed into the product development framework that will, following a specific process, ensure sustainable product development. In this regard, all new developments will be considered within the approved zonation to maintain the sense of place in the park.

The park is fragmented to a degree with one provincial and four district roads traversing through the park allowing for uncontrolled public access into different areas of the park that could potentially hamper visitor experience, revenue collection and security. Apart from the impact on the integrity of the park, this hampers the effective development of a complete tourism and visitor experience within the park while facilitating community access to local towns.

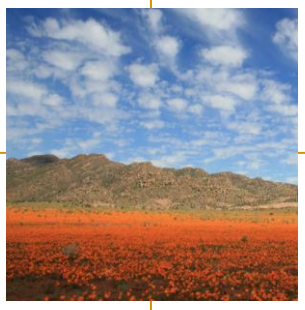
The development and improvement of tourism infrastructure are critical for sustainable growth, however, this requires effective partnerships. A memorandum of understanding with Northern Cape Tourism Authority and marketing partnerships with the Namaqua Coastal Route, the Namaqua District Municipality and other local municipalities have been setup to mobilise the necessary resources and attract investment to grow tourism. Limited future new developments have been identified, including the new chalets at the coastal section and an entrance gate on the N7 national road and camping sites at the terrestrial section. These developments are dependent on park expansion and funding to be realised.

The visitor management plan needs to be effectively implemented to mitigate the risk factors posed by unregulated visitor access.

This programme links with high-level objective 3 and objectives 3.1 – 3.7 on pages 42 and 43. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

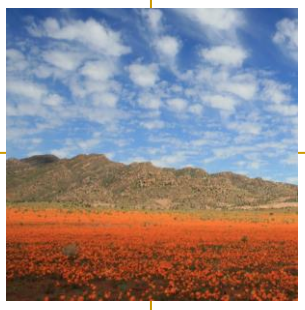
RESPONSIBLE TOURISM PROGRAMME					
High-level objective: To become Namaqualand's nature and cultural tourism destination through diverse and immersive visitor experiences whilst sustainably growing revenue and protecting the sense of place					
Responsible Tourism performance objective: To establish, maintain and continuously improve the park's responsible tourism performance by implementing SANS1162:2016					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To develop a RT programme for the park that aligns with the SANParks Responsible Tourism Strategy	Develop a RT programme in line with the SANParks Responsible Tourism Strategy	Regional Marketing Manager (RMM), PM, TO	Programme	Year 1	SANParks Responsible Tourism Framework, SANParks Responsible Tourism Strategy
	Communicate the RT programme to all park stakeholders	RMM, PM, TO,	Reports	Year 2	
	Educate and motivate staff in RT principles and enhance tourism capacity and skills base within staff complement	TO, PM	Training registers	Year 2, ongoing	
To manage and assess RT performance	Implement and monitor RT actions	RMM, TO, PM	Report	Year 3, ongoing	
	Identify, review and mitigate the visitor impact on biodiversity, heritage and tourism resources	RMM, SETO, TO, PM, SR, TW	Report	Year 2, ongoing	

RESPONSIBLE TOURISM PROGRAMME					
High-level objective: To become Namaqualand's nature and cultural tourism destination through diverse and immersive visitor experiences whilst sustainably growing revenue and protecting the sense of place					
Responsible Tourism performance objective: To establish, maintain and continuously improve the park's responsible tourism performance, by implementing SANS1162:2016					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To manage and assess RT performance	Undertake Tourism Quality Assurance assessments, grading, and UA assessments	TW, TO, RMM	Reports	Year 1, ongoing	
To promote RT practise	Identify tourism programmes and projects benefiting communities	PM, TO, SETO	Documentation	Year 3	
	Implement projects as required	TO, SETO, PM	Documentation	As required	
Use local resources sustainably, avoid waste and over-consumption	Measure, manage and monitor performance of water and electricity consumption by adhering to targets	TW, TO, SR	Documentation	Annually	
	Set appropriate targets for reduction or recycling of waste produced	TO, SETO, TW	Documentation	Annually	
Visitor experiences objective: To continually enhance the authentic visitor experience within the park, by effective visitor management, interpretation and quality of facilities offered.					
To ensure effective visitor management in the park	Develop and implement a visitor management plan	GM: Visitor Management, RMM, TO, PM, TW	Document	Year 1, ongoing	Visitor management protocol
	Update the visitor management plan taking changes in the environment into account	GM: Visitor Management, TO, RM,	Updated document	Year 3, 6, 9	Visitor management protocol
	Effectively manage visitor numbers through seasonal peaks.	PM, TO	Reports	Ongoing	
To establish and / or monitor, where relevant, RT requirements for commercial and public private partnerships (PPP) partners	Engage with commercial PPP operators regarding SANParks' commitment to RT principles and agree to targets and assessment with operators	Business Development Unit (BDU), PM, DM	Updated agreements, assessment reports	As required per contact	SANS1162, Individual PPP agreements
To enable quality visitor experience through dynamic interpretation of biodiversity, cultural and heritage attributes of the park	Develop a park interpretation plan, taking existing interpretation into account, and including priorities for implementation	GM:VM, PM	Interpretation plan	Year 1	
	Implement the interpretation plan actions according to the prioritised list	PM, DM	Monthly reports	Year 2, ongoing	
To ensure adequate, effective and accurate visitor communication	Update and maintain the signage manual	Regional Communications Manager (RCM)	Signage manual	Year 1	Corporate Identity Manual
	Review of all current signage within visitor areas and consolidate signs per facility	PM,	Report	Year 1, ongoing	Signage manual
	Maintained a Tourism Guide booklet	Regional Marketing Manager (RMM), PM	Document	Ongoing	Interpretation plan, Sales and marketing strategy
	Ensure the availability of marketing material and accurate communication of park rules, rates and facilities on various platforms	RMM, PM	Park rules, park information on website, reservation attachments, interpretive signage	Ongoing	Visitor management policy and protocols



RESPONSIBLE TOURISM PROGRAMME					
High-level objective: To become a unique nature-based and cultural tourism destination of choice by enabling and growing diverse visitor experiences whilst sustainably growing revenue and protecting the sense of place.					
Visitor experiences objective: To continually enhance the authentic visitor experience within the park, by effective visitor management, interpretation and quality of facilities offered.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Align new and existing tourism infrastructure and tourism products with market demands and industry standards to enable revenue optimisation	Maintain tourism facilities and infrastructure according to tourism standards	TO, PM, RMM, TW	Documentation	Annually	
	Identify events, activities and facilities that may be considered for development within the park	RMM, TO, PM,	List of products	Annually	Product development framework
Identify areas where communities could become beneficiaries of tourism projects	Identify and support appropriate product development by developing and implementing possible community beneficiation products	PM, TO, SETO	Documentation	Year 2	
Service excellence objective: To enable relevant customer-focused service excellence, by understanding and responding appropriately to market expectations and or preferences.					
To enhance customer service standards	Engage in regular staff training to ensure current high standards in customer service are maintained	PM, DM	Customer feedback received	Ongoing	Online feedback, park visitor book, emails
	Manage and resolve feedback received from the public	PM, DM	Customer feedback received	Ongoing	Online feedback, park visitor book, emails
	Regularly assess facilities to ensure operational procedures are carried out and facilities are maintained to SANParks' standards	PM, DM	Facilities Inspection checklists	Ongoing	SOPs, Tourism grading standards
Grow tourism revenue objective: To sustainably grow income through tourism by providing visitors with an appropriate and a diverse range of products and services, whilst protecting the tranquillity and sense of place.					
To promote appropriate and optimal pricing of tourism products and services	Provide input into the annual pricing of tourism products and services, in order to optimise financial returns	PM	Annual price updates	Annual	Annual tariff review
	Enable cost savings within operations by ensuring effective management and controls	PM	Financial reports	Ongoing	
To ensure optimal development and maintenance priorities to enable revenue optimisation	Identify events, activities and facilities that may be considered for development within the park	PM, TO, RMM	Documentation	Year 1	
	Review development plan to ensure optimal tourism development priorities without eroding conservation values	PM, TO, SR	Document	Year 3, 6, 9	

RESPONSIBLE TOURISM PROGRAMME					
High-level objective: To become a unique nature-based and cultural tourism destination of choice by enabling and growing diverse visitor experiences whilst sustainably growing revenue and protecting the sense of place.					
Grow tourism revenue objective: To sustainably grow income through tourism by providing visitors with an appropriate and a diverse range of products and services, whilst protecting the tranquillity and sense of place.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure optimal development and maintenance priorities to enable revenue optimisation	Develop and implement annual work plans to cover maintenance priorities	TO, TW, PM	Document	Annually	
To ensure optimal returns from commercial operations	Support commercial operators in order to maximise revenue generation	PM, BDU	Concession revenue	Ongoing	
To identify alternative tourism income generating opportunities	Identify opportunities and implement where appropriate	PM, BDU	Sales and marketing plan Stats	Annually	
Operational effectiveness objective: To enable cost savings within tourism operations, by ensuring effective management and controls.					
To enhance existing tourism attractions and develop new products within the park in line with the recommendations of the RT programme	Enhance customer service standards, manage and resolve feedback from the public	TO ,RTMM	Questionnaire responses	Ongoing	Tourism grading standards, SANParks Housekeeping Standards,
	Review and analyse guest feedback to stipulate targets and ensure improvement	TO	Documentation	Annually	Housekeeping Standards
	Conduct customer surveys to understand visitor numbers, expectations, preferences, park use and trends	RMM	Reports	As required	
To create awareness of the importance of customer care among employees	Introduce employee awareness campaigns as part of the training and service commitment of employees	TO	Registers	Ongoing	
To ensure compliance and achievement of set customer service standards	Continue monitoring and review of, as well as training programmes on processes, ensuring effective service delivery and customer satisfaction	TO, TW	Survey results	Ongoing	
Promotion objective: To promote the unique cultural and natural landscape of the park by developing and implementing a variety of sales, marketing and communication initiatives.					
To promote the park to broade SANParks markets and park specific target markets	Contribute to the comprehensive tourism marketing strategy that covers all markets and matches up markets and products/experiences with a focus on RT issues	RMM, TO, PM	Document	Annually	
	Find opportunities for media coverage and enhance coverage in existing editorials, magazines and social media, and maintain high media visibility	RMM, TO	Documentation	As required	Sales and marketing strategy
	Explore opportunities for promoting park attractions in conjunction with tourism partners	RMM, RCM, TO	Minutes of meetings	As required	



RESPONSIBLE TOURISM PROGRAMME					
High-level objective: To become a unique nature-based and cultural tourism destination of choice by enabling and growing diverse visitor experiences whilst sustainably growing revenue and protecting the sense of place.					
Universal access standards objective: To ensure that persons with disabilities have equal rights of access to all tourism infrastructure, products and services, including employment opportunities and benefits that the park can provide.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To provide the same choices for all consumers to ensure the full participation of persons with disabilities, the elderly and parents with young children by creating appropriate facilities and providing dignified service	Comply with the Corporate UA standards	TO, TW, PM	Document	Year 2	SANParks UA Guidelines
	Engage in UA assessments	TO, TW, SM	Documentation	Year 3, 6, 9	UA strategy, UA protocol
	Sensitise staff to UA client expectations/requirements	TO, TW, SM	Documentation	Year 2	
Assessment objective: To monitor and evaluate the impact of the implementation of this programme					
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HSM, DM	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.5 Cultural heritage management programme

The purpose of this programme is to effectively preserve, interpret and present the diverse cultural heritage and history associated with the park.

The management of cultural heritage resources is guided by national legislation, policies and procedures within SANParks. The National Heritage Resources Act No 25 of 1999 (NHRA) provides the framework for the maintenance and conservation of heritage resources in accordance with the standards and procedures set out by the South African Heritage Resources Agency (SAHRA). The management of cultural heritage resources is guided by national legislation, policies and procedures within SANParks. The NHRA provides the framework for the maintenance and conservation of heritage resources in accordance with the standards and procedures set out by the SAHRA. SANParks policies, such as the Cultural Heritage Policy (2021a), the Heritage Objects Collections Management Policy (2016), and Guidelines for Burials and Scattering of Ashes (2021b) guides the management of cultural heritage assets.

The cultural heritage of the park consists of various heritage sites including those associated with the Khoe and San, colonial architecture / settlements and multiple gravesites. The three rock art sites found in the park are inaccessible to visitors. Some sites associated with colonial settlement (Koeroebees and Kookfontein) are open to visitors and are used for educational purposes. There is however a desire to open more of these sites to the public in the future.

Some cultural heritage sites are accessible to visitors, these include Skilpad, Koeroebees, Kookfontein, Riethuis, Luiperdskloof and Spoegrivier caves. Culture is a vital subject for awareness and interpretation programmes in the park and is included in educational programmes during visitation. Visitors to the Kookfontein Environmental Education Centre have an option to do a guided cultural heritage hike. As more research is carried out in the park, it is possible that new sites that maybe of enough significance to be used for tourism purposes are discovered and the approach to site management will be adjusted as and when this happens.

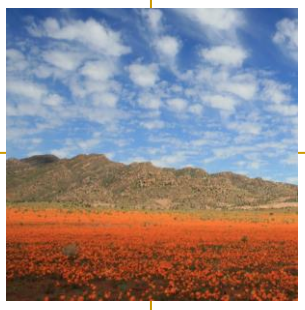
A management and monitoring programme will have to be developed to ensure that the state of conservation of the sites is continuously monitored. Databases of all tangible and intangible cultural assets associated with the park are being updated and maintained. The databases include site inventories, maps and other relevant documentation and, a movable heritage resource inventory will be developed in the near future.

Park management promotes access for cultural practices in collaboration with local communities and other relevant stakeholders through special events and organised excursions. The park will ensure that communities are allowed access to places of cultural significance. Special events and programmes will also be arranged for school groups and organised groups to enable awareness, access and exposure to places of cultural significance. Park management intends to further identify, document, and promote the practicing of living / intangible heritage for sharing with visitors and ensuring that such can be handed down to future generations through educational and awareness campaigns. The park intends to further identify, document and promote the practicing of living / intangible heritage for sharing with visitors and ensuring that such can be handed down to future generations. These include the knowledge about medicinal value of plants, traditional food, art, architecture, stories and dance.

This programme aims to improve and diversify the cultural heritage knowledge of the park. SANParks intends to forge quality and inclusive research partnerships with communities, universities, and researchers that will enhance the identification and promotion of park related and cultural heritage research topics. Any research activities will significantly add value to our knowledge of cultural heritage within this landscape.

A detailed lower-level plan outlining the rationale and operational approach supports this programme. This programme links with high-level objective 4 and objectives 4.1 – 4.4 on page 43. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

CULTURAL HERITAGE MANAGEMENT PROGRAMME				
High-level objective: To effectively preserve, interpret and present the long archaeological record and living cultural heritage associated with the park through research, documentation, monitoring and collaboration				
Objective: To provide access to heritage sites through facilitating sensitive and appropriate use of sites for tourism and education purposes				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Enable guided walks to sites for visitors and school children on request	SET Officer	Record of guided activities	Annually	
Identify sites that can be accessed by visitors and implement safety and compliance measures where such are required	SET Officer, Cultural Heritage Unit, Visitor Services	Updated inventory and reports	As required	
Objective: To identify and effectively manage cultural heritage sites by developing and implementing a cultural heritage management plan for the park				
Implement the management activities identified in the heritage assessment report	SET Officer	Report	Annually	
Update inventory of heritage sites in the park by adding newly discovered sites	SET Officer	Updated inventory	As required	
Develop a management and monitoring programme to ensure that the state of conservation of sites is continuously monitored.	SET Officer, Cultural Heritage Unit	Monitoring tools and reports	Annually	
Objective: To preserve intangible heritage through identification, documentation, presentation, knowledge management and enabling access for cultural practices				
Record and interpret the oral history and information relating to cultural heritage in collaboration with local communities and other relevant sources and stakeholders.	SET Officer	Oral history records	As required	
Manage living heritage and facilitate cultural practices within the areas managed by SANParks, in collaboration with local communities, and other relevant stakeholders.	SET Officer	Record of community events / activities	Annually	
Objective: To improve and diversify the cultural heritage knowledge of the park through quality and inclusive research partnerships with communities, universities and researchers				
Identify gaps in research and support research initiatives that seek to address information gaps in relation to cultural heritage in the park	Manager: Archaeology & Senior Curator	Research needs report	Year 2, ongoing	



CULTURAL HERITAGE MANAGEMENT PROGRAMME				
High-level objective: To effectively preserve, interpret and present the long archaeological record and living cultural heritage associated with the park through research, documentation, monitoring and collaboration				
Objective: To monitor and evaluate the impact of the implementation of this programme				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Monitor and evaluate progress and impact against programme objectives and actions	PM, HSM, DM	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.6 Engagement and access

The park wishes to establish and maintain meaningful and beneficial relationships with a wide range of stakeholders, that could enhance the park's values, objectives and various programmes related to the different core functions. Park management strives to maintain existing relations and identify and implement new opportunities for enhancing relationships with surrounding communities, all spheres of government and other stakeholders to ensure that local and regional initiatives and developments contribute positively to the attainment of the overall desired state and objectives of the park and the social-ecological system within which it is embedded. Park management prioritises building and broadening strong, long-lasting support for conservation for greater sustainability through promoting co-operative, collaborative and mutually beneficial engagement opportunities.

10.6.1 Stakeholder engagement programme

The purpose of this programme is to develop, maintain and encourage sustained partnerships with conservation and government agencies, adjacent communities and other relevant stakeholders by enhancing opportunities for education, community outreach and stakeholder collaboration.

Stakeholder engagement between SANParks and society covers a range of different objectives at various scales, ranging from local to global. The NEM: PAA promotes the participation of local communities in the management of protected areas. It further contributes towards strengthening stakeholder-park relations by empowering stakeholders and local communities to participate in decision-making processes related to management and development issues in parks. SANParks has adopted an overarching park management approach to strengthen relationships with stakeholders in pursuit of the long-term "desired state" for the park. This requires continuous engagement with a range of stakeholders and sectors through various mechanisms. Park management's engagement with external stakeholders needs to be responsive to deal with issues beyond internal operations, including the broader economic and integrated land-use role of the park. The commitment to the incorporation of public opinion into park management is rooted in the recognition that the park must serve a conservation-oriented subset of societal values and that it is inevitably situated within a broader landscape and context.

SANParks has a mandate to conserve biodiversity and to promote the associated conservation values. Stakeholders also have an interest in the park and how it affects the surrounding and interested communities and their activities. It is acknowledged that the sustained vibrancy and legitimacy of the park depend upon stakeholder understanding, support and involvement. For this reason, the park management wishes to engage stakeholders in an ongoing way, subsequently investing in stakeholder engagement and public participation processes.

The park's Stakeholder Engagement Strategy guides the process of engaging the stakeholders in all the aspects of park management. Park management strives to maintain existing relations and to identify and implement new opportunities for enhancing relationships with surrounding communities, all spheres of government and other stakeholders. Co-operative partnerships pertain to many levels of stakeholders, including all three levels of government, international and national agencies (including conservation and development NGOs and research institutes), business partners, local communities, land claimants, employees, tourists and the media. Stakeholder engagement and co-operative partnerships are facilitated through a range of informal and formal structures. This in turn will ensure that local and regional initiatives and developments contribute positively to the attainment of the overall desired state and objectives of the park and the social ecological system within which it is embedded. Various programmes and projects implemented in and around the park aim to address this by fostering positive stakeholder relationships and establishing co-learning opportunities through environmental and cultural education and awareness. Restoring people's rights to access and to benefit from conservation land and / or associated businesses, remains an important focus within constituency building.

In the context of this programme, the focus is on promoting co-operative governance at a local level through the various park-community engagement structures and processes. Co-operative governance pertains to many levels of stakeholders including all three levels of government, international and national agencies (including conservation and development NGO's and research institutes), business partners, local communities, employees, tourists and the media. The park engages with neighbouring communities primarily through community forums representing relevant stakeholders. Community forums provide a platform for communication between the park and its neighbours on issues that are of mutual interest.

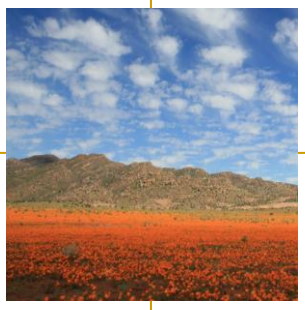
The Park Forum was established in 2004 and meetings take place quarterly. Each of the community forums, as well as other broader interest groups such as municipalities, schools, churches, local businesses, adjacent conservation areas (e.g. conservancies) and other members of the public, is represented on the Park Forum. The Park Forum provides a legitimate platform to communicate park / SANParks matters to ensure participation by all stakeholders on matters of mutual relevance affecting the park. It will also provide a platform to build constituencies in support of the natural and cultural heritage conservation goals of the park.

The park has a working relationship with the SANParks Honorary Rangers (SHR) Arid and Cape Regions. Park management occasionally attends SHR meetings and collaborates with initiatives to maintain a strong partnership that yields benefits to conservation. They contribute both in cash and in kind to the park programmes. Their expertise is used by the park to assist in achieving identified / specific projects and has the potential to increase the scope to operational duties. They contribute in the following ways, to name but a few:

- Fundraising for conservation and tourism related projects;
- Assist with park operations when requested; and
- Support and assist in environmental education and community outreach programmes.

A detailed lower-level plan outlining the rationale and operational approach supports this programme. This programme links with high-level objective 5 and objective 5.1 on page 43. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

STAKEHOLDER ENGAGEMENT PROGRAMME					
High-level objective: To develop, maintain and encourage sustained partnerships with conservation and government agencies, adjacent communities and other relevant stakeholders by enhancing opportunities for education, community outreach and stakeholder collaboration.					
Objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To strengthen and activate relationships with stakeholders through the Park Forum	Maintain a well-functioning Park Forum in line with the charter	SETO, PM	Minutes of meetings	Ongoing	
	Regularly review the Park Forum to ensure that all relevant stakeholders are incorporated	SETO, PM		Ongoing	
	Involve the Park Forum in stakeholder participation processes including park management plan reviews	SETO, PM	Minutes of meetings	Ongoing	
	Update stakeholder database	SETO	Database	Year 1	



STAKEHOLDER ENGAGEMENT PROGRAMME					
High-level objective: To develop, maintain and encourage sustained partnerships with conservation and government agencies, adjacent communities and other relevant stakeholders by enhancing opportunities for education, community outreach and stakeholder collaboration.					
Objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To strengthen and activate relationships with stakeholders through the Park Forum	Strengthen new and maintain existing relationships between conservation agencies, government, adjacent communities and other key stakeholders	SETO, PM	Minutes of the meetings, reports	Ongoing	
	Develop a framework and guidelines for community engagement, including profiling	SETO, PM	Documents	Year 2	
	Provide guidance, administrative and logistical support to ensure that the Park Forum is functional	SETO	Minutes of the meetings,	Ongoing	
	Develop a monitoring tool to assess effectiveness of the Park Forum	SETO	Documents	Ongoing	
To nurture co-operative relationships with local and provincial authorities and other relevant stakeholders through regular interactions	Identify and prioritise appropriate forums	PM, SETO, HODs	List	Year 1 and ongoing	
	Encourage and support attendance and effective governance for existing forums	PM, SET; HODs	Minutes and attendance register	Year 1 and ongoing	
	Review of prioritised forums in view of park objectives and align as needed	PM, SETO, HODs	Minutes	Year 1 and ongoing	
	Maintain good visitor relations through providing a customer feedback service	PM, TO	Visitor book analysis, Customer care logs, customer care performance	Ongoing	
	Maintain good media relations through media releases, radio sessions and active participation on social media sites	Corporate & Regional Communications, PM, SETO	Media release, social media posts	As required	SANParks' Communications Protocol & Media Policy & Procedures
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SETO	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.6.2 Environmental education and awareness programme

The purpose of this programme is to build constituencies amongst people in support of SANParks' conservation endeavours by playing a significant, targeted and effective role in promoting a variety of educational opportunities and initiatives.

SANParks has prioritised the provision of environmental education and environmental learning (SANParks, 2017c). This is further underpinned by the Constitution, in which the 'right to a healthy environment' and the need for environmental protection, are clearly stated. The need for environmental education is further strengthened by the fact that the national school curriculum includes "the environment" as an integral focus in several learning areas. An integrated approach to environmental education and awareness raising (EEA) has been adopted by SANParks.

On 1 October 2019, the Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy, delivered the keynote address at the 10th Oppenheimer Research Conference in Midrand. The conference was held under the theme 'Advancing Conservation Consciousness', which is important considering the need to raise the national level of awareness about the environment. Conservation consciousness and environmental literacy are key to securing an environmental future for all people.

A broad stakeholder base is targeted and relevant programmes addressing a variety of issues are presented. Programmes implemented will be both formal and informal to target a range of beneficiaries including scholars, youth groups, adults, and special interest groups. Different programmes require different focus areas based on resources availability and ability to partner with departments and organisations with shared objectives. The park is situated in the Namakwa Regional Education District. The park has a good relationship with the primary and high schools in the area as well as the officials from the Namakwa Education District. The park focuses on the schools in the Kamiesberg and Nama Khoi Local Municipal area that are in the following communities: Garies, Kharkams, Kheis, Klipfontein, Hondeklipbaai, Spoegrivier, Tweerivier, Nourivier, Leliefontein, Rooifontein, Kamieskroon, Paulshoek, Soebatsfontein, Komaggas and Buffelsrivier.

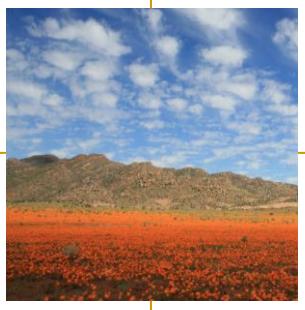
The park interacts with NGOs and other community groups to engage in environmental education, interpretation and awareness for adults. The focus areas of this programme are:

- Raise awareness about the environment, with a focus on the system of national parks that represents both natural and cultural resources;
- Promote the use of parks as educational resources, while allowing access, specifically to previously marginalised people;
- Provide interactive programmes that will assist learners to form their own values and attitudes towards the environment;
- Assist learners to contribute to solving environmental issues while participating in park activities and to use the park environment as their laboratory for environmental learning;
- Enhance the experience of visitors to SANParks facilities through environmental interpretation and education to encourage repeat visits; and
- Encourage local communities to understand, appreciate and support the conservation work of SANParks.

Interventions take the form of organised, interactive activities which are categorised into formal and informal programmes. The current beneficiaries of this programme are mainly school and youth groups and special interest groups. The approach to environmental education within SANParks generally focuses on organised and interactive activities which include:

- Formal EEA programmes: Target the formal education sector, directed at school groups visiting the park and learners in schools adjacent to the park. The programme enhances awareness and education among learners through the development of current learning material on environmental conservation for incorporation into the school curriculum. The National Kids in Parks programme and Calendar Days are examples; and
- Non-formal EEA programmes: Implement community-oriented initiatives addressing relevant socio-ecological challenges and targeting appropriate stakeholders including farmers, traditional leaders, landowners, women and youth. This programme has the primary objective to build the capacity of communities to support the conservation mandate through raising awareness and sharing of information about conservation issues and promoting involvement.

The park currently has two EEA facilities available for overnight visits namely, Kookfontein and Skilpad EEA Centres. Kookfontein is a tented facility where groups of 50 can be hosted. It is recommended that Kookfontein be used mostly during warmer months. Skilpad has dormitory style accommodation for groups of maximum 25 people. The coastal section is available for groups who are day visitors. Although the park has these facilities, its EEA programmes are mostly implemented externally as local groups are not able to visit the park. In most cases the park must motivate for funding to implement national programmes, i.e. Kids in Parks, or partner with other departments to bring local groups to the park.



A detailed lower-level plan outlining the rationale and operational approach, supports this programme. This programme links with high-level objective 5 and objective 5.2 on page 43. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

ENVIRONMENTAL EDUCATION AND AWARENESS PROGRAMME					
High-level objective: To develop, maintain and encourage sustained partnerships with conservation and government agencies, adjacent communities and other relevant stakeholders by enhancing opportunities for education, community outreach and stakeholder collaboration.					
Objective: To review, update and maintain educational opportunities by implementing environmental education and awareness programmes relevant to the park and its objectives.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To plan, develop, implement and build on existing and new partnership for formal educational programmes for school and youth groups	Develop an annual EEA schedule	SET Officer	Document	Year 1, ongoing	CAPS
	Organise and conduct EEA programmes for schools		Monthly reports and evidence	Ongoing	EEA LLP, EE Strategy
	Organise and conduct applicable youth development programmes that will benefit community		Monthly reports	Ongoing	SED Strategy
	Organise and conduct outreach programmes in adjacent communities	SET Officer	Monthly and quarterly reports	Ongoing	SED Strategy
	Build partnership and participate in mutually beneficial partnership for relevant EEA programmes (eco-schools)	SET Officer	Monthly and quarterly reports	Ongoing	Eco-schools
	Develop new and update existing programme information and resources	SET Officer	Documents (presentation, posters, activity sheets, etc)	As required	EEA LLP, CAPS
To plan, develop, implement and build on existing and new partnership for non-formal educational programmes for relevant stakeholders and communities	Arrange and/or facilitate community awareness programmes initiatives targeting specific stakeholders on conservation issues	SET Officer	Monthly reports	Year 1, ongoing	EEA LLP
	Develop and facilitate presentations and talks for special interest groups	SET Officer	Monthly and quarterly reports	Ongoing	
	Review and update current resources (programmes and activities)	SET Officer	Documents (presentation, activity sheets, etc)	As required	EEA LLP
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SETO	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.7 Benefits

The conservation of biodiversity and culture has both an intrinsic and / or moral justification, as well as being important for maintaining the flows of natural and cultural ecosystem services that arise from it. The sustainability of the park relies on the maintenance of ecological and cultural integrity, economic viability and social relevance, the latter being dependent on relationships and connectedness to the park. Benefits vary in their scale and scope, including both tangible and intangible aspects, often going hand in hand with costs. Benefits are perception based and the subsequent "value" of various conservation related benefits (and costs) are perceived (and felt) differently by different stakeholder groups based on their own world views. Various processes linked to sharing benefits associated with employment and business opportunities, capacity building (through training and environmental education), infrastructure support and a whole array of ecosystem services (provisioning, regulating, supporting and cultural services) that flow from the park, aim to facilitate both access to the park itself as well as access to opportunities for various stakeholders to benefit from the park and as such to grow a societal interest in supporting its long term sustainability.

10.7.1 Employment, business opportunities and skills development programme

The purpose of this programme is to add value to the socio-economic growth of the region by presenting fair access to a range of opportunities through equitable employment, business and skills development. This will be achieved through local Socio Economic Development (SED) by identifying, supporting and developing initiatives aligned with the SANParks SED Strategy (SANParks, 2017c).

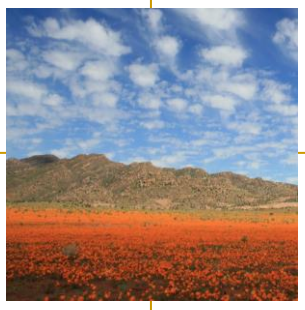
This can be achieved through targeted and effective contribution to local economic development, economic empowerment and social development in communities and neighbouring areas. In partnering with local government, the park-based projects are incorporated in the municipal IDPs and participating government Expanded Public Works Programme (EPWP) projects.

Socio-economic transformation (SET) is a priority for government, as stated by its commitment to eradicate poverty. The promotion of Broad Based Black Economic Empowerment in various sectors is part of the government's vision to empower the previously disadvantaged individuals. In accordance with the Public Finance Management Act guidance, government institutions are expected to promote and enforce transparency and effective management in respect of revenue and expenditure.

National Parks are often regarded as part of the active participatory socio-economic environment in local and district municipal areas. It is considered as a key attribute in the municipal areas for their potential to enhance SED and growth. The park can act as a catalyst for economic opportunities in the region through its existence and especially its tourism activities. The park is marketed nationally and globally through different platforms that encourage visitations to the region, thus stimulating primary and secondary economic opportunities.

Government programmes and projects are used as vehicles for job-creation and Small, Medium and Micro Enterprises (SMME) development. The EPWP is 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. The EPWP projects in the park are implemented through the WfE and Working for the Coast projects and are providing Small, Medium and Micro Enterprises opportunity for introduction and growth to entrepreneurship, while providing temporary employment opportunities to beneficiaries in communities. The project skills development programmes are aimed at contractors and workers. The objectives of both projects are creating employment opportunities, while advancing biodiversity outcomes. Collectively the projects provide opportunities for 11 SMMEs and 128 temporary employment opportunities. The training programmes for these projects are geared towards functional job training, entrepreneurial skills and specific career training. The training ranges from vocational and task related to life skills training. The business and management training is geared towards the contractor SMMEs that are to be developed. A component of the training is also aimed at job-skilling in the form of small builders' courses, construction, hospitality and tourism.

Empowering young people is a national priority and acquiring skills will empower them to participate in the reconstruction and development of our country, enabling them to participate in driving the reconstruction and development of the region. The overall determinants of high levels of youth employment can be a lack of required skills, work experience and job search capabilities (SANParks, 2017c). The implementation of a training and mentoring programme for youth and other employable community members will ensure their effective participation in the economy. SMME development is a priority for government as one of the drivers for economic development and job creation. The SANParks Enterprise Development Strategy takes a long-term view and places its primary focus on facilitating youth access to benefits presented by national parks.



The park can also provide student and unemployed youth with work through experiential training in different sectors, including tourism, conservation. The park participates in government programmes through the appointment of Environmental Monitors (EM) and Tourism Monitors (TM). The EMs and TMs are recruited from local communities. The aim is to employ people to curb and guard biodiversity loss and support tourism activities while training and mentoring participants to effectively participate in the economy as skilled employees. This paves the way for possible future permanent employment.

Through the Supply Chain Management process the supply of goods and services is sourced from potential suppliers with preference to local suppliers, specifically in the Namaqua district area, as well as regional suppliers from the arid region, Northern Cape Province. Through a fair and transparent process businesses have the opportunity to become business partners with the park and benefit from it.

The Corporate Social Investment (CSI) funding enables the organisation to implement social legacy projects in communities. This programme is used for development of and support to sustainable programmes and projects that will have a lasting impact on local communities. The park can submit community projects to be considered for funding through the CSI programme. Limited land ownership is an issue of contention for local communities that have limited access to land in the context of the park's expansion / consolidation programme. To assist communities SANParks has previously donated 900 ha of land, an old school hostel and school building to the Soebatsfontein community. The intention is to also donate a portion of the Farm Graskom No 483 (408 ha) to the Hondeklipbaai community.

This programme links with high-level objective 6 and objective 6.1 on page 44.

EMPLOYMENT, BUSINESS OPPORTUNITIES AND SKILLS DEVELOPMENT PROGRAMME					
High level objective: To contribute to local socio-economic development by identifying, supporting and developing initiatives aligned with the SANParks Socio Economic Development (SED) Strategy					
Objective: To promote and support employment, business opportunities and skills development by implementing and supporting EPWP and other initiatives					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To facilitate job creation and enterprise development in local communities through the implementation of EPWP and other infrastructure development initiatives	Develop criteria and guidelines to inform feasible EPWP programmes and recipients	BSP, SS, PM, SETO	Documents	As required	SED Strategy, Infrastructure Development Strategy and EPWP Strategy
	Review the criteria and guidelines			As required	
	Identify, develop and implement work plans	BSP, SETO	Reports	As required	
	Review the work plans			As required	
	Identify and foster strategic partnerships	BSP, SETO, PM	Documents	Year 1, ongoing	
	Report on total number of job and SMME opportunities created, including youth, women and the disabled	BSP, SETO, PM	Reports	Annually	
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	PM, SETO	Reports	Ongoing	

EMPLOYMENT, BUSINESS OPPORTUNITIES AND SKILLS DEVELOPMENT PROGRAMME					
High level objective: To contribute to local socio-economic development by identifying, supporting and developing initiatives aligned with th SANParks Socio Economic Development (SED) Strategy					
Objective: To promote and support employment, business opportunities and skills development by implementing and supporting EPWP and othe initiatives					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Identify and enable access, on an equitable basis, to sustainable economic and other benefits derived through the park	Explore, and where appropriate, implement the participation of neighbouring communities in conservation and tourism opportunities	PM, SETO, TO	Reports	Year 2	
	Develop and maintain a database of preferred local service providers as a base for contracting opportunities	PM	Database	Year 1 and ongoing	
To contribute towards rural development through CSI	Facilitate the donation of Graskom (± 408 ha) to the Hondeklipbaai community	PM, SETO, PPD	Donation contract	Year 3	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SETO	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8 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, objectives and actions that assist in effective park management such as environmental management, financial management (e.g. procurement, reporting), budgeting, maintenance planning, and monitoring compliance.

10.8.1 Environmental management programme

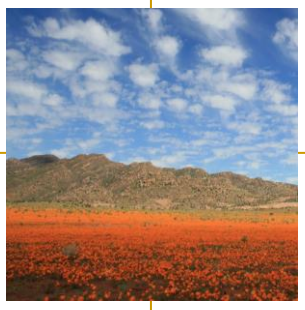
The purpose of this programme is to mitigate potential negative environmental impacts on the park, caused by developmental and operational activities.

Park management is required to practice sound environmental management in accordance with required standards of environmental best practice and in compliance with legislation. Several management tools are used to develop and manage the park and form the basis of an environmental management framework.

In terms of section 24(2) of the NEMA, the Minister of the DFFE has identified activities that may not commence without authorisation from the competent authority as stipulated by the NEMA: EIA Regulations. Further to the provisions of NEMA, park management will assess risk and implement Environmental Management Plans to guide all construction and operational activities that are not listed under NEMA as an activity requiring an EIA process. The precautionary approach will be applied, as well as NEMA Section 28 (2) Duty of Care which imposes a general duty and obligation on every person to avoid pollution and environmental degradation. The precautionary principle states that if an action might cause harm to the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.

Further to the provisions of NEMA, park management will develop standards of best practice to guide all operational activities that may have an impact on the environment. The park will therefore be guided by all legislative requirements in ensuring best practise towards environmental management and with minimum impact on the environment.

This programme links with high-level objective 6 and objective 7.1 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.



ENVIRONMENTAL MANAGEMENT PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives					
Objective: To strive for best practise and ensure compliance with environmental legislation through improved governance and environmental risk management					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To manage and reduce the impact of park activities in accordance with legislation to prevent pollution and environmental degradation	Make environmental legislation available to relevant staff	SSR, SR	Documents	Ongoing	
	Ensure that EIAs and specialist studies are completed for listed activities		Documents, reports	As required	
	Implement internal environmental management programmes for non-listed activities / developments		Documents, reports	As required	
	Monitor compliance and enforce requirements as set out in the Environmental Authorisation for listed activities; and environmental management programmes for non-listed activities		Reports	As required	
To reduce the park's carbon footprint as a measure of the environmental and climate change impact of its operations and activities	Develop and implement a set of SOPs to manage all significant environmental impacts	HODs, SS	Documents	Year 2, ongoing	
	Review the SOPs	HODs, SS	Documents	Year 3, 6 and 9	
	Develop and implement a reduction programme related to single-use plastics in all commercial operations	PM, HODs	Documents	Year 2	
	Adopting sustainable procurement principles by purchasing eco-friendly, biodegradable, energy efficient products	HODs	Documents	Year 2, ongoing	
	Investigate how to reduce energy usage with alternative use of green technology	PM	Document	Ongoing	
	Create awareness amongst staff and overnight visitors regarding energy usage and energy saving measures	HODs, TO	Information	Ongoing	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.2 Risk management programme

The purpose of this programme is to update and maintain the park's risk profile and to manage risks accordingly. SANParks regards the management of business risks as an integral part of management across all operations.

In line with corporate governance best practices and as per the Public Finance Management Act, (Act No. 01 of 1999) (PFMA) requirements, the Board of SANParks has formalised the risk management processes by adopting a Corporate Risk Management Framework (CRMF). As its foundation, the risk management framework follows an enterprise-wide risk assessment process, based on the thorough understanding of the environment in which the organisation operates and the strategic corporate objectives upon which it intends to deliver.

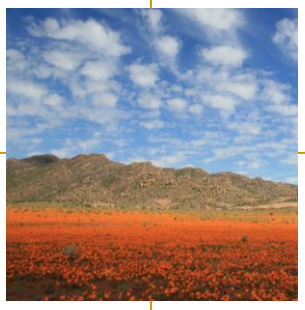
The main aim of the CRMF is to instil a culture of corporate risk management awareness and risk ownership, which is practised as the responsibility of all. This will provide SANParks with a comprehensive understanding of all identified risks and their potential impact on the achievement of objectives, thereby creating a basis for the effective management of all risks to remain within the risk appetite of the organisation.

Acknowledging that all activities within the organisation are exposed to various types of risks, the focus of this framework is on the optimal balance between potential risks and the potential rewards that may emanate from both proactive and conscious risk-oriented actions. As such, SANParks maintains a corporate profile of the identified key strategic challenges the organisation faces. This profile is communicated to the Board and is reviewed on an on-going basis. The risk profile reflects, among others, the risks identified, as well as how each risk is addressed and / or monitored. At park level, the general managers are responsible for risk management. As the link between the operational activities and its environment on the one hand, and the corporate support and management structure on the other, the general managers are in many instances responsible for implementation of corporate initiatives, programmes, management plans and other projects that form part of the SANParks strategy to address or mitigate issues of risk. Similarly, the SANParks Strategic Plan and Annual Performance Plan must be incorporated to ensure that strategic initiatives are achieved. 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. The park may also, from time to time, experience extreme environmental / weather conditions (i.e. droughts, floods, and runaway fires) as part of the normal cycle. An appropriate response to each of these events will be addressed in the disaster management plan.

The heads of departments need to ensure that emerging issues of risk, which can jeopardise achievement of the park's (and SANParks' corporate) objectives, are timely identified and assessed in terms of severity. In consultation with the corporate support structure, such issues are either assessed to be within the management capacity of the staff 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.

This programme links with high-level objective 7 and objective 7.2 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

RISK MANAGEMENT PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To establish and maintain effective, efficient and transparent risk management systems by creating and enabling environment for the management of risk.	Review and revise the Risk Response Plan.	HODs, PM	Document	Annually	CRMF
	Implement the risk response initiatives, review and update this as required.	HODs, PM	Document	As required	CRMF
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans



10.8.3 Financial management and administration programme

The purpose of this programme is to ensure sound financial management and administration. As a public entity, SANParks manages the public funds entrusted to the organisation in accordance with the PFMA, and it is listed as Schedule 3 Part A: 25 Other Public entity.

The finance division supports operations and projects of the park and ensures that these are managed in accordance with sound financial principles and effective internal controls. The finance division also ensures that the financial accounting and administration activities comply with the PFMA, Generally Recognised Accounting Practise, and Preferential Procurement Policy Framework, National Treasury Regulations and organisational policies and procedures. All tender processes and procurement opportunities to local communities are guided by the SANParks policy framework.

The Arid Region Finance Division reports directly to the General Manager Parks Finance who further reports to the Chief Financial Officer, while providing support to the Arid Region Parks (consisting of Namaqua Kgalagadi, Mokala, Augrabies and Richtersveld National Parks).

The financial management and administration support function entails the following activities:

- Budgeting management;
- Financial accounting;
- Financial administration;
- Asset management; and
- Supply Chain Management.

The finance division manages the consolidation of the annual budget for the park, which includes the operational and capital expenditure budgets. Furthermore, quarterly reporting on the actual budget performance against the allocated budget for the period is provided. It is also responsible to guide and provide the necessary assistance with the budget process to all cost centre managers in the park. The SANParks annual budget guideline informs a zero-based approach, which implies that every category must be critically assessed and evaluated before the budget proposal is submitted.

Financial administration entails the day-to-day processing of financial transactions such as processing and payment of invoices, account reconciliations, processing of debtors' invoices, etc.

The park has a moveable asset (non-living) base with a book value of R 39,082,045. It is therefore critical that all the assets of the park are correctly accounted for. It is also critical that the assets are managed effectively according to the asset management policy and procedure. All procurement for goods and services is done in accordance with the National Treasury guidelines as per the PFMA and Preferential Procurement Policy Framework.

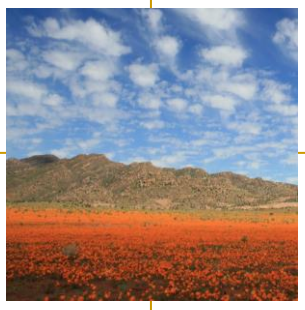
There are certain core functions and activities performed in the park that are dependent on external funding from different donors. This includes support through the EPWP and Environmental Protection and Infrastructure Programmes for natural resource management and infrastructure development programmes. The financial sustainability of these core functions and activities therefore needs to be critically reviewed on an ongoing basis, since funding through these programmes and donations is mostly short to medium-term. This might pose a major financial risk to the park, should alternative funding sources not be secured. This requires that innovative mechanisms for financial sustainability be investigated to ensure that the core functions are maintained, including the increasing burden as a result of the much-required safety and security operations, the ability to respond to regional drivers and threats through the regional land-use programme, and the commitment towards delivering tangible SED opportunities to communities.

The following challenges have been identified:

- The annual operational budget allocated is not sufficient to cover all operational costs;
- Whilst the budget methodology is based on zero-based budgeting, there is a limitation of available financial resources to fund additional activities, which often requires that operations be prioritised to carry out new initiatives;
- The cost for the in-sourced fleet for the park.

This programme links with high-level objective 7 and objective 7.3 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

FINANCIAL MANAGEMENT AND ADMINISTRATION PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To ensure sound financial management and administration through proficient budget management, effective internal controls and compliance to corporate governance prescripts.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To attain effective financial management	Ensure less than 1% variance on cost of operations	PM, HODs, BSP: Cluster Manager, Regional Finance Manager	Statements with <1% variance	Annually	
	Ensure sound financial management of special projects – BSP		Budget targets achieved	Quarterly / annually	
	Participate in the independent audit of financial records		Audit report	As required	
	Address audit findings		Audit findings report	As required	
To grow revenue (Including alternative sources of revenue)	Identify possible external funding to supplement current income streams	PM, HODs	Funding proposals	Annually	
To improve the management of financial resources	Prepare accurate and realistic annual budgets in consultation with the management team that are in line with the sound management plan objectives	Regional Finance Manager, PM, HODs	Annual budgets	Annually	
	Provide timely quarterly financial reports		Reports	Quarterly	
	Review the insurance schedule and submit to corporate management		Documents	Annually	
	Submit insurance claims as and when required	Regional Finance Manager, PM, HODs	Claims	As required	
To ensure proper asset and SCM	Verify and manage asset registers	Regional Finance Manager, PM, HODs, SCM Practitioner	Asset register	Bi-annually	
	Assist with the procurement of goods and services	HODs, Administration Officer (AO)	Documentation	As required	
	Provide input when contracts are sourced	PM, HODs, AO	Documentation	As required	
	Ensure sound management of vehicle fleet (i.e. logbooks, services, licencing, fuel management)	HODs	Logbooks, service records, fuel card statements	Monthly	



FINANCIAL MANAGEMENT AND ADMINISTRATION PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To ensure sound financial management and administration through proficient budget management, effective internal controls and compliance to corporate governance prescripts.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.4 Human Capital Management programme

The purpose of this programme is to ensure that the park has an adequate human capital function to render effective conservation, visitor and supporting services, whilst also ensuring that it provides human capital development support to surrounding communities as per the SANParks policy framework.

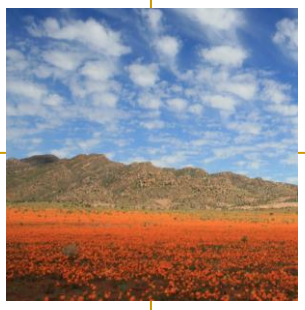
SANParks has developed corporate human capital policies, guidelines and procedures to guide park management and its workforce in an effectively organised structure while delivering the outputs of the management plan. The park views itself as an equal opportunity employer. This is achieved through non-discriminatory practices in the work environment, availability of equal opportunities for employees and prospective employees, respect for diversity and gender differences, as well as the commitment to uphold and implement the Employment Equity Act (Act No. 55 of 1998).

By adhering to corporate policies, guidelines and procedures the park ensures that competent staff are appointed, and that current staff are managed in an effective manner to keep maintain a proactive and positive attitude and their commitment to their tasks and responsibilities. This also ensures that human capital management complies with the relevant national legislation. Park human resource capacity is not only defined by the development of current staff but requires the holistic management of the appropriate human capital. This includes the creation of a learning environment, developing leadership skills, sharing of knowledge and experiences, and making staff wellness programmes available to employees and their families. This assists staff in dealing with the negative effects of lifestyle diseases and other lifestyle challenges (i.e. financial planning). The Human Capital and Administration Officer must report on new appointments, resignations, attendance registers, overtime claims, leave, etc. This informs a salary instruction which is prepared for processing of monthly salaries. Park management reviews training needs on an annual basis and submits the training needs analysis and requirements for approval to Head Office. Compilation of training needs starts off with the individual development plans for each staff member, followed by training, skills development and performance appraisals. Park management encourages all staff to improve their levels of skills and qualifications in their respective fields of expertise through study bursaries and training on an on-going basis.

The park currently (2023) has 22 permanent employees, eight tourism monitors and nine environmental monitors on contracts.

This programme links with high-level objective 7 and objective 7.4 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

HUMAN CAPITAL MANAGEMENT PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives					
Objective: To ensure sufficient and effective staff capacity to achieve management objectives by adhering to legislation, corporate human resource policies and guidelines					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure the park attracts and retains the most suitable human capital	Preparation and processing of monthly salaries, employee benefits and leave management	HCM	Salary instructions	Monthly	
	Ensure implementation of the prescribed disciplinary code and procedures		Documentation	As required	
	Conduct regular employment equity and skills development forum meetings		Minutes of meeting	Quarterly	
	Fill vacancies with suitably skilled and experienced candidates within agreed timelines as per employment equity targets		Statistics	As required	
	Ensure all post are evaluated and graded		Job Descriptions	As required	
	Develop human capital in the fields of tourism, conservation and administration through the internship programme		Contracts	Annually	
To implement plans and skills development strategies to meet the strategic goals of the organisation.	Identify training needs and conduct training interventions within budget allocation	HCM, PM, HODs	Document	Annually	Individual developmen t plans
	Implement Adult Basic Education and Training (ABET) programme for internal employees	HCM, PM, HODs	Training register	As required	
	Assist employees with applications for study bursaries, staff accommodation bookings, changes in medical status, banking changes and assist with queries to medical aid regarding unpaid medical accounts		Documents	As required	
	Conduct workshops and Imbizos		Minutes	As required	SANParks Policies
	Participate in the internal and independent audit of human capital documentation		Report	As required	
	Address audit findings		Reports	As required	
To implement workplace wellness programmes.	Participate in wellness awareness workshops	HCM, HODs	Documents	Annually	Wellness Policy
	Provide facilities within the park to enable employees' access to the wellness programme		Facility	As required	
	Refer employees that require assistance through the employee wellness programme		Number of referrals	As required	
	Participate in occupational health and safety (OHS) awareness and health related workshops		Registers	Ongoing	OHS Act
	Commemorate events related to wellness (e.g. AIDS day, world blood donor day, days of activism on non-violence against women)		Registers	Annually	Wellness Policy
	Administer injury-on-duty cases		Report	As required	OHS Act, Housing Policy, Wellness Policy
	Administer staff housing		Document	As required	



HUMAN CAPITAL MANAGEMENT PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To ensure sufficient and effective staff capacity to achieve management objectives by adhering to legislation, corporate human resource policies and guidelines.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To manage labour relations matters and contribute towards sound employee relations	Handling of grievances, disputes, disciplinary matters and Commission for Conciliation, Mediation and Arbitration *cases*	HCM	Reports	As required	Disciplinary and Grievance Policies and Procedures; and LRA
To create and maintain a sound working environment through fair and equal treatment of all employees and stakeholders to deliver on SANParks strategic objectives	Implement and manage Management and Shop Stewards committees	HCM, PM, HODs	Minutes of meetings	Monthly	Organisational Rights Agreements
	Participate in labour relations related training interventions	AO, PM	Registers	Annually	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.5 Information and records management programme

The purpose of this programme is to preserve the institutional memory of SANParks. Information and records management is applied to promote accountability, transparency and good corporate governance.

Management of parks requires that appropriate information be collected, preserved and made accessible to a range of internal and external stakeholders for the smooth running of operations at SANParks. The programme also aims to manage knowledge generated so that it benefits the organisation.

Information is not only essential to formulate effective long-term management objectives, plans, programmes and systems, but also to educate and inform residents, associations, user groups, local authorities, provincial and national decision- and policymakers, international organisations and aid / donor agencies. SANParks however, shall always hold the intellectual property rights of all such information that is generated by any of its employees in their official capacities.

This programme links with high-level objective 7 and objective 7.5 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

INFORMATION AND RECORDS MANAGEMENT PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To achieve best practice in the field of information and records management by complying to the Records Management Legislative framework and policies and thereby ensuring care of all vital records in SANParks.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
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 plan of the park and implement a single file plan	PM, HODs	File plan	Year 2	National Archives and Records Services Act
	Implement the records management and file plan		Records and documents filed	Year 3, ongoing	Corporate file plan and policy
	Ensure appropriate access to park files and records in accordance with corporate records management policy and guidelines		Access procedures	Ongoing	Corporate file plan, Records Management Policy
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

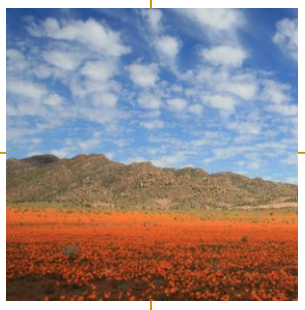
10.8.6 Infrastructure programme

The purpose of this programme is to direct the upgrading and maintenance of infrastructure (day-to-day and scheduled). This is primarily to ensure that the park's infrastructure (buildings, roads, fences, etc.) and services infrastructure (provision of water, electricity and waste management) are well maintained and continually improved to provide safe, reliable, increasingly environmentally friendly and affordable products to its clients and visitors. The technical department's key responsibility is the delivery and implementation of departmental programmes and the realisation of set goals in this regard.

Infrastructure in the park entails facilities in support of conservation (such as management roads and tracks, office facilities, staff housing, fences, bulk services, workshops and stores) and tourism (i.e. tourist roads and tracks, viewing points, bird hides, picnic sites, and tourist accommodation). These facilities enable staff to execute their respective duties towards achieving the park's objectives and provide a tourism product at the highest possible standard.

Management policies and procedures ensure that infrastructure is maintained, renovated, upgraded and replaced at the required intervals and according to specific design norms and standards, including national construction regulations, "green building" and "touch the earth lightly" principles, as well as measures to save water and electricity and to minimise waste. The 10-year maintenance plan addresses issues related to securing funding for upgrading, renovation / maintenance and replacement. Technical services continue to periodically review and assess performance to align activities and allocate resources. The total estimated replacement value of the park's infrastructure is R 88,927,983. There is a shortfall in addressing the maintenance backlog, annual maintenance, upgrading and new capital development. The required infrastructure maintenance budget for 2024 / 2025 is R 2,096,317 however, only R 712,192 has been allocated.

SANParks acknowledges the global concerns around climate change impacts and the need for local action. In addition, South Africa committed to cut emissions by 34% from business as usual by 2020 and by 42% by 2025 under the Copenhagen Accord, thus committing to transform to a low carbon energy economy. In support of this, SANParks has also set out to contribute to national targets by reducing 2% of fossil-fuel-generated energy consumption year-on-year towards achieving carbon neutral operations for the organisation (Phophe & Masubelele, 2020). This will be achieved through the implementation of the SANParks Green Energy Strategy (2022) to reduce the reliance on fossil-fuel based power generation and its associated adverse economic and environmental consequences. There are three focus areas. Firstly, energy efficiency measures will be implemented, including technological and social / behavioural interventions. Secondly, investment into and promotion of renewable energy technologies will directly address and reduce the



organisational carbon footprint. This will contribute to reduction in air, soil and water pollution, biodiversity loss and thus mitigation of climate change. Thirdly, the increased use of renewable energy sources will contribute to a more sustainable and efficient mix and use of energy and to the reduction of energy costs in the long-term.

Detailed lower-level plans outlining the rationale and technical detail to this programme. This programme links with high-level objective 7 and objective 7.6 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

INFRASTRUCTURE PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives					
Objective: To maintain, upgrade and develop park infrastructure through proper planning and efficient management					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To plan and design all projects to comply with legislation, standards and client requirements	Review and implement broader infrastructure development as required for operational and recreational activities as identified in section 9 of the park management plan	TO, SSR, SR, PM	Documents	As required	
	To plan and design all projects to comply with legislation, standards and client requirements		Documents	Ongoing	
	Ensure all building projects are designed according to the National Building Regulations and Building Standards Act (Act No. 103 of 1977)		Documents	Annually	
To ensure sound contract and project management to enhance good governance	Appoint suitable staff, contractors and consultants who will implement projects in accordance with approved Contracts Management SOP	TO, PM	Documents	As required	Supply chain and recruitment policy
To continue with the application of the sustainable Green Building Principles for all design works	Apply specifications that comply with the Green Building Principles on all designs and planning of infrastructure works	TO, PM	Guidelines	Annually	Sustainable Design Guiding Principles document
Objective: To maintain and develop roads, boundary fences and dam infrastructure by implementing specific programmes					
To ensure the implementation of the ten-year roads and fence maintenance plan	Reprioritise the Road Maintenance Plan at the beginning of every financial year according to the budget allocation	TO, SSR, SR	Documents	Annually	Roads Maintenance Plan
	Implement rehabilitation and routine maintenance on roads	TO, SSR, SR	Reports	Ongoing	
	Identify sections of the fence to be upgraded or removed	PM, SSR, SR	Reports	Annually	
	Upgrade, remove and maintain the fences	SSR, SR	Documents	Ongoing	

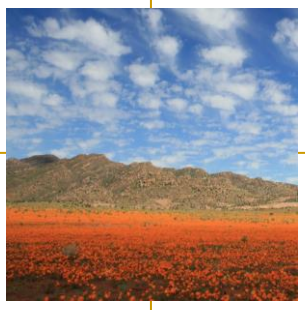
INFRASTRUCTURE PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives					
Objective: To maintain and develop all electro-mechanical works and transportation management by implementing specific programmes					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To ensure that electrical and mechanical equipment and two-way radio communication equipment are serviced and maintained to acceptable standards	Compile an inventory of all mechanical and electrical equipment in the park, determine replacement programme	TO	Inventory	Year 1	
	Develop and implement annual maintenance schedule and service intervals for all equipment	PM, TO	Schedule	Annually	
	Continuously improve skills, and knowledge of maintenance staff	TO, HCM, PM	Register	Annually	
	Ensure that legal inspections / scheduled services are conducted accordingly	TO, PM	Report	As required	
To ensure that all vehicles in the park vehicle fleet comply with applicable legislation and comply with prescribed service intervals and are replaced accordingly	Service all vehicles according to service / maintenance plan at prescribed intervals	TO	Records	Quarterly	
	Compile necessary documentation to keep record of e.g. km utilisation, inspection records and annual vehicle replacement schedule budget	TO, PM	Reports	Annually	Approved Replacement Cycle
To ensure that all vehicle accidents and incidents are investigated, and damage repaired	Ensure all accidents / incidents are reported, evaluated and repaired as per prescribed documentation	TO, PM	Reports	Monthly	Fleet Management Procedure
To ensure that all water purification plant infrastructure in the park is maintained to a desired state	Document the scope of maintenance needs in accordance with relevant specifications to guide contractors	TO, SSR, SR	Documents	Annually	
Objective: To maintain and develop civil services and building works by implementing specific programmes					
To ensure that all infrastructure in the park is maintained and upgrade to a desired state	Compile an inventory of all infrastructures in the park and determine the extent of maintenance required	TS, HODs	Inventory	Year 1	
	Implement the annual work plan		Documents	Annually	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.7 Safety and security programme

The purpose of this programme is to provide a safe and secure environment for visitors and SANParks employees and to ensure area integrity and environmental asset protection.

This programme is aligned to the overarching SANParks safety and security strategy. It outlines the safety and security principles applicable to SANParks' environmental assets, staff, contractors, visitors, infrastructure and facilities including entrance gates and the area within the park.

Crime constitutes significant risk, and as such poses a major threat to an organisation such as SANParks to deliver on its mandate. The mandate includes the successful protection of all assets (natural, cultural and physical) under its custodianship, as well as the products and services delivered to its customers. Any perception that it is unsafe to visit the park will affect the mandate of SANParks and its reputation.



To ensure a safe environment and positive experience for visitors, SANParks must execute the safety and security programme with due consideration of the perceived intrusive nature of mitigating interventions to address the risks associated with a safety and security programme.

SANParks implements and enforces the requirements contained in legislation and organisational policies. The primary legislation and organisational policies include:

- National Environmental Management: Biodiversity Act;
- NEM: PAA and its Regulations;
- Safety and Security Strategy and Procedures;
- Criminal Procedures Act (Act No. 51 of 1977);
- Control of Access to Public Premises and Vehicles Act (Act No. 53 of 1985); and
- Firearms Control Act (Act No. 60 of 2000).

The Safety and Security Plan comprehensively addresses both the strategic and operational aspects of visitor and staff safety and environmental / and cultural heritage asset protection, as well as area integrity. An analysis of issues affecting safety and security in the park has been conducted and the resulting strengths, weaknesses, opportunities and threats form the basis of the stipulated achievable objectives and actions. Proactive consideration is given to issues such as working hours, law and order, high-risk areas, personnel, infrastructure, resources, equipment, staff training, reporting, data capturing, record keeping, monitoring, information and intelligence.

Park management has a good working relationship with the South African Police Service in general, the Stock Theft Unit in particular, and other government agencies. In co-operation with SANParks, joint operations relating to safety and security interventions in the park are planned and implemented.

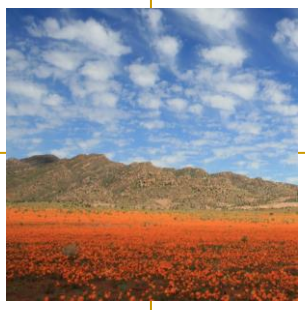
In addition to this, several reactive measures have been developed, including immediate action drills, emergency procedures and evacuation plans. Information regarding these emergency procedures is available in the various tourism accommodation facilities. All staff must be familiar with the above procedures and will receive regular training in this regard.

The overall poaching risk (especially that of succulent poaching) is high. Certain plant species sought after for their medicinal qualities could also be at risk. Unregulated wood collection can further contribute towards ecosystem degradation. Proactive patrolling and operational plans are implemented to protect the biodiversity assets.

To this end Park Management co-operates with the WWF-SA, Conservation South Africa, South African National Biodiversity Institute and other organisations to support the various projects, operations and interventions conducted to curb these activities.

A detailed lower-level plan supports this programme. This programme links with high-level objective 7 and objective 7.7 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

SAFETY AND SECURITY PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance enabling the park to achieve its objectives					
Objective: To provide a safe and secure environment for both visitors and employees as well as to ensure the protection and integrity of natural, cultural and physical assets and resources, by implementing a Park Safety and Security Plan.					
Sub-objectives	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To provide environmental asset protection for natural and cultural resources and infrastructure, whilst improving capacity.	Implement the SANParks Safety and Security Plan	PM, SSR, SR	Report	Annually	Safety and Security Strategy
	Conduct regular proactive and reactive interventions i.e. patrols and surveillance operations to ensure that area integrity is maintained	SSR, SR	Document	Ongoing	
	Ensure that all SANParks personnel involved with law enforcement operations receive the appropriate advanced / specialised training in operational tactics, investigations and crime scene management	SSR, SR	Training records, reports	Ongoing	
	Align the safety and security plan with existing park specific implementation strategies and plans	SSR, SR	Documentation	Quarterly	Relevant Strategies & Plans
	Provide law enforcement officers with an all-inclusive legal support service	SSR, SR, legal services	Reports	Ongoing	
	Ensure appointment and appropriate designation of Environmental Management Inspectors status for law enforcement officers	SSR, SR	Documentation	As required	
	Ensure boundary and facility fence-line integrity and maintenance	PM, SSR, SR	Documentation	As required	
	Report environmental concerns in the adjacent areas	PM, SSR, SR	Reports	Monthly	
To provide a safe and secure environment with due regard for the safety and security of people	Implement an effective permit system and control over private visitors to regulate after-hours movements	SSR, SR	Documentation	Ongoing	
	Ensure regular visible patrolling	SSR, SR	Reports	Ongoing	
To develop a proactive relationship with safety and security authorities and alliance partners to assure quick and deliberate safety and security response actions	Improve overall park safety and security through regular interactions with relevant stakeholders	SSR, SR	Documentation	Ongoing	
	Engage in joint operations to curb criminal activities such as livestock trafficking	SSR, SR	Reports	Ongoing	Joint Operations Plan
	Participate in problem and damage-causing animal investigations	SSR, SR	Documentation	As required	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans



10.8.8 Safety, health, environment and quality programme

The purpose of the current OHS programme is to prevent, minimise and manage occupational accidents and occupational illnesses and diseases.

This programme is required by the Occupational Health and Safety Act (Act No. 85 of 1993), to ensure that workplace hazards are always managed and controlled to guarantee a safe working environment, including contractor activities on site. The OHS programme is guided by the SANParks Safety, Health, Environment and Quality (SHEQ) policy and framework and includes the elements required by the occupational health and safety legislation as a minimum but is also based on the ISO 45001 Occupational Health and Safety management system standard.

SANParks' commitment to the health, safety and the well-being of all its employees and the environment is an integral element of SANParks' business model. SANParks aims to continually improve its performance with the efficient use of natural resources with no harm to people and the environment, and in this regard, safety, health and environment risks are identified, assessed and managed to mitigate the impact on employees, visitors and the environment with suitable control measures. SANParks has adopted the internationally recognised and best practice ISO 45001 standard. Under this standard, the park is expected to align with and implement best practice processes and norms. The environment and quality components of the SHEQ programme will be fully developed over the next five to eight years.

The ISO 45001 standard consists of six elements:

- Identification of hazards and risks;
- Identification of legal and other requirements;
- Determination and development of objectives and programmes;
- Operational control;
- Emergency preparedness and response; and
- Internal audit.

The ISO 45001 will be phased in with the first phase (2022/23 – 2026/27) focussing on the first three bullets listed above. Phase two (2027/28 – 2031/2032), will focus on the last three bullets listed above.

This programme links with high-level objective 7 and objective 7.8 on page 44. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

SAFETY, HEALTH, ENVIRONMENT AND QUALITY PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To continuously reduce the disabling injury frequency rate through the implementation of an efficient and effective Occupational Health and Safety management programme.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To implement the ISO 45001 standard	Identify hazards and risks	HODs, OHS representatives	Register	Year 2, ongoing	
	Identify legal and other requirements		Register	Year 2, ongoing	
	Establish, implement and maintain programmes to mitigate identified hazards and risks		Documents	Year 2, ongoing	

SAFETY, HEALTH, ENVIRONMENT AND QUALITY PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To continuously reduce the disabling injury frequency rate through the implementation of an efficient and effective Occupational Health and Safety management programme.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To implement the ISO 45001 standard	Develop and implement SOPs to manage identified hazards and risks	HODs, OHS representatives	Documents	Year 4, ongoing	
	Develop and implement emergency preparedness and response plans		Documents	Year 5, ongoing	
	Conduct regular self-audits		Reports	annually	
	Support internal audits			As required	
	Support external audits			As required	
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.9 Communication programme

The purpose of this programme is to build and maintain good relationships and a positive park image. It aims to provide key stakeholders, descendent communities, the general public and staff with relevant and accurate information pertaining to the park's operations through media relations and event initiatives. This will be achieved through:

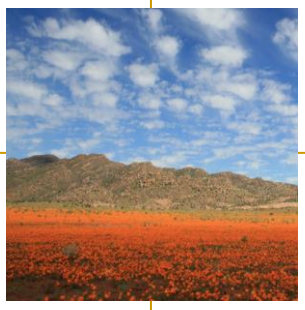
- **External communications**
  Media relations will ensure that the park is adequately and well presented in the media (both electronic and print) to create and maintain a positive image for the organisation. This will be achieved by managing media coverage of contentious issues, educating the public about the park, its cultural heritage values and emerging conservation issues, as well as ensuring that conservation debates receive prominent media coverage.

- **Internal communications**
  Internal communication is important to facilitate an effective two-way communication process within an organisation. Employees, as the internal stakeholders of the park, have a right to information and therefore the internal communications section exist to ensure that staff members, management and businesses operating within the park, are always well informed about the business activities, processes and new developments in the park.

The programme is intended to ensure transparency and ongoing stakeholder relationship building. A future focus will be to build capacity to engage on a meaningful basis with social media.

The communication programme closely links with the stakeholder engagement programme and is implemented in close collaboration with all departments and their associated programmes. This programme links with high-level objective 7 and objective 7.9 on page 45. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

COMMUNICATION PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To build, maintain and constantly improve relations between the park and all its relevant stakeholders, both internally and externally through various means.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To strengthen collaborative multi-stakeholder partnership	Develop a communication plan based on the Stakeholder Engagement Plan	RCM, all departments	Document	Year 1	Stakeholder engagement LLP



COMMUNICATION PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To build, maintain and constantly improve relations between the park and all its relevant stakeholders, both internally and externally through various means.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To strengthen collaborative multi-stakeholder partnership	Disseminate a range of media products based on the respective internal and external stakeholder groups and programmes	RCM, all departments	Media products	Annually	Communications Plan, Stakeholder engagement LLP
	Identify interested and affected stakeholders and develop a joint communication strategy and programmes on themes of joint interest		Document	Year 1	
	Implement the Communication Strategy		Media products	Annually	
To inform the public through mass media about major developments or incidents that take place in the park	Issue relevant media releases and alerts and ensure timeous response to media queries	RCM, PM	Media statements and alerts issued	As required	SANParks Strategic Plan and APP Communications and Marketing Annual Plan Filming and Photography Protocol
	Write feature articles / opinion pieces on topical issues		Articles published		
	Build and maintain relations with media houses across various platforms		Updated media database		
	Engage on social media platforms		Online interactions		
	Administer and maintain photography and filming permits		Number of permits issued		
	Ensure up-to-date online content on the SANParks platforms	RCM	Number of updates posted		
To facilitate a speedy flow of information between park management and staff, using bulletins and internal newsletters, and to respond to general customer queries	Develop an annual communication plan	RCM	Document	Annually	Communications Plan

COMMUNICATION PROGRAMME					
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives.					
Objective: To build, maintain and constantly improve relations between the park and all its relevant stakeholders, both internally and externally through various means.					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To facilitate a speedy flow of information between park management and staff using bulletins and internal newsletters, and respond to general customer queries	Develop an annual Communication Plan	RCM	Document	Annually	Communications Plan
	Issue timely internal bulletins and information broadcasts	RCM	Number of internal bulletins and information broadcasts issued	As required	SANParks Strategic Plan and APP Communications and Marketing Annual Plan
	Ensure all staff members have access to information through communication forums and newsletters		Newsletters published	Annually	
	Encourage line management to share and clarify information		Reports	As required	
	Respond timely and accurately to queries, both internally and externally		Reports		
To improve the park's image amongst its stakeholders through the provision of well planned, managed and coordinated events	Promote environmental calendar days, corporate and brand awareness events	RCM, SET, PM	Number of events executed	Annually	SANParks Strategic Plan and APP Communications and Marketing Annual Plan
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

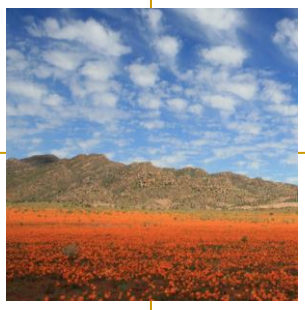
10.8.10 Disaster management programme

The purpose of this programme is to identify potential risks, and to develop a disaster management plan that provides risk mitigation plans, risk response plans and risk recovery plans.

The programme provides for an integrated and co-ordinated disaster management approach that focuses on preventative and risk-reducing actions, mitigating the severity of disasters, and focuses on emergency preparedness, rapid and effective response to disasters and post-disaster recovery as required by the Disaster Management Act (Act No. 57 of 2002). The programme will also address the training of staff and provide emergency procedures to manage disaster events, among others, droughts, flooding, infrastructure fires.

This programme links with high-level objective 7 and objective 7.10 on page 45. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

DISASTER MANAGEMENT PROGRAMME				
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives				
Objective: To ensure that all disaster situations that may occur in the park are addressed and managed through pre-determined contingency plans and pre-planned actions				
Actions	**Responsibility**	**POE**	**Timeframe**	**Reference**
Develop a Disaster Management Plan	PM	Documents	Year 1	
Hold annual disaster meetings and drills	PM, HODs	Minutes of meetings	Monthly, quarterly, annually	



DISASTER MANAGEMENT PROGRAMME				
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives				
Objective: To ensure that all disaster situations that may occur in the park are addressed and managed through pre-determined contingency plans and pre-planned actions				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Plan and liaise with provincial structures	PM, HODs	Minutes of meetings	As required	
Monitor and evaluate progress and impact against programme objectives and actions	PM, HODs	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.11 Climate change programme

The purpose of this programme is to apply best practice to identify, adapt to and mitigate against the impacts of climate change through monitoring and research and by implementing the SANParks Climate Change Preparedness Strategy and aligning with relevant national mitigation and adaptation strategies.

For this programme, climate change refers to a significant and long-lasting shift in normal weather conditions, which affects average conditions, as well as the occurrence of extremes. Current climate change is thought to be brought about by increased earth surface temperatures, often referred to as global warming, which is accelerated because of human-induced or anthropogenic activities which release greenhouse gases. Climate change can be mitigated by either reducing the use of, and/or reliance on, fossil fuel and energy-intensive processes and through the restoration of natural processes that lead to carbon storage in terrestrial and aquatic systems. Climate change adaptation refers to anticipating the negative effects of climate change and taking appropriate actions to prevent or minimise the damage they can cause or taking advantage of opportunities that may arise to reduce vulnerability. This programme focusses on both aspects of climate change response.

While data have not been available to analyse trends in rainfall and temperature, data from other parts of the succulent karoo show significant increases in temperature of more than 1°C over the past 50 years (van Wilgen *et al*., 2016). Anecdotal evidence suggests that there has been a local increase in dust storms. Namaqua is not considered a desert and therefore dust storms in this area are indicative of drought, degradation, or desertification. Rainfall at Kamieskroon showed no clear trend up until 2009. The green book and other sources however predict a decline in rainfall and a significant increase in drought stress. Precipitation projections predict an overall reduction in rainfall in the district (Le Roux *et al*., 2019). The reduction is variable across the region but increases over time (Bourne *et al*., 2015).

Surface and groundwater is expected to be impacted by higher evaporation rates that result from increased temperatures. Despite such changes, the climate within the park is predicted to remain within the bounds of what is currently observed for the Succulent Karoo. This is in contrast with earlier climate change predictions which saw this biome being worst off. However, despite limited evidence for biome change, species and ecosystem change are likely (van Wilgen & Herbst, 2017). In addition, the green book predicts a significant risk of groundwater depletion, drought stress and heat stress (Le Roux *et al*., 2019).

Changes in the marine environment could also have profound effects on land. The cold, nutrient-rich Benguela current runs up the West Coast of South Africa, while the warm, nutrient-poor Agulhas current runs down the east coast. A stronger warm Agulhas current would result in wind changes that increase the upwelling of nutrient rich cold water (van Wilgen & Herbst, 2017). In fact, the inshore sea surface temperature along the west coast has been observed to be getting colder due to this and related processes. These changes in turn have profound impacts on the distribution and lifecycle of species dependent on the oceans, and therefore also on people and animals that rely on these marine resources (Potts *et al*., 2015; van Wilgen & Herbst, 2017).

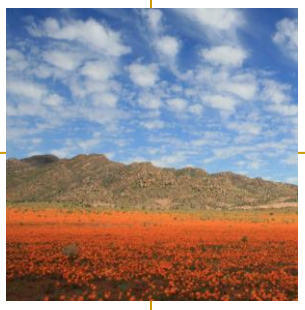
Coldrey *et al*. (in review) assessed several socio-economic indicators. These included an assessment of demand for fuelwood and bushmeat in a 10km area around national parks and a measure of the predicted available resource currently (based on a national ecosystem service map) and under climate change scenarios. This provided an indication of the future vulnerability of the community to climate change and the area's ability to meet the community's anticipated needs. Regardless of current uses, in times of change, climatic stress or natural disasters, people may have significantly higher reliance on natural resources (Dalu & Shackleton, 2018).

SANParks recognises that climate change is likely to influence the distribution of species, with implications for diversity of particular groups. While new species are expected to arrive for more mobile taxa, the fate of those that do not disperse easily is less certain and may require active management. SANParks thus recognises that managing climate change means managing for change and dealing with uncertainty. Climate change will also affect infrastructure and staff and visitor safety through extreme events such as heat waves, drought, floods and storm surges. The actions to be implemented seek to mitigate against identified threats in such a way that future biodiversity potential is maximised, and negative social and financial implications are minimised. At the same time, we seek to increase awareness of climate change and response strategies among staff and visitors. To do this, SANParks undertake to expand the park to include appropriate features (e.g. wetlands, water sources and elevational gradients) and corridors, to reduce the park's carbon footprint, facilitate species movement, restore ecosystem processes through, for example soil and wetland restoration, and have appropriate disaster risk reduction strategies and communication plans in place.

The following was achieved, to name a few:

- The park's carbon footprint was quantified in 2020. Results demonstrated that the park was the lowest overall contributor to SANParks' greenhouse gas emissions per year, with total emissions at 126 tCO_2e (tons of carbon dioxide equivalent) per annum. This is roughly equivalent to 1.6 tanker trucks of petrol or 285 barrels of oil, or the amount of carbon sequestered by about 2,034 tree seedlings grown for 10 years (https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator);
- The park has contributed significantly to job creation for communities. The park has, through the Biodiversity Social Projects Working for Ecosystems, contributed to the rehabilitation of degraded land. In so doing, it contributed to the Land Degradation Neutrality targets for succulent karoo biome in South Africa. Restoration efforts recommended by SANParks Scientific Services and implemented by BSP have been evaluated using ecologically relevant methodology including Land Function Assessment as well as Remote Sensing. Evidence from the data collected since 2015 show how the prolonged drought of 2017-2019 impacted negatively on landscape productivity, heterogeneity and soil surface condition across the various rehabilitation treatments that included soil micro-catchments, silt netting, a mixture of the two compared to near pristine conditions; and
- A climate change vulnerability assessment was conducted for the park in 2021 (SANParks, 2021c). Key vulnerabilities include that the area is predicted to become much hotter, with more heat waves. The changing climate will interact with other stressors such as degradation and over-grazing which could result in rapid desertification. Aside from degradation, heat and water stress also results in plant mortality, particularly during drought or when accompanied by hot, dry winds.

This programme links with high-level objective 7 and objective 7.11 on page 45. To achieve the purpose of this programme, the actions listed in the table below will be implemented.



CLIMATE CHANGE PROGRAMME					
High level objective: To ensure effective and efficient management and administrative support services through good corporate governance enabling the park to achieve its objectives					
Objective: To adapt and mitigate negative impacts of climate change through monitoring, research and implementing the SANParks climate change strategy					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To identify climate change vulnerabilities	Review and update park-level vulnerability assessment	SS, PM, SSR, SR SS, PM, SSR	Document	Year 3	SANParks Climate Change Preparedness Strategy, MPA Management Plan
	Determine coastal management set-back lines		Document	Year 5	
To develop and implement an Adaptation Response Plan by assessing appropriate actions to alleviate vulnerabilities	Develop (as appropriate based on vulnerability assessment and links to the national adaptation strategy), implement and review park adaptation response plan	SS, SSR, SR	Report	Year 3, ongoing	Regional planning South African National Climate Change Response White Paper (2011) SANParks Climate change Preparedness Strategy DFFE Vulnerability Assessment & Adaptation Strategy (2021)
	Encourage implementation of measures for adaptation and mitigation with communities surrounding the park, including sharing, supporting and facilitating, if possible, relevant climate change related information, projects and programmes of relevance	SETO, PM, SR, SS	Community engagements, communication materials	Year 3, ongoing	
To reduce the park's carbon footprint as a measure of the environmental and climate change impact of its operations and activities	Update assessments of the park's carbon footprint, and implement the SANParks Green Energy Strategy and monitor carbon savings	SS, PM, SSR, SR	Estimate of annual carbon output Carbon footprint reduction Green Building Principles; Green power and energy plans	Year 1, Ongoing	SANParks Climate change Preparedness Strategy SANParks Green Energy Strategy Regional planning South African National Climate Change Response White Paper (2011) Climate change bill Carbon tax
	Develop and implement a set SOPs to manage all significant environmental impacts	PM, SSR, SR, SS	Documents	Year 2, ongoing	Ecosystem Based Adaptation Strategy and Guidelines, Draft National Adaptation Strategy, Draft Climate Change Bill, National Climate Change Response Policy
	Review the SOPs	PM, SSR, SR, SS	Documents	Year 3, 6 and 9	

CLIMATE CHANGE PROGRAMME					
High level objective: To ensure effective and efficient management and administrative support services through good corporate governance enabling the park to achieve its objectives					
Objective: To adapt and mitigate negative impacts of climate change through monitoring, research and implementing the SANParks climate change strategy					
Sub-objective	**Actions**	**Responsibility**	**PoE**	**Timeframe**	**Reference**
To reduce the park's carbon footprint as a measure of the environmental and climate change impact of its operations and activities	Adopt sustainable procurement principles by purchasing eco-friendly, biodegradable, energy efficient products	PM, SSR, SR	Documents	Year 2, ongoing	
	Investigate the use of green technology to reduce energy	PM, TO	Document	Ongoing	
	Create awareness amongst staff and overnight visitors regarding energy usage and energy saving measures	SETO, SS, RCM			
Assess contributions of the park to climate change adaptation and mitigation	Conduct a snapshot assessment of carbon storage within the park	SS	Carbon Storage Reports	Year 3, ongoing	SANParks Climate change Preparedness Strategy
	Evaluate ecosystem-based adaptation potential of 'Working for' programmes	BSP, SS, SSR, SR	Report	Year 3, ongoing	SANParks Climate change Preparedness Strategy
To ensure monitoring and evaluation of the implementation of the programme and its effectiveness	Monitor and evaluate progress and impact against programme objectives and actions	PM, SSR, SR, SS	Assessment tool	Annually	SOP for the assessment of the implementation of Management Plans

10.8.12 Outcomes programme

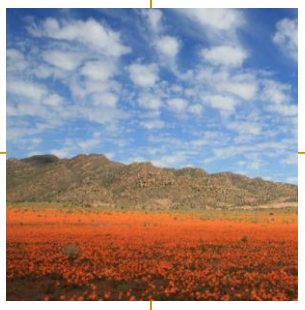
The purpose of this programme is to evaluate outcomes of management interventions related to protected area management.

Protected areas are under increasing threat from a range of external and internal pressures. Monitoring is an essential component to evaluate management interventions. Various tools and processes have been adopted to track progress.

The Management Effectiveness and Tracking Tool (METT) provides an overarching framework for assessing the management effectiveness of protected areas (including MPAs) worldwide. The assessment provides guidance for managers of protected areas and tracks progress towards the effective management of these areas. Assessment is conducted biennially to measure strategic achievements. An agreement was reached with the Department of Forestry, Fisheries and the Environment regarding the assessment intervals. Parks that score below 67 % will perform annual assessments while those that score above 67 % will perform biennial assessments. Following the assessment undertaken, all parks must identify a number of corrective actions. This is undertaken in the first quarter of the financial year as it will also follow on from the assessment undertaken. At quarterly intervals, parks report progress achieved against the corrective actions.

The State of Area Integrity Management (SoAIM) assessment evaluates the operational ability of a park to perform its required function effectively and efficiently with strong focus on safety, security and biodiversity issues related to law enforcement and compliance. This assessment ensures that people, systems, processes, and resources are in place and in use to ensure integrity to achieve the desired ecological and security status of a park.

All the programmes in the management plan are expected to be implemented to achieve the park's desired state. It is therefore vital that park management tracks progress towards achieving these outcomes. Aligned with the SOP for the Assessment of Implementation of Management Plans (2021d), SANParks has designed a



management plan implementation assessment tool, adopted from the METT scoring model. The total score of 67 % and above is used as a guideline to determine sound management. Lessons learnt should be fed back into the adaptive management planning cycle (see Section 10.9). These evaluation criteria are also complemented by engagements at science-management forums where progress on implementation of biodiversity programmes is continuously assessed and adaptive management is applied to achieve the expected outcomes.

This programme links with high-level objective 7 and objective 7.12 on page 45. To achieve the purpose of this programme, the actions listed in the table below will be implemented.

OUTCOMES PROGRAMME				
High-level objective: To ensure effective and efficient management and administrative support services through good corporate governance, enabling the park to achieve its objectives				
Objective: To evaluate outcomes of management interventions related to protected area management through regularly assessments and adaptive management				
Actions	**Responsibility**	**PoE**	**Timeframe**	**Reference**
Participate in the METT assessment for Namaqua NP and Namaqua MPA	PM, HODs, SS	Report	As required	
Participate in the SoAIM assessment	SSR, SR	Report	Biennially	
Evaluate the implementation of the Park Management Plan	PM, HODs, SS	Tool	Annually	SOP for the assessment of the implementation of Management Plans

10.9 Evaluation and learning

10.9.1 Introduction

Section 5 has dealt with the jointly agreed desired state, and section 10 with all the specific programmes, which are necessary to achieve this. However, the desired state cannot be effectively maintained without explicit attention to prioritisation, integration, operationalisation, and above all, reflection and adaptation according to the principles in the SANParks biodiversity custodianship framework (Rogers, 2003).

The need for reflection and adaptation (i.e. adaptive learning) comes from acknowledging that the world of conservation is complex and that the existing knowledge base is imperfect. Complexity implies that feedbacks between components of the conservation system are likely to change in unpredictable ways and the only way to stay abreast of such changes is through ongoing learning and adaptation. Lack of effective feedback and reflection is the predominant underlying cause of failure of strategic adaptive management, and hence failure to realise the desired outcomes of the park. Evaluation should furthermore test the appropriateness of an intervention and monitor the predictive capacity, societal acceptability and accomplishment of broad goals (Kingsford & Biggs, 2012; Figure 22).

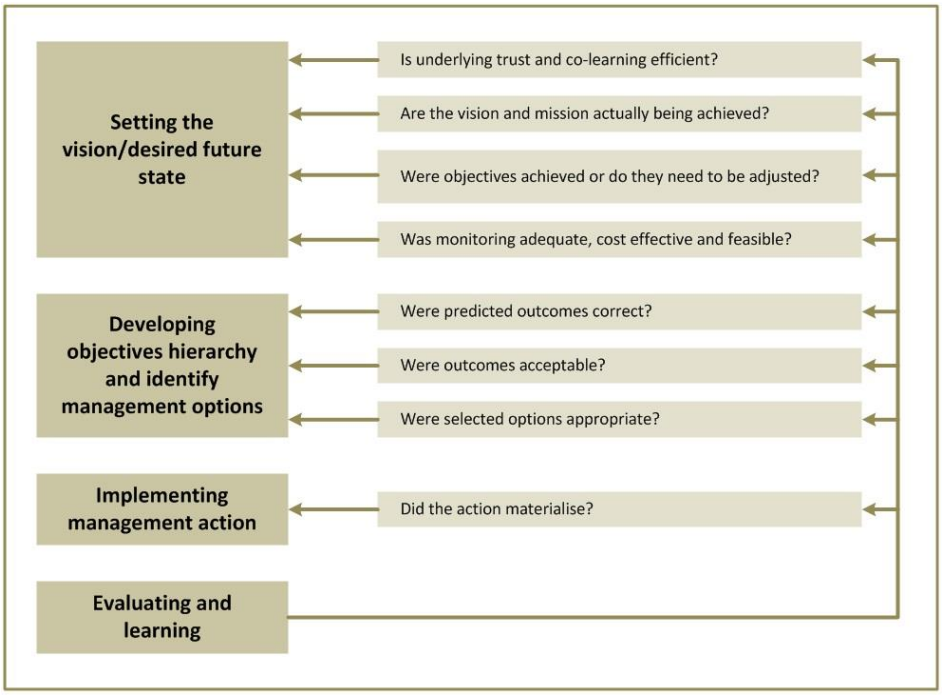


Figure 22. Feedback questions essential for adaptive learning (from Kingsford & Biggs, 2012).

10.9.2 Operationalisation

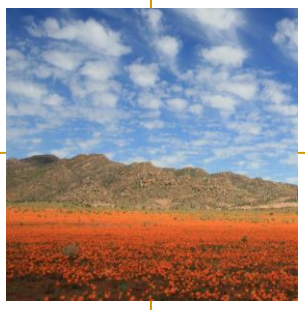
Given the desired state, and the programmes outlined in Section 10, specific action and annual operational plans need to inform the Key Performance Areas of staff members (applicable personnel working in the Parks, CSD and Tourism Divisions) to ensure that the outcomes are achieved. In addition, explicit reflection and co-learning opportunities need to be maintained and honoured to facilitate an adaptable, learning approach that can cope with unexpected events or surprises. An example is those opportunities provided by the science-management forum engagements at park or regional level.

A critical component of strategic adaptive management is to monitor and evaluate the consequences of management decisions, actions, and other associated external programmes. This involves assessment of the outcome of management interventions, but also frequent evaluation of early warning signals (referred to by SANParks as TPCs of whether the intervention is on an appropriate trajectory for achieving the particular objective. Ongoing evaluation of emerging results against objectives is essential to allow strategy and methodology to be adjusted as new understanding and knowledge emerge. Continuous evaluation and learning are facilitated by making time for reflecting on the following questions (Roux & Foxcroft, 2011):

- Has the intended plan of operation materialised?
- Were the selected options appropriate?
- Were the predicted consequences correct and, if not, why?
- Is the monitoring adequate, cost effective and feasible?
- Were the consequences actually acceptable?
- Even if the predicted consequences were correct and are acceptable, are the objectives and vision being met?

Science-management forum discussions are aimed at ensuring that feedbacks take place, best available knowledge and understanding are incorporated into decision-making and TPCs are flagged and considered timely. In addition, annual reflection workshops involving managers and scientists will evaluate what has been learnt in each programme, and what should be adjusted.

If this process is adhered to, it is believed that the park will be practicing strategic adaptive management, and in accordance with our overarching values around complex systems, will have the best chance of achieving the desired state in a sustainable way.



Section 11: Costing

11.1 Introduction

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

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

The park will adhere to the guiding principles listed below:

- Responsibly manage the allocation of budget, revenue raising activities and expenditure;
- Ensure that solid financial management supports the achievement of the objectives in this plan;
- Comply with the Public Finance Management Act as well as SANParks' financial policy and procedures.

A funding estimate of the activities in this management plan was derived, using the zero-based budgeting approach. 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.).

The programmes and actions in this PMP are dependent upon the allocation of funds, both in terms of operational and capital requirements. It must be stressed that the costing (see below), is an indication of the resources required to implement this PMP. The budget that is annually allocated to the park might not be adequate to fully implement the identified programmes and actions. The budget, current and future, is reliant on the Medium-Term Expenditure Framework allocations, any adjustments to this allocation and overall SANParks tourism income and could ultimately impact the implementation of this PMP. This costing and future budget allocations does not take into account any emergency or disaster which could also impact the implementation of this PMP.

11.2 Income

SANParks manages a number of national parks as part of the national park system, currently 22 in total. Not all these parks are financially viable, and currently only five national parks (i.e. Addo Elephant National Park, Augrabies Falls National Park, Kalahari Gemsbok National Park, Kruger National Park and Table Mountain National Park) make a profit. SANParks receives an annual grant from the DFFE to carry out its mandate, but this is not sufficient to cover the management costs. The organisation utilises its own revenue derived from commercial activities to subsidise the shortfall. The surplus generated by the aforementioned parks is used to fund management costs across all national parks. An organisation of this magnitude also has overhead costs relating to support services such as human resources, tourism and marketing, finance, conservation support, etc. that are not allocated to individual parks and must be funded by the revenue generated in financially viable parks.

The income is categorised as follows; accommodation, conservation fees, concession fees, activities, other tourism income and wildlife sales. Total income for the park for 2024 / 2025 is

budgeted at R -1,283,887, increasing to an estimated R -1,620,878 in 2028 / 2029. A summary is presented in Table 16.

Table 16. A summary of the total estimated income budgeted for the park management plan over the next five years.

	2024 / 2025	2025 / 2026	2026 / 2027	2027 / 2028	2028 / 2029
Total income	R -1,283,887	R -1,360,920	R -1,442,575	R -1,529,130	R -1,620,878

11.3 Expenditure

11.3.1 Once-off costs

In addition to the above there is a further once-off cost estimated at R 46,863,749 over the period 2024 / 2025 – 2028 / 2029 as can be seen in Table 17 below.

Table 17. The estimated once-off cost of the various programmes.

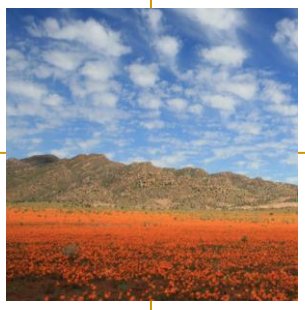
Programme	Estimated budget
New infrastructure	R 41,863,749
Park expansion	R 5, 000, 000
Total	**R 46,863,749**

11.3.2 Recurring costs

The annual directly allocated cost (including staff salaries, travel, supplies and tools) is estimated at R 23,079,843 for 2024 / 2025. These ongoing costs are split according to the programmes listed in Table 18 below.

Table 18. The estimated annual operational costs for the park for 2024 / 2025.

Programme	Amount	Percentage of total
Degradation and rehabilitation	R 14,540,139	63.00%
Responsible tourism	R 2,906,141	12.59%
Infrastructure	R 1,143,030	4.95%
Safety and security	R 650,107	2.82%
Alien invasive species	R 643,104	2.79%
Environmental education and awareness	R 588,900	2.55%
Financial management and administration	R 552,893	2.40%
Freshwater ecosystems	R 352,675	1.53%
Functional ecosystems	R 305,575	1.32%
Human capital development	R 255,032	1.10%
Stakeholder engagement	R 219,942	0.95%
Park expansion	R 218,467	0.95%
Species of special concern	R 194,982	0.84%
Regional integration	R 111,851	0.48%
Cultural heritage	R 93,496	0.41%
Outcomes	R 58,719	0.25%
Employment, business opportunities and skills development	R 58,287	0.25%
Environmental management	R 45,053	0.20%
Communication	R 32,424	0.14%
Safety, health, environment and quality	R 31,875	0.14%
Information management	R 27,394	0.12%



Programme	Amount	Percentage of total
Climate change	R 22,364	0.10%
Disaster management	R 15,093	0.07%
Risk	R 12,301	0.05%
Total	**R 23,079,843**	**100 %**

11.3.3 Unallocated fixed costs

The unallocated fixed costs applicable but not allocated in Table 17 above for 2024 / 2025 amounts to R 738,657.

11.3.4 Maintenance

A breakdown of the infrastructure, both existing and new with their replacement value and an estimate of the ongoing annual maintenance for 2024 / 2025 is provided in Table 19. The projected maintenance for existing infrastructure is estimated at R 1,561,164 in 2024 / 2025. If the new planned infrastructure is developed, it will add a further R 535,154 (at 2024 / 2025 rates) to this annual maintenance budget, increasing it to R 2,096,317. The maintenance requirement was calculated as a percentage of the replacement value.

Table 19. The estimated replacement value of the existing infrastructure and any new infrastructure required with the estimated annual maintenance budget for the existing and new infrastructure in the park.

	Estimated replacement value			Estimated maintenance		
	Existing (R)	**New (R)**	**Total (R)**	**Existing (R)**	**New (R)**	**Total (R)**
Buildings	43,383,061	32,208,273	139,908,490	624,716	247,432	872,148
Roads and tracks	17,518,620	0	32,424,400	333,232	0	333,232
Trails	116,865	0	216,300	2,337	0	2,337
Fencing	24,414,768	14,190,750	71,453,160	488,295	283,815	772,110
Water system	1,654,320	195,329	3,423,430	33,086	3,907	36,993
Electricity	1,422,974	0	2,633,716	71,149	0	71,149
Sewerage	417,375	0	772,500	8,348	0	8,348
Total	**88,927,983**	**46,594,353**	**250,831,996**	**1,561,164**	**535,154**	**2,096,317**

11.3.5 Replacement of minor assets

While many of the vehicles are leased along with the computers, it 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 is based on their original purchase price and the estimated budget required annually making provision for their replacement. Management should thus make provision for about R 941,378 in 2024 / 2025, and this figure is presented in Table 20.

Table 20. The total value various categories of minor assets and replacement thereof (based on the original purchase price).

Asset type	Asset value	Provision for replacement
Computer equipment	R 222,456	R 52,990
Firearms	R 0	R 0
Furniture	R 424,832	R 72,283
Mechanical equipment	R 539,115	R 91,728
Office equipment	R 41,443	R 7,051
Vehicles and trailers	R 2,917,589	R 694,979
White goods (appliances)	R 131,340	R 22,347
Total	**R 4,355,952**	**R 941,378**

11.4 Summary

It is estimated that the park will require an annual operating budget of R 26,853,691 for 2024 / 2025, increasing to R 33,262,502 in 2028 / 2029. In addition to this amount, the park will also require R 46,863,749 over the next five-year period for once-off costs. A summary is presented in Table 21.

Table 21. A summary of the annual and once-off costs that are required to fully implement the activities in the management plan over the next five years.

	2024 / 2025	2025 / 2026	2026 / 2027	2027 / 2028	2028 / 2029
Once-off costs over five years	R 46,863,749				
Annual cost	R 26,853,691	R 27,927,838	R 29,603,509	R 31,379,719	R 33,262,502
SANParks expenditure budget	R 23,620,387	R 24,565,202	R 26,039,114	R 27,601,461	R 29,257,549
Shortfall	R 3,233,304	Subject to budget allocation			

The shortfall can be broken down as follows:

- An additional amount of R 1,404,090 is required for the maintenance of infrastructure;
- An additional amount of R 944,532 is required for the replacement of assets; and
- An additional amount of R 884,682 is required to cover operational expenses.

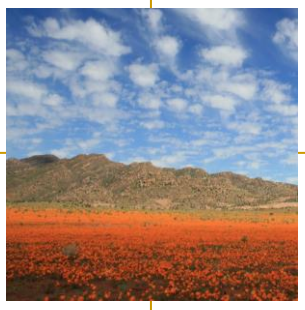
11.5 Implications

Should the park be unsuccessful in securing the shortfall amount of R 3,233,304 then the following programmes will be affected:

- Infrastructure programme: The park will be unable to maintain the current infrastructure to a high standard;
- Assets: The park will be unable to replace assets that have reached the end of their life span, operations could be adversely affected and thereby increasing the risk profile; and
- Operational expenses: Various programmes (i.e. cultural heritage, responsible tourism, safety and security and technical) will be negatively affected. This funding is required mainly for additional vehicles and operational expenses.

11.6 Future

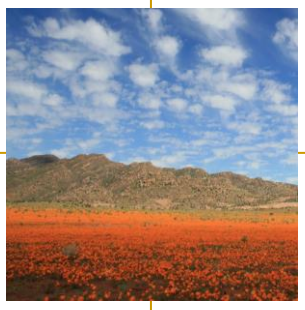
There are various ways in which the shortfall could be covered, options include:



- To request additional funding from Head Office;
- To approach donors; or
- To except the shortfall and rationalise the programmes.

Depending on the priority and urgency of the various requirements, management will make a decision regarding the most appropriate action to take.

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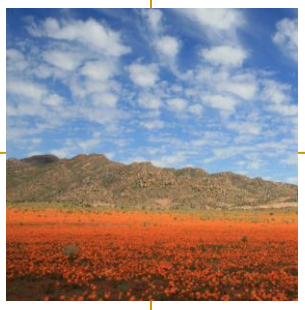
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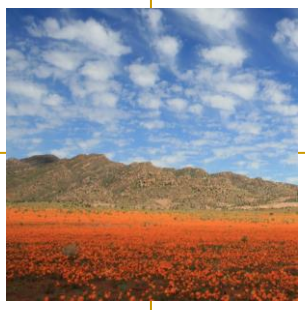
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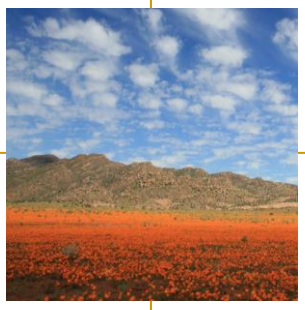
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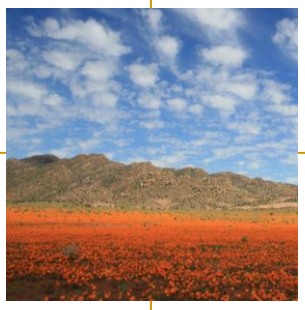
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Appendix 1: Declarations

1. Land declared

Government Notice 578 in Government Gazette 22414 of 29 June 2001 declared the following land to be part of the Namaqua National Park in terms of the National Parks Act (Act No. 57 of 1976)

1. Portion 15 (a portion of Portion 13) of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 1,047.1096 ha in extent and held by Title Deed No. T68150/1999.

Government Notice 53 in Government Gazette 23037 of 25 January 2002 declared the following land to be part of the Namaqua National Park in terms of the National Parks Act (Act No. 57 of 1976)

1. Portion 1 of the Farm Doornfontein No. 464, Namaqualand Registration Division, measuring 3,513.3458 ha in extent and held by Title Deed No. T75491/2001;
2. Portion 1 of the Farm Kookfontein No. 466, Namaqualand Registration Division, measuring 3,535.4786 ha in extent and held by Title Deed No. T75491/2001;
3. Portion 2 of the Farm Kookfontein No. 466, Namaqualand Registration Division, measuring 1,305.9258 ha in extent and held by Title Deed No. T75491/2001;
4. Portion 3 of the Farm Kookfontein No. 466, Namaqualand Registration Division, measuring 2.0029 ha in extent and held by Title Deed No. T75491/2001;
5. Portion 4 of the Farm Kookfontein No. 466, Namaqualand Registration Division, measuring 997.1303 ha in extent and held by Title Deed No. T75491/2001;
6. Remaining extent of the Farm Kookfontein No. 466, Namaqualand Registration Division, measuring 3,253.5968 ha in extent and held by Title Deed No. T75491/2001;
7. The Farm Wildepaarde Hoek No. 340, Namaqualand Registration Division, measuring 7,910.9296 ha in extent and held by Title Deed No. T75491/2001; and
8. Portion 13 of the Farm Wolvepoort No. 459, Namaqualand Registration Division, measuring 930.2412 ha in extent and held by Title Deed No. T1020/1989.

Government Notice 901 in Government Gazette 26615 of 30 July 2004 declared the following land to be part of the Namaqua National Park in terms of the National Parks Act (Act No. 57 of 1976)

1. Portion 5 (a portion of Portion 1) of the Farm Canariesfontein No. 465, Namaqualand Registration Division, measuring 963.5410 ha in extent and held by Title Deed No. T104720/2002;
2. Portion 6 of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 2,064.2421 ha in extent and held by Title Deed No. T104720/2002;
3. 0,093750 share in Portion 2 of the Farm Rodeklipheuvel No.470, Namaqualand Registration Division, measuring 2,187.2544 ha in extent and held by Title Deed No. T115475/2003;
4. Portion 6 (a portion of Portion 1) of the Farm Canariesfontein No. 465, Namaqualand Registration Division, measuring 481.7712 ha in extent and held by Title Deed No. T96065/2000;
5. Portion 2 of the Farm Canariesfontein No. 465, Namaqualand Registration Division, measuring 2,407.9271 ha in extent and held by Title Deed No. T96065/2000;
6. Remaining extent of Portion 1 of the Farm Canariesfontein No. 465, Namaqualand Registration Division, measuring 962.6148 ha in extent and held by Title Deed No. T95852/2000;
7. Portion 7 (a portion of Portion 1) of the Farm Soubattersfontein No. 467, Namaqualand Registration Division, measuring 262.0988 ha in extent and held by Title Deed No. T83030/1999;

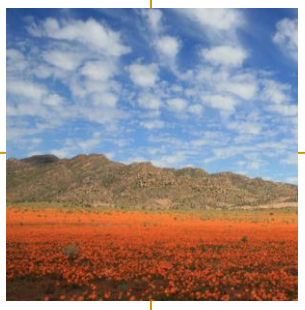
8. The Farm Oubees No. 339, Namaqualand Registration Division, measuring 13,170.8926 ha in extent and held by Title Deed No. T83030/1999;
9. Portion 1 of the Farm Rodeklipheuvel No.470, Namaqualand Registration Division, measuring 6,563.6989 ha in extent and held by Title Deed No. T83030/1999;
10. Remaining extent of the Farm Kameelboom Vley No.338, Namaqualand Registration Division, measuring 1,783.8949 ha in extent and held by Title Deed No. T83030/1999;
11. Remaining extent of the Farm Taaibosch Vlakte No. 337, Namaqualand Registration Division, measuring 1,645.5265 ha in extent and held by Title Deed No. T83030/1999;
12. Portion 2 of the Farm Kraaifontein No. 312, Namaqualand Registration Division, measuring 1,605.2559 ha in extent and held by Title Deed No. T83030/1999; and
13. Portion 1 of the Farm Kraaifontein No. 312, Namaqualand Registration Division, measuring 147.7543 ha in extent and held by Title Deed No. T83030/1999.

Government Notice 1065 in Government Gazette 28185 of 28 October 2005 declared the following land to be part of the Agulhas National Park in terms of the National Parks Act (Act No. 57 of 1976)

1. Portion 7 of the Farm Doornfontein No. 464, Namaqualand Registration Division, measuring 769.2185 ha in extent and held by Title Deed No. T33480/2003;
2. Portion 9 of the Farm Doornfontein No. 464, Namaqualand Registration Division, measuring 796.0465 ha in extent and held by Title Deed No. T33480/2003;
3. Portion 16 (a portion of Portion 14) of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 790.3648 ha in extent and held by Title Deed No. T94550/2002;
4. Portion 3 of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 1,836.6673 in extent ha and held by Title Deed No. T95762/2002;
5. Remaining extent of Portion 4 of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 981.7906 ha in extent and held by Title Deed No. T95762/2002;
6. Remaining extent of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 1,340.9971 ha in extent and held by Title Deed No. T94550/2002;
7. Portion 10 (a portion of Portion 3) of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 330.3586 ha in extent and held by Title Deed No. T94550/2002;
8. Portion 11 of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 670.4972 in extent ha and held by Title Deed No. T94550/2002;
9. Remainder of Portion 13 of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 378.3595 ha in extent and held by Title Deed No. T94550/2002;
10. Remaining extent of portion 14 (a portion of Portion 13) of the Farm Keerom No. 341, Namaqualand Registration Division, measuring 66.1623 ha in extent and held by Title Deed No. T94550/2002; and
11. Portion 12 (a portion of Portion 4) of Farm Keerom No. 341, Namaqualand Registration Division, measuring 860.0601 ha in extent and held by Title Deed No. T90891/2002.

Government Notice 1057 in Government Gazette 31461 of 03 October 2008 declared the following land to be part of the Namaqua National Park in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

1. Remaining extent of the Farm Rodeklipheuvel No. 470, Namaqualand Registration Division, measuring 1,419.4421 ha in extent and held by Title Deed No. T77675/2005;
2. Portion 4 (a portion of Portion 4) of the Farm Kwoap No. 494, Namaqualand Registration Division, measuring 75.1079 ha in extent and held by Title Deed No. T95383/2005;
3. The Farm Vorentoe No. 493, Namaqualand Registration Division, measuring 2,084.2203 ha in extent and held by Title Deed No. T95383/2005;
4. Portion 2 of the Farm No. 577, Namaqualand Registration Division, measuring 907.2230 ha in extent and held by Title Deed No. T102624/2005;
5. Portion 1 of the Farm Graskom No. 483, Namaqualand Registration Division, measuring 855.6560 ha in extent and held by Title Deed No. T102624/2005;
6. Remaining extent of the Farm Graskom No. 483, Namaqualand Registration Division, measuring 1,919.5172 ha in extent and held by Title Deed No. T81192/2005;
7. Portion 1 of the Farm Roodelaagte No. 476, Namaqualand Registration Division, measuring 876.1023 ha in extent and held by Title Deed No. T64984/2006;
8. Remaining extent of Portion 4 of the Farm Roodelaagte No. 476, Namaqualand Registration Division, measuring 1,054.9534 ha in extent and held by Title Deed No. T64984/2006; and
9. The Farm No. 623, Namaqualand Registration Division, measuring 2,691.4319 ha in extent and held by Title Deed No. T64984/2006.



Government Notice 540 in Government Gazette 33285 of 18 June 2010 declared the following land to be part of the Namaqua National Park in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

1. The Farm Gemsbok Vlakte No. 498, Namaqualand Registration Division, 2,278.3237 ha in extent and held by Title Deed No. T7076/1942;
2. Portion 1 of the Farm Strandfontein No. 499, Namaqualand Registration Division, 1,969.1728 ha in extent and held by Title Deed No. T7076/1942;
3. Portion 2 of the Farm Strandfontein No. 499, Namaqualand Registration Division, 2,124.1994 ha in extent and held by Title Deed No. T7076/1942;
4. Portion 3 of the Farm Strandfontein No. 499, Namaqualand Registration Division, 313.4859 ha in extent and held by Title Deed No. T7076/1942;
5. The remaining extent of the Farm Strandfontein No. 499, Namaqualand Registration Division, 4,644.6161 ha in extent and held by Title Deed No. T7076/1942;
6. The Farm Driekop No. 500, Namaqualand Registration Division, 6,509.9387 ha in extent and held by Title Deed No. T7076/1942;
7. The Farm Kwass 501, Namaqualand Registration Division, 6,509.9430 ha in extent and held by Title Deed No. T7076/1942;
8. The Farm Kwass 546, Namaqualand Registration Division, 1,063.8355 ha in extent and held by Title Deed No. T7076/1942;
9. Portion 1 of the Farm Klipkuil No. 547, Namaqualand Registration Division, 1,208.8823 ha in extent and held by Title Deed No.;
10. Portion 3 of the Farm Klipkuil No. 547, Namaqualand Registration Division, 592.0006 ha in extent and held by Title Deed No. T7076/1942;
11. Portion 4 of the Farm Klipkuil No. 547, Namaqualand Registration Division, 28.7924 ha in extent and held by Title Deed No. T7076/1942;
12. Portion 5 of the Farm Klipkuil No. 547, Namaqualand Registration Division, 397.6150 ha in extent and held by Title Deed No. T7076/1942; and
13. Portion 6 of the Farm Klipkuil No. 547, Namaqualand Registration Division, 220.6597 ha in extent and held by Title Deed No. T7076/1942.

Government Notice 157 in Government Gazette 35073 of 02 March 2012 declared the following land to be part of the Namaqua National Park in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

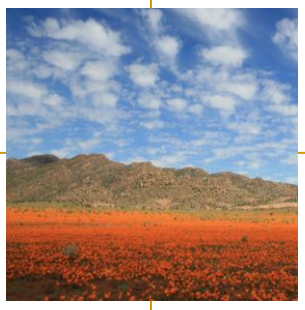
1. A portion of the Farm Michells Bay No. 495, Namaqualand Registration Division, in extent 13.6578 ha; which portion is represented by the "Ab" high water mark of the Atlantic Ocean, "a", curvilinear boundary 350 meter north of the middle of the Spoeg River and described as "**HUURKONTRAKGEBIED NO. 1"** and more fully described and set out on diagram L.G. No. 1985/2008, held under Deed of Transfer No. T7076/1942;
2. A portion of the Farm Kliphuis No.496, Namaqualand Registration Division, in extent 956.4286 ha, which portion is represented by the figure "A", curvinear boundary 250 meter north of the middle of the Spoeg River, "B C D E" and described as **"HUURKONTRAKGEBIED NO.1"** and more fully described and set out on Diagram L.G. No. 1986/2008, held under Deed of Transfer No. T2550/1960; and
3. A portion of remaining extent of the Farm Kanoep no. 491, Namaqualand Registration Division, in extent 4,793.3190 ha, which portion is represented by the figure "A" curvilinear boundary 250 meter north west of the middle of the Spoeg River, "B C D E F G H" and described as "**HUURKONTRAKGEBIED NO.1"** and more fully described and set out on Diagram L.G. No. 1984/2008, held by Title Deed No.T7076/1942.

Government Notice 808 in Government Gazette 36951 of 25 October 2013 declared the following land to be part of the Namaqua National Park in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

1. Remainder of Portion 1 of the Farm Kanoep No. 491, Namaqualand Registration Division, 905.4722 ha in extent and held by Title Deed No. T2339/2006;
2. Remainder of the Farm Annex Kanoep No. 490, Namaqualand Registration Division, 67.4659 ha in extent and held by Title Deed No.T2339/2006;
3. The Farm Ghaams No. 492, Namaqualand Registration Division, 2,026.9165 ha in extent and held by Title Deed No.T8680/2006;
4. Portion 7 of the Farm Kwoap no. 494, Namaqualand Registration Division, 115.7408 ha in extent and held by Title Deed No.T8680/2006;
5. Remainder of the Farm Avontuur No. 488, Namaqualand Registration Division, 2,808.7787 ha in extent and held by Title Deed No.T100398/2005;
6. Remainder of the Farm Diknek No. 486, Namaqualand Registration Division, 1,971.9015 ha in extent and held by Title Deed No.T29609/2006; and
7. Portion 1 of the Farm Diknek No. 486, Namaqualand Registration Division, 1,971.9015 ha in extent and held by Title Deed No.T1919/2007.

Government Notice 540 in Government Gazette 38844 of 05 June 2015 declared the following land to be part of the Namaqua National Park in terms of the National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

1. Portion 37 of the Farm Soubatters Fontein No. 467, Namaqualand Registration Division, 2,632.2768 ha in extent and held by Title Deed No. T47840/2002;
2. Portion 5 of the Farm Kookfontein No. 466, Namaqualand Registration Division, 1,400.9523 ha in extent and held by Title Deed No. 110284/1999
3. The Farm No. 497, Namaqualand Registration Division, 698.8459 ha in extent and held by Title Deed No. T72050/2011;
4. Admiralty zone area between the Groen and Spoeg Rivers, as currently designated to be managed by SANParks by the letter from Minister of Water and Environmental Affairs, Ref. 03/4/1.
5. Portion 1 of the Farm Zoutpan No. 471, Namaqualand Registration Division, 2,632.2768 ha in extent and held by Title Deed No. T47840/2002;
6. The Farm No. 619, Namaqualand Registration Division, 3,562.4014 ha in extent and held by Title Deed No. T40703/2004;
7. The Farm 624, Namaqualand Registration Division, 3,264.8316 ha in extent and held by Title Deed No. T14098/2008;
8. Portion 29 of the Farm Avontuur No. 487; Namaqualand Registration Division, 130.6785 ha in extent and held by Deed of Transfer No. T62850/2009;
9. Portion 30 of the Farm Avontuur No. 487, Namaqualand Registration Division, 50.9727 ha in extent and held by Title Deed No. T62850/2009; and
10. Portion 31 of the Farm Avontuur No. 487, Namaqualand Registration Division, 239.7998 ha in extent and held by Title Deed No. T62850/2009.



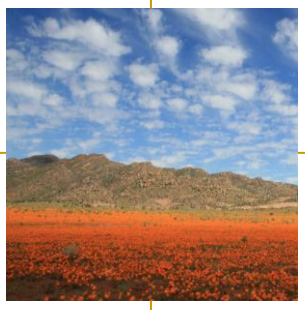
Appendix 2: Vegetation types

Biome	Succulent Karoo			
Bioregion	**Namaqualand Hardeveld**			
Vegetation type	**Namaqualand Klipkoppe Shrubland SKn 1**	**Namaqualand Blomveld SKn 3**	**Namaqualand Heuweltjieveld SKn 4**	**Kamiesberg Mountains Shrubland SKn 6**
Vegetation and landscape features	Dramatic landscape of huge granite and gneiss domes, smooth glacis and disintegrating boulder koppies supporting open shrubland up to 1 m tall, dominated by shrubs of dwarf to medium stature and with ericoid or succulent leaves. A few scattered Aloe dichotoma var. dichotoma pachycaul kokerboom trees are found mostly on north-facing slopes. Flat or gently sloping rock sheets (the dominant feature of this unit) support dwarf or prostrate succulents in shallow pockets with soil or in cracks. Fringe vegetation at the bottom of steep rock sheets consists of 1–3 m tall shrubs with non-succulent leaves and canopy cover reaching 40–100%	Level to slightly undulating sedimentary surfaces between rocky granitic hills and mountains, such as wide plains and broad valleys with dry channels of intermittent watercourses. Sparse dwarf shrubs with succulent or ericoid leaves dominate these shrublands. Geophytes and ephemeral herbs and in places also low, spreading, leaf-succulents show spectacular flower displays	Undulating plains leading up to the Escarpment with a mosaic of communities on heuweltjies (slightly raised, rounded termite mounds up to 10 m in diameter) and in between the heuweltjies. Low shrubland (canopy cover 20–45%) dominated by leaf-succulent shrubs	Steep, mainly south- to east-facing upper (high-altitude) slopes of large granite domes exposed to increased topographic precipitation as well as in deep gullies in the Hardeveld, supporting tall shrubland (canopy cover 45–65%) dominated by a mixture of non-succulent and succulent shrubs
Conservation value	Least Threatened	Small areas (1.5%) statutorily conserved in Goegab Nature Reserve and NNP. Some protection is warranted on private game farms	11% of the area of the unit statutorily conserved in NNP	Least Threatened

Biome	Fynbos
Bioregion	**Sand Fynbos**
Vegetation type	**Namaqualand Sand Fynbos FFd 1**
Vegetation and landscape features	Slightly undulating plains comprising both isolated streets and dune fields of aeolian sand. Scattered 1–1.5 m tall shrubs 1–3 m in diameter, but dominated by Restionaceae in between, can have a dense canopy cover (50%), but is easily overgrazed to a sparse cover (20%). Restioid and asteraceous fynbos predominate, with localised pockets of proteoid fynbos. There are substantial differences between dune ridges and dune slacks, with dune slacks far more succulent, often tending to Succulent Karoo, and a much higher diversity than surrounding strandveld habitats. Ericaceae are absent, proteoids seldom numerically important, and restioids often dominant
Conservation value	Least threatened

Biome	Succulent Karoo				
Bioregion	**Namaqualand Sandveld**				
Vegetation type	**Namaqualand Strandveld SKs 7**	**Namaqualand Coastal Duneveld SKs 8**	**Namaqualand Inland Duneveld SKs 9**	**Riethuis-Wallekraal Quartz Vygieveld SKs 10**	**Namaqualand Arid Grassland SKs 11**
Vegetation and landscape features	Flat to slightly undulating landscape of coastal peneplain. Vegetation is low species-rich shrubland dominated by a plethora of erect and creeping succulent shrubs	Coastal peneplain with semimobile sand plains to highly mobile, sharp, angular dune plumes usually north of the estuaries. Vegetation is dwarf shrubland dominated by erect succulent shrubs	Coastal peneplain with mobile dunes. Vegetation is tall shrubland dominated by non-succulent shrubs	Slightly undulating plains covered by white patches of quartz pavement covered with open-canopy dwarf-succulent shrubland with dominant local endemic species	Flat to slightly undulating plains covered with short grasslands and accompanied by few scattered dwarf shrubs
Conservation value	Target 26%. None of the area is conserved in a statutory conservation area, but some small private reserves (Bojaansklip, Donkins Bay, Doorspring, Molyneux, Zeven Puts) protect some of its vegetation	Target 26%. None of the unit is conserved in statutory conservation areas, but an area between the Spoeg- and Groenrivier has been earmarked for a national park	Least threatened	Target 28%. About 25% of the unit is statutorily conserved in NNP	About 20% is statutorily conserved in NNP

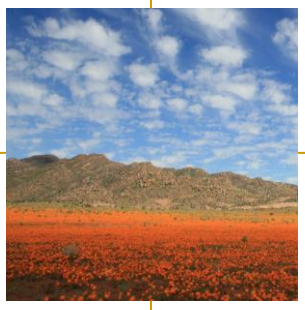
Biome	Azonal Vegetation			
Bioregion	**Seashore Vegetation**	**Estuarine Vegetation**	**Inland Saline Vegetation**	**Inland Saline Vegetation**
Vegetation type	**Namaqualand Salt Pans AZi 2**	**Arid Estuarine Salt Marshes AZe1**	**Namaqualand Riviere AZi 1**	**Namaqualand Seashore Vegetation AZd 2**
Vegetation and landscape features	Complex of alluvial shrubland (*Suaeda fruticosa*, *Zygophyllum morgsana*, *Ballota africana* and *Didelta spinosa*) and patches of tussock graminoids occupying riverbeds and banks of intermittent rivers	Slightly sloping beach, coastal rocky formations supporting sparse vegetation com-posed of (partly) succulent hummock-forming and spreading dwarf shrubs and herbs on the beach, in shell beds and on low dunes. Leaf succulent chenopod shrubs are dominant on coastal cliffs and shell beds	Estuarine salt marshes in the river mouths with patches of supratidal salt marshes on elevated terraces. Vegetation is formed mainly of low succulent dwarf shrubland patches, forming a mosaic with creeping grassy mats and patches of reed beds	Slightly undulating plains comprising both isolated streets and dune fields of aeolian sand. Scattered 1–1.5 m tall shrubs, but dominated by Restionaceae in between, can have a dense canopy cover (50%), but is easily overgrazed to a sparse cover (20%). Restioid and asteraceous fynbos predominate, with localised pockets of proteoid fynbos. There are substantial differences between dune ridges and dune slacks, with dune slacks far more succulent, often tending to Succulent Karoo, and a much higher diversity than surrounding strandveld habitats. Ericaceae are absent, proteoids seldom numerically important, and restioids often dominant
Conservation value	Only very small portion statutorily protected in nature reserves (Lutzville)	Target 26%. None conserved in statutory conservation areas. Diamond mining in this area is a great threat to the strand vegetation whether it is land surface or marine mining (about 5% of the area of this unit has already been transformed)	Least threatened	Least threatened



Appendix 3: Contractual land inclusions

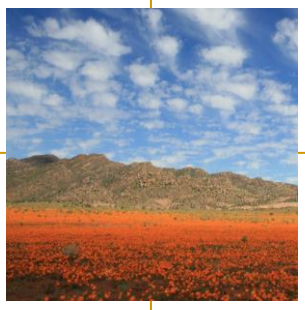
Title deed	Farm name	Portion No	Extent (Ha)	Owner	Government Gazette No	Proclamation date	Period
T1020/1989	Farm Wolvepoort No 459	Portion 13, a portion of Portion 3	930.2412	WWF-SA	23037	25/01/2002	99 years
T83030/1999	Farm Oubees No 339	-	13,170.8926	WWF-SA	26615	30/07/2004	
	Farm Kraaifontein No 312	Portion 1	147.7543	WWF-SA	26615	30/07/2004	
	Farm Rodeklipheuvel No 470	Portion 1	6,563.6989	WWF-SA	26615	30/07/2004	
	Farm Kraaifontein No 312	Portion 2	1,605.2559	WWF-SA	26615	30/07/2004	
	Farm Soubattersfontein No 467	Portion 7, a portion of Portion 1	262.0988	WWF-SA	26615	30/07/2004	
	Farm Kameelboom Vley No 338	Remaining extent	1,783.8949	WWF-SA	26615	30/07/2004	
	Farm Taaibosch Vlakte No 337	Remaining extent	1,645.5265	WWF-SA	26615	30/07/2004	
T96065/2000	Farm Canariesfontein No 465	Portion 2	2,407.9271	WWF-SA	26615	30/07/2004	
	Farm Canariesfontein No 465	Portion 6, a portion of Portion 1	481.7712	WWF-SA	26615	30/07/2004	
	Farm Canariesfontein No 465	Remaining extent of Portion 1	962.6148	WWF-SA	26615	30/07/2004	In perpetuity
T7076/1942	Farm Klipkuil No 547	Portion 3	592.0006	De Beers	33285	18/06/2010	99 years
	Farm Klipkuil No 547	Portion 4	28.7924	De Beers	33285	18/06/2010	
	Farm Klipkuil No 547	Portion 5	397.6150	De Beers	33285	18/06/2010	
	Farm Klipkuil No 547	Portion 6	220.6597	De Beers	33285	18/06/2010	
	Farm Driekop No 500	-	6,509.9387	De Beers	33285	18/06/2010	
	Farm Gemsbok Vlakte No 498	-	2,278.3237	De Beers	33285	18/06/2010	
	Farm Kwass No 501	-	6,509.9430	De Beers	33285	18/06/2010	
	Farm Kwass No 548	-	1,063.8355	De Beers	33285	18/06/2010	

Title deed	Farm name	Portion No	Extent (Ha)	Owner	Government Gazette No	Proclamation date	Period
T7076/1942	Farm Strandfontein No 499	Remaining extent	4,644.6161	De Beers	33285	18/06/2010	99 years
	Farm Klipkuil No 547	Portion 1	1,208.6823	De Beers	33285	18/06/2010	
	Farm Strandfontein No 499	Portion 1	1,969.1728	De Beers	33285	18/06/2010	
	Farm Strandfontein No 499	Portion 2	2,124.1994	De Beers	33285	18/06/2010	
	Farm Strandfontein No 499	Portion 3	313.4850	De Beers	33285	18/06/2010	
	Farm Kanoep No 491	Remaining extent	5,786.9343	De Beers	35073	02/03/2012	
T77233/2012	Farm Michells Bay No 495	Portion 2	13.6578	De Beers	35073	02/03/2012	
T77232/2012	Farm Kliphuis No 496	Portion 1	956.4286	De Beers	35073	02/03/2012	
T1919/2007	Farm Diknek No 486	Portion 1	1,971.9017	NTPSA	36951	25/10/2013	
T29609/2006	Farm Diknek No 486	Remaining extent	1,971.9015	NTPSA	36951	25/10/2013	
T8680/2006	Farm Gaams No 492	-	2,026.9165	NTPSA	36951	25/10/2013	
	Farm Kwaop No 494	Portion 7	115.7408	NTPSA	36951	25/10/2013	
T100398/2005	Farm Avontuur No 488	Remaining extent	2,808.7787	NTPSA	36951	25/10/2013	
T2339/2006	Farm Annex Kanoep No 490	Remaining extent	67.4659	NTPSA	36951	25/10/2013	
	Farm Kanoep No 491	Remaining extent of Portion 1	905.4722	NTPSA	36951	25/10/2013	
T62850/2009	Farm Avontuur No 485	Portion 29, a portion of Portion 4	130.6785	NPTSA	38844	05/06/2015	In perpetuity
	Farm Avontuur No 486	Portion 30, a portion of Portion 4	50.9727	NPTSA	38844	05/06/2015	
	Farm Avontuur No 487	Portion 31, a portion of Portion 7	239.7998	NPTSA	38844	05/06/2015	
T14098/2008	Farm No 624	-	3,264.8361	WWF-SA	38844	05/06/2015	99 years
T102488/2005	Farm Zoutpan No 471	Portion 1	1,947.8413	WWF-SA	38844	05/06/2015	
T40703/2004	Farm Roodeklipheuwel No 619	-	3,562.4014	WWF-SA	38844	05/06/2015	
T40703/2004	Farm Rodeklipheuvel No 470	0.537500 share in Portion 3	1.0547	WWF-SA			In perpetuity
T70658/2010	Farm Doornfontein No 464	Portion 17	699.0921	NPTSA			
T65531/2011	Farm Rodeklipheuvel No 470	0.331250 share in Portion 2	724.5666	WWF-SA			
T14717/2015	Farm Canariesfontein No 465	Portion 4	1,434.6469	WWF-SA			
T8727/2017	Farm Kraaifontein No 312	Remaining extent	3,765.4884	WWF-SA			



Title deed	Farm name	Portion No	Extent (Ha)	Owner	Government Gazette No	Proclamation date	Period
T19593/2014	Farm Niewe Plaats No 445	Portion 2	1,879.1773	WWF-SA			In perpetuity
T37992/2014	Farm Ouss No 463	Portion 12, a portion of Portion 3	428.5099	NPTSA			
	Farm Ouss No 463	Portion 24, a portion of Portion 3	648.4835	NPTSA			
T19046/2012	Farm Namaqualand Rd No 656	Remaining extent	4,924.5024	NTPSA			
T2462/2020	Farm Zoutpan No 471	Portion 3	3,239.2559	WWF-SA			To be concluded
T1608/2021	Farm Roode Kol No 336	Portion 5	275.6011	WWF-SA			In perpetuity
T1913/2021	Farm Canariesfontein No 465	Remaining extent of Portion 3	827.0340	WWF-SA			
	Farm Hunboon No 344	Portion 4	1,522.1559	WWF-SA			

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Appendix 4: Stakeholder participation

STAKEHOLDER EVENTS AND ACTIVITIES

Stakeholder consultation

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

National government	DFFE (Oceans and Coast), SAPS, Eskom, SANBI
Provincial government	Northern Cape Departments of Agriculture, Environmental Affairs, Rural Development and Land Reform; Education; Public works; Arts and Culture; Mineral Resources
Local government	Namaqua District Municipality, Kamiesberg Local Municipality and Nama Khoi Local Municipality
Local resident / neighbours	Yes
Park Forum	Yes
Community organisations	Kamieskroon Farmers Association, Namaqua Farmers Association, Soebatsfontein Meent, Kamieskroon Meent, Garies Farmers Association
Land claimants	Hondeklipbaai
Media	Plattelander, Namakwalander, Radio NFM
Education	Marine and Coastal Educators Network
Conservation organisations	Conservation South Africa, Wilderness Foundation SA, WWF-SA
Non-governmental organisations	Surplus People Project
Honorary Rangers	Cape region
Tour operators	Chiefs tented camps, Open Africa

Desired state workshop

A range of key stakeholders and SANParks specialists participated in the revision of the desired state which entails identifying 1) the key management focus areas and 2) the vital attributed, determinants and risks, all of which forms the basis of the management plan.

Activities	Description
Invitations	Park management, certain SANParks specialists, key stakeholders and the general public were invited.
Desired State workshops	Workshops were held on 10 & 11 May 2022 in Hondeklipbaai and Kamieskroon respectively
Attendance	52 Participants partook in the workshop representing the following constituencies to name a few: • Garies Farmers Union • Hondeklipbaai Land Claim Committee • Kamiesberg Local Municipality • Nama Khoi Local Municipality • Northern Cape Department of Agriculture, Environmental Affairs, Rural Development and Land Reform • Northern Cape Corporate Governance and Human Settlement and Traditional Affairs

Activities	Description

Attendance	• SANParks • Soebatsfontein Primary School • Surplus Peoples Project • Wilderness Foundation Africa • World Wide Fund for Nature-SA

Media platforms used to invite stakeholders to register and participate

A variety of media platforms were used to engage stakeholders to inform them of the revision of the Integrated Management Plan and invite stakeholders to participate.

Media	Description
1. Direct e-mail	Key stakeholders were sent personal invites to attend any of the public information sessions
2. Print media advertisements	Advertisements to inform interested and affected parties of the public information sessions were placed in the following national and local newspapers: • Sunday Times (05 February 2023); • Rapport (05 February 2023); and • Die Plattelander (10 February 2023)
3. Radio	Namakwa FM – multiple broadcasts were made on 13, 14, 15, 16, 17, 18, 19 and 20 February 2023
4. Internet	Stakeholders were able to access the SANParks website from 01 April 2022 to gain information regarding the revision process
5. Social media	Posting on the Namaqua National Park page on Facebook
6. Registration at meetings	Participants were also able to register at the following meetings: Desired state workshops held on 10 and 11 May 2022 in Hondeklipbaai and Kamieskroon respectively
7. Public information boards	Official notices were place at 11 public venues in the region between 03 and 07 February 2023, namely: • Municipal library, Komaggas; • Municipal library, Koingnaas; • Kamiesberg local municipality office, Hondeklipbaai; • Municipal library, Kamieskroon; • Biodiversity Social Projects Office, Kamieskroon; • Kamiesberg local municipality office, Soebatsfontein; • Kamiesberg local municipality office, Lepelfontein; • Kamiesberg local municipality office, Garies; and • Skilpad and Groenrivier offices, Namaqua National Park

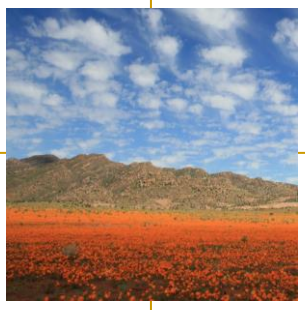
Public days to allow comment on the draft Management Plan

Two public day meetings were held.

Venue	Meeting type	Date	Number of stakeholders that attended
Eric Baker Community Hall, 75 Hoof St, Hondeklipbaai	In-person only	21 February 2023 at 09:00	64
BSP Office, Hall 4, 55 Charlotte St, Kamieskroon	In-person only	21 February 2023 at 10:00	4
-	Virtual	22 February 2023 at 09:00	0

Dissemination of documentation and feedback to stakeholders

Item	Action	Date
Draft document for comment placed in public venues	• Municipal library, 109 De Waal St, Kamieskroon	03, 06 and 07 February 2023



Item	Action	Date
Draft document for comment placed in public venues.	• Kamiesberg local municipality office, 395 Sunnyside St, Hondeklipbaai • Kamiesberg local municipality office, Erf 213, Soebatsfontein • Municipal library, Nywerheid St, Komaggas • Nama Khoi local municipality office, 134 Van den Heever St, Komaggas • Municipal library, 8249 Hoof St, Koingnaas • Kamiesberg local municipality office, 22 Main Road, Garies • BSP Office, Kamieskroon, • Skilpad and Groenrivier offices, Namaqua National Park Kamiesberg local municipality office, Erf 161, Lepelfontein	03, 06 and 07 February 2023
Draft document for comment placed on SANParks Website.	https://www.sanparks.org/conservation/park_man/	07 February 2023
Revised draft document and comments and response report available to stakeholders.	The documents will be available on the SANParks Website once approved by SANParks ExCo. They will be made available to registered stakeholders by email and internet link.	N/A
Dissemination of finalised document and comments and responses document.	The documents will be available on the SANParks Website once approved by the Minister. They will be made available to registered stakeholders by email and internet link.	N/A

Appendix 5: Tourism product development framework

The PDF provides park management with a guideline in order to inform the development potential of the park. Identified opportunities remain subject to comprehensive feasibility study prior to implementation, thus listing an activity does not automatically result in development.

Similarly, whilst specific products or activities may be developed within the park, they will be restricted to specific areas within the park or on the periphery (adjoining buffer zone, with land-use activities determined by the municipal land-use management scheme (LUMS)). For any development to be supported within the delineated buffer zone, the permissible LUMS as per the Spatial Planning and Land-use Management Act (Act No. 16 of 2013), and relevant development application processes must be adhered to.

The park is zoned into various visitor use zones, based on its environmental sensitivity, as described in the legend below, and products are applicable to the various use zones accordingly.

LEGEND		
No.	**Visitor use zones**	**Description**
1	**Wilderness / remote**	Wilderness conforms to the legal definition. Pristine natural environment, essentially undeveloped and roadless. Controlled non-motorised access - usually on foot.
2	**Primitive**	Almost completely natural state to be maintained. Development footprints absolute minimum. Controlled access - 4x4s, horse-riding. Small basic overnight facilities.
3	**Quiet**	General natural state to be maintained. Only non-motorised access. Access not specifically controlled. Ablution facilities can be allowed.
4	**Low intensity leisure**	Motorised self-drive with basic facilities. Small - medium sized camps. Infrastructure should be minimised in order to maintain natural state.
5	**High intensity leisure**	High density tourism development node with concentrated human activities. High volume roads, high density camps with modern amenities.
6	**Buffer / adjoining**	Land in the delineated buffer zone or adjacent to national parks. Products indicated are those with which SANParks is comfortable to be associated with as long as it does not conflict with the LUMS.

For the purposes of this management plan, the focus of the framework listed in Table 22 is to indicate which products already exist, which new products may be allowed, and in which visitor use zones these may occur.

Table 22: Tourism product development framework for the park.

PRODUCT CATEGORY		PRODUCT OR SERVICE	Is product currently AVAILABLE or under development?		Is product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
							Within boundaries of national- / contractual park					Buffer / adjoining
			YES	NO	YES	NO	1	2	3	4	5	6
Over-nigh facilities	Self-catering - limited service (serviced prior to arrival and after departure only)	Accommodation (budget)		√	√					√	√	√
		Accommodation (economy)		√	√			√		√	√	√
		Accommodation (premium) / guest house		√	√			√		√	√	√
		Accommodation backpacking / youth hostels		√	√					√	√	√
		Dormitories / school groups / educational facilities	√		√			√		√	√	√
		Game / bird hide		√		√						√
		Military bunker / fort / gun sites		√		√						√
		Tree houses / platforms		√		√						√
		Fly camp / platform / sleep out		√	√			√		√	√	√
	Self-catering - serviced (serviced daily)	Accommodation (budget)	√		√					√	√	√
		Accommodation (economy)	√		√			√		√	√	√
		Accommodation (premium) / guest house		√	√			√		√	√	√
		Accommodation backpacking / youth hostels		√		√						√
		Dormitories / school groups / educational facilities		√		√						√
		Houseboat (economy)		√		√						√
		Houseboat (premium)		√		√						√
	Camping	Camping (budget facilities) (power / no power)		√	√					√	√	√
		Camping (premium facilities) (power / no power)		√	√					√	√	√

PRODUCT CATEGORY		PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
							Within boundaries of national-/ contractual park					Buffer / adjoining
			YES	NO	YES	NO	1	2	3	4	5	6
Over-nigh facilities	Camping	Camping bush rustic (protected) (budget facilities)		√		√						√
		Camping bush rustic (protected) (premium facilities / self-sufficient)		√		√						√
		Camping bush rustic (unprotected) (self-sufficient)		√		√						√
	Full service (generally some/all meals and activities included)	Game / bush / safari / boutique lodge - under 20 beds		√	√			√		√	√	√
		Game / bush / safari / boutique lodge - 20 beds plus		√		√						√
		Conference lodge / hotel - 21 - 50 beds		√		√						√
		Conference lodge / hotel - 50 beds plus		√		√						√
		Houseboat		√		√						√
		Luxury tented safaris		√	√			√		√	√	√
		Remote camp / fly camp / platform / sleep Out		√	√			√		√	√	√
		Overnight train rides		√		√						√
	Additional services	Cook and guide provided		√	√			√		√	√	√
		Cook, guide and OSV provided		√	√			√		√	√	√
		Meal packages e.g. breakfast, half board or full board		√	√			√		√	√	√
Leisure / recreational		4x4 Eco-trails (multi-day, self-drive, basic facilities)		√	√			√		√	√	√
		4x4 Eco-trails (multi-day, self-drive, no facilities)		√	√			√		√	√	√
		4x4 trails (full-day / half-day / guided or unguided)		√	√			√		√	√	√
		Abseiling / rappelling		√	√		√	√	√	√	√	√
		Animal interaction activities (limited)		√		√						√
		Animal tracking activities		√		√						√
		Archery		√		√						√
		Base jumping		√	√		√	√	√			√
		Bird watching	√		√		√	√	√	√	√	√
		Boat cruises		√		√						√
		Boat cruise - birding		√		√						√
		Boat cruises - sunset		√		√						√
		Botanical sightseeing	√		√		√	√	√	√	√	√
		Bouldering		√	√		√	√	√	√	√	√
		Bungee / bungee jumping		√		√						√
		Cableway		√		√						√
		Canoe trails (Varying facilities)		√	√		√	√	√	√	√	√
		Canoeing		√	√		√	√	√	√	√	√
		Canopy tour (acrobranch)		√		√						√
		Canopy tour (boardwalk)		√		√						√
		Canopy tour / flying fox (tree top / cliff to cliff)		√		√						√
		Caving / spelunking/ potholing		√		√						√
		Clay-pigeon / clay target shooting		√		√						√
		Coasteering	√		√		√	√	√	√	√	√
		Cruise - birding		√		√						√
		Cycling	√		√		√	√	√	√	√	√
		Cycling (downhill cycling)		√		√						√
		Cycling (BMX track area)		√		√						√
		Diving (scuba)	√		√		√	√	√			√
		Dog walking		√		√						√
		Elephant backed rides / safaris		√		√						√

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
						Within boundaries of national-/ contractual park					Buffer / adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Leisure / recreational	Fishing (catch and release)	√		√		√	√	√			√
	Funicular		√		√						√
	Game drives - night drive		√	√			√		√	√	√
	Game drives - night drive (Night Vision aided)		√	√			√		√	√	√
	Game drives - premium		√	√			√		√	√	√
	Game drives - standard		√	√			√		√	√	√
	Game drives - UA		√	√			√		√	√	√
	Games facilities (e.g. table tennis, pool, etc.)		√	√					√	√	√
	Geocaching	√		√		√	√	√	√	√	√
	Golf		√		√						√
	Golf club membership		√		√						√
	Green hunting / darting safaris		√		√						√
	Hang gliding		√	√		√	√	√			√
	Hiking	√		√		√	√	√	√	√	√
	Hiking trails - Wilderness (full service)		√		√						√
	Hiking trails - Wilderness (no facilities) (backpack)		√	√		√	√				√
	Hiking trails (budget)	√		√		√	√	√	√	√	√
	Hiking trails (premium)		√	√		√	√	√	√	√	√
	Horse riding		√	√		√	√	√	√		√
	Horse riding trails (varying facilities)		√	√		√	√	√	√		√
	Jet skiing		√		√						√
	Jogging / running	√		√		√	√	√	√	√	√
	Kayaking / paddling	√		√		√	√	√	√	√	√
	Kayaking / paddling trails		√	√		√	√	√	√	√	√
	Kitesurfing / kiteboarding / fly surfing		√	√		√	√	√	√	√	√
	Kloofing (guided)		√		√						√
	Mini golf / putt-putt		√		√						√
	Model aircraft flying		√		√						√
	Motorcycle trails (varying facilities)		√		√						√
	Motorcycling	√		√			√	√	√	√	√
	Motorcycling - off-road		√		√						√
	Motorised boating		√		√						√
	Mountain bike trails (varying facilities)		√	√		√	√	√	√	√	√
	Mountain biking		√	√		√	√	√	√	√	√
	Mountain biking - unicycling		√	√		√	√	√	√	√	√
	Mountaineering		√	√		√	√	√	√	√	√
	Paddle boards		√	√		√	√	√	√	√	√
	Paddle boats		√	√		√	√	√	√	√	√
	Paddle skiing		√	√		√	√	√	√	√	√
	Paragliding		√		√						√
	Parasailing		√		√						√
	Park and ride		√	√			√		√	√	√
	Photography	√		√		√	√	√	√	√	√
	Picnicking (basic facilities)	√		√			√		√	√	√
	Picnicking (full facilities)		√	√			√		√	√	√

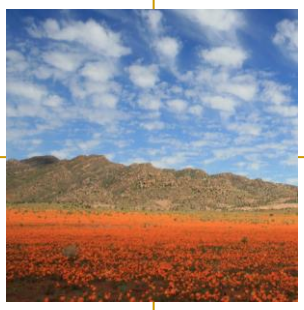
PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
						Within boundaries of national-/ contractual park					Buffer / adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Leisure / recreational	Picnicking (no facilities)		√	√		√	√	√	√	√	√
	Quad biking		√		√						√
	Railway		√		√						√
	Rap jumping (deepelling)		√		√						√
	River rafting		√		√						√
	Rock climbing		√	√		√	√	√	√	√	√
	Sailing		√	√		√	√	√	√	√	√
	Sandboarding		√		√						√
	Self-drive night drives		√		√						√
	Skate boarding / roller blading		√		√						√
	Skate boarding / roller blading (downhill)		√		√						√
	Skydiving		√		√						√
	Snorkelling	√		√		√	√	√	√	√	√
	Spear fishing		√		√						√
	Speed gliding		√		√						√
	Sports facilities (e.g. tennis, squash, bowls, etc.)		√	√					√	√	√
	Stairway (via ferrata / ironway)		√		√						√
	Stargazing	√		√		√	√	√	√	√	√
	Surf Skiing		√	√			√	√	√	√	√
	Surfing		√	√			√	√	√	√	√
	Swimming	√		√			√	√	√	√	√
	Trail running	√		√		√	√	√	√	√	√
	Trail running (night time)		√	√		√	√	√	√	√	√
	Tubing		√		√						√
	Vessels (cruise boats, yachts, river/paddle boats)		√	√		√	√	√	√	√	√
	Walking	√		√		√	√	√	√	√	√
	Walks - day	√		√		√	√	√	√	√	√
	Walks - night		√	√		√	√	√	√	√	√
	Wildlife / game viewing	√		√		√	√	√	√	√	√
	Wingsuit flying / wingsuiting		√		√						√
Airborne (Implications of CAA)	Drones over national parks		√		√						√
	Flights over national parks		√		√						√
	Helicopter flips		√		√						√
	Hot-air ballooning		√		√						√
	Microlight flying / ultra-light aviation		√		√						√
Interpretive	Archaeology		√	√		√	√	√	√	√	√
	Endangered species breeding centre		√		√						√
	Films - amphitheatre		√	√					√	√	√
	Films - auditorium		√	√					√	√	√
	Interpretive centres		√	√					√	√	√
	Palaeontology		√	√		√	√	√	√	√	√
	Theatre		√		√						√
	Tours - astronomy		√	√		√	√	√	√	√	√
	Tours - birding		√	√		√	√	√	√	√	√
	Tours - botanical		√	√		√	√	√	√	√	√

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
						Within boundaries of national-/ contractual park					Buffer / adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Interpretive	Tours - specialist (fauna and flora)		√	√		√	√	√	√	√	√
	Tours - tree (dendrology)		√	√		√	√	√	√	√	√
	Trail - mobility impaired		√	√				√	√	√	√
	Trails - brail		√	√				√	√	√	√
	Trails - sensory		√	√				√	√	√	√
Cultural / historical	Cleansing ceremonies (including baptism)		√	√		√	√		√	√	√
	Cultural dances		√	√		√	√		√	√	√
	Cultural points of interest	√		√		√	√	√	√	√	√
	Cultural village		√		√						√
	Gold panning (recreational)		√		√						√
	Historical points of interest	√		√		√	√	√	√	√	√
	Mountain worship		√	√		√	√		√	√	√
	Museums	√		√			√		√	√	√
	Religious facilities (prayer or otherwise)		√	√					√	√	√
	Storytelling		√	√		√	√	√	√	√	√
	Tours - battlefield / military		√		√						√
	Tours - cultural		√	√		√	√	√	√	√	√
	Tours - historical	√		√		√	√	√	√	√	√
	Tours - medicinal plants		√		√						√
	Tours - rock art		√	√		√	√	√	√	√	√
	Tours - South African struggle		√	√		√	√	√	√	√	√
Medical / health	Health spa		√	√						√	√
	Gymnasium		√	√						√	√
	Wellness centres		√	√						√	√
Developmental	Astronomy training		√	√		√	√		√	√	√
	Birding course		√	√		√	√		√	√	√
	Botany course		√	√		√	√		√	√	√
	Bush homeopathy		√		√						√
	Bush skills		√	√			√		√	√	√
	Field guide training		√	√			√		√	√	√
	Firearm skills		√		√						√
	First aid		√	√					√	√	√
	Game capture training		√	√			√		√	√	√
	Nature / wildlife photography course		√	√			√		√	√	√
	Nature based hospitality training		√	√			√		√	√	√
	Off-road driving skills training		√		√						√
	Orienteering		√	√			√		√	√	√
	Rope skills course		√	√			√		√	√	√
	Scuba diving skills		√	√			√		√	√	√
	Specialised training / courses		√	√			√		√	√	√
	Survey and mapping skills		√	√			√		√	√	√
	Survival skills		√	√			√		√	√	√
	Tracking skills		√	√			√		√	√	√
	Training - ranger		√	√			√		√	√	√
	Volunteering		√	√			√		√	√	√

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
						Within boundaries of national-/ contractual park					Buffer / adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Developmental	Wilderness search and rescue		√		√						√
Children / youth	Babysitting		√		√						√
	Child care centres in camps		√		√						√
	Children activity centres (jungle gym)		√		√						√
	Children encounter zone		√		√						√
	Children game drives		√		√						√
	Children holiday programmes in camps		√		√						√
	Children trails	√			√						√
	Learner programmes	√		√		√	√	√	√	√	√
	Paint ball		√		√						√
	Youth camps (KampKwena, "summer" camps)		√	√			√		√	√	√
Business tourism and events	Events - any	√		√			√		√	√	√
	Events - adventure	√		√			√		√	√	√
	Festivals		√	√			√		√	√	√
	Fundraising events e.g. WWF-SA Swim for Nature	√		√			√		√	√	√
	Lapas / bomas (to rent)		√	√					√	√	√
	MICE (Meetings, Incentives, Conventions and Exhibitions)		√		√						√
	Musical concerts		√	√			√		√	√	√
	Photographic shoots and filming	√		√			√		√	√	√
	Product launches	√		√			√		√	√	√
	Races / competitions - marathons / trail running		√	√			√		√	√	√
	Races / competitions - mountain-biking		√	√			√		√	√	√
	Races / competitions - other		√	√			√		√	√	√
	Races / competitions - adventure / expedition racing		√	√			√		√	√	√
	Scientific conferences		√		√						√
	Team building		√	√			√		√	√	√
	Weddings		√		√						√
Retail / services	Apparel outlets		√	√					√	√	√
	Airport / aerodrome / airstrip		√		√						√
	Banking - Bank or ATM		√	√					√	√	√
	Rental - bicycle		√	√					√	√	√
	Camping equipment rental		√	√					√	√	√
	Rental - car		√		√						√
	Car wash		√		√						√
	Casinos		√		√						√
	Clinics / Doctor/ first aid		√		√				√	√	√
	Outlets - community curios		√	√					√	√	√
	Outlets - curios		√	√					√	√	√
	Essential commodities in camps (ice, wood, etc.)		√	√					√	√	√
	Fast moving consumer goods (FMCG) outlets		√	√					√	√	√
	Fuel stations		√	√					√	√	√
	Gas equipment hire		√	√					√	√	√
	Hop-on guides		√	√			√	√	√	√	√
	Internet café / Wi-Fi hotspot		√	√					√	√	√

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under development?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
						Within boundaries of national-/ contractual park					Buffer / adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Retail / services	Laundromats and laundry service		√	√					√	√	√
	Pharmacies		√		√						√
	Photo booth		√	√					√	√	√
	Pop-up retail		√	√					√	√	√
	Postal services		√		√						√
	Proshop		√		√						√
	Road emergency services		√		√						√
	Shuttle services		√	√					√	√	√
	Vending machines		√	√					√	√	√
	Vendors		√	√					√	√	√
	Wi-Fi facilities (free service)		√	√					√	√	√
Food and beverage	Bars		√		√						√
	Boma / lapa meals		√	√					√	√	√
	Bush meals		√	√					√	√	√
	Coffee shops / tea rooms		√	√					√	√	√
	Fast-food outlets		√	√					√	√	√
	Game drives picnic baskets		√	√					√	√	√
	Local cuisine		√	√					√	√	√
	MICE catering		√		√						√
	Picnic baskets		√	√					√	√	√
	Pop-up food, retail		√	√					√	√	√
	Restaurants		√	√					√	√	√
	Room service		√		√						√
	Sports bar		√		√						√
Non tourism related activities											
Mining/ Exploratory	Prospecting		√		√						
	Mining		√		√						
Consumptive / Subsistence	Fishing (non-release)	√		√			√		√	√	√
	Hunting (lethal)		√		√						√
	Sustainable harvesting of resources	√		√			√		√	√	√

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Appendix 6: Internal rules

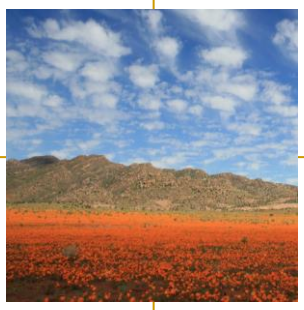
The following internal rules are applicable to all visitors in terms of Section 52 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).

General

- Please make your payment on arrival and ensure you have a valid permit;
- No pets, domestic or otherwise will be allowed, except for guide dogs and only with pre-approval from Park Management and with the necessary permits;
- Littering is an offence. Deposit all litter in receptacles for that purpose. We ask guests to respect the environment and keep all sites clean;
- Please consume alcohol responsibly and be respectful towards other visitors in the park;
- All firearms and ammunition must be declared upon arrival;
- No loud music or excessive noise, please consider others. No music between 21:00 and 08:00;
- It is expected of all guests to conduct themselves in an orderly and courteous manner;
- No person is allowed to gather firewood. Guests can make fire at designated braai areas only;
- Please report any fires or emergencies without delay;
- Removal or possession of plants, rocks, wildlife or any natural or cultural items is not permitted;
- Visitors may not advertise or offer any goods for sale;
- Visitors may not undertake any unauthorised activity or commercial activity;
- Visitors may not damage or deface any object with names, letters, figures or symbols;
- The feeding or intentional disturbance of any wildlife is strictly forbidden;
- Guests must declare all plants, succulents, etc. when entering the park;
- Visitors are not allowed to walk into the flowers. Please make use of the designated hiking trails and stick to them;
- Namaqua is a water scarce environment. Please use water responsibly and sparingly, and report any leaking or dripping from taps, pipes, etc.;
- Accept that all water is unsafe for human consumption;
- Gate times must be strictly adhered to. No visitors, excluding guests checking in, are allowed to enter the Groenrivier Coastal section after 15:30;
- Please take note of any smoking regulations in the park and adhere to these;
- Information on activities is available at reception;
- The park and/or its facilities are available for use and enjoyment at own risk. SANParks will not be held liable for loss or damage to personal property;
- The maximum speed limit on all park roads is 40 km/h;
- Remain on the designated visitor roads. Do not drive off the existing roads;
- Only valid driver's licence holders may drive in the park.
- Unmanned aircraft/drones are strictly prohibited in the park;
- Take caution when visiting the rest camp and campsites for snakes, scorpions and other dangerous fauna;
- Camping is only permitted in designated areas;
- Travelling in the park may only occur between sunrise and sunset;
- All roads in and around the park are gravel and a 4x4 vehicle with high clearance is highly recommended; and
- Only the road from Kamieskroon to Skilpad, the circular drive and the road to the chalets are accessible with a normal sedan.

Accommodation (overnight visitors)

- All accommodation must be vacated not later than 10:00. Check-in time is from 14:00;
- Noise restriction: no noise whatsoever between 21:30 and 06:00;
- Please check that the inventory is complete before departure and report any damages and breakages to reception;
- All damages or breakages of fittings, utensils, crockery or cutlery will be for your own expense;
- All equipment is strictly for use within the unit and may not at any time be removed from the unit or changed between units;
- SANParks will not be liable for loss or damage to personal property; and
- Management reserves the right to inspect the accommodation before your departure.



Appendix 7: Maps

Map 1: Regional context

Map 2: Physical features

Map 3: Land tenure and park expansion

Map 4: Zonation - north

Map 5: Zonation - south

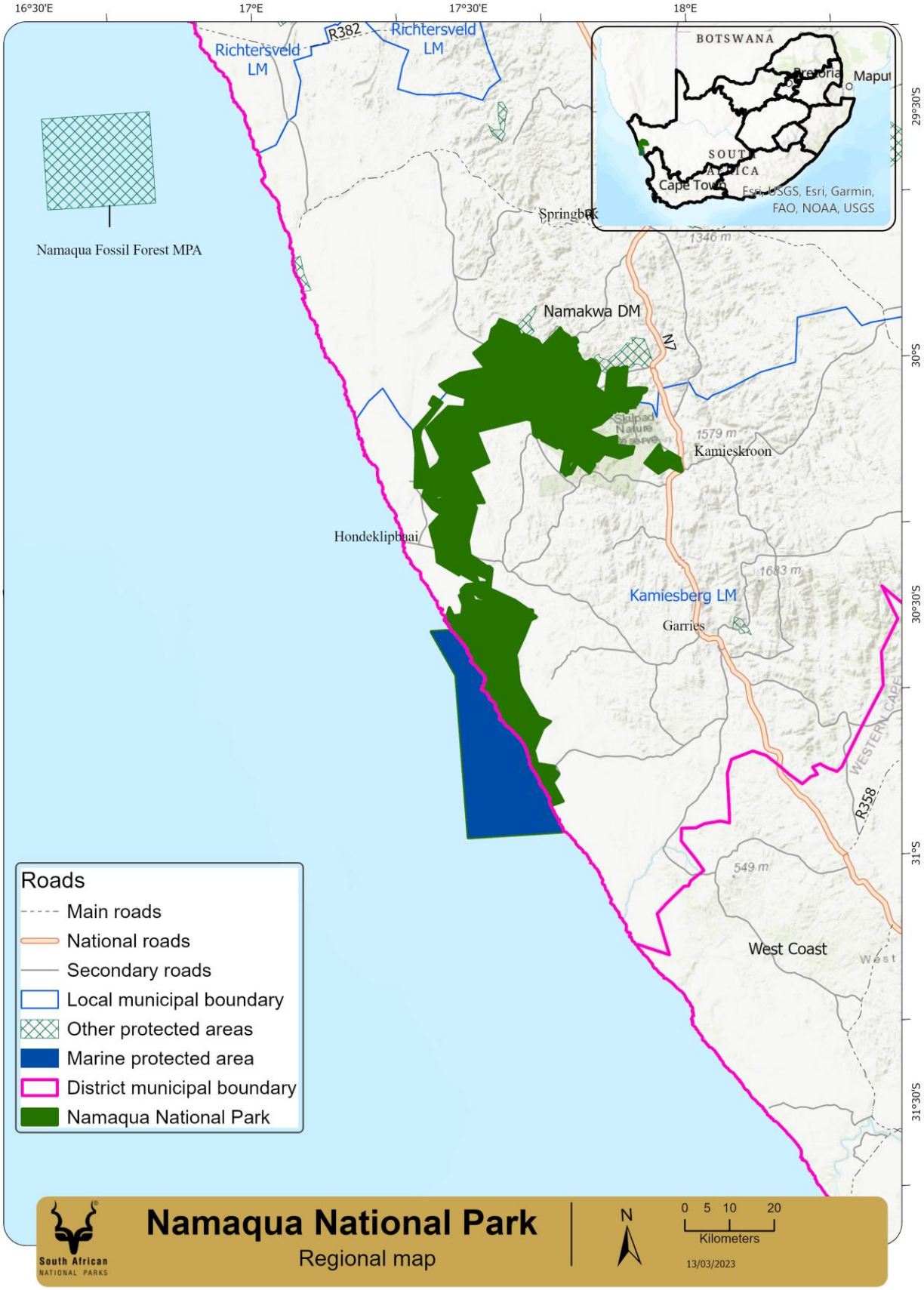
Map 6: Zonation with sensitivity value - north

Map 7: Zonation with sensitivity value - south

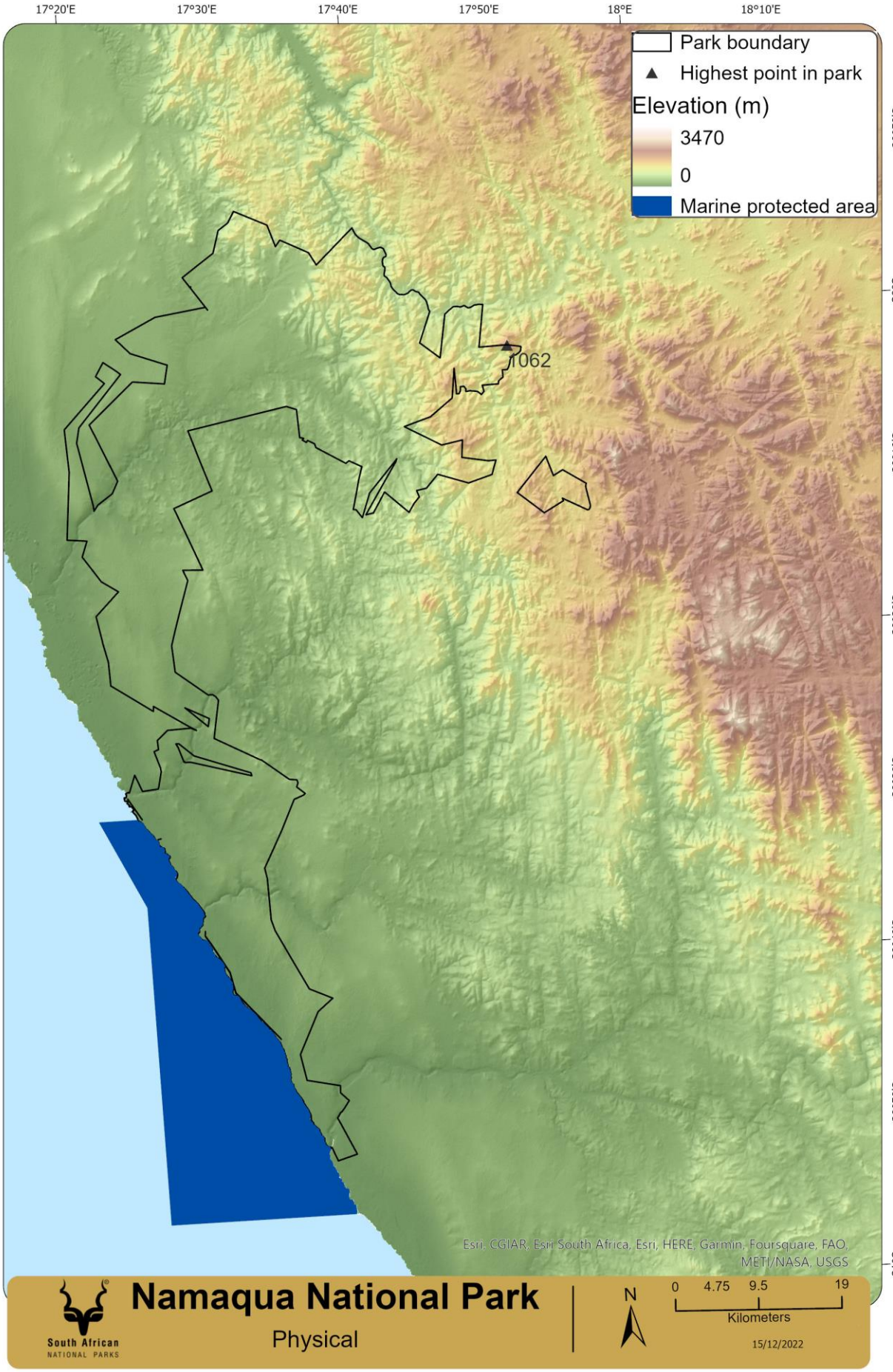
Map 8: Buffer areas

Map 9: Infrastructure

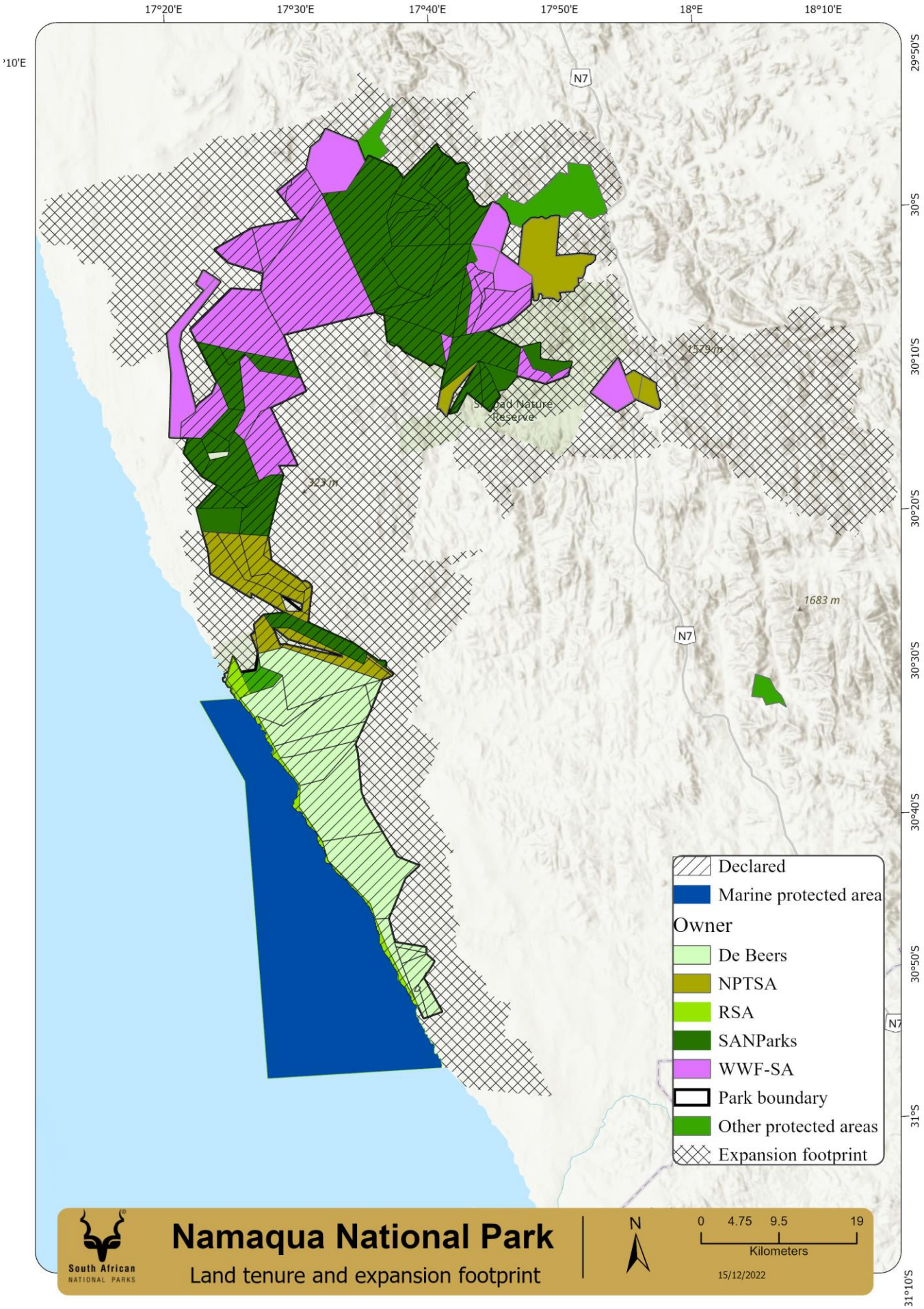
Map 10: Vegetation



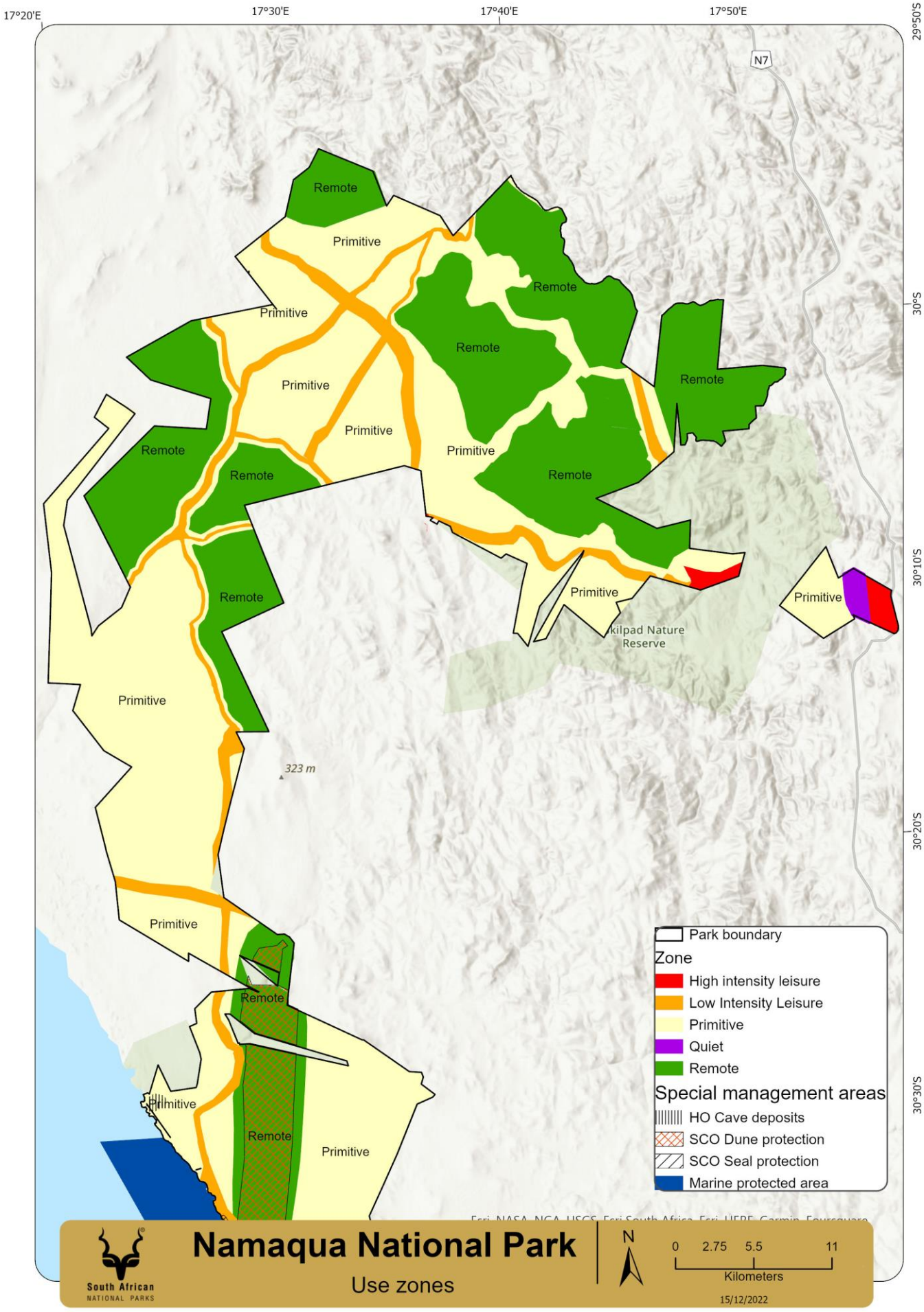
Map 1: Regional context



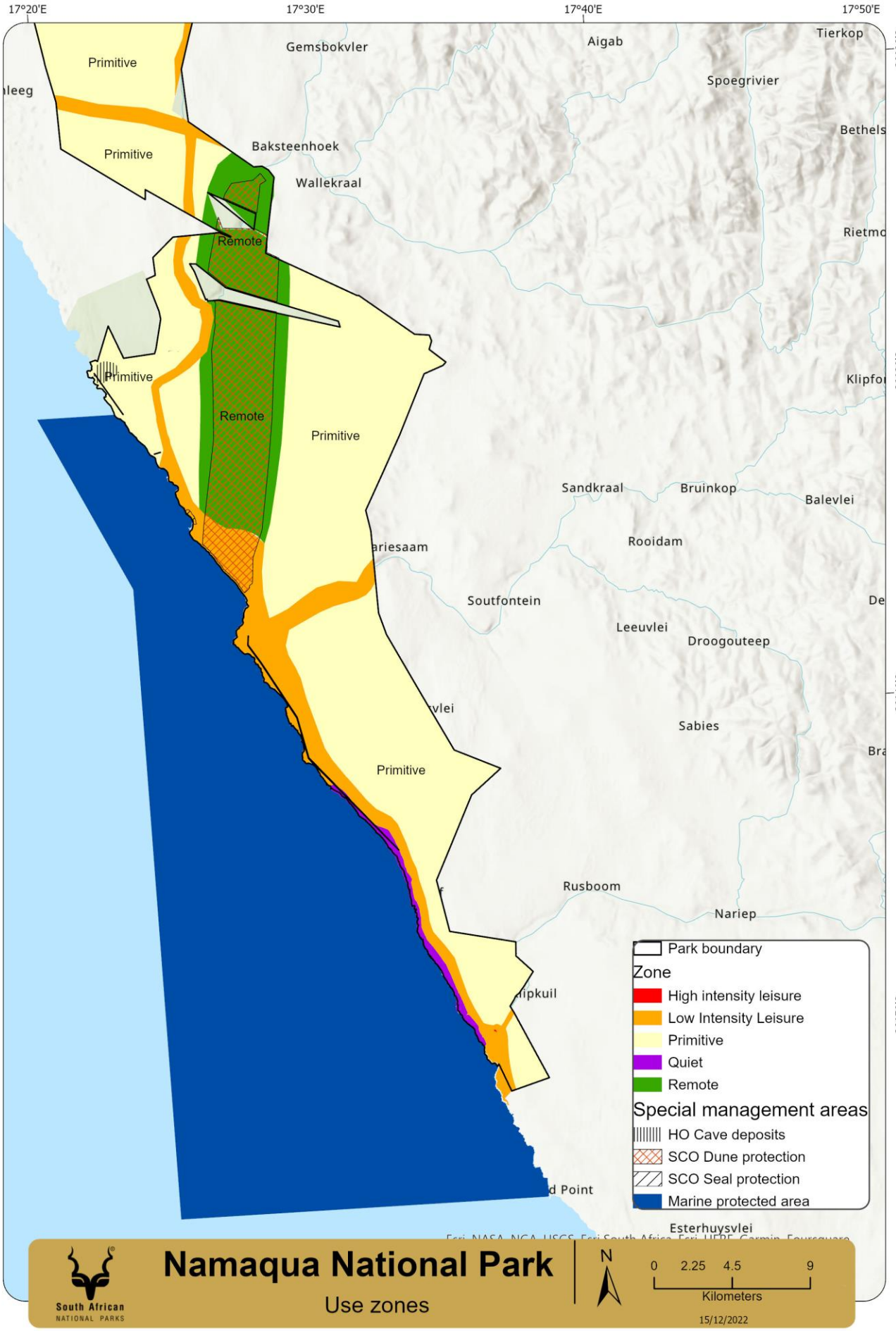
Map 2: Physical features



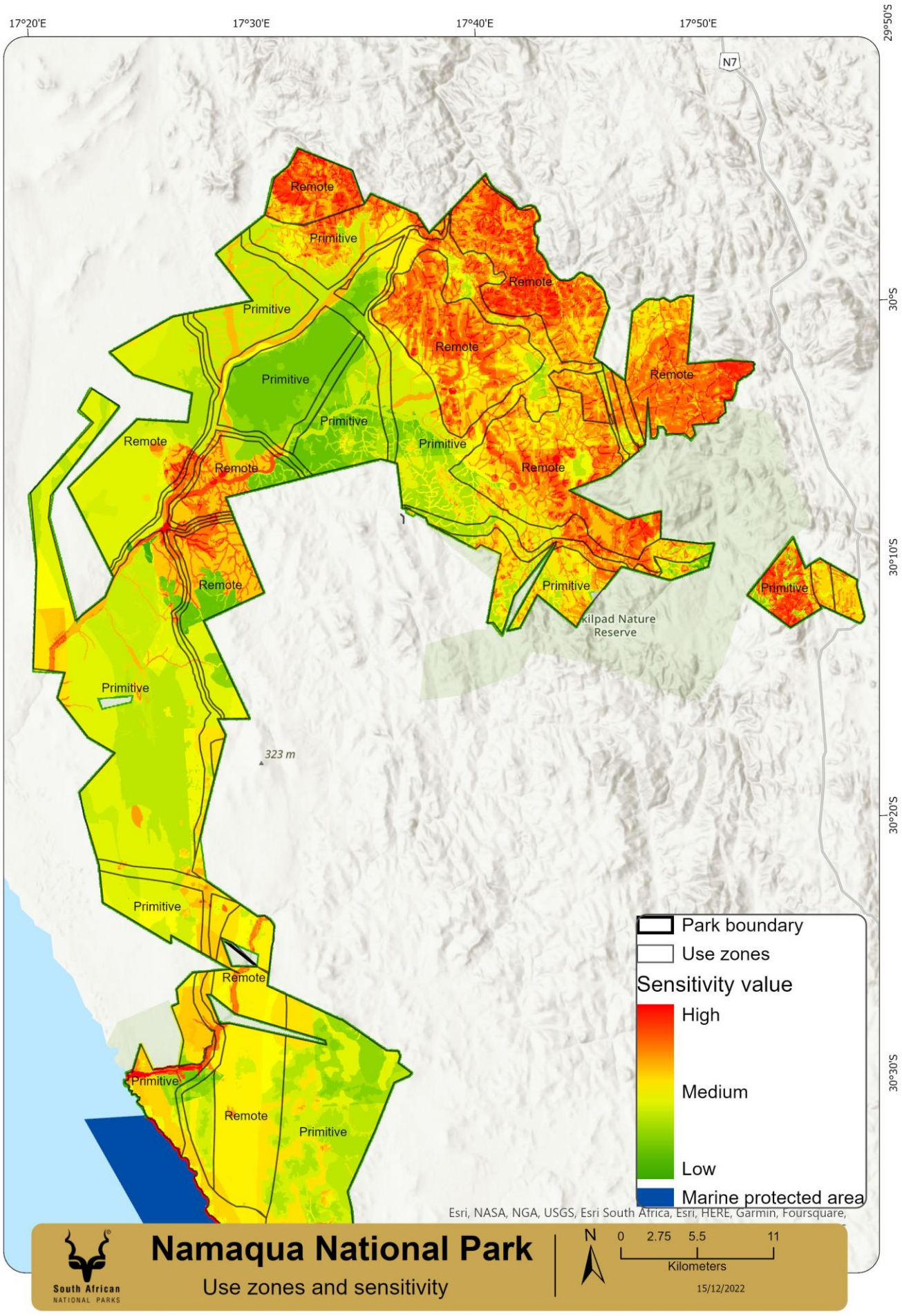
Map 3: Land tenure and park expansion



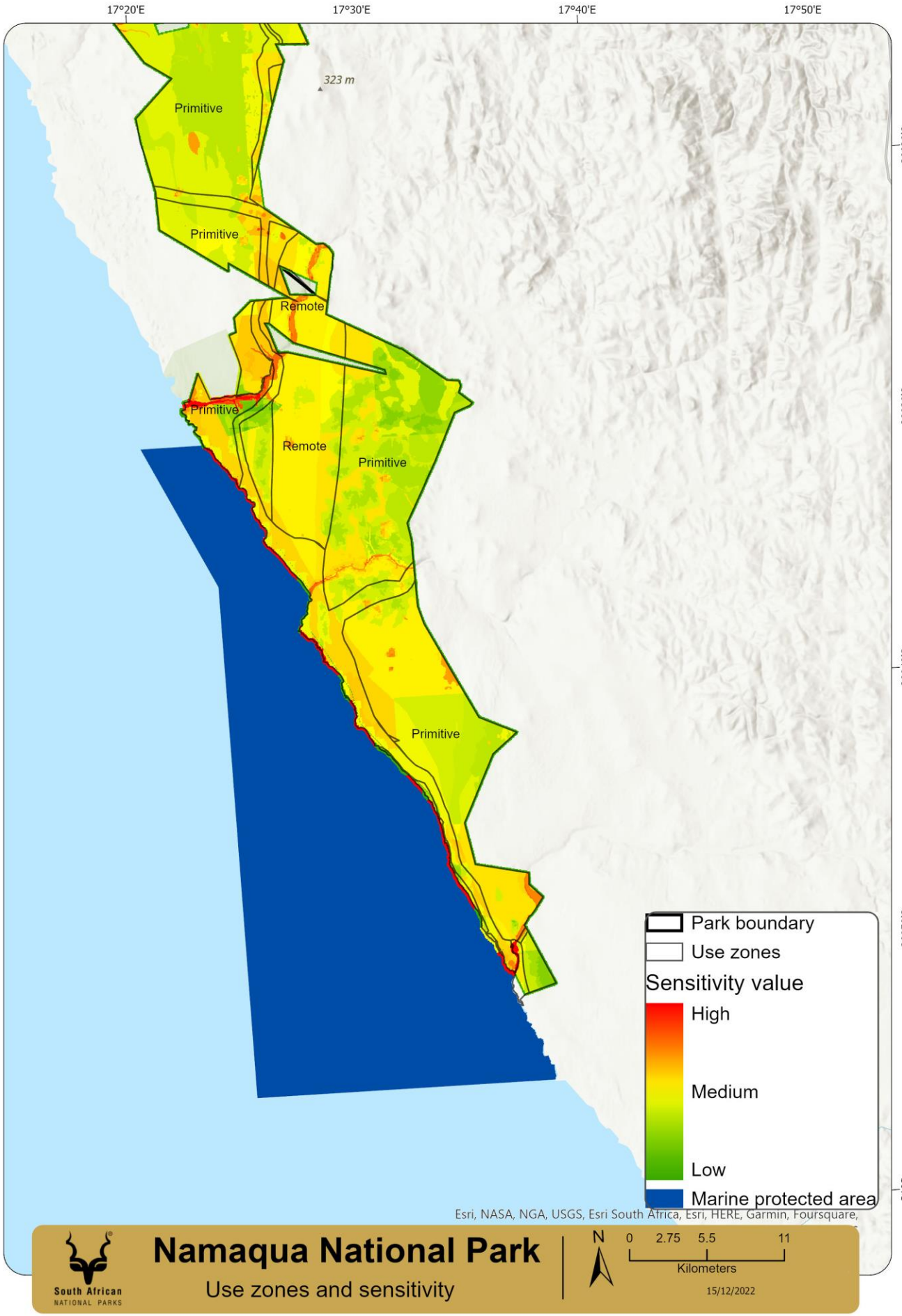
Map 4: Zonation - north



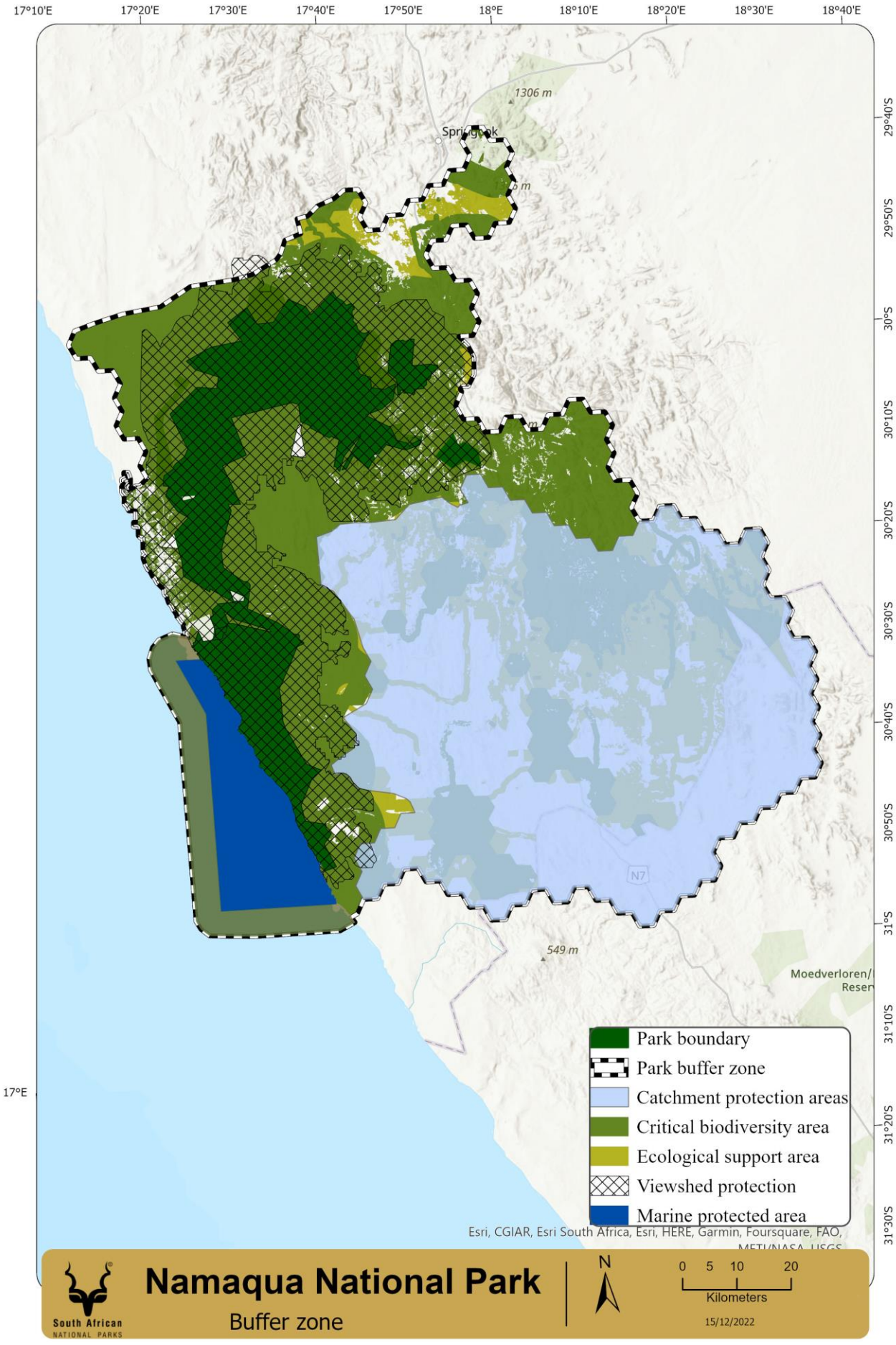
Map 5: Zonation – south



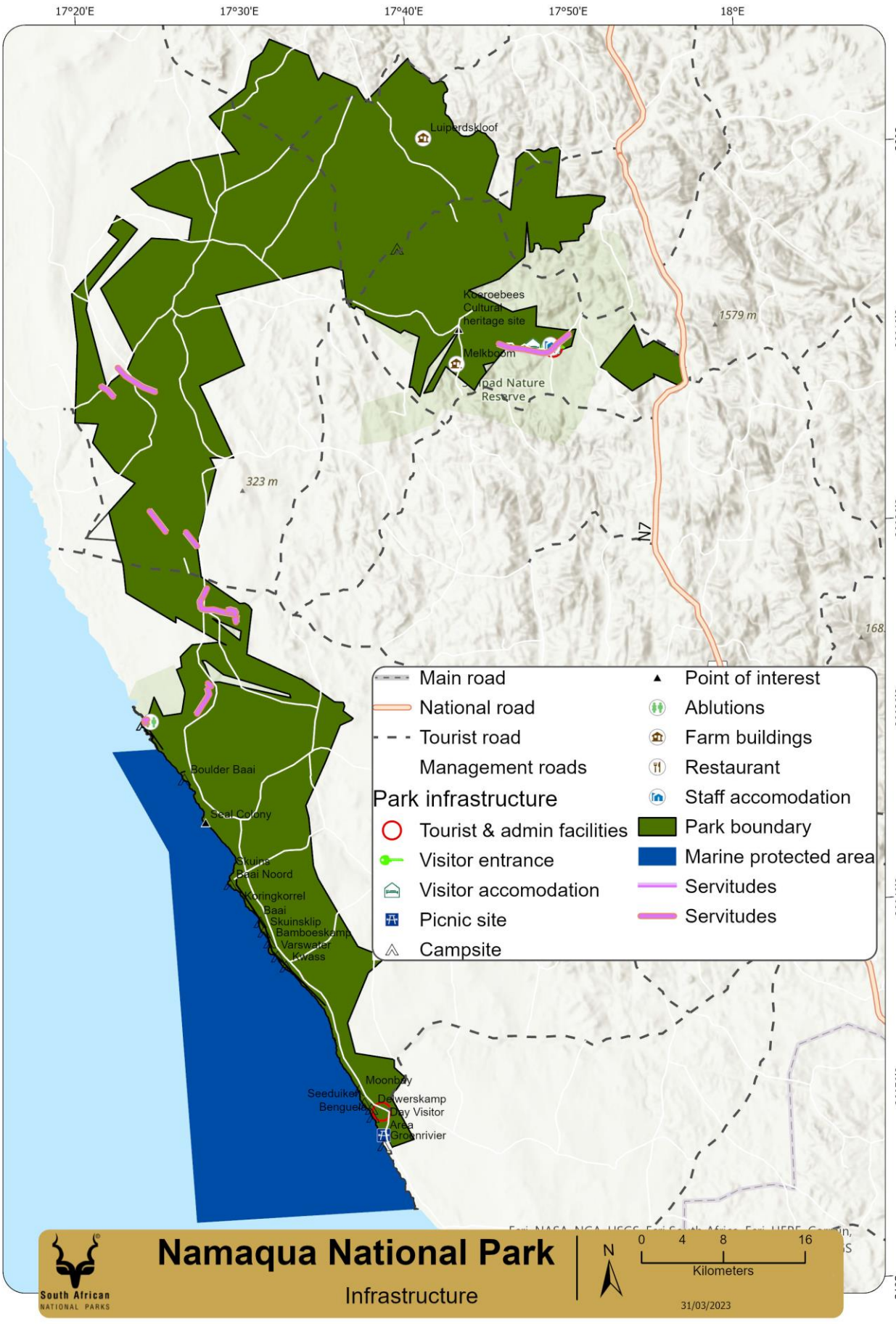
Map 6: Zonation with sensitivity value - north



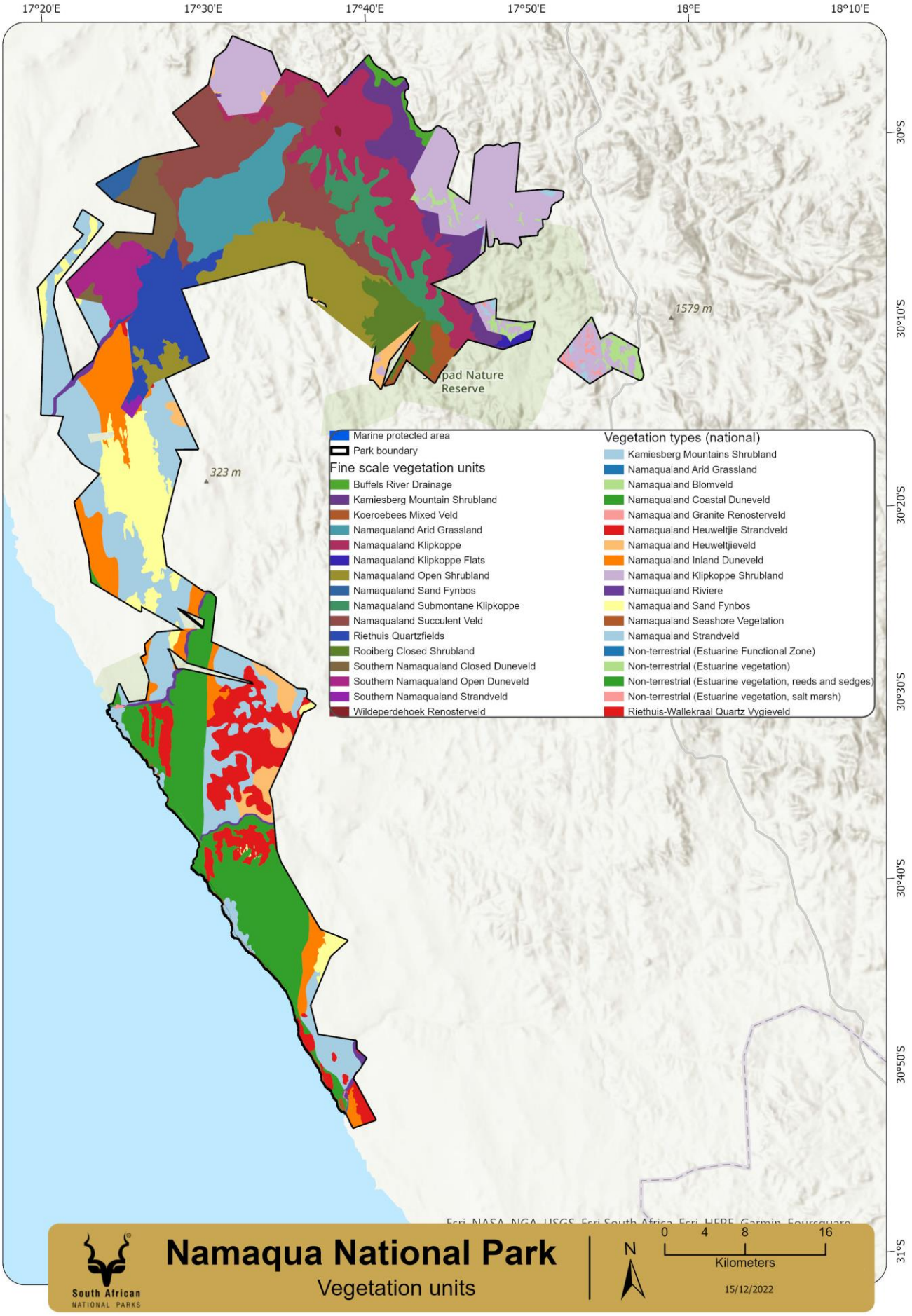
Map 7: Zonation with sensitivity value - south



Map 8: Buffer areas



Map 9: Infrastructure



Map 10: Vegetation