



Addo Elephant National Park

Park Management Plan

**For the period
2015-2025**



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Section 1: Authorisation

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

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Glossary

Aircraft	Means an airborne craft of any type whatsoever, whether self-propelled or not, and includes hovercraft and drones.
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.
Dynamic pricing	Dynamic pricing, also called real-time pricing, is a pricing strategy in which businesses set highly flexible prices for products or services based on current market demands. The goal of dynamic pricing is to allow a company that sells goods or services over the Internet to adjust prices on the fly in response to market demands.
Endemism	Confined to a specific place or area.
Extra-limital	Those species occurring outside their historical distribution.
Feral animal	A feral animal is a domestic animal that has returned to the wild. It is distinguished from a stray animal e.g. a house cat, which is a pet that has been lost or abandoned, while feral animals are born in the wild.
Fecundity	Is the actual reproductive rate of an organism or population.
Gross geographic product	Gross geographic product provides a measure of the total and sectorial economic activity happening on an annual basis within the local municipalities of South Africa.
Flight corridor	Means a route with horizontal and vertical limits that allows aircraft access over or through the airspace above a National Park in terms of s47 (3A) of NEM:PAA.
Herpetofauna	Reptiles and amphibians.
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.
Necropsy	An autopsy performed on an animal.
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.
Product packaging	A packaged product consists of a variety of different tourism products that are combined in order to generate a sale of more than one product or activity together for financial and / or marketing benefit or may result in a package tour, which combines a variety of products including transport, accommodation and activities at an inclusive price.

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. Or, it is a tourism or leisure activity implementing a practice that is respectful of natural and cultural environment and which contributes, in an ethical manner, to local economic development.
Servitude	A servitude is a registered right that an entity / person has over the immovable property of another. It allows the holder of the servitude to do something with 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 NEM:BA.
Vision	A word 'picture' of the future, or what the stakeholders see as the future for the park.
Vital attributes	Unique or special characteristics of the park, the determinants of which management should strive to protect, and the threats towards which management should strive to minimise.
V-STEEP	The values (social, technological, economic, ecological and political), used to understand, with stakeholders, the social, economic and ecological context of the system to be managed, and the principles / values that guide management. These are used to develop a broadly acceptable vision for the future.



Acronyms and abbreviations

1	AENP	Addo Elephant National Park
2	AMSL	Above mean sea level
3	AGL	Above ground level
4	APO	Annual plan of operations
5	BSP	Biodiversity social projects
6	CARA	Conservation of Agricultural Resources Act (Act 43 Of 1983)
7	CBA	Critical biodiversity area
8	CDF	Conservation development framework
9	CPF	Coordinated policy framework
10	CRMF	Corporate risk management framework
11	CSD	Conservation services division
12	DAFF	Department of Agriculture, Forest and Fisheries
13	DEA	Department of Environment Affairs
14	DWS	Department of Water and Sanitation
15	ECI	Environmental crime investigation
16	EE	Environmental Education
17	EIA	Environmental Impact Assessment
18	EDRRP	Early Detection and Rapid Repose Programme
19	EPWP	Expanded Public Works Programme
20	FEPA	Freshwater ecosystem priority area
21	GG	Government Gazette
22	GIS	Geographic information system
23	GN	Government notice
24	HIL	High intensity leisure
25	IDP	Integrated development plan
26	IDZ	Industrial development zone
27	KPA	Key performance area
28	LIL	Low intensity leisure
29	MPA	Marine protected area
30	MSA	Middle Stone Age
31	MICE	Meetings, incentives, conferences and events
32	MLRA	Marine Living Resources Act (Act no 18 of 1998)
33	NBSAP	National biodiversity strategy and action plan
34	NEMA	National Environmental Management Act (Act no 107 of 1998)
35	NEM:BA	National Environmental Management: Biodiversity Act (Act no 10 of 2004)
36	NEM:ICMA	National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)
37	NEM:PAA	National Environmental Management: Protected Areas Act (Act no 57 of 2003)
38	NHRA	National Heritage Resources Act (Act no 25 of 1999)
39	NPT	National Parks Trust of South Africa
40	OHS	Occupational health and safety
41	PM	Park management
42	SAHRA	South African Heritage Resources Agency
43	SAMSA	South African Maritime Safety Authority
44	SANBI	South African National Biodiversity Institute
45	SANCCOB	Southern African Foundation for the Conservation of Coastal Birds
46	SANParks	South African National Parks
47	SAPS	South African Police Service
48	SDF	Spatial development framework
49	SHR's	SANParks Honorary Rangers

50	SMF	Science management forum
51	SMO	Special management overlay
52	SMME	Small, medium and micro-sized enterprises
53	SPOT5	Satellite Pour l'Observation de la Terre
54	SRIB	Sundays River Irrigation Board
55	SSC	Species of special concern
56	VWS	Veterinary wildlife services
57	WWF-SA	Worldwide Fund for Nature South Africa



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Introduction

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

This first review of the management plan builds on the foundation of the first plan and addresses its inadequacies. The layout of the plan follows the format provided in the Guidelines drawn up by the DEA (Cowan and Mpongoma 2010) while also incorporating the adaptive planning process adopted by SANParks. Local municipalities, the district municipality and other organs of state as well as other stakeholders were consulted as required (Appendix 3). Relevant aspects of local authority plans were considered in the compilation of the plan.

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

This management plan will come into effect following the approval by the Minister in terms of sections 39 and 41 of NEM:PAA on a date specified by the Minister and is intended for a timeframe of 10 years after commencement unless it is replaced earlier by a newly approved plan. SANParks will review this plan no later than ten years after the commencement date.

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

- **Section 1** provides for the required authorisation;
 - **Section 2** provides a record of the legal status of the park, descriptions of its context as well as relevant local, regional, national and international agreements;
 - **Section 3** sets out the framework of legislation, national policies, SANParks structures, policies, guidelines, practices regarding management;
 - **Section 4** describes the consultation process followed in the preparation of this plan;
 - **Section 5** presents the vision, purpose, values, principles and attributes considered in developing a desired state for the park and provides the high level objectives as basis for the management programmes contained in Section 10 of the plan;
 - **Section 6** outlines the zoning plan;
 - **Section 7** describes access 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, co-management areas, legislation and policies.



Section 2: Legal status

2.1 Name of the area

Addo Elephant National Park was initially proclaimed in 1931 (Government Gazette No 243 dated 3 July 1931). A full list of declarations is given in Appendix 1.

2.2 Location

The park is situated in the Eastern Cape Province, with the administrative office of the park about 75 km north of Port Elizabeth (Appendix 6, Map 1). The park stretches from the semi-arid plains around Darlington Dam, south and east over the Zuurberg Mountain range and into the Sundays River Valley. From here -although occasionally interrupted by state and private land- the park extends south to the Sundays River mouth and then east along the coast to the Bushman's River mouth. Included are the Bird and St Croix Islands group in Algoa Bay.

2.3 History of establishment

The park was initially proclaimed in 1931. Its sole purpose then was to protect the Eastern Cape's last eleven remaining elephants. The saving of these elephants has been the precursor to further conservation developments in the region (Hall-Martin 1982). Management in the early years of the park was made difficult by the fact that no elephant-proof fence surrounded it. Farmers and elephants continued to clash until, in the 1950's, Graham Armstrong invented an elephant-proof fence (Pringle 1982) so effective that it is still used around parts of the park today. The first official tourists drove through the park in the late 1970's.

The Zuurberg National Park was proclaimed in 1985 with the transfer of Zuurberg Forest Reserve, initially proclaimed in 1869, with the intention of conserving a representative sample of the grassy Fynbos and Afro-Montane forest patches characteristic of the Zuurberg Mountains. The Zuurberg National Park was later deproclaimed and included into AENP in 1995. As the park expanded, it included the provincial Woody Cape Nature Reserve and Alexandria State Forest in 2001, and in 2005 incorporated the St Croix Island Reserve and the four Island Provincial Nature Reserves of the Bird Island Group (the latter are included in the Bird Island MPA). Due to this expansion, to the park conserves a representative sample of the Eastern Cape's unique mix of biodiversity, ranging from the marine areas and representatives of five terrestrial biomes (Thicket, Forests, Fynbos, Nama-Karoo, Grassland) and the azonal wetlands in a landscape diverse environment with offshore islands, coastal dunes, mountains and arid plains.

2.4 Contractual agreements

Contractual park inclusions were largely pioneered in AENP. They were important in that they included biologically, ecologically and logistically important land for the park that the state did not have to acquire. The contractual arrangements allowed SANParks to include such land in exchange for primarily tourism benefits. There are four such contractual agreements with private land owners, referred to as the River Bend, Kuzuko and Intsomi agreements. These 50, 99 and 100 year-long agreements are with Apprised Agriculture (Proprietary) Limited, San Miguel Fruits South Africa PTY Ltd, Inqo Properties (Proprietary) Limited and VK Fick Family Trust, respectively (Table 1). In addition, other properties acquired by Worldwide Fund for Nature South Africa (WWF-SA) and the National Parks Trust of South Africa (NTP) are listed as contractual lands, as per their notarial agreements, they are fully managed by SANParks. Table 1 below give a summary of the privately owned land that was contractually included into the park.

Table 1. Private land included, by declaration, into Addo Elephant National Park.

Title deed	Farm name	Portion No	Extent (Ha)	Owner	GG no	Declaration date	Period
T47491/1999	Coerney 83	3	154.16	Apprised Agriculture PTY Ltd		Pending	50 Years
T47491/1999	Wolwekop 82	6	75.37			Pending	
T60969/1998	Pepper Grove 82	3	251.4			Pending	
T60182/2011	Wolwekop 82	1	482.40	San Miguel Fruits South Africa PTY Ltd		Pending	50 Years
T60181/2011	Wolwekop 82	0 (east of R335)	437.62			Pending	
T59481/2000	Aloe Kop 276	1	954.83	INQO property PTY Ltd		Pending	100 Years
T26920/2002	Aloe Kop 276	5	1039.82			Pending	
T71985/2000	Klipfontein 288	0	727.78			Pending	
T71985/2000	Klipfontein 288	1	594.71			Pending	
T71985/2001	Klipfontein 288	2	738.10			Pending	
T67741/2000	Crown Hill 406	0	2222.85			Pending	
T60180/2000	Olievenfontein 292	0	1109.35			Pending	
T3312/2000	Oliphantsbeen 291	0	1077.53			Pending	
T15181/2000	Oliphantsbeen 291	1	503.43			Pending	
T15182/2000	Oliphantsbeen 291	2	401.45			Pending	
T91525/2000	Oliphantsbeen 291	3	368.55			Pending	
T61062/2004	Farm 428	0 (south of R400)	1813.9			Pending	
T71985/2000	Paddafontein 278	1	148.38			Pending	
102631/2000	Paddafontein 278	5	0.20			Pending	
T7277/2001	Paddafontein 279	0	405.53			Pending	
T55735/2001	Klipfontein 277	4	647.38			Pending	
T61065/2004	Klipfontein 277	11	1346.97			Pending	
T71985/2000	Klein Dirks Kraal 287	1	342.61			Pending	
T7279/2011	Langevlakte	0	1018.01		Intsomi lodge PTY Ltd		
T67544/1999	Dwaas 232	14	77.19	WWF South Africa	28185	2005/10/28	
T67544/1999	Klein Brakpoort 285	0	545.28		28185	2005/10/28	
T93672/1998	Henderson 410	4	3973.35		28185	2005/10/28	
T93672/1998	Deep Drift 18	3	13.04		28185	2005/10/28	
T93672/1998	Break Neck 24	2	129.63		28185	2005/10/28	



Title deed	Farm name	Portion No	Extent (Ha)	Owner	GG	Declaration date	Period
T93672/1998	Bedrog Fontein 23	0	1905.17	WWF South Africa	28185	2005/10/28	
T93672/1998	Wilger Fontein Annexe 25	1	4.89		28185	2005/10/28	
T75544/1998	Alva 156	3	121.30	National Parks Trust	28185	2005/10/28	
T75544/1998	Glenmore 155	0	478.26		28185	2005/10/28	

2.5 Co-management agreements

Based on the contractual land inclusions as mentioned in section 2.4 SANParks has signed co-management agreements with three of the land owners namely, River Bend, Intsomi and Kuzuko. Although each contract has its own unique features and conditions, they are all similar in making a significant contribution to biodiversity conservation in terms of land area and vegetation types, covering some of the management costs themselves and paying gate, and tourism turnover fees. As the financial returns have had mixed results, depending upon the area situated, tourism products offered and the difficult tourism markets of late, a number of the contracting partners have asked for a renegotiation of the terms – which is in progress. In the case of the VK Fick Family Trust, they have sold the land to another party (Intsomi Lodge (Pty) Ltd) who are the registered owner of the land.

2.6 Total area

The park currently covers approximately 178,918 ha of which 124,925 ha are declared while 46,932 ha are in the process of being declared (Appendix 6, Map 3), and 7,022 ha are declared as MPA. The park has reached a size where the park ecosystem is now relatively intact and able to accommodate many ecological processes.

2.7 Highest point

The highest point in the park is 951 m above mean sea level (amsl). The latter is of note as this determines the park's airspace (2,500 feet above the highest point, thus 5,620 feet) above the park (Appendix 6, Map 2). The park ranges in altitude from 0 m to 951 m.

2.8 Municipalities within which the park falls

The park straddles the following local and district authority boundaries:

- Sundays River Local Municipality;
- Ndlambe Local Municipality;
- Ikwezi Local Municipality;
- Blue Crane Local Municipality;
- Nelson Mandela Metropolitan; and
- Cacadu District Municipality.

2.9 Land claims

The Colchester community (consolidated into 61 originally disposed people) laid a land claim with the Commission on Restitution of Land Rights in respect of Erf 880 and 1212, Vetmaakvlakte (also known as farm 312). In 2004, a settlement agreement was signed in terms of section 42D of the Restitution of Land Rights Act, Act No 22 of 1994 as amended.

The settlement agreement states that the community, through its representatives, the Colchester Land and Community Restoration Association (COLCRA) has opted for alternative land and that the then Department of Land Affairs has found such suitable land for them. SANParks though not a signatory to the agreement, has committed itself to including the Colchester community in its Poverty Alleviation Programs. There is currently (2015) no land claim registered against any portion of land within the park. However, South Africa has reopened its land claims process, allowing people who were removed from their land under apartheid rule, but who missed an earlier deadline for lodging claims for compensation, to do so within the next five years. The closing date for lodging land claims is 30 June 2019.

2.10 International, national and provincial listings

There are no relevant international, national or provincial listings.

2.11 Environmental authorisations

No environmental authorisations have been issued during the 2014 / 2015 revision of this plan.

2.12 Biophysical and socio-economic description

2.12.1 Climate

This section of the Eastern Cape is situated on the tension zone between summer, winter and all-year round rainfall. The maritime and continental climates and the altitudinal variation results in a variable type of climate (Aucamp and Tainton 1984). The park straddles the summer rainfall area lying predominantly to the north of the Zuurberg range, and the all-year rainfall areas to the south of the mountain range. The park's climate is best described as warm temperate. One of the major correlates of Thicket vegetation area is the absence of a pronounced seasonal pattern. During drought periods, fogs may be a source of moisture (Vlok *et al.* 2003), as is evidenced by a high incidence of bark and ground lichens. Mean annual rainfall varies from 900 mm in the Alexandria forests, to 450 mm at the park's administrative office complex, to an excess of 600 mm on the Zuurberg Mountains, to 350 mm in the northern Karoo rain-shadow areas. Temperatures vary from 15°C to 45°C in January and 5°C to 18°C in July.

2.12.2 Topography

The park extends over a vast area, approximately 135 km east-west, between the Bushman's and Riet Rivers; and 80km north-south, from Karoo Basin to the Indian Ocean, traversing a number of different landscape types. These different landscapes and their properties are briefly discussed from the coast inland. In the southeast, the park has about 65 km of coastline, and contains one of the largest mobile dune fields in the southern hemisphere. Dunes heights are typically 40 - 60 m amsl, although one ridge reaches over 100 m amsl. Off shore are two island groups. Islands of the St Croix Island group are between one and six kilometres offshore, while the Bird Island group is about 8.5 km offshore. The St Croix group, close to Coega comprises three islands. St Croix is the largest, and features a 0 - 24 m amsl northwest-southeast trending ridgeline, while Brenton and Jahleel are smaller rocky outcrops of less than five metres. Although the Bird Island group is larger, no island reaches above 7 m amsl. Bird Island, Seal Island and Stag Island are reasonably flat, while Black Rocks is essentially a rocky outcrop. Inland of the dune fields are the undulating, ancient wave-cut platforms, and rolling hills, shallowly incised by drainage lines. Elevation increases gradually from 60 m in the south to about 150 m at the foot slopes of the Zuurberg Mountain range. The east-west trending mountain range is part of the Cape Fold Belt, and dominates the northern vistas of the park. The mountain is not particularly high, only reaching 951 m amsl in the park; however, this is sufficient to form a rain shadow to the north. The terrain is deeply incised and topographically heterogeneous, with deep kloofs, which restricts access. North of the mountain range, are the semi-arid plains of the Karoo, at an elevation of about 300 m.

2.12.3 Geology and soils

This area is characterised by two distinct geomorphologic terrains (Appendix 6, Map 2). The park is home to a complex mixture of geology which in turn supports a wide variety of South African vegetation types. This area is underlain by the Kirkwood formation of the Uitenhage Group. Mudstones of the Kirkwood formation give rise to deep, fine-textured, sandy clay loams, solonetic soils (Low and Rebelo 1996), and well-drained soils of the Addo form (Macvicar 1991). Central to the park is the east-west orientated Zuurberg mountain range, part of the Cape fold belt which consists predominantly of quartzite and sandstone sediments. Immediately to the south, high ancient wave-cut platforms are made up of a mixture of conglomerates, tillites, mudstones and sandstones, while further south-



eastwards towards the coast lie extensive areas of limestone. To the north of the mountain range a similar geological assortment exists, except that it consists mainly of mudstone and sandstone, and no limestone deposits. Soils closely follow the geology with infertile soils arising from the Cape fold mountain quartzites and sandstones, and nutrient richer soils from the other sedimentary deposits to the south and north of the mountain range. Some soils in the Addo area are particularly deep, and include fine textured sandy clay loams, solonetic and well drained soils.

The Eastern Cape has a total of 13 major soils types, with seven of them alone represented within a 100 km radius of the city of Port Elizabeth. These abrupt changes in soil composition interact with water availability and the diverse climates to produce a range of habitats conducive to supporting a wide diversity of plants and animals.

2.12.4 Fresh water ecosystem

Rivers

Biodiversity associated with riverine habitats is driven by three main factors: (i) the climate and nature of the landscapes (e.g. temperature and underlying geology) that rivers drain; (ii) the flow characteristics of rivers (e.g. perennial, intermittent or ephemeral flows); and the geomorphological zone or slope of a river (e.g. mountain headwater stream, foothills or lowland river). Accordingly, conservation of rivers also depends on the conservation of their surrounding terrestrial landscapes, their natural hydrological regimes (including the magnitude, frequency, duration, timing, and rate of change in water flow) and their longitudinal connectivity between different zones. A major constraint for river conservation is that these systems drain over large landscapes and whole river systems and their catchments are rarely contained in a single protected area; rather, rivers flow through protected areas and sometimes form the boundaries of protected areas. As such, rivers inside protected areas are not necessarily buffered against developmental pressures that arise outside these areas – many rivers in our national parks show signs of ecological degradation because of impacts such as pollution that take place outside the boundaries of these parks. Given this reality, the only solution for achieving effective river conservation is to work in close collaboration with catchment neighbours towards wise stewardship of these shared resources.

Of the 223 distinct river ecosystem types that have been delineated for South Africa, 16 river ecosystem types occur in the park. Only about 50% of the river length in the park is considered to be in natural to good ecological condition and a relatively high proportion (30%) is in a heavily to unacceptably modified condition (Roux *et al.*, 2013). The main river systems that flow through the park are (from north-west to south-east): Sundays, Volkers, Kabougas, Uie, Wit, Krom and Courney Rivers. The Kabougas, Wit and Beans Rivers have been identified as national freshwater ecosystem priority areas (FEPA's). The Kabougas River is regarded as important for the protection of Eastern Cape redbin, *Pseudobarbus afer*. The Witrivier and its tributaries are regarded as important for the conservation of *Pseudobarbus afer*, goldie barb, *Barbus pallidus* and moggel *Labeo umbratus*. The Krom River is regarded as important for the conservation of *Barbus pallidus* and *Pseudobarbus afer*. The Uie and Courney Rivers have been identified as national Fish Support Areas for the protection of *Barbus pallidus* and *Pseudobarbus afer*. Although all of these mentioned rivers form part of the Sundays River system, it is important to note that none of them is fully contained within the park.

The Witrivier is impounded by the Slagboom Dam and flows into the Sundays River are regulated via releases from the Darlington Dam. Darlington Dam, previously known as Lake Mentz, was constructed in the 1920's to provide an adequate and perennial supply of water for irrigation of the Sundays River Valley. The Sundays River Irrigation Board, established in

1917, manages the water release programme. Despite the provision of large scouring sluices, Darlington Dam had accumulated an estimated 103 million m³ of silt (88% of its original capacity) between 1922 and 1966.

Wetlands

The National Biodiversity Assessment of 2011 reported that wetlands are the most threatened of all South Africa's ecosystems (Driver *et al.*, 2012). Although only making up 2.4% of South Africa's area, wetlands provide critical ecosystem services such as water purification and flood regulation. Of the total wetland area in the country, 38% has been identified as FEPAs. According to the national-scale FEPA data, 17 wetland ecosystem types occur in the park. This is the 4th highest wetland diversity of all national parks. However, the same data also suggest that >90% of the wetlands in the park are heavily to critically modified. Because of this, only 1% of the wetlands in the park have been selected as FEPA wetlands, including four wetland clusters along the coastal Alexandria section of the park. However, it must be noted that the national-scale wetland information is based on a GIS desktop procedure for classifying wetlands that has been applied for the first time during the mentioned national assessment. It is reasonable to expect that both the underlying data layers and the classification procedure will be refined in future. In terms of SANParks' responsibility to contribute to wetland conservation, mapping and classification of wetlands per park is a high priority. Given the diversity of wetlands that occur in the park, surveying these systems is important both for the park management plan and to provide feedback to the revision and improvement of national-scale wetland information.

2.12.5 Terrestrial flora

The present park represents five of South Africa's seven biomes, namely the Nama Karoo, Fynbos, Forest, Thicket, Grassland and the azonal Wetland (only lacking the Succulent Karoo and Savanna) (Appendix 6, Map 8). This makes it the most diverse park in South Africa and Africa. A total of 43 vegetation units have been identified, some of these being Afro-montane Forest, Coastal Forest, Eastern Mixed Nama Karoo, Central Lower Nama Karoo, Mountain Fynbos, Grassy Fynbos, Valley Thicket, Mesic Succulent Thicket, Spekboom Succulent Thicket, Xeric Succulent Thicket and Coastal Grasslands (Vlok *et al.* 2003). Expansion plans for the park will increase this number of nationally recognised vegetation types to 13, more than any other conservation area in the country.

In the park 10 landscape units could be identified, classified, described and mapped. Broad vegetation map and descriptions (Mucina and Rutherford 2006) that are used with land type map of the study area assist with the following description. The units are:

- Alexandria dune veld;
- Alexandria forest;
- Addo valley lowland;
- Addo undulating midslope;
- Addo valley bottomland;
- Zuurberg rolling hills;
- Zuurberg rocky mountain;
- Zuurberg undulating hills;
- Darlington undulating footslope; and
- Darlington valley bottomland.

Landscapes vary from the short succulent Noorsveld type (characterised by the short sweet noorsdoring, *Euphorbia coerulescens*), karroid vegetation of the Central Lower Nama Karoo vegetation type, and Spekboom Succulent Thicket on the warm northern slopes near Darlington Dam. None of the Noorsveld was conserved prior to its incorporation into the park. The Zuurberg Mountains consist predominantly of Mountain and Grassy Fynbos on the higher lying leached nutrient-poor sandstone-derived soils. The southern side of the mountain range has relatively nutrient-rich alluvium- and aeoliant-type soils with its characteristic Xeric and Mesic Succulent Thicket. Along the moist coast, unique mixes of Afro-montane and coastal forests interspersed with coastal grasslands occur.

The variation in altitude, topography, climate, geology and soil composition over a relatively short range within the park accounts for the diverse floristic change. The vegetation varies from typical thicket species such as spekboom *Portulcaria afra*, white milkwood *Sideroxylon inerme*, and cape plumbago *Plumbago auriculata*, to forest species such as broad leaved yellowwood *Podocarpus latifolius*, through to typical Fynbos species on the mountainous areas to the characteristic *Pentzia* spp shrub land and



Noorsveld *Euphorbia* spp. communities in the Karoo section. Outside of this amazing biological paradise, the area has been significantly developed, predominantly for pastoral practises, with localised intensive citrus farming. Pastoral operations in this area have proved to be largely an economically and ecologically unsustainable landuse option, and remain a threat to the expanded park vision.

2.12.6 Terrestrial fauna

The park was initially proclaimed in 1931 to preserve the threatened African elephant *Loxodonta africana*, population in the Eastern Cape (Pringle 1982). Reduced to 11 animals, the population has increased to over 620 by 2014 (Internal AENP reports), the second largest population in South Africa. Although the park is at the junction of five biomes, the 20 large mammalian herbivore species diversity is still less than other national parks. The park also harbours Cape buffalo *Syncerus caffer*, population, whose offspring, because of their disease-free status are in great demand.

The rich browsing value of the Thicket vegetation accounts for the high proportion of large browsing and intermediate mammalian herbivores (of which there are ten species), such as elephant, black rhinoceros *Diceros bicornis bicornis*, kudu *Tragelaphus strepsiceros*, eland *Tragelaphus oryx*, and bushbuck *Tragelaphus scriptus*. The bulk of the grazing species is made up of Cape buffalo and plains zebra (*Equus quagga*). In accordance with the SANParks policy of reintroducing species that once occurred in the area in historical times, a programme of population re-establishment was initiated (Knight and Castley 1999). One of the most prominent introductions included the East African black rhinoceros *D. b. michaeli* in the 1960's, which were later replaced with the indigenous ecotype, *D. b. bicornis*, from populations in Namibia during the 1990's. In addition, after extensive studies (Whitehouse and Hall-Martin 2000), the elephant population was supplemented in 2003 with bulls from the Kruger National Park.

The elephant population has grown beyond the previously recommended density of two elephants per km² (Kerley and Boshoff 1997). The greater AENP project focused primarily on increasing the park's biodiversity, expanding the habitat available for elephants. However, the presence of major roads and operational railway lines, together with certain key pieces of land that SANParks has as yet been unable to procure, means that the different sections of the park are still in separate, fenced-off units. The elephants are thus unable to traverse the entire park, and are currently restricted to the Addo main camp, Colchester, Nyathi and Kuzuko sections. As a result, other forms of elephant management have been introduced, as set out in the park's elephant management plan (SANParks 2012). This includes the creation of a gradient in surface water availability across Addo main camp and Colchester that mimics historical access to the Sundays River, as well as contraception of adult elephant cows in the Nyathi and Kuzuko sections. The introduction of lion *Panthera leo*, into the main elephant section (and Kuzuko contractual section in 2007) was intended to complete the Big 5 eco-tourism product, in addition to their importance as agents of predation. Spotted hyena *Crocuta crocuta*, have also been introduced as part of re-establishing the carnivore process in the park in 2004, with cheetah *Acinonyx jubatus*, introduced in 2007 into the Kuzuko contractual section. Species such as cheetah are planned for introduction into the Darlington area once the area and game populations are secured. Certain species such as oribi *Ourebia ourebi* and serval *Felis serval*, would require a meta-population management strategy prior to reintroduction.

The park has a wide range of suitable protected habitats for terrestrial birds, including some red data species such as the ground hornbill *Bucorvus leadbeateri*, Cape vulture *Gyps coprotheres*, martial eagle *Polemaetus bellicosus*, Stanley's bustard *Neotis denhami*, kori bustard *Ardeotis kori*, grass owl *Tyto capensis* and cuckoo hawk *Aviceda cuculoides*. The park is important for the conservation of the region's herpetofauna – it conserves 13

endemic species, two of which are restricted to the Eastern Cape region, namely the Tasman's girdled lizard *Cordylus tasmani* and the Cape legless burrowing skink *Scelotes anguina*. The park is also home to populations of five species of land tortoises, and 14 of the expected 15 species of frogs being red data listed species (Branch 1988). Known important invertebrates in the park include the endemic dune grasshopper *Urnisiella rubropunctata* in the Alexandria dune fields, and the endemic flightless dung beetle *Circellium bacchus* which is specially adapted to exploit the faeces of large herbivores in the dense thicket biome.

2.12.7 Marine ecosystem

The marine section of the park, situated in Algoa Bay, falls within the warm temperate bio-geographic marine province (Branch *et al.* 1994), and consist of the Bird and St Croix island groups and surrounding waters (Appendix 6, Map 2). The Bird Island marine protected area (MPA) contributes towards the 9% of the South African coastline which is considered a no-take or completely protected area. The Algoa Bay marine environment is mostly influenced by prevailing easterly (summer) and westerly (winter) winds, driving the long shore ocean currents (Shumann and Martin 1991; Boyd *et al.* 1992). There is also an important link between the Alexandria dune field and the ocean. According to Campbell and Bate (1991, 1998) these dunes are characterised by shallow groundwater tables (aquifers) with water discharged to the surface in several places in a pulsing fashion from the aquifer into the surf-zone, releasing nutrient-rich water. The wind and currents play an important role in sand movement and deposition in the Alexandria dune field system. The Bay consists mostly of soft bottom sediments and dispersed reefs.

Dominant marine fauna can be grouped into marine mammals (seals, whales, dolphins), birds (penguins, gannets, terns *etc.*), fish (migratory and reef species) and highly diverse benthic fauna on the reefs. The two island groups within the Bay are important as breeding grounds for birds and seals. A number of birds of conservation significance occur on the islands: the endangered African penguin *Spheniscus demersus*, comprising more than 50% of the world population, the Cape gannet *Morus capensis*, comprising 40% of the world population, the endangered roseate tern *Sterna dougallii*, and the endemic African black oystercatcher *Haematopus moquini*. The group represents the easternmost breeding range for this species (Heemstra and Heemstra 2004; Griffiths 2000). Algoa Bay also houses a large South African Cape fur seal *Arctocephalus pusillus* population. The South African Cape fur seal's range is restricted to islands and the mainland coast between the rich fishing grounds of northern Namibia and Algoa Bay on the south-eastern coast of South Africa. This population of marine mammals also serves as a feeding area for the threatened great white shark *Carcharodon carcharias*. Furthermore, the islands provide sub-tidal rocky habitat for an extensive population of abalone *Haliotis midae*, although the stock is under pressure owing to illegal exploitation. Most reef fish species for example red stump nose *Chrysoblephus gibbiceps*, dageraad *Chrysoblephus cristiceps* and red steenbras *Petrus rupestris* are endemic and overexploited, with a similar situation for the surf zone fish such as dusky kob *Argyrosomus japonicus* and white steenbras *Lithognathus lithognathus*, with their populations having collapsed.

The larger 120, 000 ha proposed MPA would assist in rebuilding these stocks, as well as help protect important nursery areas for the juveniles of these species such as the Sundays River estuary and associated surf zone. This larger area will also offer protection to spawning areas for chokka squid *Loligo vulgaris reynaudii*, a commercially important species, as well as important feeding areas for the penguin population.

2.12.8 Archaeology and cultural heritage

The park has a rich cultural history. The natural and cultural heritage of the park has been studied by the Albany Museum, recording hundreds of sites of significance. This was done under what was known as the AENP cultural mapping pilot project conducted during 2002 by various researchers from the Albany Museum in Grahamstown. The Stone Age in the park first manifests in the Middle Stone Age (MSA) between 125 000 and 30 000 years ago. Scatters of MSA tools are reported along the Sundays River Valley and also inland at Addo Heights and Korhaansvlakte (Cocks *et al.* 2002, Rudner 1968).

The later Stone Age peoples were ancestral to the San (Bushmen) and Khoekhoen (Hottentot) peoples who lived in Southern Africa between 30, 000 and 1, 000 years ago. In South Africa these small hunter-gatherer groups lived at the coast, where they exploited the marine resources such as shell fish, fish, seals and sea birds. Many hundreds of shell middens are found along the coast in the park. Inland groups frequently lived in caves and rock shelters and there are many sites in the Zuurberg Mountain which testify to this. There are also rock paintings in some of these caves (Cocks *et al.* 2002; Deacon, 1976).



Excavations were carried out at Melkhoutboom and Vygeboom and these uncovered graves with rich grave goods indicating a complex belief system (Hewitt, 1931). These sites contain well preserved plant remains which indicate how they utilized their environment. The majority of hunter-gatherer groups had been pushed out of the Zuurberg Mountain range by the 1820's and were forced to move further inland to escape European settlement on their lands (Wells 1929; Ferguson and Illenberger 1994). The Khoikhoi pastoralists by the 16th and 17th centuries, were spread all along the Coastal forelands from Namibia to the Eastern Cape. Many of the shell middens in the park contain pottery, confirming the presence of the Khoikhoi in the area (Cocks *et al.* 2002). There are numerous place names in the park which are derived from Khoikhoi, for example Kaba, Coerney (originally Koerno), Nanaga, Boknes, Gorah, Kabouga, Karioga, Sapkamma and others. These names confirm presence of Khoikhoi tribal groupings such as the Inqua, Damasqua and Gonaqua (Skead 2002). They were absorbed into the colonial lifestyle of the 18th century, becoming farm workers for the Dutch and British or clients of the Xhosa where they were engaged in elephant hunting. A few groups settled at missions such as Enon, Bethelsdorp and Theopolis (Cocks *et al.* 2002).

The area also provides early evidence of contact with black farmers. While the majority of black farmers lived to the west of the Fish River, possibility that the headquarters of two Xhosa chiefs (Chungwa and Habona) were located in the park footprint has been raised. These two sites have not been explored, but they offer the opportunity of archaeological research which may inform us of 19th century Xhosa kraals (Skead 2002). Chief Chungwa of the Gqunukwebe and his people are believed to have occupied the area near the Sundays River mouth and inland, while Chief Habona of the Dange occupied the area near the Witrivier (Cocks *et al.* 2002).

As the Portuguese advanced towards the East, they continued the practice of erecting inscribed limestone crosses to proclaim their presence. In 1938 Eric Axelson discovered the fragments of the Kwaihoek cross. Today the stone copy of the padrao positioned by Bartholomew Dias in 1488 on Kwaihoek falls within the footprint of the park. The Dutch farmers who had started farming in the Western Cape moved to the Eastern Cape in the 18th century.

2.12.9 Socio-economic context

The Eastern Cape Province is one of the most economically challenged provinces in South Africa, with one of the highest rates of poverty, illiteracy, unemployment and poor living conditions. The average gross geographic product per capita is less than half that of the South African average. According to the STATS SA 2011 data approximately 450, 600 people live within the Cacadu municipal boundary, it equates to 6.8% of the population living in the Eastern Cape. The level of poverty in the district is high, but showing a steady decline. The District's major employer is the trade sector. During the 2013 / 2014 financial year the park contributed over R 57 million to the local and regional economy through employing local residents and local procurement. The expansion of the park as a catalyst for alleviating poverty and contributing to socio-economic development was motivated via a strategic environmental assessment conducted in 2003 (SANParks 2003). The park, within its extension context, impacts on four local municipalities, one district municipality and the Nelson Mandela Metro (Appendix 6, Map 1).

Located within the buffer zone of the park is the deep water port of Ngqura, which lies 20 km northeast of Port Elizabeth South Africa's 8th and latest commercial port development, situated at the mouth of the Coega River in Algoa Bay. An industrial development zone (IDZ), known as the Coega IDZ, has been developed over the 12,000 ha site in the area including the river and port, with a 4,500 ha core development immediately identified. The IDZ serves as a primary location for new industrial development for export

driven industries. Two wind farms that will generate a combined 70MW of power are planned for Port Elizabeth – one in the Coega IDZ and the other on the outskirts of the city. The park has a relatively well-developed eco-tourism industry which makes a positive contribution to the regional economy. Since conservation-related forms of land use (such as game farming and eco-tourism) have been found to be economically and environmentally more sustainable than livestock farming in thicket vegetation (Stuart-Hill and Aucamp, 1993), the expansion of the park potentially offers further socio-economic, yet environmentally friendly, development opportunities to the province as well as employment opportunities for local people. The fact that the Eastern Cape Province now boasts over 500 game farms, twice as many as a decade ago, is significant in terms of justifying this industry economically.

2.13 Tourism

Addo Elephant National Park is the third largest national park in South Africa and is renowned for its exceptional elephant viewing, currently the primary attraction and reason for inclusion in most itineraries for visitors to the Garden Route or Eastern Cape. Besides other species the park includes a wide range of spectacular land- and seascapes, fauna and flora and, if including its concessionaires, offers a wide variety of accommodation facilities and activities in order to access a diverse market. The park has both terrestrial and marine components and existing boat charters currently offer boat cruises around the St Croix and Bird islands if permits allow, however no boats are permitted to land on the islands, and the park currently generates no income from any such activities. The park also includes the largest coastal transgressive dune field in the southern hemisphere, which at 88 km in length offers spectacular views and activity potential, an example of which is the existing Alexandria Hiking Trail. Whilst the diversity of the park needs to be promoted to increase visitor awareness, the park extent and thus the travel distances to the remoter areas of the park, as well as the fact that certain areas of the park are not yet fenced, have limited the availability of game and visitor facilities within certain sections of the park.

The park is rich in cultural and heritage value, though much of this still needs to be investigated and documented prior to potential utilisation as part of the tourism product. However, the proposed Zuurberg heritage project development, which would be a tourism node located along the Zuurberg Pass, will include a memorial and a variety of tourism facilities. This development may hold a number of opportunities for the park, as it may spur the development of the parks cultural and heritage assets, enable the development of the Meetings, Incentives, Conferences and Events (MICE) market for the park due to the facilities that are planned for development, and possibly also provide other product packaging potential by the creation of a tourism hub.

The park has a total of 93 units and 37 camp sites available to guests. Occupancy figures for the park are higher than the average for the organisation and is considered one of the top performing parks with significant development potential. Matyholweni rest camp is currently the only community partnership operating within SANParks, Mayibuye Ndlovu Development Trust (Joint Venture Company with SRCC), where the community receive a percentage of sales of 12 units in the Matyholweni rest camp.

During the 2013 / 2014 financial year, 79.4% of visitors were day visitors and 20.6% stayed overnight. 60.4% of visitors were from South Africa, of which 62.7% of these visitors originated in the Eastern Cape, whilst 14.8 % of local visitors arrived from the Western Cape, followed by 8.6% from Gauteng. Of the 39.4% international markets visiting the park, visitors predominantly originate from Germany, The Netherlands, Australia, Belgium and Switzerland (SANParks 2014). The markets visiting are predominantly still white markets, arriving mostly in private sedans or 4x4's. Thus more emphasis needs to be placed on attracting the growing black markets to the park and enabling equitable access for all.

To conclude, the establishment of the park has created a major source for tourism development in the region, creating employment and impacting positively on the livelihood of the community.



Section 3: Policy framework

3 Introduction

SANParks, like all protected area management authorities, are subject to the constitution, legislation, international agreements, national policies and government priorities. Section 41 of the NEMA:PAA requires that management plans be located within the context of a coordinated policy framework (CPF). SANParks developed the CPF in 2006.

This CPF is currently being revised and updated (SANParks in preparation). The CPF will provide the information required by DEA guidelines for management plans (Cowan and 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;
 - 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.

The CPF can be downloaded from the SANParks website using the link http://www.sanparks.org/conservation/park_man/.

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. And as such, this policy framework is open to public review by stakeholders.

The planning cycle for management plans in SANParks is 10 years, although the programmes and costing could be revised every fifth year, if required.

3.1 Park specific framework

The Park Manager report to the Managing Executive: Parks through a Regional General Manager for the Frontier cluster. The park's summarised organogram (Figure 1) sets out the reporting structure in the park.

3.2 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 2008 in GG 28181, the park has also issued applicable internal rules (Appendix 5).

3.3 Support to the park

Park management is primarily supported by head office, providing human resource, financial, marketing, review and auditing services. The regional operations office assists the park with line management support. They also receives support from functions such as park planning and development, veterinary wildlife service, scientific services etc.

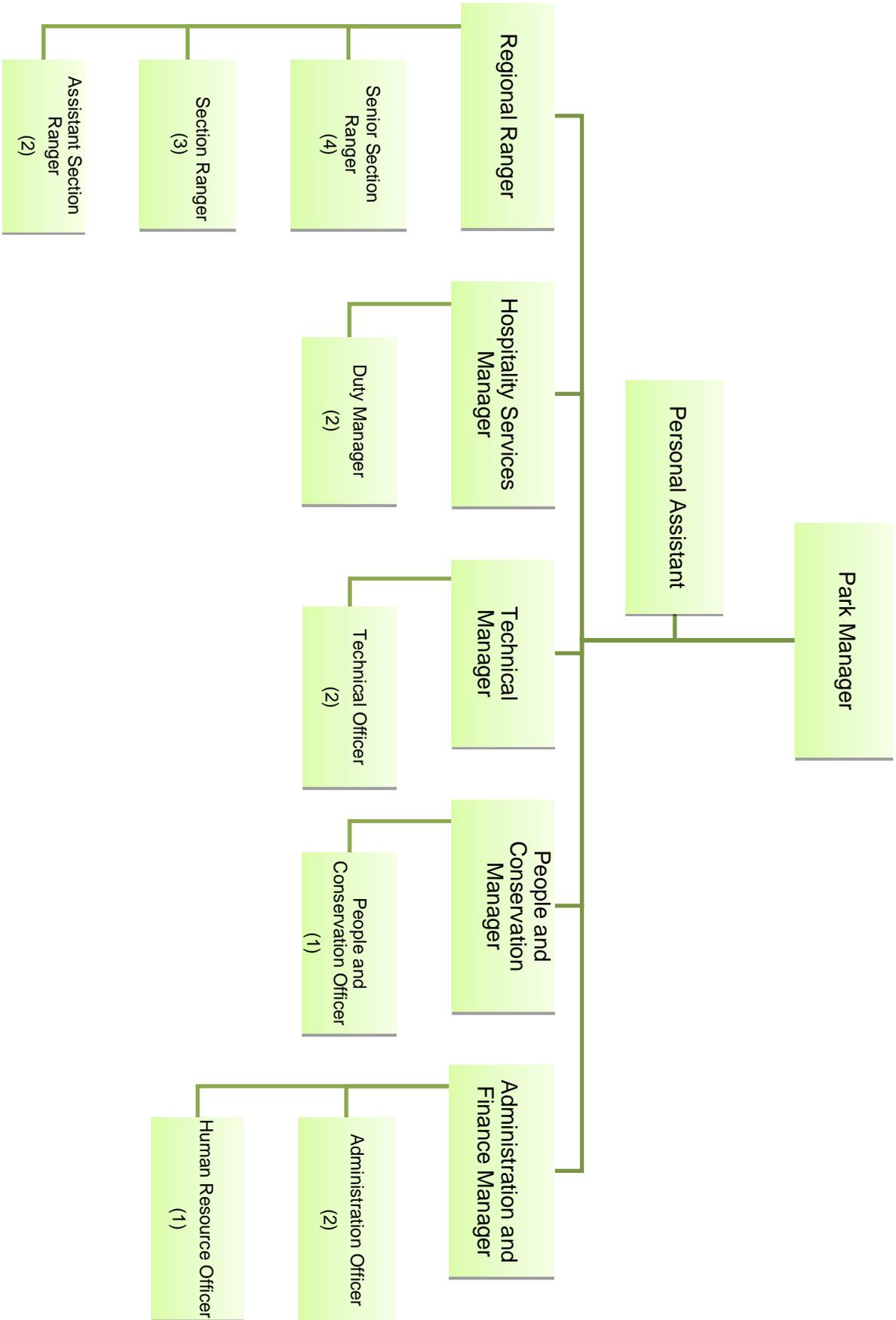


Figure 1. Park organogram.



Section 4: Consultation

SANParks recognises that parks must serve societal values and that they 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 the stakeholder concerns and aspirations are consistently understood and considered. Therefore stakeholders, both interested and affected, 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 aimed to recognise all knowledge, indigenous, ordinary and expert, 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, and (iii) to translate the vision into management objectives that reflect the values as expressed by stakeholders. The objectives of the stakeholder participation process are to:

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

The approach to the stakeholder participation process is based on the principles embodied in the following legal framework, namely:

- The Constitution of the Republic of South Africa Act No. 108 of 1996;
- The National Environmental Management Act No. 107 of 1998 (NEMA); and
- The National Environmental Management: Protected Areas Act No.57 of 2003 as amended by the National Environmental Management: Protected Areas Act No.21 of 2014.

In addition to the above legal framework, the stakeholder process was developed with the guiding principles for SANParks stakeholder participation in mind. SANParks thus undertakes to:

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

Details regarding the stakeholder process that was followed are outlined in Appendix 3.

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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 is not officially specified, neither in the first gazetted declaration nor any subsequent addition. However, it is well known that the park was initially proclaimed to preserve the threatened African elephant population in the Eastern Cape. SANParks manages 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

In order for the current and future extent of the park to be protected and managed effectively, a desired state for the park has been developed through an adaptive planning process. To formulate this desired state, focus was placed on the mission, park context, operating principles and, vital attributes that make this park unique, or at least very special. Each attribute was discussed along with important factors determining / strengthening or threatening / eroding these attributes. Using this information helped focus the exact formulation of the park objectives, which must strengthen positive determinants and weaken or remove negative ones so that objectives are appropriate to the uniqueness and special nature of this park. In this way the management plan is customised according to its local context, without detracting from some of its more generic functions along with certain other parks. This framework forms a bridge between the SANParks policy framework and its vision for the park, and the medium term (five year) priorities to attain the vision and mission in cooperation with its stakeholders.

5.2.1 Vision and mission

The vision is an inspirational statement designed to provide a picture of the envisaged future for the park. It answers the question of ‘where do we want to go?’ SANParks’ corporate vision, which holds for all national parks, is as follows:

VISION

“A sustainable National Park System connecting society”

The mission defines the fundamental purpose of the park, succinctly describing why it exists and what it does to achieve its vision. The following mission was developed after consultation with stakeholders at a workshop on 20 May 2014:

MISSION

Addo Elephant National Park seeks to be a key role player in providing benefits to society by being well integrated into the regional landscape, conserving and restoring the characteristic terrestrial and aquatic biodiversity, as well as ecological processes, cultural, historical and scenic resources of the Algoa Bay to Karoo gradient.

5.2.2 Desired state of Addo Elephant National Park

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 focus will be on maintaining components that are currently strong through controlling the high risk profile. Cultural heritage value and the range of tourism products will be improved, realising the very good opportunities for surplus income generation. There is potential to improve income from wildlife sales. Corporate social investment projects will increase the park's significance in the regional economy. A definite improvement in national biodiversity value of the park is anticipated over the next 20 years. The risk profile is higher than most other parks; the park is vulnerable to poaching of marine resources, to loss of water quantity and quality, and to impacts on biodiversity through developments or conflicting land use in the buffer zone.

5.2.3 Operating principles or values

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

Corporate values:

- Show **leadership** in all we do.
- Be guided by **environmental ethics** in all we do.
- Promote **transformation** within, and outside of the organisation.
- Strive for **scientific** and **service excellence** at all times.
- Act with **professionalism** at all times.
- Adopt, and encourage **initiative** and innovation by all.
- Treat all our stakeholders with equity and **justice**
- Exercise **discipline** at all times.
- Show **respect** to all.
- Act with **honesty** and **integrity**.
- Strive for **transparency** and open **communication** at all times.

Biodiversity values:

- 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.
- We aim at persistent achievement of **biodiversity representivity** and **complementarity** to promote **resilience** and ensure **ecosystem integrity**.
- We can **intervene in ecosystems responsibly and sustainably**, but we focus management on **complementing natural processes** under a "**minimum interference**" philosophy.
- We accept with humility the **mandate of custodianship** of biodiversity **for future generations** while recognising that both natural and social systems change over time.

5.2.4 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. The context is summarised under sections 2.1 to 2.13.

5.2.5 Vital attributes

The vital attributes of the park are the important characteristics and / or properties of the park that concisely describe the key features of the park. The park identified eighteen attributes that are vital to the approach by which it is managed. The key attributes are:

1. The park generates surplus high value game – that assists with management of other parks and revenue generation.
2. Important ecosystem services including marine (*i.e.* direct and indirect benefits to society and creating awareness).
3. Sense of place (diversity of natural vistas scenery, land- and seascapes).
4. Conservation status and value of Sundays River Spekboom Thicket.
5. Biodiversity of the park (hotspots, including marine), unique species (provides stronghold for several threatened / unique species).



6. Functionality / intactness of key ecological processes that drive the system.
7. Diversity and variation of fresh water ecosystem (wetlands, aquifers, rivers).
8. Stimulation of regional tourism opportunities (inside and outside the park, of which some are unexplored) through interactions and representations on all tourism fora.
9. The park is a popular tourism destination, the Big 7, specifically elephants, are draw cards for tourism.
10. The name "Addo" is an accepted brand.
11. Accessibility due to proximity to the Port Elizabeth metro, -harbour, -airport, Garden Route as well as being economically accessible to a range of tourists.
12. The park is an economic catalyst locally and regionally, which drives the wildlife-based economy.
13. The park has an effective park forum inclusive of all representative stakeholders.
14. Co-ownership and benefits beyond boundaries – Mayibuye Ndlovu development trust.
15. The park has strong and supportive relations with all spheres of government.
16. The park has strong academic and research relations with institutions of higher learning.
17. Empowerment opportunities (*i.e.* EPWP projects) contribute towards local socio economic development.
18. The park has significant cultural heritage assets.

5.2.6 Determinants and risks to the vital attributes

A major component of park 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 where possible.

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

1. AENP's wildlife populations generates surplus high value game – assist with management of other parks and revenue generation.	
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Determinants: Currently have the animals, specifically disease free buffalo, to be able to sell. Opportunities to place animals in highly productive environments. Could provide surplus animals.	
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Threats	
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- | | |
|--|--|
| <ul style="list-style-type: none"> • Loss of flood plain if Darlington Dam is maintained at full capacity. • Poaching. • Predation affects buffalo sales (selling buffalo makes more money than tourists visiting to view the lions / elephants). | <ul style="list-style-type: none"> • Selective harvesting of game. • Lack of funding to monitor game numbers before removal and the effects thereof. • Limited state veterinary expertise increases the threat of diseases outbreaks. |
|--|--|

2. AENP's important ecosystem services including marine (<i>i.e.</i> direct and indirect benefits to society and creating awareness).	
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Determinants: Unique combination of marine, terrestrial and islands with proximity to the metropole thus ease of displaying benefits <i>e.g.</i> clean water due to park up the road.	
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Threats	
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- | | |
|--|---|
| <ul style="list-style-type: none"> • Focus on animals and fish, not looking at alternatives <i>e.g.</i> carbon sequestration, human sense of place and well-being, bees as pollinators, dispersal of larvae <i>etc.</i> • Lack of awareness. | <ul style="list-style-type: none"> • MPA implementation will take 10 - 15 years to provide realised benefits to fisheries. • Value not currently quantified (<i>e.g.</i> provision of water to Sundays River Valley is supporting agriculture). |
|--|---|

3. AENP's sense of place (diversity of natural vistas scenery, land- and seascapes).	
Determinants: Presence of natural environmental regime.	
Threats	
<ul style="list-style-type: none"> Inappropriate placement of new infrastructure / developments and land use change (within and around park). Pollution (including oil spills, noise, light pollution; alien plants, power lines, railway lines, wind farms; infrastructure on horizons, <i>etc.</i>). 	<ul style="list-style-type: none"> Viewshed modification. Non-compliance to regulations. Lack of awareness of conduct around animals.

4. Conservation status and value of Sundays River Spekboom Thicket in the AENP.	
Determinants: Geology, bushclump size and connectivity, endemism and diversity of species (hierarchy of determinants of thicket), high diversity of mammalian herbivores as drivers.	
Threats	
<ul style="list-style-type: none"> Extensive herbivory (elephants). Erosion. Alien invasive plants. Access into the thicket (roads, cutlines). Excessive water provision. Compromising botanical exclosures. Extralimital species. 	<ul style="list-style-type: none"> Removal of medicinal plants and animals (dung beetles as drivers). Chemical pollution from surrounding citrus farms. Fires from adjacent grasslands. Water extraction. Inappropriate harvesting of Spekboom.

5. Biodiversity of AENP (hotspots, including marine), unique species (provides stronghold for several threatened / unique species).	
Determinants: Geologically-driven diversity of biomes; connectivity within and between landscapes, longitudinal connectivity of water (upstream), between surface (upland) and ground water; islands provide suitable habitats for breeding of sea birds; aquifers as driver of nutrient cycling / inputs into sea (ecosystem service); presence of species of special concern.	
Threats	
<ul style="list-style-type: none"> Overexploitation of marine resources. Pollution. Excessive / too little herbivory. Illegal / recreational resource use. Inappropriate / uninformed quotas for resource use (fishing). Climate change (including increase in extreme weather and catastrophic events). Tourist carrying capacity. Mining of dune fields. Not implementing metapopulation management. Diseases. 	<ul style="list-style-type: none"> Overabundance of species due to loss of natural processes. Development and proximity of non-compatible landuse / industry. Inappropriate fire regimes (fynbos). Alien / invasive / extralimital species (including fish, boat-borne). Warm-water outlets from industry. Delayed implementation of MPA. Lack of funding to continue historical datasets (monitoring).

6. Functionality / intactness of key ecological processes that drive the system in AENP.	
Determinants: Land consolidation, linkages across landscape, management interventions to mimic missing processes, keystone species.	
Threats	
<ul style="list-style-type: none"> Abstraction and impoundment of water. Capacity and funds for monitoring. Political will / decisions made outside of our mandate. Interrupted population dynamics and viability. Lack of spatial variability in herbivory patterns. 	<ul style="list-style-type: none"> Genetic bottlenecks. Disturbed trophic levels. Landscape fragmentation: inability to connect sections of Addo for connectivity; in rivers: weirs, dams, inappropriate infrastructure (roads, railway lines).



7. Diversity and variation of fresh water ecosystem (wetlands, aquifers, rivers) in AENP.

Determinants: Geology, climate, altitude, water reserve.

Threats

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|---|---|
| <ul style="list-style-type: none"> • Industrial pollution. • Alien plants and fish. • Abstraction from aquifers and other water sources. • Physical barriers to connectivity (weirs). • Incompatible neighbouring landuse. • Lack of funds / capacity for monitoring. • Karoo gas exploration / fracking. • Modification of riparian zones. | <ul style="list-style-type: none"> • Inappropriate “thirsty” neighbouring developments / landuse (golf courses). • Tourism developments near rivers, wetlands. • Erosion, sedimentation, siltation from upstream landuse (loss of invertebrate species). • Introduction of species through interbasin transfer. |
|---|---|

8. Stimulation of regional tourism opportunities (inside and outside the park, of which some are unexplored) through interactions and representations on all tourism fora.

Determinants: Ability to leverage international funding, development of SMME accommodation market in park surrounds increasing visitor numbers and effective community development, establishment of the park as a driver of development of other conservation products in the region.

Threats

- | | |
|--|---|
| <ul style="list-style-type: none"> • People focussing on one type of model (Kruger National Park). • Lack of focus on adventure tourism and expansion of activity offering. • Provincial access roads maintenance. • Neighbouring luxury destinations competing with the concession luxury offering. • Not enough exposure to the marine environment. • Lack of integrated planning with other governing bodies has conservation consequences. | <ul style="list-style-type: none"> • Lack of adequate engagement with tourism organisations and regional tourism bodies. • Local tourism organisations are operational but not very functional. • Lack of fencing limits the product development in certain areas. • Lack of finance available to develop Darlington and Kabouga areas of the park. • Wind farm development. |
|--|---|

9. AENP is a popular tourism destination, the Big 7, specifically elephants, are draw cards for tourism.

Determinants: Terrestrial and marine opportunities, elephants and thicket, extensive diversity, largest mesic coastal dune field in southern hemisphere, coastal development lines.

Threats

- | | |
|--|---|
| <ul style="list-style-type: none"> • Poaching. • Big 7 experiences limited by inaccessibility to marine component (great white sharks and whales). • Do not have the extended MPA proclaimed. • Do not package park as bush and beach product, extending the duration of stay. • Crime. • Currency fluctuations. • Recession. | <ul style="list-style-type: none"> • Sole focus on elephants as a tourism driver, where forest, birding, marine and numerous other opportunities exist. • Lack of identifying of unique elements for each region, in order to provide each region of the park with unique products and services focused on diverse markets, ages and environment. |
|--|---|

10. The name “Addo” is an accepted brand.	
Determinants: The park is well known and has a strong connotation with elephants, the history of development of stakeholder relationships, good leadership, conscious and tangible actions to maintain and build relationships.	
Threats	
<ul style="list-style-type: none"> • Misuse of the name Addo, or alternative uses of the name dilute brand identity. • Stagnation of park development. • Association of incidences not directly related to Addo. 	<ul style="list-style-type: none"> • Lack of all products being sold on the central and local platforms. • The park is potentially negatively impacted by internal and external influences e.g. central reservations, satellite booking offices, lack of knowledge of product.
11. AENP accessibility due to proximity to the Port Elizabeth metro, -harbour, -airport, Garden Route as well as being economically accessible to a range of tourists.	
Determinants: International port and airport, relationship with Nelson Mandela Bay Tourism bringing in groups and tour operators, numerous cruise liners stopping in Port Elizabeth and bussed into the park.	
Threats	
<ul style="list-style-type: none"> • Provincial access roads (i.e. R335 and R342) quality (buses re-routing Paterson). • No scheduled international flights / charter. • Crime. 	<ul style="list-style-type: none"> • Lack of distinctive gateway to Addo (make more of Colchester as distinct gateway into the park). • Pollution (light, waste, oil and possibly nuclear).
12. AENP is an economic catalyst, locally and regionally, which drives the wildlife-based economy.	
Determinants: It's a recognised brand, locality (starting point of the garden route, proximity to airport and harbour), elephants (Big 7), diverse birding opportunities, year round mild climate, no malaria.	
Threats	
<ul style="list-style-type: none"> • Provincial access roads (i.e. R335 and R342) are poorly maintained. • Poor maintenance impacts on visitor experience. • Ineffective management of visitor numbers could impact on visitor experience. • The availability of necessary skills within the community to increase local employment. 	<ul style="list-style-type: none"> • Localised development to areas surrounding main camp limit growth of other communities e.g. Colchester. • Lack of adequate awareness about the park. • Poaching. • Crime.
13. AENP has an effective Park Forum inclusive of all representative stakeholders.	
Determinants: Trustworthy leadership, creation of sub-committees, logistical support and rotational localities, maintained feeling of inclusiveness, tangible participation in management processes and broader environmental and social awareness.	
Threats	
<ul style="list-style-type: none"> • Non-attendance, lack of commitment. • Logistical support costs – reduced funding. • Political changes – local government. 	<ul style="list-style-type: none"> • Conflicts within communities – instability. • Institutional changes in park forum structure.
14. Co-ownership and benefits beyond boundaries – Mayibuye Ndlovu development trust.	
Determinants: Collaborative initiative, representative of some neighbouring communities, social economic upliftment driver.	
Threats	
<ul style="list-style-type: none"> • Stakeholder internal conflict of interests. • Changing community expectations. 	<ul style="list-style-type: none"> • Financial sustainability.



15. AENP has strong and supportive relations with all spheres of government.	
Determinants: Good leadership, recognising the park as a key role player in region, shared and common vision, systemic governance.	
Threats	
<ul style="list-style-type: none"> • High crime rate in surrounding areas. • Unemployment in the Sundays River valley. • Changing in leadership. • Political change. 	<ul style="list-style-type: none"> • Lack of capacity in local government to assess development plans and identify potential threats. • Lack of bridging agents.

16. AENP has strong academic and research relations with institutions of higher learning.	
Determinants: Close vicinity of universities, strong research collaboration history, shared definition of information and management requirements.	
Threats	
<ul style="list-style-type: none"> • Information feedback breakdown. • Degrading student interest in field-based studies. • Lack of logistical support. 	<ul style="list-style-type: none"> • Unclear management needs. • Lack of resources to run field base studies. • Academic leadership interest.

17. Empowerment opportunities (i.e. EPWP projects) contribute towards local socio-economic development.	
Determinants: Government funding, regional integration of programmes, identified institutional needs.	
Threats	
<ul style="list-style-type: none"> • Finite lifespan of some projects (impact on employment). • Non-sustained funding for projects. 	<ul style="list-style-type: none"> • Logistical and human capacity constraints.

18. AENP has significant cultural heritage assets.	
Determinants: Diversity of cultural assets across broad landscape, diversity of living culture.	
Threats	
<ul style="list-style-type: none"> • Lack of capacity to manage assets. • No clear management guidelines. • Inventory becoming out of date. • Lack of maintenance of identified assets. 	<ul style="list-style-type: none"> • Limited capacity and lack of understanding to interpret cultural heritage. • Lack of funds to manage cultural assets.

5.2.7 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 tend to flow naturally from the vital attributes. The desired state is achieved by means of a hierarchy of objectives, starting with an overall objective aligned with SANParks’ organisational structure and the park’s Vision and Mission statements, then broad, high level objectives (this Section) and then to finer and finer levels of detail, ending with specific operational or management actions (Section 10). The initial stakeholder engagement meeting gave rise to a set of high level objectives. These were refined to reflect the following:

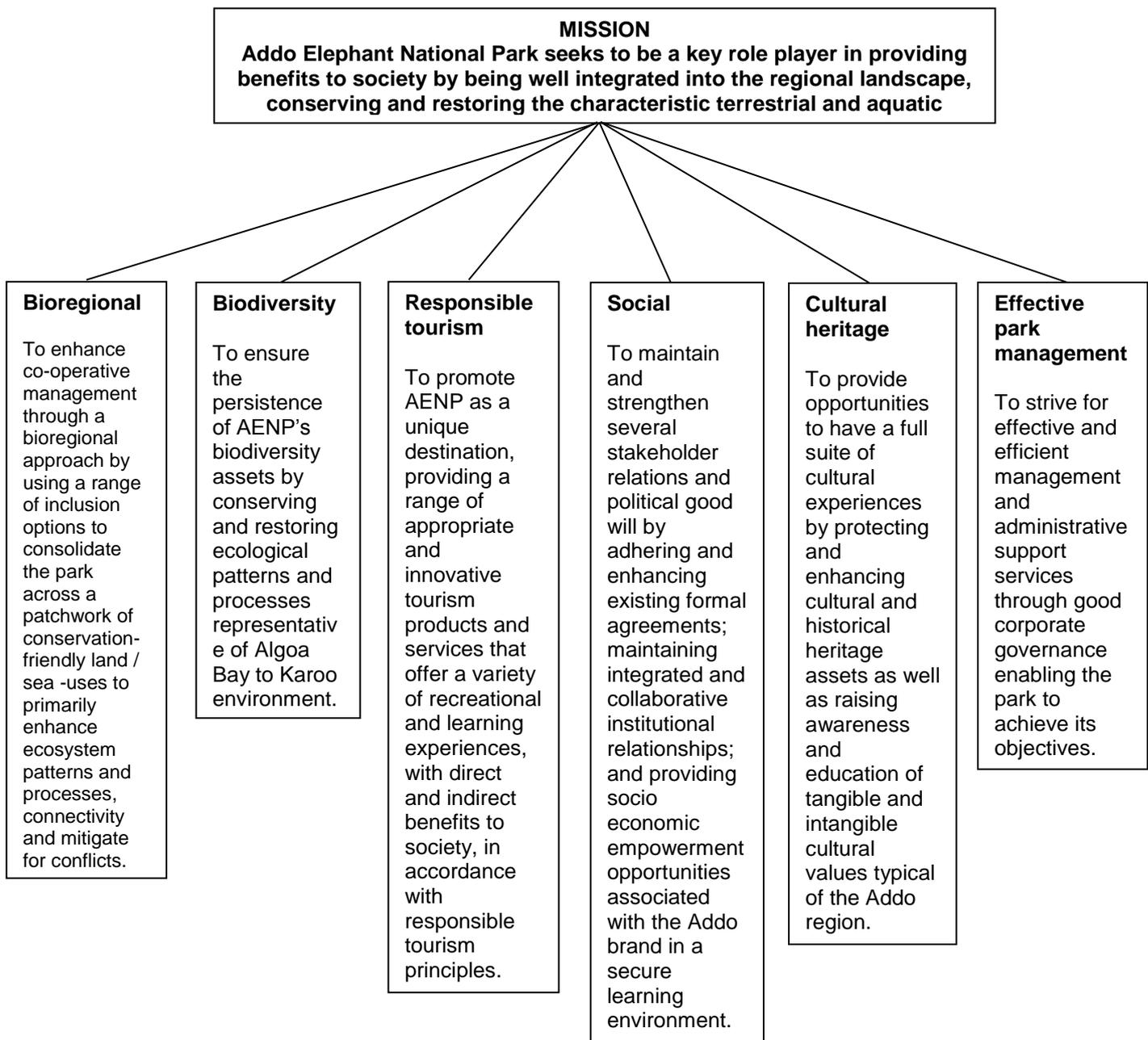


Figure 2: Addo Elephant National Park’s high level objectives.



1. Bioregional high level objective: To enhance co-operative management through a bioregional approach by using a range of inclusion options to consolidate the park across a patchwork of conservation-friendly land / sea -uses to primarily enhance ecosystem patterns and processes, connectivity and mitigate for conflicts.

1.1 Mainstreaming biodiversity objective: To minimise potential conflicts that arise from the differing objectives of non-aligned land-uses in the park buffer zone through responsible engagement with land owners and local authorities and development of conservation options.

1.2 Park consolidation objective: To consolidate the ecological representation and resilience of the park through a series of conservation-focused partnerships and strategic land acquisitions over the next 10 years.

Figure 3: Addo Elephant National Park's bioregional high level objective and supporting objectives.

2. Biodiversity high level objective: To ensure the persistence of AENP's biodiversity assets by conserving and restoring ecological patterns and processes representative of Algoa Bay to Karoo environment.

2.1 Terrestrial biomes objective: To ensure the persistence of all five biomes represented in the region by maintaining and restoring biomes within AENP, and promoting the conservation outcome in the broader coast to Karoo landscape.

2.2 Freshwater ecosystems objective: To ensure the functionality and associated ecosystem services of the freshwater systems in the relevant catchments, by maintaining and restoring the hydrological connectivity and variety of aquatic habitats through interventions within the park and active engagement with stakeholders.

2.3 Marine areas objective: To contribute to the protection and maintenance of functional marine ecosystems in Algoa Bay by managing the existing Marine Protected Area and striving to incorporate a larger MPA (including islands, coastlines and estuaries) through engagement with relevant stakeholders.

2.4 Species of special concern objective: To prevent the decline or loss of endemic or internationally threatened species that occur within AENP by identifying, monitoring and implementing meta-population or species-specific management interventions, and engaging with a range of stakeholders and resource users.

2.5 Ecological processes objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP's terrestrial and aquatic diversity.

2.6 Sense of place objective: To promote the sense of place that AENP provides by minimising disturbance to the park's viewsheds and soundscapes, through appropriate zonation and improving our understanding of tourist perceptions of sense of place.

Figure 4: Addo Elephant National Park's biodiversity high level objective and supporting objectives.

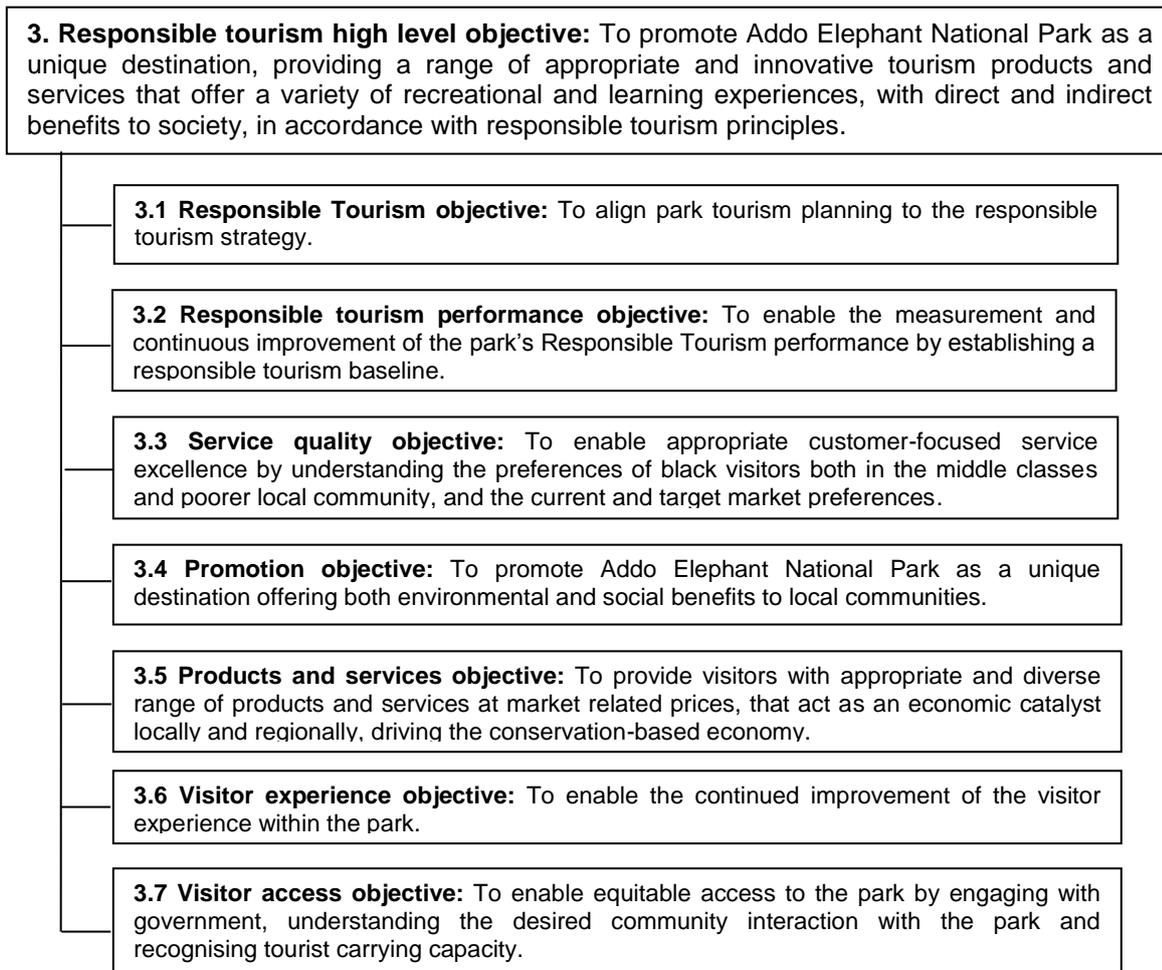


Figure 5: Addo Elephant National Park's responsible tourism high level objective and supporting objectives.



Figure 6: Addo Elephant National Park's social high level objective and supporting objectives.



5. Cultural heritage high level objective: To provide opportunities to have a full suite of cultural experiences by protecting and enhancing cultural and historical heritage assets as well as raising awareness and education of tangible and intangible cultural values typical of the Addo region.

5.1 Inventorisation objective: To continuously improve the inventory of cultural heritage assets by identifying, recording and accurately documenting all cultural resources (including indigenous knowledge and oral history).

5.2 Conservation objective: To preserve the tangible and intangible cultural heritage assets for current and future generations and wherever possible sustainably utilising these assets.

5.3 Awareness objective: To promote understanding and tolerance of other cultures by creating awareness and appreciation of the different cultural heritage assets.

Figure 7: Addo Elephant National Park's cultural heritage high level objective and supporting objectives.

6. 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.

6.1 Environmental management objective: To ensure compliance with environmental legislation and best practise principles for all management activities.

6.2 Risk management objective: To establish and maintain effective, efficient and transparent systems of risk management.

6.3 Financial management and administration objective: To ensure sound financial management and administration.

6.4 Human capital development objective: To ensure sufficient and effective staff capacity to achieve management objectives by adhering to corporate human resource policies and guidelines.

6.5 Information management objective: To implement best practices in the field of records and information management.

6.6 Infrastructure objective: To upgrade and maintain existing infrastructure and develop new infrastructure in support of conservation and tourism in compliance with the zonation.

6.7 Safety and security objective: To provide a safe and secure environment for both visitors and SANParks employees and to ensure that the integrity of the natural and cultural resources is secured.

Figure 8: Addo Elephant National Park's effective park management high level objective and supporting objectives.

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Section 6: Zoning

6.1 Introduction

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

The zoning of the park was based on an analysis and mapping of the sensitivity and value of a park's biophysical, heritage and scenic resources; an assessment of the regional context; an assessment of the park's current and planned infrastructure and tourist products; and an assessment of the expansion plan for the park and its implication for use zoning – all interpreted in the context of corporate values and park objectives.

6.2 Overview of the use zones

The summary of the use zoning plan for the park is shown in (Appendix 6, Maps 4a-c). Full details of the use zones (including high resolution maps), the activities and facilities allowed in each zone, the conservation objectives of each zone, the zoning process, the park buffer zones (detailing park interaction with adjacent areas) and the underlying landscape analyses are included in Appendix 2.

6.2.1 Remote zone

This is an area retaining an intrinsically wild appearance and character, or capable of being restored to such, and which is undeveloped and essentially roadless. There are no permanent improvements or any form of human habitation. It provides outstanding opportunities for solitude with awe-inspiring natural characteristics. If present at all, sight and sound of human habitation and activities are barely discernible and at a far distance. Access is strictly controlled and non-motorised. The conservation objectives for this zone are to protect sensitive environments from almost all development impacts and tourism pressure, which requires that deviation from a natural / pristine state should be minimised, and existing impacts should be reduced. The aesthetic / recreational objectives for the zone specify that activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of the area (solitude, remoteness, wildness, serenity, peace, etc.) will not be tolerated. Remote areas were designated in the mountainous areas and in sections of the Woody Cape dune fields, both which are landscapes with high environmental sensitivity and value.

6.2.2 Primitive zone

The prime 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 size of groups. The zone shares the wilderness qualities of the remote zone, but with limited access roads (mostly 4x4) and basic small-scale self-catering accommodation facilities. Views of human activities and development outside of the park may be visible from this zone. The conservation objectives for this zone are to protect sensitive environments from development impacts by limiting the size, number and sophistication of infrastructure, and to reduce tourism pressure by controlling access and numbers of visitors. This requires that deviation from a natural / pristine state should be small and limited to restricted impact footprints, and that existing impacts should be reduced. The aesthetic / recreational objectives for the zone specify that activities which impact on the intrinsically wild appearance and character of the area, or which impact on the wilderness characteristics of

the area (solitude, remoteness, wildness, serenity, peace, *etc.*) should be restricted and impacts limited to the site of the facility. Ideally visitors should only be aware of the facility or infrastructure that they are using, and this infrastructure / facility should be designed to fit in with the environment within which it is located in order to avoid aesthetic impacts. Primitive areas were designated to protect most of the remaining sensitive areas from high levels of tourist activity. Primitive areas were also designated in areas with relatively low environmental sensitivity to allow access into remote mountainous areas. Most contractual park sections were designated primitive, as the controlled access associated with primitive is compatible with the activities undertaken by the concessionaires. Controlled access trail areas (such as the Alexandria hiking trail) traverse this zone.

6.2.3 Quiet zone

This zone is characterised by unaccompanied (or accompanied under some circumstances) non-motorised access, where visitors can walk or cycle and experience nature without the intrusion of any form of motorised transport. Visitor numbers and densities may be high, and contact between visitors is frequent. Quiet areas were designated primarily along the coastal sections to accommodate non-motorised beach user access. This included most of the Kwaaihoek section between Kenton on Sea and Diaz Cross, the coastal section west of Cannon Rocks, and along the beach from Sundays River mouth east to the start of the proposed MPA restricted zone. This zone has limited application in the park due to the widespread presence of dangerous animals which preclude unaccompanied pedestrian access in many areas.

6.2.4 Low intensity leisure zone

The underlying characteristic of the low intensity leisure (LIL) zone is motorised self-drive access, with basic self-catering facilities. Small or seasonal commercial or catered facilities could be accommodated; however, these should be small and still align within the general ambiance of the zone. Facilities along roads are limited to basic self-catering picnic sites with toilet facilities. The conservation objectives for this zone are to provide motorised self-drive access, with basic self-catering facilities in a natural environment. However, deviation from a natural / pristine state should be minimised and limited to restricted impact footprints as far as possible, it is accepted that some damage to the biophysical environment associated with tourist activities and facilities will be inevitable. The aesthetic / recreational objectives for the zone specify that although activities and facilities will impact on the wild appearance, and that the reduction of the wilderness characteristics of the area (solitude, remoteness, wildness, *etc.*) is inevitable, these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience. Low intensity leisure areas were designated in the game viewing areas (Main camp and Colchester sections, Kabouga, Nyathi, and around Darlington Dam); and in relatively high use recreational areas such as around the administrative area of the Woody Cape section, and the drive-in and car park section of Kwaaihoek. Low intensity leisure areas were only designated if relatively high tourist activity did not conflict with the underlying landscape sensitivity and value analysis.

6.2.5 High intensity leisure zone

The main characteristic of the high intensity leisure (HIL) zone is that of a high density tourist development node with commercial amenities such as shops, restaurants and interpretive centres. This is the zone where more concentrated human activities are allowed, and is accessible by motorised transport on high volume transport routes. The main focus is to ensure a high quality visitor experience, however the conservation objectives still require that the high levels of tourism activity and infrastructure that are accommodated within this zone are planned and managed to minimise the effect on the surrounding natural environment, and that the zone must still retain a level of ecological integrity consistent with a protected area. The aesthetic / recreational objectives for the zone specify although 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.*), these should be managed and limited to ensure that the area generally still provides a relatively natural outdoor experience. High intensity leisure areas were designated at Addo main camp rest camp, Matyholweni camp, the eastern bank of the Sundays River estuary and the area around the potential Zuurberg development tourist node. It has been identified as a future development tourist node, with planned infrastructure including a youth hostel, a viewing platform and a peace monument. A HIL area was also designated on fenced out land near Caesar's Dam, to accommodate future potential commercial community development projects. Regional infrastructure upgrades include the tarring of the Addo-Somerset East road (R335), which will improve access and may increase visitor numbers to the Zuurberg section of the park. The area west of the Bushmans River was noted as a potential high intensity leisure site, as an alternative to Sundays River mouth, which is awaiting the outcome of the EIA process. If the Sundays River mouth assessment is successful, this area will remain as LIL.



6.3 Overview of the special management overlays

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

6.3.1 Special management overlay – Marine Islands

A special management overlay was designated on marine islands that had listed threatened breeding colonies of marine birds (penguins and gannets), and where there is a seal colony.

6.3.2 Special management overlay – Darlington Dam

A special management overlay was designated on Darlington Dam to regulate boat usage to preserve sense of place, to control fishing activities, and to protect fish breeding areas.

6.4 Overview of the park buffer zone

The park buffer zone shows the areas within which landuse changes could affect the park. The zone, in combination with guidelines, serve as a basis for (i) identifying the focus areas in which park management and scientists should respond to EIA's; (ii) helping to identify the sort of impacts that would be important at a particular site; and most importantly (iii) serving as the basis for integrating long term protection of the park into the spatial development framework (SDF) of local authorities. In terms of EIA response, the 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, they do not address activities with broad regional aesthetic or biodiversity impacts.

The park buffer zone has three categories. The first two are mutually exclusive, but the final visual / aesthetic category can overlay the others (Appendix 6, Map 6).

6.5 Priority natural areas

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

6.6 Catchment protection areas

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

6.7 Viewshed protection areas

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

6.8 Current status and future improvements

The current park zonation is based on the earlier 2006 full conservation development framework (CDF). However, in the current revision, certain elements underlying a CDF such as a full tourism market analysis and detailed investigation of development nodes were not fully revised. When deemed necessary, these components will be revised. Remote areas still need to be investigated for possible formal designation as wilderness areas in terms of section 22 of the NEM:PAA.



Section 7: Access and facilities

7.1 Public access and control

The primary routes to access the parks include:

- The R355 Zuurberg Pass road;
- The R342 to Paterson;
- The N2 and R72 Kenton-on-Sea road;
- The R336 Kirkwood road and the R75 between Uitenhage and Graaff Reinet; and
- The R400 and N10 Cradock road for access to the Darlington Dam and Kuzuko sections.

There are various sections in the park, where access is managed either by SANParks or by a contractual partner. SANParks visitors largely enter the park via the two main gates namely the Addo main gate, located approximately 72 km from Port Elizabeth between the towns of Addo and Patterson on the R342 or the Matyholweni gate, situated just outside Colchester, near the N2.

Additional access points to the park include the Kabouga, Zuurberg, Woody Cape, Darlington Dam and Nyathi gates. Not all sections (Zuurberg and Woody Cape) of the park are fenced, and this limits the ability to control access to certain sections of the park. These unfenced areas will be fenced as soon as funding is made available.

Accessing of the marine protected areas would be by boat or helicopter. Boat departures for St. Croix Island would leave from either the harbour in Port Elizabeth, or the Sundays River mouth, whereas access to Bird Island would be via Port Alfred.

7.2 Areas with restricted access

All guests are restricted to the designated tourist roads. Accommodation facilities are for the use of overnight guests only, whilst management tracks are marked with no entry signs. Normal operating hours for the entrance gates are between 07:00 and 19:00 all year round. Gates to game areas open and close at different times based on the season. Entrance gates are staffed by security guards after closing time. Visitors with accommodation bookings can still enter and exit the gates after closing times but before 22:00 provided they inform reception of this. After 22:00, there is no access into the park as gates are closed.

7.3 Airfields and flight corridors

Section 47 (2) of the NEM:PAA applies to the use of the two landing strips located within the park. These are located at Mimosa, coordinates 33° 25' 29.635" S, 25° 51' 7.513" E and Darlington, coordinates 33° 5' 48.282" S, 25° 15' 24.319" E.

In accordance with section 47 (3A) of the NEM:PAA, the park has established two flight corridors for public purpose (Appendix 6, Map 2). These are:

- **The Woody Cape flight corridor:** The coastal flight corridor through the park's airspace over the Woody Cape section comprises three sections of national park land with a lower limit of a 1, 000 feet above ground level (agl). The corridor tracks the vegetated and unvegetated areas of the dune system, to the south of agricultural areas, and **excludes** the forested areas of the park to the south of Alexandria, which is essentially north of a line running between the forest exclusion west point (33° 41' 54.103" S, 26° 10' 21.897" E) and the forest exclusion east point (33° 44' 54.489" S, 33° 44' 54.489" S). The western section of park's land begins on the eastern bank of the Sundays River (33° 42' 59.051" S, 25° 51'

14.406" E), and terminates at the Colchester east point (33° 41' 52.190" S, 26° 1' 30.363" E). The middle section of the park's land begins at the Woody Cape West point (33° 41' 46.006" S, 26° 4' 34.725" E) and terminates at the Woody Cape east point (33° 45' 7.591" S, 26° 31' 44.187" E). The eastern section begins at the Kwaihoek west point (33° 41' 54.103" S, 26° 10' 21.897" E) and ends at the Kwaihoek east point (33° 44' 54.489" S, 26° 21' 16.332" E).

- **The Kirkwood / Somerset East flight corridor:** This flight corridor through the park's airspace over the Zuurberg mountain range follows a 5 nautical mile buffer centred on a straight line between Dunbrody sliding (33° 28' 12.393" S, 25° 32' 25.846" E) just north of the R336, and Russell Park Hamlet (33° 10' 21.534" S, 25° 37' 53.694" E) just south of the R400, on a track of 17.02 degrees. The lower limit of the corridor is set at 1, 500 feet above agl. The centre line of the corridor passes over Klipkuilkop (33° 22' 0.703" S, 25° 34' 19.641" E) to the south of the park corridor, and just to the northwest of Oudekraal farmstead (33° 16' 4.384" S, 25° 36' 8.729" E) in the north of the park corridor. The cardinal bounding coordinates where the flight corridor crosses the park boundary are: NW corner: 33° 16' 36.354" S, 25° 33' 18.399" E, just to the northwest of the Rooimierskloof; NE corner: 33° 16' 23.022" S, 25° 38' 43.543" E, to the northwest of the Round Hill farmstead; SW corner: 33° 21' 30.125" S, 25° 31' 48.320" E, to the northwest of Skietkranskop; SE corner: 33° 21' 15.549" S, 25° 37' 14.125" E, to the southwest of Slagboomkop.

7.4 Administration and other facilities

The facilities listed below in Table 2 (Appendix 6, Map 7a-c) are utilised for operational purposes enabling the park in fulfilling its' legal mandate.

Table 2. Current administrative infrastructure in the Addo Elephant National Park.

Infrastructure	Current status / use	Zone	Proposed role by 2025
Addo section (including Colchester and Nyathi)			
Addo main entrance gate into Park	Existing gate	HIL	Redevelopment to cater for volumes
Administrative offices	Existing facilities	HIL	New development being completed at present
Bus parking sites	Existing facility	HIL	Same as at present
Game drive office	Existing facility	HIL	Same as at present
Horse stables	Existing facility	LIL	Same as at present
Parking area	Existing facility	HIL	Additional parking to be added
Reception area	Existing facility	HIL	Same as at present
Staff housing	Existing facility	HIL	Same as at present
Stores	Existing facility	HIL	Same as at present
Swimming pool parking area	Existing facility	HIL	Same as at present
Coerney research house	Existing facility	LIL	Same as at present
Potgieter's security gate	Existing facility	LIL	Same as at present
Gorah security gate	Existing facility	LIL	Same as at present
Matyholweni gate	Existing facility	HIL	Same as at present
Darlington section			
Darlington entrance gate (South)	Manned, access controlled gate	LIL	No change
Fishermen's cottages	Park staff accommodation	LIL	Possible alternate uses
Darlington Dam Lodge complex	Lodge building used for staff accommodation	LIL	Demolished



Infrastructure	Current status / use	Zone	Proposed role by 2025
Kabouga section			
Rudvale house	Used for staff	Primitive	Demolished
Kruisrivier house	Used for staff	Remote	Same as at present
Kabouga main entrance gate	Manned, access controlled gate	LIL	Same as at present
Kabouga entrance gate	Manned, access controlled gate	LIL	Same as at present
Kabouga section offices ablutions and shed(s)	Existing facilities located at entrance gate	LIL	Same as at present
Marine section			
Bird Island light house	Existing facility owned by Portnet	Primitive	Possible conversion to visitor facilities
Bird Island private launch site	Existing facility	Primitive	Not currently in use
Bird Island jetty	Existing facility	Primitive	Same as at present
Bird Island buildings	Existing facility used by staff	Primitive	Possible visitor use
St Croix Island shack	Existing facility used by staff	Primitive	Same as at present
Woody Cape section			
Section Ranger accommodation	Existing facility	LIL	Same as at present
Woody Cape management facilities	Existing facility	LIL	Same as at present
Sundays River research houses	Existing staff accommodation	HIL	Same or possible consideration as part of proposed tourism development
Zuurberg section			
Zuurberg P&C buildings	Manned by SANParks staff	LIL	Proposed training facility

7.5 Visitor facilities

Visitor facilities include all non-commercial facilities and points of interest available to visitors, to the exclusion of any management and administrative facilities, and are set out in Table 3 below.

Table 3. Visitor facilities and points of interest.

Infrastructure / Visitor sites	Current status / use	Zone	Proposed role by 2025
Addo section (including Colchester and Nyathi)			
Underground hide at Addo Main Camp	Existing facility	HIL	Same as at present

Infrastructure / Visitor sites	Current status / use	Zone	Proposed role by 2025
Addo section (including Colchester and Nyathi)			
Underground hide at Addo main camp	Existing facility	HIL	Same as at present
Floodlit waterhole	Existing facility	HIL	Same as at present
Bird hide at Addo main camp	Existing facility	HIL	Same as at present
Ulwazi Interpretive Centre	Visitor site and point of interest	HIL	Same as at present
Communal kitchen (Rondawels)	Existing facility	HIL	Same as at present
Communal kitchen (Safari tents)	Existing facility	HIL	Same as at present
PPC Discovery Trail	Existing facility	HIL	Same as at present
Picnic area	Visitor site and point of interest	HIL	Same as at present
Swimming pool (residents)	Existing facility	HIL	Same as at present
Domkrag Dam	Visitor site	LIL	Same as at present
Domkrag lookout point	Visitor site	LIL	Same as at present
Gwarrie Pan water hole	Visitor site	LIL	Same as at present
Hapoor Dam water hole	Visitor site	LIL	Same as at present
Jacks picnic site	Visitor site	LIL	Same as at present
Jacks picnic site ablutions	Visitor site	LIL	Same as at present
Janwal Pan water hole	Visitor site	LIL	Same as at present
Spekboom hide	Visitor site	LIL	Same as at present
Spekboom lookout point	Visitor site	LIL	Same as at present
Zuurkop lookout point	Visitor site	LIL	Same as at present
Nyathi water hole	Visitor site	LIL	Same as at present
Carol's Rest water hole	Visitor site	LIL	Same as at present
Lendlovu Pan water hole	Visitor site	LIL	Same as at present
Kadouw lookout point	Visitor site	LIL	Same as at present
Marion Barea water hole	Visitor site	LIL	Same as at present
Roodam water hole	Visitor site	LIL	Same as at present
Woodlands	Visitor site	LIL	Same as at present
Matyholweni arrival / reception area	Existing facility	HIL	Possible expansion to cater for additional visitors
Darlington section			
Darlington Dam	Visitor site and point of interest	LIL	Addition of ablutions and possibly camp sites for visitors, with possible activities on the dam e.g. boat cruises
Kabouga section			
Bedrogfontein 4x4 trail	Existing route	Primitive	Same as at present
Marine section			
Picnic site	Visitor site	LIL	Same as at present
Zuurberg section			
Picnic site	Visitor site	LIL	Same as at present



7.6 Commercial activities

For purposes of this management plan, commercial activities include all income generating facilities, products and services offered, and are broken down into those operated by the park and those operated by third parties for example concession lodges.

7.6.1 Accommodation

Accommodation facilities within the park are currently limited, with much potential for expansion. Existing facilities include those listed in Table 4, below.

Table 4. Accommodation facilities available in Addo Elephant National Park.

Infrastructure / Visitor sites	No of units	Current status / use	Zone	Proposed role by 2025
Addo section (including Colchester and Nyathi)				
Addo main camp				
CH2 - Chalets	1	Self-catering - serviced - economy accommodation	HIL	Same as at present
CH2/4 Chalets	20	Self-catering - serviced - economy accommodation	HIL	Same as at present
CH2/4Z - Chalets (Disability units)	2	Self-catering - serviced - economy accommodation	HIL	Same as at present
CH2S - Chalets	6	Self-catering - serviced - economy accommodation	HIL	Same as at present
CK4T - Tent Sites	12	Camping (budget facilities) (power / no power)	HIL	Same as at present
CK6CP - Caravan / Campsites	21	Camping (budget facilities) (power / no power)	HIL	Same as at present
CO2Z - Cottages (Disability units)	3	Self-catering - serviced - economy accommodation	HIL	Same as at present
FCH2 - Chalet	1	Self-catering - serviced - economy accommodation	HIL	Same as at present
GHH6 - Hapoor Guest House	1	Self-catering - serviced - premium accommodation	HIL	Same as at present
GHH4 - Domkrag Guest House	1	Self-catering - serviced - premium accommodation	HIL	Same as at present
HF4 - Forest Cabins	10	Self-catering - serviced - budget accommodation	HIL	Same as at present

Infrastructure / Visitor sites	No of units	Current status / use	Zone	Proposed role by 2025
HL2 - Rondawels	6	Self-catering - serviced - budget accommodation	HIL	Same as at present
ST 2 - Safari tents	5	Self-catering - Serviced - economy accommodation	HIL	Same as at present
Camp Matyholweni				
CO2Z - Cottages (Disability units)	2	Self-catering - serviced - economy accommodation	HIL	Same as at present
FA3 – Family Cottage	6	Self-catering - serviced - economy accommodation	HIL	Same as at present
Spekboom tented camp				
TC2 - Tent	5	Self-catering - limited service - budget accommodation	LIL	Same as at present
Nguni rest camp				
Units	12	Old concession lodge site	LIL	Self-catering accommodation.
Kabouga section				
Kabouga Cottage	1	Self-catering - limited service - economy accommodation	Primitive	Same as at present
Mvubu camp site and ablutions	6	Camping, budget, power / no power, self-catering economy serviced	LIL	Same, possibly more ablutions
Woody Cape section				
Langebos huts	2	Self-catering - serviced - economy accommodation	LIL	Same, possibly more privacy for braai area
Woody Cape hut	2	Self-catering - serviced - economy accommodation	Primitive	Same as at present
Sundays River Beach Guest House	1	Self-catering - limited service - economy accommodation	HIL	Basic refurbishment for sale, with new development to replace
Zuurberg section				
Narina Bush Camp (tents, ablutions, communal kitchen, lapa and deck)	4	Self-catering - limited service - budget accommodation	Primitive	Possible additional tents and improvement of infrastructure

7.6.2 Concessions / contractual areas

There are three private lodge concessions operating within the park, namely Gorah Elephant Camp, which is owned and operated by Hunter Hotels, Riverbend Lodge and Intsomi, concession which is currently (2014) not operational. Kuzuko contractual area also includes a lodge which is currently managed by Legacy Hotels (Table 5).



Table 5. Commercial facilities available in Addo Elephant National Park.

Infrastructure / Visitor sites	Current status / use	Zone	Proposed role by 2025
Kuzuko Lodge	Luxury commercial lodge	HIL	Operational lodge
Gorah Elephant Camp	Luxury commercial lodge	LIL	Operational lodge
Riverbend Lodge	Luxury commercial lodge	LIL	Operational lodge

7.6.3 Retail and other facilities

The current retail facilities include:

- The park shop concession, managed by Tigers Eye;
- The restaurant and lapa concession, managed by Cattle Baron;
- The filling station; and

There is also a kiosk situated at Jack's picnic site, however this does not currently have an operator.

7.6.4 Activities

There are a number of commercially operated activities available within the park, and these are listed as follows:

- Guided game drives;
- Hop-on-guides (Addo main camp);
- Horse trails (Addo Main camp and Zuurberg);
- Overnight horse trails (Overnight at Narina bush camp);
- 4x4 Trails (Bedrogfontein); and
- Hiking trails (Zuurberg and Woody Cape);

There are currently two operators with permits to run marine eco tours around Bird or St Croix islands, however no docking on the islands is permitted at this time. These activities do not generate income for the park other than charging of park access fees, per activity. Additional activities / events taking place in the park include, amongst others:

- Holiday programmes for children;
- the Zuurberg Great Trek
- Zuurberg runners race; and
- the annual 50 Miler extreme marathon.

Non-commercial experiences are offered to visitors within the park, with the most noteworthy being the PPC Discovery Trail, which offers a short boardwalk experience suitable for able bodied, mobility and visually-impaired visitors, enabling them to enjoy the nature experience in a more tactile and accessible way. In addition, the Addo main camp also offers the SASOL Red Bishop Birdhide, a floodlit waterhole and an underground hide which are all suitable for mobility-impaired visitors.

7.7 Cultural heritage sites

A number of sites, as listed below in Table 6, have already been identified with tourism development and or interpretation potential, this largely based on their location, the extent and intactness of the sites or the potential interest the location.

Table 6. Cultural heritage sites in Addo Elephant National Park.

Infrastructure	Current status / use	Zone	Proposed role by 2025
Kabouga section			
Shell middens	Not currently utilised	Primitive	No change
Jannie Smuts historic house	Not currently used	Primitive	Open for interpretation
Marine section			
St Croix Dias Cross	Not currently used	Remote	To be determined
Woody Cape section			
Chief Chungwa grave site	Visited by school groups	Remote	No change or possibly consider for interpretation
Diaz Cross	Visitor site	Remote	Same as at present
Shell middens	Not currently used	Primitive	
Zuurberg section			
Roundhill historic house	Not currently used	Remote	Possible self-catering 4x4 unit

Within the Woody Cape area, but outside of the park boundaries, there is Chief Nongqawuse’s grave site which is also visited by school groups under the supervision of a SANParks official. There are also a number of shipwrecks at Woody Cape section, which will possible fall within the Marine Protected Area in future, but are not easily visible from current visitor access sites. Also in the Woody Cape section, Kwaihoek area of the park, the Diaz Cross restoration will take place.

7.8 Community use

The following community use activities take place within the park boundaries:

- The Witrivier is used by local communities for ritual purposes;
- Part of the Zuurberg section is used by local communities who used to reside there for traditional rituals;
- The Royal Family visits Chief Chungwa grave site;
- Local communities visits various other gravesites scattered throughout the park;
- Subsistence fishing is allowed between [Cape Padrone](#) and [Woody Cape](#) along the coast;
- Permitted subsistence fishing is allowed in the Sundays River estuary;

7.9 Mining

There is currently no traditional mining taking place in the park and no mining rights / permits have been issued on land falling within the park. However, the park does make use of borrow pits to source gravel for maintenance purposes.

7.10 Servitudes

The various servitudes traversing the park are listed below.

- Telkom: road and tower site, Tootabie property;
- Nelson Mandela Metro: reservoirs in Colchester section, including link road;
- SAPS: Woody Cape section, repeater site (Bailey’s kop);



- Eskom: 3 x KV lines over the Zuurberg through Nyathi;
- Eskom, 1 x KV line, east to west through Colchester section;
- Transnet: 1 x KV line for railways, Nyathi and Kleinvlakte;
- Ndlambe municipality pipe line and extraction point at springs in Woody Cape section;
- Woody Cape resort, right of access to the beach;
- Transnet: Lighthouse on Bird Island.

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Section 8: Consolidation and expansion

The expansion and consolidation of the park remains a national priority for SANParks given its internationally recognised biodiversity, its land / seascape interface and its regional social-economic importance. The expansion and consolidation programme are also informed by SANParks policy regarding land inclusion (SANParks 2006b; Knight *et al.* 2009), and the National Biodiversity Strategy and Action Plan (NBSAP, DEAT 2008) and the three year rolling land acquisition plan. It is important to note that this three year plan can change due to the availability of funds, willing buyer willing seller concept and the negotiation process. The expansion of the park also addresses national objectives, namely:

- Strategic objective 3 of a coordinated approach to the management of terrestrial and aquatic ecosystems; and
- Strategic objective 5 of expanding the national protected area system towards 12% of the terrestrial area.

In addition, it conforms to the National Protected Areas Expansion Strategy (NPAES) (DEAT 2008) that recommends expansion towards 12% of the terrestrial area and 25% of the marine inshore. The rapid expansion of the park since 2004 has largely seen the protection status of Albany Thicket improve considerably (although still in the lower third of biome protected status), as reflected in the National Biodiversity Assessment (NBA) (Driver *et al.* 2012). The NBA identified a number of key new focus areas, namely: wetlands; river systems; high water yield areas and; coastal and inshore marine areas. The expansion of the park will address a number of these.

Expansion of the park in the terrestrial environment can be via direct acquisition by means of own (SANParks) funding, government funding or donation from a private or Non-Governmental Organisation (NGO) donor. In the case of SANParks or state funding the acquired land becomes state land and is declared as national park (Clause 20 (2) of the Protected Areas Act (NEM:PAA No 57 of 2003 and its Amendment No 31 of 2004). In some cases a private entity may acquire the land for national park purposes, but retains ownership (such as World Wide Fund for Nature; National Parks Trust of South Africa) with the land declared Clause 20 (3) of the NEM:PAA. Land can also be included via contractual park agreements which refer to cases where private or communal land is incorporated into the park (and declared under the same Clause 20 (3) of NEM:PAA) under agreement between the parties but they retain ownership. Currently the park has four contractual park agreements. In the case of the marine environment, any expansion of the estate would be via the declaration process under the NEM:PAA.

With the park's mission firmly orientated towards providing a positive regional (from Algoa Bay to Karoo) socio-economic role, the expansion of the park to meet a combination of ecological (in terms of patterns and process), cultural and economic objectives is well articulated. The expansion programme is in full congruence with SANParks accepted policy and biodiversity values (SANParks 2006) and follows the SANParks land acquisition framework (Knight *et al.* 2009). With the park expanding in the terrestrial and marine environments, it invokes numerous national acts.

Refinement of the 2002 systematic conservation plan saw the desired state for the park being set to a total of 352, 813 ha, including 235, 773 ha terrestrial and 117, 039 ha marine area - inclusive of continental islands (51% of the 686, 000 ha original planning domain). The new desired state includes a shortfall of 173, 948 ha (64, 165 ha terrestrial and 109, 783 ha marine) on top of the current 178, 913 ha (171, 711 ha terrestrial, 7, 202 ha marine) large park. The approach that SANParks will follow can be found in section 10.1.2 on page 61.

The above terrestrial increase is primarily focused on Thicket (53%), Fynbos (32%), Azonal (12%), Nama-Karoo (3%) and Wetland (0.01%) type vegetation types.

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Section 9: Concept development plan

9.1 Long term development plan

Development is not considered lightly and is only done so in order to fulfil a real operational need or tourism opportunity. Addo Elephant National Park has been identified as a park that is currently sustainable and holds significant development potential, in order to drive tourism as an enabler for conservation.

The product development strategy provides a structured approach to product development in SANParks ensuring that all tourism developments and activities deliver on the triple bottom line of responsible tourism namely, economic, social and environmental sustainability. The strategy gives rise to the product development framework (Appendix 4) which is a list of all the possible development opportunities. The final component is the product development matrix which prioritises the final list of agreed projects. Various sites have been identified for development with expansion of the Addo main camp, Woody Cape, Darlington and Matyholweni the priority areas. Whilst opportunities exist elsewhere these are slower to realise due to the more remote locations and limited attractions available. Development will also focus on expansion of the potential activities offered in the park and on the park periphery, as extensive expansion to park roads and infrastructure is not possible without impacting on the sense of place, and the costs are too high.

Alternative income-generating opportunities will be investigated, such as investigating new markets e.g. the conference and events markets, largely resulting from the creation of the Coega IDZ and subsequent growth in the Port Elizabeth corporate market, as well as finding passive income generation methods, where viable.

Caution should be exercised when considering any tourism development. The zonation of the park will dictate the placement of any development and it is important to note that the implementation of identified projects is dependent on complying with environmental legislation and the availability of funds. During the planning phase of any development to be placed along the coast, special attention will be given to ensure that the coastal setback line is adhered to.

9.2 Development nodes

The primary development node for the park is the Addo main camp.

9.3 Communication routes

Communication at present would need to be improved to remote sections such as Darlington Dam, Kabouga and Woody Cape.

9.4 Service supply routes

Where possible existing supply routes will be used, however upgrade of existing services will be required in Addo main camp, and new services will need to be added for development of the Matyholweni campsites as well as any development in the Darlington and Kabouga sections. Should development be considered at the Sundays River mouth, this will also need services to be upgraded.

9.5 Infrastructure development proposals

All infrastructure development proposals, including activity development proposals are presented in Tables 7 - 11 below.

9.5.1 Administration and other facilities

The facilities set out in Table 7 below will be utilised for operational purposes enabling the park in fulfilling the legal mandate of SANParks.

Table 7. Proposed administrative infrastructure development in the Addo Elephant National Park.

Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Addo section (including Colchester and Nyathi)				
Addo offices and ablution block	Implementation	HIL	Additional offices for park management	High
Main Gate improvement	Planning	HIL	Move reception to gate, more parking, IT, security and activity hub	High
Olifantsplaat bush camp access road	Project initiation in the Colchester section	LIL	If bush camp is developed then 1km gravel road will be required for access	Medium
Addo roads upgrade	Ongoing	LIL	Upgrade existing gravel roads and road to Nguni rest camp	Medium
Main road between Matyholweni and Addo main camp	Planning	LIL	Tar main road between main nodes	Medium
Office and staff village at Matyholweni	Planning	HIL	Additional offices and accommodation for park management	High
2-track roads	Investigation	LIL	Circular routes on existing tracks to be maintained and upgraded to two track roads	Low
Darlington section				
Darlington Dam fence (western side)	Investigation	LIL, Primitive	27 km section of the park to be fenced off, to enable game introduction	High
Darlington Dam staff house	Planning	LIL	Convert staff house into reception	Low
Henderson fence	Implementation	LIL	Complete fence construction on the western side of the dam	High
Kabouga section				
Kabouga section fence	Investigation	LIL, Primitive, Remote	79km Product development, elephant management plan	Medium

9.5.2 Visitor facilities

Visitor facilities include all non-commercial facilities and points of interest available to visitors, to the exclusion of any management and administrative facilities, and are set out in Table 8 below.

Table 8. Proposed visitor facility development in the Addo Elephant National Park.

Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Addo section (including Colchester and Nyathi)				
Addo main camp - children's play area	Planning	HIL	Play area with equipment	High
Addo main camp –day visitor area	Planning	HIL	Separated from overnight visitors	High
Matyholweni picnic site	Planning	HIL	30 Picnic sites, ablution, road access (200m)	Medium



Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Matyholweni swimming pool and children's play area	Planning	HIL	Swimming pool and play area with equipment	High
Darlington section				
Visitor ablution facilities	N/A	LIL	Development of ablutions for campers and fishermen	High

9.5.3 Commercial activities

There are a wide variety of commercial activities to be developed within the park, in order to expand the tourism product and the park in a sustainable manner. All activities will be individually investigated and their priority determined based on feasibility and income potential. Following these studies, some potential activities may be excluded from potential development. In addition, there are a large number of activities for potential 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 supplier present a real opportunity, any and all products may be considered based on the agreed terms and locations, as per the park product development framework.

9.5.3.1 Accommodation

Table 9. Proposed accommodation development in the Addo Elephant National Park.

Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Addo section (including Colchester and Nyathi)				
Addo main camp – additional units	Planning	HIL	20 Units (family units) including visitor ablutions	Medium
Addo main camp – additional camping sites	Planning	HIL	10 Additional sites with own ablutions	High
Matyholweni rest camp	Initiation	HIL	10 additional units	High
Matyholweni caravan park	Planning, EIA to be completed	HIL	Including camp and caravan sites - 31 (16 with own ablutions, 15 shared)	High
Olifantsplaat bush camp	Initiation	LIL	Five units, water available, historic site, solar, 1km gravel road for access	Medium
Nguni rest camp upgrade	Implementation / planning	LIL	Upgrade 12 units, services	Definite
Darlington section				
Darlington Dam bush camp	Initiation	LIL	Five units, services (water), solar, 4x4 access	Medium
Darlington Dam camp site	Initiation	HIL	Add 20 units and services for fisherman and weekend use.	High

Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Woody Cape section				
Coastal guesthouse	Planning	HIL	Refurbish existing guest house for selling	High
Coastal rest camp	Initiation, feasibility study	HIL	20 units, reception, entrance gate, small conference, water (6,7km) is big constraint, power	High
Springs wilderness camp	Planning	LIL	5 Units, services available, high clearance vehicle	High
Kabouga Section				
Kabouga bush camp at Mvubu	Initiation	LIL	Five units, services (water), solar, 4x4 access	Medium

9.5.3.2 Concessions

At present (2014) no immediate concession development has been identified however consideration will be given to public private partnerships (PPP) for identified development locations and unsolicited bids.

9.5.3.3 Activities

Leisure activities are a mechanism 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.

During this cycle, Zuurberg and Kabouga have been identified as the park sections where most activity development is likely to occur, though specific events and development of MICE tourism may also be a focus area (Table 11).

Table 10. Proposed activity development in the Addo Elephant National Park.

Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Addo section (including Colchester and Nyathi)				
River boat trips	13km river trip – Sundays River	N/A	Develop own product or generate income from 3 rd party products	High
Game drives at Matyholweni	New product	LIL	Opportunity for development	High
Darlington section				
Darlington Mile (three day package)	New event opportunity	LIL, Primitive	Develop annual event	Medium
Kabouga section				
River rafting	New product	Remote	Opportunity for development	Medium
Marine section				
Island trips to St Croix	New product	Primitive	Opportunity for development	High
Island trips to Bird Island	New product	Primitive	Opportunity for development	High



Infrastructure / Visitor sites	Current status / Use	Zone	Proposed role by 2025	Probability
Bird Island lighthouse keepers house renovation	Owned by Transnet, soon to be transferred	Primitive	Opportunity for development and interpretation	Medium
Woody Cape section				
Sand boarding	Product not sold at present other than by 3 rd party operators	Primitive	Develop own product or generate income from 3 rd party products	High
Horse riding	Existing product	Remote	Expand existing product variety and packaging	High
Mountain biking	New product development	Remote	Opportunities in various park sections	High
4x4 Trail (Coast to Karoo)	Existing product	Primitive	Expand existing product variety and packaging	High
Zip line	New product	Primitive	Opportunity for development	Medium

9.5.4 Cultural heritage sites

The Department of Rural Development and Land Reform announced in April 2013 that the Zuurberg Peace Memorial development will commemorate an event, commonly referred to as the fourth border war that occurred in 1800's, when there was a war between the Dutch, AmaRharhabe, the Khoi and the San. The Department also confirmed that 55 hectares of land worth more than R1.7 million was bought where the development will take place, including among others, a pathway from the hotel to the memorial site, an interpretation centre and a parking. The project is estimated at about R30 million and that the construction of the project is expected to start in 2015. The Department has indicated that SANParks will be approached to assist with the management of this peace memorial.

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Section 10: Strategic plan

10 Introduction

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

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

- Bioregional;
- Biodiversity;
- Tourism;
- People and Conservation; 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 higher level objectives, which make up each programme;
 - **Actions:** The actions necessary to achieve the objective;
 - **Responsibility:** The SANParks person, section, department, division or unit responsible for implementing the action;
 - **Indicator:** A measure whereby the achievement of the objective can be evaluated;
 - **Timeframe:** An indication of when the action is likely to be completed (indicated by year over the planning cycle); and
 - **References:** References to relevant programmes, lower level plans (LLP's) or other documents.

The commitments outlined in the various programmes under section 10 are aligned with the performance management system of the operational staff. This is revised annually to ensure all the actions will be implemented.

10.1 Bioregional

The purpose of the bioregional objective is to conserve systems and processes within and around the park by acquiring sufficient land to consolidate and manage the park and to influence developmental processes in the park buffer zone. The park recognises that partnerships could be developed with other likeminded organisations to maintain the faunal and floral assemblages and ecological processes representative of the area for the long-term beneficiation of the region and country. It aims to collaborate with relevant international, national, provincial and local government structures; non-governmental organisations (NGO's) and land owner groups.

10.1.1 Mainstreaming biodiversity programme

The purpose of this programme is to engage and interact with local and district municipalities, non-governmental organisations, neighbours, surrounding communities *etc.* bordering the park to ensure that biodiversity considerations are taken into account as far as possible and as appropriate, into all developmental decisions.

The park has on its surrounding borders a myriad of land uses taking place, from traditional farming to luxury game farms and even industrial development. Citrus farming is widespread and important economic agricultural industry in the Sundays River Valley, and is expanding. Wind farms in the park buffer can also impact on a park visitor's sense of place. Industry and activities in Port Nqgura and the Coega IDZ may also impact negatively on both the marine and terrestrial environment. All of these activities can negatively affect the natural systems in the park and its future to conserve biodiversity, if left unchecked and uninformed. The park aims to minimise the negative impacts of poor conservation strategies and development along its borders, through the proactive engagement with surrounding land owners and regional planners. The primary mechanism to address these concerns is through the park's buffer zone (Appendix 6, Map 6). The buffer zone serves as a guide to indicate areas within which land use changes could affect the park, and where park management and scientists should assess, and where required, respond to EIA's as an interested and affected party. SANParks may also respond to developments with broader regional impacts, even if these occur outside the buffer zone, but are deemed to have an impact on the park. Ultimately, the park and its buffer zone should be integrated into the Integrated Development Plans (IDP) and SDF of local and district municipalities.

With French Global Environment Facility funding, SANParks has helped facilitate the development of fine scale biodiversity sector plans for the four local municipalities surrounding the park (Vromans *et al.*, 2012a, b, c, d), which are available on the biodiversity geographical information system (<http://bgis.sanbi.org/Addo/project.asp>). This is at a finer scale than the provincial Eastern Cape biodiversity conservation plan (Berliner and Desmet 2007).

The achievement of the park's aspirations depends on understanding the relationships and inter-dependencies between various strategic planning processes and partnerships in the region. The park will co-operate with the relevant national, provincial and local government structures insofar as these affect the park and keep track of issues affecting the park and region to ensure functional ecosystems are protected. By highlighting the importance of biodiversity, the park intends to raise awareness of people and communities, in the buffer zone, to the challenges of conservation in the region. By building positive relationships with land owners and providing a central point for conservation ideas and examples the park can achieve the objective of this programme.

This programme links with high level objective 1 and objective 1.7 on page 35.



MAINSTREAMING BIODIVERSITY PROGRAMME

Objective: To enhance co-operative management through a bioregional approach by using a range of inclusion options to consolidate the park across a patchwork of conservation-friendly land / sea-uses to primarily enhance ecosystem patterns and processes, connectivity and mitigate for conflicts.

Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To minimise potential conflicts that arise from the differing objectives of non-aligned land-uses in the park buffer zone through responsible engagement with land owners and local authorities and development of conservation options.	Identify land use and transformation trends in park buffer zone, and how these may affect the park.	CSD, PM	Report	Year 3	
	Update landuse planning databases for landuse assessment, Sector plans, CBA data, SPOT5 imagery <i>etc.</i>	CSD	Data bases	Year 2	
	Identify possible external threats from development.	CSD, PM	List of threats	Year 2	
	Participate in IDP and SDF processes to influence decisions.	PM	Minutes of meetings	Ongoing	
	Establish a development forum to discuss new development within the buffer zone that will affect the park.	PM, CSD	Minutes of meetings	Year 3 and thereafter ongoing	
	Respond to EIA's, scoping reports <i>etc.</i>	PM, CSD	Scoping, EIA reports	Ongoing	
	Engage with identified and prioritised land owners to achieve common conservation goals.	PM, CSD	Minutes of meetings	Ongoing	

10.1.2 Park consolidation programme

The purpose of this programme is to achieve the SANParks goal of conserving ecological systems and patterns typical of the region by acquiring conservation worthy land through purchase or other means by following the SANParks land acquisition framework. The rationale for this programme can be found in section 8 on page 51.

Land parcels have been provisionally identified for inclusion via one of three methods, namely acquisition (focused primarily on biologically or logistically important properties), contractual (less important or large land parcels under some form of wildlife land use), or either acquisition / contractual inclusion (for those of intermediate importance ratings). A total of 14, 201 ha, 7, 417 ha or 42, 546 ha has been identified for each of the three methods, respectively. Estimates of the total acquisition costs based on current 2014 prices total about R114 m. However, with the reality of reduced land grant budgets and increasing land prices, land parcels identified for acquisition have been further subdivided into those of **high** (isolated private land surrounded by SANParks land or that of critical logistical or ecotourism importance), **medium** (moderate importance) or **lower** (nice to have but not need to) priority. A total of 1, 861 ha (estimated value of R19 m), 12, 693 ha (estimated value R84 m) and 1, 291 ha (estimated at R13 m) have been identified for these three categories.

A systematic conservation plan for the planned MPA was developed based upon expert opinion, as well as baseline data collected through several research projects. Commercial fisheries data was overlaid to determine an estimated cost to fisheries.

A preliminary stakeholder engagement process was undertaken with key participants to determine the impact of the proposed MPA zonation on current use patterns (Oosthuizen 2010). With support from both the Departments of Environmental Affairs (DEA) and also Agriculture, Forestry and Fisheries (DAFF), it is planned to follow the declaration process towards establishing the broader MPA.

It is expected that the planned consultative process with stakeholders with regards the proposed 117, 039 ha large MPA with its 57, 943 ha controlled (fishing allowed, but controlled by national legislation) and a 59, 695 ha restricted zone (no fishing allowed) will be renegotiated to address both biodiversity requirements and socio-economic impacts of the MPA.

In addition, after the recent promulgation of the National Estuarine Management Protocol (Government Gazette No. 36432, 10 May 2013), SANParks will restart the declaration process of the Sundays River estuary, expanding upon the current draft plan (IECM 2011). This entails management proposals over 21 km upriver from Sundays River estuary.

This programme links with high level objective 1 and objective 1.7 on page 35.

PARK CONSOLIDATION PROGRAMME					
High level objective: To enhance co-operative management through a bioregional approach by using a range of inclusion options to consolidate the park across a patchwork of conservation-friendly land / sea -uses to primarily enhance ecosystem patterns and processes, connectivity and mitigate for conflicts.					
Objective: To consolidate the ecological representation and resilience of the park through a series of conservation-focused partnerships and strategic land acquisitions over the next 10 years.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To acquire strategically identified properties to ensure that ecological deficiencies and the logistical and development requirements of terrestrial part of park management are addressed.	Update the conservation expansion plan as per section 8 of this document.	CSD, PM	Plan	Ongoing	
	Motivate and prioritise acquisitions.	CSD, PM	Priority list	Year 1	
	Obtain and allocate required funding.	CSD,	SANParks expansion plan	Annually	
	Target the acquisition of 14,000 ha over 10 years.	CSD, PM	Purchase agreements	Year 10	
	Review conservation expansion plan.	CSD, PM	Annual report	Year 3, ongoing	
To establish a MPA in Algoa Bay that integrates sustainable protection with the AENP and use of the marine resources that benefits people and the environment.	Intention to declare the MPA gazetted.	DEA	GG	Year 1	
	Public participation completed.	CSD, DEA	Report	Year 1	
	MPA and estuarine management plans completed and accepted by stakeholders.	CSD	Document	Year 2	
	Declare MPA.	DEA	GG	Year 2	

10.2 Biodiversity

Biodiversity management is a core mandate of the park, along with responsible tourism and maintaining stakeholder relationships. The park’s approach to biodiversity is necessarily in line with SANParks policies and the principles of strategic adaptive management. The primary biodiversity objective is: To ensure the persistence of the park’s biodiversity assets by conserving and restoring ecological patterns and processes representative of Algoa Bay – Karoo environment.

As such, a number of biodiversity management programmes were developed to effectively manage the diversity, patterns and processes of the unique bioregions scattered across the park’s land / sea scape. The key management strategies listed below cover the next planning cycle (or longer), in order to advance towards the park’s desired state in terms of biodiversity management, and represent the sub-objectives of the biodiversity programme:

- Ensure the persistence of all five biomes represented in the region by maintaining and restoring biomes within AENP, and promoting the conservation outcome in the broader coast to Karoo landscape;



- Ensure the functionality and associated ecosystem services of the freshwater systems in the relevant catchments, by maintaining and restoring the hydrological connectivity and variety of aquatic habitats through interventions within the park and active engagement with stakeholders;
- Contribute to the protection and maintenance of functional marine ecosystems in Algoa Bay by managing the existing MPA and striving to incorporate a larger MPA (including islands, coastlines and estuaries) through engagement with relevant stakeholders;
- Prevent the decline or loss of species that occur within the park by identifying, monitoring and implementing meta-population or species-specific management interventions, and engaging with a range of stakeholders and resource users;
- Conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with the park's terrestrial and aquatic diversity;
- Promote the sense of place that AENP provides by minimising disturbance to the park's viewsheds and soundscapes, through appropriate zonation and improving our understanding of tourist perceptions of sense of place; and
- Enhance co-operative management through a bioregional approach by using a range of inclusion options to consolidate the park across a patchwork of conservation-friendly land / sea -uses to primarily enhance ecosystem patterns and processes, connectivity and mitigate for conflicts.

10.2.1 Terrestrial biomes

The park encompasses five of South Africa's nine biomes: - **Albany Thicket** in the original Addo section (also in the Kabouga, Colchester, Nyathi section), **Fynbos** in the Zuurberg section, **Forest** in the Woody Cape area, **Nama Karoo** in the Darlington section and Kuzuko contractual area of the park and the **Indian Ocean Coastal Belt** on the seaward side containing remarkable display of coastal dunes and coastal grassy plains.

The aim is to maintain or, where necessary, restore these biomes within the park. Rehabilitation forms the first component of this programme, while control of invasive alien plants, as well as alien or extra-limital faunal species makes up the remainder.

10.2.1.1 Degradation and rehabilitation programme

The purpose of this programme is to regain natural habitat composition, structure and function and thereby enhance ecosystem services and reduce the risk of natural disasters or human induced impacts by improving landscape stability and resilience.

Degradation processes in the park can be ascribed to several environmental factors, past land use and current management practices. The parks expansion programme into the agricultural areas has seen the inclusion of large tracts of transformed (ranging from lightly grazed to heavily cultivated citrus orchards) landscapes and unwanted structures. In some of the old cultivated areas (*i.e.* Addo main camp in Kleinvlak and grassland plains) passive rehabilitation is taking place. However, natural succession over the years has only climaxed to the herbaceous component with little or no recruitment of woody species representing the pre-disturbed plant communities. In areas affected by past or current herbivore management practices, removal of basal vegetation cover and associated soil capping are evident, leading to soil degradation such as sheet, rill and gully erosions (*i.e.* Darlington area). Similar to old cultivated lands, the natural ecological processes (*e.g.* nutrient recycling, infiltration) have been lost or degraded and need be restored to speed-up the return of natural vegetation patterns and processes.

Other factors contributing to degradation of vegetation in the park include how herbivores (*i.e.* warthog, elephants *etc.*) utilise different landscape. Warthog have been observed to degrade most of the grassland habitats where basal cover is adversely affected leading to change in vegetation composition (*i.e.* colonisation by annual species and weeds). Elephants are also great architects of vegetation structure and where they are impacts are intensive (*i.e.* Ado main camp), the bush clump structures are altered and directly affect the microclimate habitats.

Some areas are also re-vegetated with Spekboom to speed-up vegetation recovery. The recovery in these areas differs according to intensity of use by herbivores and other tourism related activities defined by park zonation. The effected rehabilitation measures in degraded vegetation communities are mainly focusing on re-vegetation with the Spekboom plant. It is aimed at reinstating the lost functionality processes such as nutrient cycling (litter accumulation), soil chemistry, and infiltration. Monitoring in these areas include landscape function analysis focusing on landscape stability, nutrient cycling and infiltration to detect changes in the rehabilitated areas (Tongway and Hindley 2004).

Rehabilitation in areas affected by soil degradation include gully control methods such as re-sloping, silt fencing, brush packing and gabions constructions (Coetzee 2005). Where sheet erosion was identified as a major degradation concern, combination of soil ponding and brush packing is undertaken to break capped soils and facilitate sediments and seeds capture. Water runoff is also accelerated by road infrastructure in areas of high tourism intensities.

If rehabilitation does not receive attention, the park runs the risk of allowing further degradation which consequently has negative impacts on biodiversity. The risks involved include increased hectares of land invaded by alien species, erosion, loss of biodiversity and reduced forage to support game.

A detailed lower level plan outlining the rationale and operational approach is available. Many of the degraded areas have also been invaded by invasive alien plants. Invasive alien clearing will be addressed in programme 10.2.1.2 below.

This programme links with high level objective 1 and objective 1.1 on page 35.

DEGRADATION AND REHABILITATION PROGRAMME					
Degradation objective: To minimise habitat degradation that will lead to a loss of structure and function and the key processes which support the long term persistence of biodiversity and ecosystem services.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To integrate all biophysical data to reflect the status of landscape functionality in non-degraded and degraded ecosystems.	Collate old and new GIS layers (vegetation, erosion, aliens) into one database.	BSP, CSD, PM	Document	Year 1	
	Produce degradation status map reflecting alien invasion, soil, and vegetation degradation.	BSP, CSD	Maps	Year 2	
To minimise or prevent degradation in areas affected by monitoring selected indicators as provide early warning signals.	Monitor landscape functionality using infiltration, nutrient cycling, stability and vegetation as indicators of change in non-degraded area.	BSP, CSD	Status report	Annually	
	Measure temperature, moisture (in bush clumps) and determine invertebrates diversity in less or non-degraded areas.	CSD	Monitoring report	Annually	
	Monitor landscape functionality using infiltration, nutrient cycling, stability and vegetation as indicators of change in rehabilitated areas.	BSP, CSD	Status report	Annually	
Rehabilitation objective: To manage towards re-establishment of structure and function of degraded land, including the rehabilitation of key processes which support the long term persistence of biodiversity and ecosystem services.					
To rehabilitate priority areas identified and monitor recovery processes.	Rehabilitation of areas affected by sheet, rill and gully erosions.	PM, BSP, CSD	BSP monthly reports	Ongoing	
	Re-vegetation (<i>i.e.</i> using spekboom and other woody pioneer species) in degraded plant communities.	PM, BSP, CSD	BSP monthly reports	Year 5	
	Monitor landscape functionality in rehabilitated areas.	PM, BSP, CSD	Monthly reports	Ongoing	



Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
Rehabilitation objective: To manage towards re-establishment of structure and function of degraded land, including the rehabilitation of key processes which support the long term persistence of biodiversity and ecosystem services.					
To rehabilitate priority areas identified and monitor recovery processes.	Re-vegetation (<i>i.e.</i> using spekboom and other woody pioneer species) in degraded plant communities for Darlington section.	PM, BSP, CSD	BSP monthly reports	Ongoing	
	Monitor landscape functionality in rehabilitated areas using infiltration, nutrient cycling, stability, invertebrates and vegetation as indicators of change.	BSP, CSD	Surveys and monitoring results	Annually	

10.2.1.2 Alien and invasive species programme

The purpose of this programme is to prevent entry and control invasive alien species in order to reduce their distribution, abundance and impacts, thereby maintaining the integrity of the indigenous biodiversity of the park.

Invasive alien species are accepted to be one of the largest, and fastest growing, threats to biodiversity and the ecosystem services they support. Invasive alien species can transform the structure and species composition of ecosystems by replacing indigenous species, either directly by out-competing them for resources or by changing the way nutrients are cycled through the ecosystem. Other negative impacts include, for example, changes to fire regimes, potential loss of rare or threatened species and replacement of preferred feeding areas by non-palatable species. Many international conventions call for the management of invasive alien species (*e.g.* the Convention on Biodiversity). In South Africa, the management of alien and invasive species is mandatory under the National Environmental Management: Biodiversity Act No 10 of 2004 (NEM:BA). The Conservation of Agricultural Resources Act No 43 of 1983 (CARA) provides additional guidance for the management of invasive alien plants. The alien and invasive species management framework for SANParks (Hendricks and Symonds 2009) provides the context within which all management of alien and invasive species is implemented.

The likelihood of eradication or maintenance control varies considerably with species and terrain invaded, with, for example, the likelihood of eradicating established fish populations is highly unlikely. As with invasive plants, rapid response is required to remove species before being allowed to build up large populations.

List of invasive species occurring in Addo Elephant National Park

89 Alien plant taxa have been recorded for the park. In addition to the plants species there are also currently 12 mammal (including six extra-limital and five feral), two bird and six fish and one shell fish species that have been recorded for the park and is listed in Table 12 below.

Table 11: List of invasive alien plant and animal species recorded in Addo Elephant National Park.

Taxonomic group	Scientific name	Common name	Current perceived level of threat
Plants	<i>Acacia baileyana</i>	Bailey's wattle	Low
	<i>Acacia cyclops</i>	Rooikrans	Low
	<i>Acacia longifolia</i>	Long-leaved wattle	Low
	<i>Acacia mearnsii</i>	Black wattle	Medium
	<i>Acacia melanoxylon</i>	Australian blackwood	Low
	<i>Acacia saligna</i>	Port Jackson willow	Low
	<i>Achyranthes aspera</i>	Burweed	Medium
	<i>Adiantum raddianum</i>	Delta maidenhair fern	Low
	<i>Agave americana</i>	American aloe	Low
	<i>Agave sisalana</i>	Sisal	Low
	<i>Agrimonia odorata</i>	Fragrant agrimony	Low
	<i>Amaranthus hybridus</i>	Common pigweed	Low
	<i>Anagallis arvensis</i>	Scarlet pimpernel	Low
	<i>Anredera cordifolia</i>	Madeira vine	High
	<i>Argemone mexicana</i>	Yellow-flowered Mexican poppy	High
	<i>Argemone ochroleuca</i>	Sweet Mexican poppy	Medium
	<i>Atriplex nummularia</i>	Old man saltbush	Medium
	<i>Azolla filiculoides</i>	Red water fern	Medium
	<i>Bauhinia purpurea</i>	Butterfly orchid tree	Low
	<i>Bidens pilosa</i>	Common blackjack	Medium
	<i>Bromus catharticus</i>	Rescue grass	Low
	<i>Capsella bursa-pastoris</i>	Shepherd's purse	Low
	<i>Cardiospermum grandiflorum</i>	Balloon vine	Low
	<i>Carduus tenuiflorus</i>	Slender-flowered thistle	Medium
	<i>Cassytha filiformis</i>	False dodder	Medium
	<i>Casuarina cunninghamiana</i>	Beefwood	Low
	<i>Catharanthus roseus</i>	Madagascar periwinkle	Low
	<i>Centaurea melitensis</i>	Cornflower	Low
	<i>Cereus jamacaru</i>	Queen of the night	Medium
	<i>Cestrum laevigatum</i>	Inkberry	High
	<i>Chenopodium album</i>	White goosefoot	Low
	<i>Cirsium vulgare</i>	Scotch thistle	Medium
	<i>Cortaderia selloana</i>	Pampas grass	High
	<i>Cuscuta campestris</i>	Golden dodder	Medium
	<i>Cyclosporum leptophyllum</i>	Wild celery	Low
	<i>Cylindropuntia imbricata</i>	Cane cholla	High
	<i>Datura ferox</i>	Large thorn apple	Medium
	<i>Datura innoxia</i>	Downy thorn-apple	Medium
	<i>Datura stramonium</i>	Thorn apple	Medium
	<i>Diplotaxis muralis</i>	Sand rocket	Medium
	<i>Dolichandra unguis-cati</i>	Cat's claw creeper	Medium
	<i>Dysphania carinata</i>	Green goosefoot	Medium
<i>Echinopsis spachiana</i>	Torch cactus	Medium	
<i>Emex australis</i>	Spiny emex	Low	
<i>Erodium cicutarium</i>	Common storksbill	Low	
<i>Eruca vesicaria</i>	Rocket	Low	
<i>Eucalyptus diversicolor</i>	Karri	Medium	
<i>Eucalyptus globulus</i>	Blue gum	Medium	



Taxonomic group	Scientific name	Common name	Current perceived level of threat
Plants	<i>Eucalyptus gomphocephala</i>	Australian white-gum	Medium
	<i>Fallopia convolvulus</i>	Black bindweed	Low
	<i>Fumaria muralis</i>	Fumitory	Low
	<i>Galinsoga ciliata</i>	Hairy galinsoga	Low
	<i>Gamochaeta purpurea</i>	Purple cudweed	Low
	<i>Gomphrena celosioides</i>	Prostrate globe amaranth	Low
	<i>Grevillea robusta</i>	Australian silky oak	Low
	<i>Harrisia martinii</i>	Snake cactus	Medium
	<i>Hypochoeris brasiliensis</i>	Brazilian cat's ear	Low
	<i>Hypochoeris radicata</i>	Cat's ear	Low
	<i>Jacaranda mimosifolia</i>	Jacaranda	Low
	<i>Lantana camara</i>	Lantana	High
	<i>Lepidium didymum</i>	Carrot weed	Medium
	<i>Lolium rigidum</i>	Wimmera ryegrass	Low
	<i>Malvastrum coromandelianum</i>	Prickly malvastrum	Low
	<i>Melia azedarach</i>	Chinaberry	Low
	<i>Myrtillocactus geometrizans</i>	Bilberry cactus	Medium
	<i>Nicandra physalodes</i>	Apple-of-Peru	Low
	<i>Nicotiana glauca</i>	Brazilian tree tobacco	Low
	<i>Oenothera indecora</i>	Evening primrose	Medium
	<i>Oenothera parodiana</i>	(evening primrose)	Medium
	<i>Opuntia aurantiaca</i>	Jointed cactus	High
	<i>Opuntia ficus-indica</i>	Sweet prickly pear	High
	<i>Opuntia fulgida</i>	Hanging chain cholla	High
	<i>Opuntia imbricata</i>	Cane cholla	High
	<i>Opuntia lindheimeri</i>	Texas prickly pear	High
	<i>Opuntia spinulifera</i>	Large round-leaf prickly pear	High
	<i>Opuntia stricna</i>	Erect prickly pear	High
	<i>Oxalis corniculata</i>	Creeping sorrel	Low
	<i>Pupalia lappacea</i>	Sweethearts	Low
	<i>Paraserianthes lophantha</i>	Stink bean	Medium
	<i>Paspalum dilatatum</i>	Common paspalum	Low
	<i>Phalaris arundinacea</i>	Reed canary grass	Low
	<i>Phalaris minor</i>	Little-seeded canary grass	Low
	<i>Physalis peruviana</i>	Cape gooseberry	Medium
	<i>Pinus pinaster</i>	Cluster pine	Low
	<i>Pinus radiata</i>	Monterey pine	Low
	<i>Plantago lanceolata</i>	English plantain	Low
	<i>Plantago virginica</i>	Dwarf plantain	Low
	<i>Polycarpon tetraphyllum</i>	Four-leaved allseed	Low
	<i>Polypogon monspeliensis</i>	Rabbit's foot	Low
<i>Psidium guajava</i>	Guava	Low	
<i>Raphanus raphanistrum</i>	Wild radish	Low	

Taxonomic group	Scientific name	Common name	Current perceived level of threat
	<i>Richardia humistrata</i>	South American Mexican clover	Low
	<i>Ricinus communis</i>	Castor oil plant	Medium
	<i>Rubus cuneifolius</i>	American bramble	High
	<i>Rubus fruticosus</i>	Blackberry	High
	<i>Rumex crispus</i>	Curled sorrel	Low
	<i>Rumex nepalensis</i>	Nepal dock	Low
	<i>Schinus molle</i>	Peruvian pepper	Low
	<i>Schkuhria pinnata</i>	Dwarf marigold	Low
	<i>Senna didymobotrya</i>	Peanut butter cassia	Medium
	<i>Senna pendula</i>	Golden senna	Medium
	<i>Silene gallica</i>	French silene	Low
	<i>Sisymbrium orientale</i>	Indian hedge mustard	Low
	<i>Solanum americanum</i>	Black nightshade	Medium
	<i>Solanum elaeagnifolium</i>	Silver leaf bitter apple	Low
	<i>Solanum mauritianum</i>	Woolly nightshade	Low
	<i>Solanum sisymbriifolium</i>	Dense-thorned bitter apple	Medium
	<i>Sonchus oleraceus</i>	Smooth sow thistle	Low
	<i>Symphyotrichum squamatum</i>	Narrow-leaved aster	Low
	<i>Tagetes minuta</i>	Tall khaki weed	Low
	<i>Tamarix chinensis</i>	Chinese tamarisk	Medium
	<i>Torilis arvensis</i>	Spreading hedge parsley	Low
	<i>Verbascum virgatum</i>	Aaron's rod	Low
	<i>Verbena bonariensis</i>	Tall verbena	Low
	<i>Verbesina encelioides</i>	Wild sunflower	Low
	<i>Xanthium spinosum</i>	Spiny cocklebur	Low
Mammals	<i>Aepyceros melampus</i>	Impala	Medium
	<i>Bos taurus</i>	Cattle	Low
	<i>Capra hircus</i>	Goat	Low
	<i>Canis familiaris</i>	Dog	high
	<i>Connochaetes taurinus</i>	Blue wildebeest	Low
	<i>Damaliscus pygargus</i>	Blesbok	Low
	<i>Equus asinus</i>	Donkey	Low
	<i>Felis catus</i>	Feral cat	High
	<i>Kobus ellipsiprymnus</i>	Waterbuck	High
	<i>Tragelaphus angasii</i>	Nyala	High
Fish	<i>Clarias gariepinus</i>	African catfish	High
	<i>Cyprinus carpio</i>	Common carp	High
	<i>Gambusia affinis</i>	Mosquito fish	High
	<i>Labeo capensis</i>	Orange River mudfish	High
	<i>Labeo umbratus</i>	Moggel	High
	<i>Labeobarbus aeneus</i>	Smallmouth yellow fish	Medium
	<i>Oreochromis mossambicus</i>	Mozambique tilapia	Low
Shell fish	<i>Mytilus galloprovincialis</i>	Mediterranean mussel	High
Birds	<i>Passer domesticus</i>	House sparrow	High
	<i>Stumus vulgaris</i>	European starling	High



Description of the land infested, assessment of the extent of infestation

In 2014 it was estimated that 73, 882 ha within the park boundaries are infested by various species of alien plants which occur at different densities of infestation. There is an estimated 24, 369 ha initial areas still to be treated and an estimated 49, 513 ha that are currently in a follow up stage of treatment. A total of 23, 193 ha of initial areas will be identified for extensive bio-control release. The Biodiversity Social Projects (BSP) program have also further estimated 11, 468 ha within the park's buffer zone and on private land, where alien plants may have a negative influence on the park achieving its' biodiversity objectives.

The Darlington section falls within the Nama Karoo and Grassy Fynbos biomes and has historically been farmed insensitively with goats and sheep and as a result is somewhat disturbed in nature. Due to these factors Darlington has been susceptible to infestation from challenging *Opuntia* species including: *aurantiaca*, *ficus-indica*, *fulgida*, *imbricata*, *lindheimeri*, *spinulifera* and *stricna*, which are the priority species currently being treated. The Sundays River enters the dam in the north-west corner of the section and feeds the Darlington Dam with water from the Orange River Transfer scheme. There is a large stand of mature *Tamarix chinensis* which occupies approximately 1, 300 ha. Due to the fluctuating water levels as well as the alluvial material accumulated on the flats of the dam, the area is frequently infested with annual aliens such as: *Datura innoxia*, *Cirsium vulgare*, *Solanum elaeagnifolium*.

The Kabouga section falls within the Albany Thicket and Grassy Fynbos Biome. The Sundays River runs through the body of the section and the dominant alien species associated along the river are mature *Eucalyptus sp.* stands as well as *Arundo donax*. The remainder of the section is infested by various levels from highly dense to sparse with mainly *Opuntia* species including: *aurantiaca*, *ficus-indica*, *fulgida*, *imbricate*, *lindheimeri*, *spinulifera* and *stricna*, *Agave americana*, *sisalana*, *Lantana camara*, *Harrisia martinii*, *Echinopsis spachiana*.

The Zuurberg section falls within the Grassy Fynbos and southern mist belt forest biome. *Acacia mearnsii*, is the dominant alien species within the Grassy Fynbos biome. Infestations are generally found in the Witrivier / Driefontein catchment within the immediate buffer areas, along the Witrivier inside the park's boundary and throughout the central catchment zone as well as disturbed areas associated with homestead developments and farms. The riparian zones associated with the upper catchments are also home to *Acacia mearnsii* infestation although to a lesser degree. Other species such as *Acacia*, *longifolia*, *cyclops*, *melanoxylon*, *Senna pendula*, *Pinus pinaster*, *Pinus radiates*, *Lantana camara*, *Rubus fruticosus* and *Eucalyptus sp.* Also occur but to a lesser degree. The southern mist belt forest biome within the section remains relatively free of alien plants with the exception of the associated riparian zones affected by disturbance.

The Nyathi section falls in both the Albany thicket and Grassy Fynbos Biome and has elements of the southern mist belt forest within it. The Albany Thicket areas are generally infested by extensive populations of *Opuntia* species including: *aurantiaca* and *ficus-indica* across the section. *Acacia mearnsii* is found within the water courses deriving from the Zuurberg mountain catchment area specifically the Coerney River. Other species such as *Acacia*, *longifolia*, *cyclops*, *melanoxylon*, *Senna pendula*, *Pinus pinaster*, *Lantana camara*, *Rubus fruticosus* and *Eucalyptus sp.* Occur to a lesser degree.

Addo main camp and Colchester sections fall within the Albany Thicket biome. Surprisingly the main camp has limited alien infestations; however *Opuntia ficus-indica* and *aurantiaca* still occur at a very low density. Colchester has medium infestation of *Opuntia ficus-indica* throughout most of the northern part of the section.

The Woody Cape section falls in the Dune thicket and southern mist belt forest biomes. Limited alien infestation still occurs due to the past eight - ten years of extensive treatment. The following alien plants are still being treated along the coastal belt: *Acacia cyclops*, *Eucalyptus sp.*, *Pinus radiata* and *Cortaderia selloana*.

Status report on the efficacy of past control measures

The Working for Water (WfW) alien clearing program is been implemented through the SANParks BSP and previously known as Invasive Species Control Unit (ISCU) since 2003 / 2004.

Acacia mearnsii initial clearing was undertaken in the catchment area leading into the Witriver system inside the park. A combination of mechanical and chemical methods was used extremely effectively. Prior to the clearing initiative thick stands of *Acacia mearnsii* dominated the catchment river systems as well as adjacent area displacing biodiversity of indigenous fauna and flora, reducing water flow and shading the entire system. Post clearing observations have shown a return of the area's natural indigenous endemic fauna and flora, increase water flow and quality as well as a return of a natural ecological system. It is estimated that from 2, 684 ha of initial *Acacia mearnsii* cleared in this area, 95% of the areas has been completely eradicated from *Acacia mearnsii*. The remaining 5% is currently treated on follow up rotation as maintenance.

The Nyathi section with in the Albany thicket area inherited large scale infestations of *Opuntia aurantiaca* and *Ficus indica*. Chemical treatment was opted for and *Opuntia aurantiaca* was extensively treated by way of foliar application. It is estimated that from the 9, 312 ha treated the efficiency of eradication was on effectively around 50%, due to a multitude of environmental and ecological reasons. Due to the Albany thicket posing access challenges the entire area could not be reached and as a result area untreated repopulated cleared areas. Due to the structure of the plant, cladodes are easily missed and as a result mother plant regrows. As an alternative a bio-control project has been established in the section and large scale release is taking place.

The Woody Cape section within the Southern Mist Belt Forest and Dune Thicket Biome had expansive areas of *Acacia cyclops*, *Eucalyptus sp* and *Pinus radiata* covering an estimated area of 18, 491 ha which has been very successfully cleared. The initial treatment was a combination of mechanical and chemical. The treatment is estimated to have been 95% successful follow up work on an estimated ha 3, 403 ha remains as maintenance to ensure no further infestation occur.

Current measures to monitor, control and eradicate alien invasive species

The SANParks alien invasive species framework provides an integrated approach to alien and invasive species management, with the primary objective of meeting the biodiversity objectives of the park's management plan. The framework includes five vital components:

- Assessment and risk analysis;
- Priority setting;
- Early detection and rapid response;
- Control; and
- Restoration.

The spread of alien invasive species into the park in respect to the buffer areas surrounding the park are still a high risk. These areas will be monitored, assessed for risk of pathway movement into the park, prioritised in terms of eradication and treated accordingly. A full assessment and risk analysis of alien invasive species in the park will enable priority setting. Prioritisation will then allow for available resources to be directed into ecologically sensitive and economically viable areas. A generic set of criteria has been developed to prioritise areas and species. Once species and associated areas have been prioritised for treatment this will be fed into an annual plan of operations (APO), which will form the bases of the motivation for funding. The APO will set out clearing schedules for each site, personnel requirements and financial information.

A long term strategy will be developed for the areas within the park and adjacent buffers, which will assist in compiling an inventory, priority listing and allocation of resources over a three to five year time frame. This long term strategy will inform funding motivation and operations on an annual basis. Working with the South African National Biodiversity Institute's (SANBI) Early Detection and Rapid Repose Programme (EDRRP) the park will aim to identify pathways into the park, so that new alien species introductions may be prevented and to enable a rapid response to eradicate or contain infestation.



Even though a new invasion may seem insignificant, it must be evaluated for risk and potentially prioritised for treatment to ensure the threat does not spread, which could potentially require exponentially more effort and resources to clear at a later stage.

Control methods, or an integrated combination thereof are designed to suit the target species and environment in which they occur. The following methods are used within the six management sections of the park as well as the associated buffer and catchment areas:

- Initial treatment (mechanical, chemical [herbicides] and biological)
 - Chainsaw – Fell, debranch and stack;
 - Foliar spray – application of herbicide;
 - Bio-control release - collection of clean cladodes, propagation of bio-control and deployment of agent;
- Follow up treatment (manual, chemical and biological)
 - Loppers and hand saws;
 - Foliar spray – application of herbicide;
 - Bio-control release (collection of clean cladodes, propagation of bio-control and deployment of agent);
- Integrated combination of methods.

The following species have been identified as a priority for control:

- *Acacia mearnsii, cyclops, saligna, melanoxylon;*
- *Eucalyptus sp. diversicolor, globulus, gomphocephala;*
- *Opuntia aurantiaca;*
- *Lantana camara;*
- *Echinopsis spachiana;* and
- *Anredera cordifolia.*

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

Indicators of success will be determined by the results furnished out of the extensive monitoring program, these results will direct status of alien plant infestation and rate of spread, these in turn will direct operational investment. By the end of 2015 / 2016, the entire Sundays River from Darlington to Kabouga will have been initially cleared of *Eucalyptus sp.* and require follow up treatment up until 2017 / 2018. By the end of 2016 / 2017 financial year all the initial *Acacia mearnsii* priority areas associated with the Witrivier catchment will have been treated, follow up work on these areas will continue until 2019 / 2020 to ensure the catchment has been eradicated from the catchment.

The *Opuntia aurantiaca* infestations throughout the Darlington, Kabouga and Nyathi sections will continue to be treated with bio-control agents (*Dactylopius opuntiae*) for a long term population reduction strategy. It is estimated that by 2019 / 2020 financial year bio-control will have been release into all three target sections successfully. Long term climate patterns will then play an intricate role in the success of the agent. Further follow up bio-control deployment may be necessary depending on the host species population dynamics beyond this period. Other initial stands of *Cacti sp.* will be eradicated as priority species over the 2015 / 2016 financial period. The catchment area of the Sundays River as well as the Nqweba Dam is the location of the *Tamarix chinensis* source population. These areas are currently being treated by the Camdeboo WfW operations, it is estimated that the initial treatment of these areas will be completed by 2016 / 2017 and follow up treatment will continue thereafter.

Once the initial areas within the catchment area treated WfW operations will start with the Initial treatment on extensive *Tamarix chinensis* populations in the northern extent of the Darlington Dam. The expected date of completion will depend on resource availability and allocation of funds.

To prevent repeated infestations into the park's catchments and buffer zone continuous monitoring and clearing operations will be required to respond to potential risks associated with alien invasive plants. Due to the extensive infestation it is foreseen that the control of alien and invasive species within and around the associated areas of the park will continue for at least another 20 years. A detailed lower level plan outlining the rationale and operational approach is available.

This programme links with high level objective 1 and objective 1.1 on page 35.

ALIEN AND INVASIVE SPECIES PROGRAMME					
Objective: To detect and eradicate new invasions of alien species and control current populations to reduce negative impacts on biodiversity and ecosystem services.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To systematically survey and list alien species in and around the park.	Systematically survey AENP, in order to determine alien species (fauna and flora) abundance and distribution, and maintain updated species lists.	PM, BSP, CSD	Survey report	Annually	
	Through <i>ad hoc</i> monitoring and other means, detect new incursions of invasive species (fauna and flora) to allow for rapid response and eradication where feasible.	PM, BSP,	BSP / section ranger monthly reports	Ongoing	
	Monitor the spread of high priority species (fauna and flora).	PM, BSP	BSP / section ranger monthly reports	Ongoing	
To prevent, where possible, the introduction of alien species.	Prohibit the presence of alien species (fauna and flora) in staff quarters and tourism accommodation - use alternative species in accordance with the species list of AENP.	PM	Section ranger monthly report	Ongoing	
	Monitor, and / or where necessary, manage previously degraded areas to reduce the risk of invasion or post clearing reinvasion.	PM, BSP	Monitoring results	Ongoing	
	Determine and monitor areas adjacent to the park that poses a high risk to the park wrt invasions and implement actions as required.	BSP, PM	Report	Year 2	
To ensure the effective and timely development and implementation of integrated control strategies, in such a manner that rapid response and long-term maintenance goals are met.	Update on an ongoing basis, species lists (fauna and flora) and areas requiring management attention, and ensure that these are incorporated into the appropriate clearing plans.	BSP, PM, CSD	APO	Annually	
	Maintain an explicit focus on eradicating alien plant species at old farmsteads or other abandoned infrastructure.	PM	APO	Annually	
	Maintain control of species and areas according to the current management programmes' Annual Plan of Operation (APO).	BSP, PM	APO	Annually	
	Introduce biological control agents and / or other appropriate and novel methods (subject to risk-benefit evaluation) where appropriate and necessary.	BSP, PM	APO	Annually	
	Eradicate, where possible, all new incursions of alien species (fauna and flora).	PM	Section ranger monthly report	Ongoing	
	Monitor the efficacy of the clearing programmes.	PM, BSP, CSD	Monthly reports	Ongoing	



10.2.2 Freshwater ecosystem programme

The purpose of this programme is to ensure the functionality and associated ecosystem services of the freshwater systems in the relevant catchments, by maintaining and restoring the hydrological connectivity and variety of aquatic habitats through interventions within the park and active engagement with stakeholders.

An important step is to acknowledge freshwater ecosystems as biodiversity features in their own right that is central to a protected area's conservation mandate. Even in protected areas such as national parks, freshwater ecosystems are often appreciated only for their functional utility such as game watering or providing attractive locations for tourist lodges, rest camps, lookout points and game drives. In the park, biodiversity associated with riverine habitats is driven by three main factors: (i) the climate and nature of the landscapes (e.g. temperature and underlying geology) that rivers drain; (ii) the flow characteristics of rivers (e.g. perennial, intermittent or ephemeral flows); and the geomorphological zone or slope of a river (e.g. mountain headwater stream, foothills or lowland river). Accordingly, conservation of rivers also depends on the conservation of their surrounding terrestrial landscapes, their natural hydrological regimes (including the magnitude, frequency, duration, timing, and rate of change in water flow) and their longitudinal connectivity between different zones. A major constraint for river conservation is that these systems drain over large landscapes and whole river systems and their catchments are rarely contained in a protected area; rather, rivers flow through protected areas and sometimes form boundaries of protected areas.

Also at local scales, freshwater ecosystems are highly connected systems. Hydrological connectivity mediates the transfer of matter, energy and organisms *via* water within and between elements of the water cycle. Connectivity can be viewed along three gradients: longitudinal, lateral and vertical. Longitudinal connectivity refers to the pathway across the entire length of a stream or river. Lateral connectivity refers to the links between a water body and the adjacent land. Vertical connectivity refers to the connections between surface and groundwater. In the park we should strive to maintain, and restore where necessary, the natural connectivity associated with freshwater ecosystems. In particular we should allow the natural and free flow (timing and magnitude) of water and sediment down river courses, protect riparian zones against development and guard against overuse of groundwater resources. All the main rivers that occur in the park flow through the park as opposed to be contained in the park. Managing these rivers as whole systems can only be achieved in collaboration with neighbouring land owners and through active management of buffer zones. In a broader context, the park connects the low lying coastal areas of Algoa Bay to the mountain tops of the Zuurberg over into the Karoo hinterland, providing an almost continuous corridor for the movement of biota, which may help mitigate the effects of climate change by allowing climate envelopes of taxa to compensate with elevation.

Flows of water and sediment down rivers are vital for maintaining estuarine mouth dynamics and coastal sediment budgets. Freshwater and sediment discharges into the sea are also important sources of iron and silica, which play important roles in processes such as photosynthesis, which in turn influence marine food webs. The main river flowing into Algoa Bay is the Sundays River.

The Alexandria coastal dune field is situated within Algoa Bay and extends for approximately 80 km from the mouth of the Sundays River in the west to Woody Cape in the east. This dune field is the largest and least degraded dune field in South Africa and arguably one of the most spectacular in the world. The sandy beaches (dunes) provide important linkages between terrestrial and marine systems in terms of nutrients and energy flows (Harris 2012). According to Campbell and Bate (1991, 1998) these dunes are characterised by shallow groundwater tables (aquifers) with water discharged to the surface in several places in a

pulsing fashion from the aquifer into the surf-zone, releasing nutrient rich water varying at different tidal stages. The ecosystem goods and services provided by the Alexandria coastal system thus makes a key contribution to the overall value of the coast, if not directly, then indirectly in supporting roles through functional linkages with adjacent ecosystems.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 1 and objective 1.2 on page 35.

FRESHWATER ECOSYSTEM PROGRAMME					
Objective: To ensure the functionality and associated ecosystem services of the freshwater systems in the relevant catchments, by maintaining and restoring the hydrological connectivity and variety of aquatic habitats through interventions within the park and active engagement with stakeholders.					
Sub-objective: To understand and maintain / restore riverine integrity.					
Supporting objective	Actions	Responsibility	Indicators	Timeframe	Reference
To maintain, and restore where relevant, the ecological condition of riverine ecosystems.	Survey main rivers flowing through the park and determine ecological categories.	CSD	Reports	Year 2	
	Set ecological targets and develop management actions / guidelines for main rivers of the park.	CSD	Reports	Year 2	
To maintain, and restore where relevant, the natural connectivity of riverine ecosystems.	Assess longitudinal connectivity of main rivers.	CSD	Reports	Year 3	
	Develop management actions / guidelines for restoration of longitudinal connectivity of main rivers where relevant.	CSD, PM	Reports	Year 3	
	Develop a social-ecological model and management plan for each of the main rivers flowing through the park.	CSD	Plans	Year 3	
	Implement the management actions / guidelines and management plans for the various rivers.	CSD, PM	Monthly reports	Year 4	
	Monitor the achievements and review the plans.	CSD	Updated plans	Year 5	
Sub-objective: To understand and maintain wetland- and groundwater-related ecosystem processes.					
To develop a better understanding of wetland-groundwater-marine interactions along the Alexandria Coastal dune field.	Map the spatial distribution and broad types of wetland.	CSD	Map	Year 5	
	Identify and map existing aquifers and their sources.	CSD	Map	Year 1	
	Establish a baseline salinity and water level, with ongoing monitoring.	CSD	Report	Year 2, ongoing	
	Determine current abstraction from surrounding land users.	CSD	Report	Year 2	

10.2.3 Marine programme

The purpose of this programme is to contribute to the protection and maintenance of functional marine ecosystems in Algoa Bay by managing the existing MPA and striving to incorporate a larger MPA (including islands, coastlines and estuaries).

The Bird Island MPA was proclaimed in 2004 under the Marine Living Resources Act (MLRA) (Act no 18 of 1998), although the island groups were managed as provincial Nature Reserves since the 1992. Historically MPA's were managed under the MLRA, recently however, the section dealing with MPA's were excised from the MLRA and incorporated into the NEM:PAA. Other pertinent legislation is the Integrated Coastal Management Act (Act no 24 of 2008), dealing with coastal access, management and off road vehicles and slipway regulations Sea Birds and Seals Protection Act (Act no 46 of 1973), dealing with the management of seabirds and seals and the MLRA which still governs the use of living marine resources such as fishing and bait collection. The park has a private launch site at Bird Island, located at coordinates 33° 50' 18.20" S, 26° 17' 0.78" E. The launch site is not in use but should it be used in the future then it will be managed in accordance with a standard operating procedure as required by law.



This marine area contributes towards the 9% of the South African coast which is considered no take or restricted areas. Conservation is also important for the continued sustainable use of marine resources by humans, especially in a country where fisheries is an important sector in the economy. MPA's play an important role in the protection and rebuilding of exploited fish species, protecting breeding habitats of birds, feeding grounds for mammals, as well as protecting the integrity of whole ecosystems (Pomroy *et al.* 2004). The park has a team of nine marine rangers, and two vessels which serves to patrol, enforce and manage the islands, and the associated MPA. Infrastructure on Bird Island was recently upgraded and staff rotate shifts to maintain a permanent presence on the island were active management of the bird populations take place. Presence on the St Croix Island is limited with a minimum disturbance and hands off management approach.

A wide range of factors influence the management of the MPA and must be addressed in the upcoming management plan implementation cycle. These are:

- Resources exploitation, both legal and illegal;
- Nutrifcation of the Sundays River and estuary;
- Development (industrial, agriculture *etc.*) close to the MPA boundary;
- Invasive alien species; and
- Fresh water flow into the estuary.

SANParks is striving towards achieving an integrated terrestrial and marine area. Planning towards a larger MPA, incorporating Bird Island MPA, the St Croix Island group and the Sundays River Estuary, is ongoing. A systematic conservation plan was completed for the marine section and key fisheries stakeholder engagement was done on the proposed zonation. A draft Estuary Management Plan was developed for the Sundays River Estuary in consultation with the estuarine stakeholders. This Estuary Management Plan will become applicable with the declaration of the MPA. Currently (2015), an intent to declare is awaited from the Minister of Environmental Affairs.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 1 and objective 1.3 on page 35.

MARINE PROGRAMME					
Objective: To contribute to the protection and maintenance of functional marine ecosystems in Algoa Bay by managing the existing MPA and striving to incorporate a larger MPA (including islands, coastlines and estuaries) through engagement with relevant stakeholders.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To minimise nutrification emanating from upstream citrus farms, effluent and municipal outflow into the bay	Source results from DWA regarding water samples collected at key sites along the Sundays River, in the estuary and Algoa Bay.	CSD	Reports	Annually	
	Use results to engage DWS, the Metro and SRIB.	CSD, PM	Minutes of meetings	Ongoing	
To reduce resource exploitation in Algoa Bay and estuary	Start implementation of expanded MPA protection plan.	PM	MPA plan	From declaration	
	Establish a coastal committee and estuary committee.	PM, CSD	Forum in place	From declaration	
	Develop awareness campaigns for state of line fish, zoning, MPA rules <i>etc.</i>	PM, CSD	Awareness campaign	After declaration	

MARINE PROGRAMME					
Objective: To contribute to the protection and maintenance of functional marine ecosystems in Algoa Bay by managing the existing MPA and striving to incorporate a larger MPA (including islands, coastlines and estuaries) through engagement with relevant stakeholders.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To reduce resource exploitation in Algoa Bay and estuary	Improve relationships with other enforcement agencies.	PM	Meetings attended	Ongoing	
	Establish 24-hour hotline for reporting illegal activities.	PM	Hotline established	Year 1	
	Continuation of Island Closure Task Team fishing / penguins experiment.	CSD	Reports	Year 5	
To rehabilitate habitats and aesthetics	Identify redundant structures throughout MPA.	PM	List	Year 1	
	Maintain <i>status quo</i> with Transnet for removal of items.	PM	Monthly trips	Ongoing	
	Implement Sundays River estuary management plan regarding jetties.	PM	Decision on jetties	Year 3	
To detect, identify and where necessary address the threat caused by alien invasive species	Inventorise and improve understanding of alien species currently a threat to the MPA.	PM, CSD	List	Year 2	
	Ensure compliance with MPA regulations.	PM	Infringements	Ongoing	
	Engage with Coega environmental monitoring committee.	CSD, PM	Meetings	Ongoing	
	Establish and implement a protocol for minimising reintroduction of alien species to the islands.	PM, CSD	Protocol	Year 2	
To implement the water reserve for the Sundays River	Identify and position a representative on the Sundays River Irrigation Board (SRIB).	PM, CSD	Seated on SRIB	Year 1	
	Engage with DWS to implement the reserve.	CSD, PM	Reserve implemented	Ongoing	
To minimise the effects of oil pollution from ports and ships.	Annually revise and test seabird rescue plan and joint oil spill drills.	PM	Drills, revision of plan	Annually	
	Engage with relevant authorities regarding the regional pollution prevention plan.	CSD, PM	Meetings attended	Annually	
	Finalise SANCCOB MOU.	PM	MOU	Year 1	
To understand the effects of interspecific competition between seabird species of special concern and other seabird species as well as avian disease outbreaks.	Determine “appropriate” representation levels of various seabird species.	CSD, PM	Proportional representation of seabird species	Year 3	
	Inventorise existing and potential avian diseases on our and other islands and rehab centres.	CSD, VWS	Inventory	Year 2	
	Establish a response plan for disease outbreaks and liaise with other island management authorities.	CSD, VWS, PM	Response plan	Year 2	

10.2.4 Species of special concern programme

The purpose of this programme is to prevent the decline or loss of endemic or internationally threatened species that occur within the park. This will require inventorising the species of special concern (SSC) within the park, assessing their distributions and the threats facing them. The park currently supports the largest population of the critically endangered south-western ecotype of black rhinoceros *Diceros*



bicornis bicornis. The park also supports small populations of the vulnerable Cape mountain zebra *Equus zebra zebra*, within the Zuurberg and Darlington sections. A number of other red data species, including large raptors such as the vulnerable martial eagle *Polemaetus bellicosus* and near threatened crowned eagle *Stephanoaetus coronatus*, 13 species of endemic herpetofauna, five species of land tortoises, and 14 species of frogs. The Zuurberg section is home to four cycad species namely the endangered Alexandria cycad *Encephalartos arenarius*, the near threatened Grahamstown cycad *Encephalartos caffer*, the near threatened Karoo cycad *Encephalartos lehmannii* and the near threatened Zuurberg cycad *Encephalartos longifolius*. The park will also ensure that the management of SSC is aligned with the approved national biodiversity management plans. The islands within the park house the largest breeding populations of the endangered African penguin *Spheniscus demersus* left in the world. Since this programme has not yet been fully developed, this list is not complete and requires a targeted inventorisation exercise, including an assessment of the distributions and the threats facing the species of special concern.

This programme links with high level objective 1 and objective 1.4 on page 35.

SPECIES OF SPECIAL CONCERN PROGRAMME					
Objective: To prevent the decline or loss of species that occur within the park by identifying, monitoring and implementing meta-population or species-specific management interventions, and engaging with a range of stakeholders and resource users.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To develop a dedicated monitoring programme.	Hold a targeted science management forum to develop a dedicated black rhino monitoring programme.	CSD, VWS, PM	Monitoring programme	Year 1	
	Hold a targeted science management forum to rank species of special concern, develop monitoring and TPCs for top 10.	CSD, PM	Monitoring and TPC's	Year 2	
	Solicit experts to inventorise and map species of special concern based on red data lists and IUCN criteria.	CSD	Lists, maps	Year 2	
	Develop a detailed lower level plan to manage key species of special concern.	CSD, PM	Plan	Year 4	
	Implement lower level plan	PM, CSD	Monthly reports	Year 5	
	Implement the national African penguin biodiversity management plan.	PM	Monthly reports	Ongoing	
	Monitor and review the lower level plan.	CSD, PM	Updated plans	Year 6	

10.2.5 Ecological processes

The key terrestrial ecological processes identified within the park are predation and herbivory, while fire plays a role only in the fynbos areas of the Zuurberg section. The aquatic processes have been incorporated into the marine programme. The aim is to conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with the park's terrestrial and aquatic diversity. The wildlife management requirements of SANParks are complex, and potentially chaotic of late because of resource and capacity constraints,

especially limited availability of helicopters. In smaller parks small population effects can cause great fluctuations in herbivore numbers, there is a risk of crashes or large increases that are logistically difficult to remove if left for several years. Longer term (e.g. five year) strategic offtake plans are helpful in improving predictability and enabling long term planning of capture logistics. This is necessary in view of the challenge of resource constraints. It entails setting a regime of annual offtakes, as determined by population models.

10.2.5.1 Carnivore management programme

The purpose of this programme is to establish and maintain large mammal predator-prey relationships and associated processes. The restoration and maintenance of predation is a key objective for SANParks in achieving ecosystem objectives. The management of carnivores in the park is guided by park-specific objectives primarily aiming at the conservation and promotion of the unique landscapes. Predation in the park is associated with two main issues – mesopredator-prey dynamics and predation by large carnivores (including their scavenging function).

In this instance, park management wishes to restore / maintain the ecological role of large carnivores as apex predators in the terrestrial ecosystem. The park requires substantial restoration of large carnivore social units and subsequent management of these but carries specific challenges. The park comprises eight sections currently separated by fences, roads and private properties. This carries several consequences. It reduces habitat diversity and suitability, and hence species diversity of prey and predators. Fences limit dispersal and movement opportunities that often lead to inflated abundances of predators that pose risks to local persistence of prey species (Hayward and Kerley 2009). Such spatial constraints reduce the likelihood that dynamic predator-prey relationships will be established and increase the likelihood that siblings can breed with each other.

In addition to these constraints, the larger mammalian herbivores influence plant community structure and function in ecosystems (Gordon *et al.* 2004). The park also seeks to restore these disturbance regimes through herbivory, trampling and nutrient cycling at various spatial-temporal scales across landscapes. 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 herbivore dynamics. The absence of large predators may thus pose some constraints on conservationists wishing to restore key ecological processes associated with herbivory and how predation influences herbivory.

Black-backed jackal *Canis mesomelas* and caracal *Caracal caracal* are the two mesopredator species that occur in the park. In the absence of their population regulating mechanisms, these mesopredators can reach high densities, resulting in high levels of predation on the smaller prey species in the park. SANParks' approach to managing these mesopredators is to restore or mimic the factors that regulate mesopredator-prey dynamics. Management interventions depend on the suite of factors that exist in the particular section of the park, such as predator-proof fencing (that prevents mesopredator dispersal) and other large carnivores (that provide carrion). Culling is only carried out if there is evidence from prey demographic profiles and mesopredator surveys that there is a risk of mesopredator prey dynamics collapsing.

The challenges of maintaining ecological processes that involve large carnivores are further complicated by expectations and attitudes of stakeholders (Kerley *et al.* 2003). These range from positive such as a general assumption that the presence of large carnivores enhances a tourism experience, to negative (Treves and Karanth 2003) such as those brought about by livestock losses as a result of carnivores spilling over into landscapes neighbouring the park. Carnivore management in the park thus encapsulates four key management aspects. Firstly, conservationists wish to restore the ecological processes driven and influenced by large carnivores. Secondly, restricted size and fragmentation of the park may accentuate localised carnivore impacts on prey as well as reduced genetic integrity of individuals living in here. Thirdly, restricted park size may also accentuate predator-conflicts with neighbours. Given that the park is a key wildlife viewing attraction apparently enhanced by large carnivores, a fourth aspect thus relates to how the absence or inconspicuousness of certain species may influence the park's capability of generating revenue through tourist experiences and expectations.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 1 and objective 1.5 on page 35.



CARNIVORE MANAGEMENT PROGRAMME					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP's terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To maintain sustainable predator-prey relations.	Mimic changes in carnivore survival associated with social stress and prey biomass limitations.	CSD, PM	Carnivore plan	Ongoing	
	Mimic changes in carnivore fecundity by increasing the age of first reproduction and / or interval between births.	CSD, PM	Carnivore plan	Ongoing	
To maintain genetic integrity by inducing social limitations.	Identify and extract life-history characteristics of carnivore species.	CSD	Science report	Year 2	
	Mimic male and female dispersals and male dominance changes.	PM, VWS	Annual report	Ongoing	
To manage carnivore impact on stakeholders.	Identify the profile of potential human-carnivore conflict.	CSD, PM	Reports	Year 1	
	Engage stakeholders on the development of problem animal management strategies and plans.	CSD, PM	Meeting minutes	Ongoing	
	Maintain perimeter fence to a standard adequate to secure both the safety of the large carnivores, adjacent local communities and park visitors.	PM	Report	Ongoing	
	Update carnivore plan according to knowledge gained through feedback.	CSD, PM	Plan	Year 5	
To conduct collaborative research and monitoring to inform carnivore management.	Develop an integrated research and monitoring programme which addresses carnivore demography, impact on prey species, conflict and consequences for stakeholders.	CSD, PM	Science report	Year 3	
	Implement an integrated research and monitoring programme.	CSD, PM	Science report	Ongoing	

10.2.5.2 Herbivory management programme

The purpose of this programme is to ensure sustainable herbivory that maintains / restores the park's terrestrial biomes and characteristic flora and fauna. This programme therefore focuses specifically on the process of herbivory carried out by the large herbivores present in the park. SANParks herbivore population management follows a flux paradigm that seeks to maintain heterogeneity across space and time, thereby favouring biodiversity and ecosystem resilience. Thus, allowing populations to evolve and develop as naturally as possible. Included in the herbivory present in the park is that carried out by elephants. Elephant herbivory is the most pressing biodiversity concern for the park currently. It is addressed in the park's Elephant Management Plan approved by the Minister of Environmental Affairs in 2013. The plan is aligned with the general principles of herbivory management outlined above, and includes the generation of a water gradient to create spatially variable elephant impacts, as well as contraception to change elephant resource requirements and hence space use.

Resource availability is a key driver of herbivore space use, with surface water being a primary resource required by large herbivores. As such, the creation of a gradient of water availability is favoured to stimulate variable use of the landscape by different herbivore

species. It is expected that water-dependent herbivores will concentrate their feeding closer to water, thereby localizing overutilisation, which may have its own inherent biodiversity value. By restricting water as a critical resource, water-dependent species' birth rates are also expected to decline, or at least approximate more natural landscapes where these processes are intact. However, too few water points would not be acceptable to tourists because of reduced game viewing opportunities, and may also have adverse consequences for species of special concern (e.g. black rhino), and for plains game required for predators. It will therefore be important to monitor the outcomes of the water gradient closely. The option of seasonally opening or closing certain artificial water points should also be looked into.

Herbivory is affecting both the structure and the composition of the Spekboom thicket vegetation of the park (Landman *et al.*, 2008). Since horizontal canopy cover is an important proxy for herbivore effects in thicket vegetation, the monitoring programme will focus on monitoring canopy cover change in the thickets of Addo main camp and Colchester (these sections are where the concern regarding herbivory effects on thicket are most pronounced and where elephant densities are the highest).

The population growth rates of elephants and other large herbivores in the park will also be monitored, by means of annual aerial surveys and ideally demographic surveys.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 1 and objective 1.5 on page 35.

HERBIVORY MANAGEMENT PROGRAMME					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP's terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To understand the feasibility of using water availability as a tool for ensuring patchy space use by herbivores.	Assess how well the water gradient has resulted in patchy space use by (mega) herbivores.	CSD, PM	Report	Year 3	
	Evaluate whether limiting water volume limits elephant occupation nearby.	CSD, PM	Report	Year 2	
	Evaluate whether certain existing water points need to be made inaccessible to elephants (natural or artificial).	CSD	Report	Year 3	
	Sign off on elephant herbivory TPC.	CSD, PM	TPC document	Year 1	
To understand trends in herbivore populations and herbivory.	Assess the effects of other herbivores (e.g. warthogs, tortoises, kudu) on other sections.	CSD	Report	Year 8	
	Assess effect of water gradient on dung beetle population, and the consequences.	CSD	Report	Year 6	
	Assess elephant and other large herbivores' population growth rate.	CSD, PM	Census results	Annually	

10.2.5.3 Fire management programme

The purpose of this programme is to allow fire to function as naturally as possible in those systems adapted to it. According to the National Veld and Forest Fire Act, No 101 of 1998, SANParks is obliged to be a member of the local fire protection association (FPA) to gain full legal benefit thereof and stakeholder support.

The only areas in the park that are fire prone are the plateaus of Zuurberg mountains, the coastal grasslands and degraded patches within the park which have been altered to "grasslands". The Zuurberg section largely comprises two types of fynbos, *i.e.* Zuurberg quartzite fynbos and Zuurberg shale fynbos (Rebelo *et al.* 2006). Fire is the most important disturbance agent in fynbos ecosystems, and is essential in maintaining biodiversity and natural ecological processes (Van Wilgen *et al.* 1992). In



grassy fynbos, too frequent burning typically results in the conversion of fynbos to grassland, whereas absence of fires results in the conversion of fynbos to thicket. The 'Adaptive Interference Fire Management System' (Seydack 1992) is a suitable management option for the Zuurberg section. The system provides for the use of both natural and artificial sources of ignition.

Although management intervention should be limited, the level of control required / exercised will be flexible in space and time. As required by an adaptive management approach, regular assessments would be conducted to decide on the most appropriate, proactive measures in anticipation of wildfires. The spatial control of fires is thus pragmatically determined according to local circumstances of veld age configuration, accessibility, hazard to property, fire protection measures already in place, *etc.* Interventions are made when fires threaten other systems (or infrastructure) or have burnt more than the desired area of the Zuurberg plateau. Although, generally fire managers would like to exercise greater control over the occurrence of fires, it is commonly accepted that wild fires (of natural or human origin) dominate fynbos fire regimes, with prescribed fires having comparatively little effect (Kraaij & van Wilgen 2014). It is furthermore financially unfeasible to conduct prescribed burning over vast areas in order to maintain young vegetation post-fire age classes. Fire management should rather focus on fuel reduction treatments in strategic locations (*i.e.* along boundaries or where assets are at risk) to benefit fire suppression activities by providing safer areas for firefighting.

This programme links with high level objective 1 and objective 1.5 on page 35.

FIRE MANAGEMENT PROGRAMME					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP's terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To enable fire as an ecosystem process in the Zuurberg mountain range and to respond appropriately to fire threats to infrastructure and human lives.	Develop an ecologically appropriate fire regime in the Zuurberg fynbos of the park.	CSD, PM	Fire management plan	Year 2	
	Establish and maintain spatial records of fires inside and adjacent to the park.	PM, CSD	GIS database, maps	Year 2	
	Monitor the effect of fire on the vegetation.	PM, CSD	Report	Ongoing	
	Identify and manage fire risks inside the park.	PM	Maps, fire management plan	Year 1, annually	
	Establish a FPA	PM	Fire protection agency	Year 2	
	Participate meaningfully in the FPA and exert sufficient influence on policies within the FPA to allow biodiversity aims to be met.	PM, CSD	FPA meetings, reports	Annually	
	Review the fire regime.	CSD, PM	Updated plan	Year 7	

10.2.5.4 Disease management programme

The purpose of this programme is to understand the ecology of indigenous disease as a component of biodiversity, while limiting the introduction or impact of alien diseases and

minimising the spread of disease from the park to neighbouring communities and commercial agriculture.

The immediate surrounding economy includes tourism, citrus, dairy, market gardening, and livestock. Being nested in a mosaic of different land-use practices, means that the park has a diverse interface. Widespread use of agricultural chemicals, pathogen transfer between domestic and wild animals and introduction of parasites through inter-basin water transfer schemes, prompt the need for an integrated disease monitoring and management plan.

Whilst disease management options are limited in free-ranging wildlife, emphasis is on prevention of disease introduction (in particular alien diseases like bovine tuberculosis, brucellosis and canine distemper) and to reduce the risk and impact of indigenous wildlife diseases to neighbouring communities and their livestock.

SANParks acknowledges its legal responsibilities with regard to managing diseases, especially controlled diseases, in the light of the requirements as set out in the Animal Diseases Act No 35 of 1984. Due to the dynamic nature of disease and the continuous improvement of diagnostic tests, disease management depends on making the best decisions with the data available at the time.

There has not been any recorded disease outbreaks / incidents. The park also has the largest relict population of “disease-free” Cape buffalo, and as such represents an important financial and conservation resource. Recent discovery of the tick vector of corridor disease, the brown ear tick *Rhipicephalus appendiculatus*, warrants further investigation on the geographic extent and distribution of the tick.

This programme links with high level objective 1 and objective 1.5 on page 35.

DISEASE MANAGEMENT PROGRAMME					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP’s terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To set up an adequate passive surveillance system for dead, dying and culled animals using cyber tracker and train staff to conduct necropsies.	Conduct a training course to equip and train park conservation staff to conduct basic post mortem investigation, and collect and store appropriate samples.	CSD, VWS, local state vet	Training register	Years 1 - 5	
	Develop park specific cyber tracker sequence for disease syndromes likely to be encountered.	CSD	Park-specific disease sequence in use.	Year 1	
	Develop a reporting structure for disease incidence that allows for close interaction between local state vet, park staff, biotechnician and Scientific Services	PM, local state vet, CSD	Local state vet and SANParks reports.	Ongoing	
	Develop a quantitative risk assessment and associated disease mitigation actions for all animal introductions.	VWS, CSD, PM	Completed risk assessment	Year 5	
	Ensure blood, tissues and associated materials are banked whenever an animal is handled / captured / culled for veterinary or research purposes.	VWS, CSD	Increase in biological samples banked	Ongoing	

10.2.5.5 Reintroduction programme

The purpose of this programme is to strive towards re-establishing viable populations of faunal species that have historically occurred in the park. This involves not only reintroducing species assemblages that are still missing, but also supplementing population that may be on a downward trend.

Restoration of species assemblages is not haphazard. Rather, the recovery of disturbed areas would typically entail certain species colonising earlier and more successfully than others if source areas are



readily available. Recovery thus depends on whether sources are available, if species are able to get from the source to a degraded area, if suitable habitat is available once a degraded area has been reached, and if the resources at the reintroduction site are sufficient to establish a breeding population. Consequently, the reintroduction and management of large mammals should follow these principles.

This programme links with high level objective 1 and objective 1.5 on page 35.

REINTRODUCTION PROGRAMME					
High level objective: To ensure the persistence of AENP's biodiversity assets by conserving and restoring ecological patterns and processes representative of Algoa Bay – Karoo environment.					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP's terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To supplement currently small populations of particular species.	Undertake annual aerial surveys to determine trends in population sizes of large herbivores.	CSD, PM	Report	Annually	
	Establish a monitoring protocol for detecting and establishing population sizes for smaller species (including African penguins).	CSD	Monitoring protocol	Year 4	
	Submit proposals to wildlife management committee to source required species.	CSD, PM	Proposals	Annually	
	Supplement populations as per wildlife management committee recommendations.	PM, CSD	Monthly reports	As required	
To reintroduce missing species that were previously distributed within the area now covered by the park.	Establish which species are still missing.	CSD	Report	Year 3	
	Submit proposals to wildlife management committee to source required species.	CSD, PM	Proposal	Annually	
	Introduce species as approved by wildlife management committee.	PM, CSD	Monthly report	As required	
	Monitor the outcome of the reintroduction.	PM, CSD	Report	Annually after introduction	

10.2.5.6 Pollination programme

The purpose of this programme is to improve our understanding of pollination as an ecological driver in the terrestrial biomes of the park. Although pollination has been recognised as an important ecological process in the park, almost nothing is currently known about either the pollinating agents, or the plants that are serviced by these pollinators. During the next management plan cycle, it will therefore be necessary to inventorise pollinating agents, and solicit research to improve understanding of this ecological process, and develop a fully-fledged lower level plan.

This programme links with high level objective 1 and objective 1.5 on page 35.

POLLINATION PROGRAMME					
High level objective: To ensure the persistence of AENP’s biodiversity assets by conserving and restoring ecological patterns and processes representative of Algoa Bay – Karoo environment.					
Objective: To conserve the full complement of compositional, structural and functional biodiversity by maintaining, restoring or mimicking key ecosystem processes associated with AENP’s terrestrial and aquatic diversity.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To improve understanding of pollination as an ecological process in the park.	Solicit experts to identify and map pollinating agents in the park.	CSD	Inventory	Year 5	
	Hold a targeted SMF to unpack pollination as a mechanism.	CSD	Registered research projects	Year 6	
	Develop a lower level plan to maintain pollination as an ecological process in the park.	CSD	Lower level plan	Year 8	
	Implement the lower level plan.	PM, CSD	Monthly reports	Year 9	

10.2.6 Sense of place programme

The purpose of this programme is to understand human experience in relation to a particular piece of land. The sense of place programme has been placed in the biodiversity component of the park management plan because sense of place is created by the biodiversity assets of the park. However, it has strong crosslinks with the mainstreaming biodiversity programme, zonation, responsible tourism programme, and stakeholder engagement programme. This programme is a novel programme within the SANParks estate, and has been included in the park’s management plan and higher level objectives because of the strong emphasis on sense of place that emerged from the stakeholder participation process.

Two prominent dimensions of sense of place are visual and auditory experiences – based on what we hear and what we see. What we hear can be described as a soundscape, which is a sound or combination of sounds that forms or arises from your auditable environment. What we see can be described as a viewshed, defined as the field of vision witnessed by onlookers. Viewsheds include mountains, valleys, rivers and the sea. The park has a rich variety of natural viewsheds, due to the intersection of a variety of landscapes and vegetation types present in the park. Viewsheds may reflect different degrees of naturalness, which could impact on the experiences of visitors. A natural forest and a plantation consisting of non-indigenous trees may trigger different viewshed experiences.

Whereas the surrounding citrus industry arguably detracts from the sense of naturalness in the park, it is a long established farming practice in the Sunday’s River Valley, and adds to the sense of place from an agricultural perspective. The park should try to strike a balance with these potentially competing visual experiences. The park should respond appropriately to new developments (such as windfarms) that might further detract from the sense of place by altering aspects of the viewshed.

AENP occupies an important sense of place in South Africa’s conservation network. However, the park forms part of a fragmented environment where viewshed and soundscapes are mostly modified to some degree. For the park we should take cognisance of viewsheds and soundscapes as inputs to sense of place, improve our understanding of visitor preferences and experiences regarding sense of place, and plan accordingly.

This programme links with high level objective 1 and objective 1.6 on page 35.



SENSE OF PLACE PROGRAMME					
High level objective: To ensure the persistence of AENP's biodiversity assets by conserving and restoring ecological patterns and processes representative of Algoa Bay – Karoo environment.					
Objective: To promote the sense of place that AENP provides by minimising disturbance to the park's viewsheds and soundscapes, through appropriate zonation and improving our understanding of tourist perceptions of sense of place.					
Sub-objective	Actions	Responsibility	Indicators	Timeframe	Reference
To gain an understanding of visitor perceptions and preferences regarding sense of place.	Solicit research on sense of place and underpinning concepts such as soundscape and viewshed.	CSD, Tourism, PM	Research projects, reports, papers	Year 3, ongoing	
	Implement recommendations of detailed studies.	CSD, Tourism, PM	Research projects, reports, papers	Year 8, ongoing	
	Monitor the outcome of recommendations to be implemented.	CSD	Report	Year 10, ongoing	

10.3 Responsible tourism programme

The purpose of the responsible tourism programme is to act as an enabler for conservation through enhancement of the financial sustainability of the park with optimal benefit to the local communities. Currently, the majority of tourism income is generated by accommodation offered within the park and the conservation fees charged for park access.

Whilst the park is seen by the organisation as a driver of the conservation mandate, and as a socio-economic catalyst in the region, significantly extending the parks revenue generating potential can only be achieved with extensive and effective tourism planning, and reviewing and adapting to the constantly changing environment. SANParks' has adopted the national responsible tourism standard, SANS1162:2011, and thus the purpose of the responsible tourism programme for the park is to use the principles of responsible tourism, in order to guide the strategic development of the park. The responsible tourism programme thus looks at all aspects of the current and potential tourism product and service offering in order 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 parks responsible tourism baseline.

The focus during 2014 has been to create this baseline, and the process is ongoing, in order to identify a clear point of departure from which to work. A measure for customer service excellence is measuring the customer feedback, tourism quality standards, universal access standards, and then evaluating the visitor management aspects relating to the park, for example gate efficiency. Implementation of responsible tourism enables operational efficiency and thus creates the environment for new product development, packaging and dynamic pricing in order to maximise yield, though dependencies such as the availability of advanced technologies do exist.

The park is considered to have a high scenic value with extremely high biodiversity value. It has extensive revenue generating potential and shows a steady growth of 5 - 6% per annum for tourism income generation. The development of additional tourism products and activities as identified in section 9 would contribute significantly to the bottom line.

A detailed lower level plan is available. This programme links with high level objective 3 and objectives 3.1 – 3.7 on page 36.

RESPONSIBLE TOURISM PROGRAMME					
High level objective: To promote Addo Elephant National Park as a unique destination, providing a range of appropriate and innovative tourism products and services that offer a variety of recreational and learning experiences, with direct and indirect benefits to society, in accordance with responsible tourism principles.					
Objective: To align park tourism planning to the SANParks responsible tourism strategy.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To ensure that key responsible tourism principles are aligning with the SANParks' responsible tourism strategy.	Review and update the existing tourism plan.	PM	Tourism Plan	Every 3 rd year	
	Report progress in regards of implementation of the actions identified in the tourism plan.	PM	Reports and KPA's	Annually	
	Monitor implementation of tourism plan actions.	PM	Report	Year 5	
Objective: To enable the measurement and continuous improvement of the park's responsible tourism performance by establishing a responsible tourism baseline					
To drive and continuously enhance responsible tourism performance.	Complete a baseline (gap analysis) to identify current performance with regards to the Responsible Tourism Standard, SANS1162:2011.	SM: Tourism standards, PM	Manual	Year 1	SANS1162
	Create targets for continuous improvement in relation to sustainable operations management, socio-cultural, environmental and economic responsibility, as per SANS1162:2011.	SM: Tourism standards, PM	Manual	Annually	SANS1162
	Engage in responsible tourism assessment, in order to measure performance improvement in relation to set responsible tourism targets.	SM: Tourism standards, PM	Assessment / Audit Report	Annually	SANS1162
	Engage with commercial and PPP operators regarding SANParks' commitment to responsible tourism principles and agree to targets and assessment with operators.	PM, BDU	Agreements, assessment reports	Year 3	SANS1162
Objective: Provide visitors with appropriate and diverse range of products and services at market related prices that act as an economic catalyst locally and regionally, driving the conservation-based economy.					
To develop a diverse range of new products, with a focus on development of under-utilised areas of the park, on satisfying existing and target markets and offering real benefits to local communities.	Prioritise viable income generating opportunities for implementation as per product development framework.	PM, BDU	Product development matrix	Year 1	
	Implement identified projects in order of priority.	PM, BDU	Tourism development plan	As required	
To explore and develop alternative tourism income generating opportunities	Identify alternative income generating opportunities, and prioritise these.	PM, GM: Sales and Marketing	3 rd party / packaging opportunities list.	Ongoing	
	Implement 3 rd party packaging opportunities, based on identified priorities.	PM, GM: Sales and Marketing	Packages sold	Ongoing	



RESPONSIBLE TOURISM PROGRAMME

High level objective: To promote Addo Elephant National Park as a unique destination, providing a range of appropriate and innovative tourism products and services that offer a variety of recreational and learning experiences, with direct and indirect benefits to society, in accordance with Responsible Tourism principles.

Objective: To promote the park as a unique destination offering both environmental and social benefits to local communities.

To promote and market the park to emerging specific target markets.	Identify park specific markets, and devise strategies for expanding on these markets, where not included in the strategic and focus markets for SANParks.	GM: Sales and marketing, PM	Marketing plan	Annually	
	Implement a park specific sales and marketing plan.	GM: Sales and marketing, PM	Marketing plan	Ongoing	
	Work with the local tourism fora in order to stimulate regional tourism opportunities and community development.	PM	Minutes, events	Ongoing	
Objective: To enable the continued improvement of the visitor experience within the park.					
To ensure effective visitor management in the park.	Create a park visitor management plan, including priorities for implementation.	PM, GM: Visitor Mgt and Interpretation	Visitor Management Plan	Year 1	
	Improve efficiency of access at key and specifically high-volume visitor sites, based on visitor management planning	PM	Flow improvements	Year 5	
	Implement technologies to improve efficiency of access, through the use of new technologies.	GM: ICT, GM: Strategic Tourism Services	System upgrades	Ongoing	
To enable a quality visitor experience, through dynamic, adequate, effective and accurate visitor communication, providing a variety of recreational and learning experiences.	Create a park interpretation plan, taking existing interpretation into account, and including priorities for implementation.	PM, GM: Visitor Mgt and Interpretation	Interpretation Plan	Year 2	
	Complete the implementation of and maintain signage requirements on approach to and within the park.	PM	Signage upgraded	Ongoing	
To enable appropriate customer-focused service excellence.	Act on customer service recommendations and targets received.	PM	Monthly reports	Ongoing	
	Conduct tourism research to understand visitor numbers, expectations, preferences, park use and trends.	GM: Visitor Mgt and Interpretation, PM, CSD	Tourism research plan	As required	
To facilitate equitable and ease of access to the park.	Engage both local and regional government to enable and maintain easy access to the park.	PM	Meetings with local / provincial government	Ongoing	
	Explore the viability of introducing a community access card.				
	Lobby for improvement and good maintenance of access roads to the park (i.e. R335 and R342).	PM	Meetings with local / provincial government	Ongoing	

RESPONSIBLE TOURISM PROGRAMME					
High level objective: To promote Addo Elephant National Park as a unique destination, providing a range of appropriate and innovative tourism products & services that offer a variety of recreational and learning experiences, with direct and indirect benefits to society, in accordance with Responsible Tourism principles.					
Objective: To enable equitable access to the park by engaging with government, understanding the desired community interaction with the park and recognising tourist carrying capacity.					
To understand the desired community interaction with the parks in order to encourage community visitation and interaction with the park.	Identify unexplored opportunities for encouraging visitation by communities surrounding the parks.	PM	List	1 Year	
	Using the park forum to create opportunities for enhancing the community interaction with the park.	PM	Minutes of meetings	Ongoing	

10.4 Constituency building and benefit sharing

The People and Conservation (P&C) department in SANParks was established to build constituencies among people in support of the conservation of the natural and cultural heritage assets within national parks. This is achieved through strengthening relationships with neighbouring communities, management of cultural resource and indigenous knowledge management, environmental education, awareness and interpretation, social science research, and youth outreach. 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.

10.4.1 Stakeholder relationship programme

The purpose of this programme is to establish and maintain meaningful and beneficial relationships with a wide range of stakeholders supporting SANParks core business of biodiversity conservation and tourism. The stakeholder programme is a key strategy to achieve the overall desired state of the park.

The park aims to enhance biodiversity conservation through the promotion of a conservation ethic and developing healthy community custodianship for the park. Co-operative, collaborative and mutually beneficial relationships are essential to reach park objectives and ultimately to ensure the sustainability of the park. To this end, both formal and informal partnerships are initiated, maintained and nurtured with Government, conservation entities, business partners, communities, various non-governmental organisations (NGO's), community based organisations (CBO's), the media, customers and employees.

The park forum has been constituted and is functioning as an advisory body. It is a means of providing a legitimate platform to communicate park / SANParks matters to ensure participation by stakeholders on matters of mutual relevance affecting the park. It is expected that the park forum will facilitate constructive interaction between the park and surrounding communities / stakeholders and to build constituencies in support of natural and cultural heritage conservation goals of the park. Organisations represented on the park forum include amongst others, The Departments of Basic Education and Land Affairs, South African Police Service, councillors of the Sundays River Valley local municipality, communal property associations, Mayibuye Ndlovu Development Trust, Sundays River Valley Tourism Forum *etc.*

The park has a close working relationship with the Honorary Rangers (HR's). They contribute both in cash and in kind to the park programmes. Their vast expertise is used by the park to fulfill its vision and mission. They contribute in the following ways, to name but a few:

- Support and assist in environmental education and community outreach programmes;
- Fundraising;
- Participate in park operations during weekends when requested; and
- Participate and assist with holiday programmes.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 2 and objective 2.1 and 2.2 on page 36.



STAKEHOLDER RELATIONSHIP PROGRAMME					
High level objective: To maintain and strengthen several stakeholder relations and political goodwill by adhering to and enhancing existing formal agreements; maintaining integrated and collaborative institutional relationships; and providing socio economic empowerment opportunities associated with the Addo brand in a secure learning environment.					
Objective: To adhere to existing formal agreements by supporting the Addo Park Forum, strengthening park-concessionaire relations, innovatively implementing the resettlement policy, and maintaining collaboration with partners.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To improve co-operation and build sound stakeholder relationships.	Co-ordinate and support the quarterly Park Forum meetings.	PM	Meeting minutes	Quarterly	
	Meet regular with concessionaires to discuss operational issues.	PM, Marketing manager	Meeting minutes	Quarterly	
To ensure the resettlement policy is applied.	Give effect to contractual obligations regarding resettlement of farm workers.	CSD, PM	Purchase agreement	As required	
	Participate in relevant land restitution processes.	CSD, PM	Meeting minutes	As required	
Objective: To use and enhance informal relationships with government, academic institutions and other partners thereby aligning management with national policies and making informed decisions.					
To improve co-operation and build sound stakeholder relationships.	Attend quarterly intergovernmental forum meetings.	PM	Monthly reports	Ongoing	
	Provide support to research institutions operating in the park.	PM	Monthly reports	Ongoing	
	Maintain relationship with HR's in collaboration with identified projects.	PM	Monthly reports	Ongoing	

10.4.2 Cultural heritage programme

The purpose of this programme is to manage, present, consolidate and sustain the significance, authenticity and integrity of tangible and intangible cultural heritage resources. The management of cultural heritage resources is subject to the National Heritage Resources Act (NHRA) No 25 of 1999 which states that all state supported bodies should maintain and conserve the heritage resources under their control in accordance with standards and procedures set out by the South African Heritage Resource Agency (SAHRA). The sites will also be managed in accordance to the relevance SANParks cultural heritage policy and guidelines namely the cultural heritage policy, guidelines for the development and maintenance of heritage sites and the guidelines for burials, scattering of cremated ashes, erecting memorials, placing of plaques and access to gravesites.

The park incorporates various cultural heritage sites. In 1996, a small dinosaur called *Nqwebasaurus thwazi* (Kirky) was discovered near Kirkwood, while the very first dinosaur to be identified in South Africa was discovered on the Bushman's River (on the edge of the park) in 1845. Archaeologically, the area includes extensive evidence for the Khoisan settlement in the past. This is reflected in the shell middens on the Alexandria coast, the rock art in the Zuurberg Mountains and the stone cairns found along the Sundays River. The Alexandria dune field area is considered by the South African authorities to have World Heritage status. In 2002, the first phase of the greater AENP cultural heritage mapping exercise was done by the Albany Museum. During the exercise a number of paleontological sites, as well as cultural heritage sites were recorded that range from the early Stone Age to the historical period. The park has various cultural heritage sites ranging from Khoisan cultural heritage, shell middens, rock art and grave sites. Whilst some sites are not well known, others are threatened by inappropriate development and impact from tourists. The process of identification of cultural heritage sites (cultural mapping) and development of site management plans for them are conducted in conjunction with local community members

and the organisations representing community interests, as well as relevant academic institutions and researchers. In section 9.5.4 reference is made about the Zuurberg peace memorial that would form part of a bigger cultural village and heritage center that is planned for the area. SANParks is currently participating as an affected party in the planning phase of this project.

A broader-based cultural heritage resources programme that will include oral history and the documentation of indigenous knowledge as well as tangible heritage in the form of sites and objects is therefore required to investigate areas that have not yet been surveyed and assess the condition of, and threats to, all sites on land managed by the park. The results of this work should be entered into a geographic information system (GIS) database to facilitate monitoring and management. The oral history collection project aims to build a relationship between the park and communities by recovering and interpreting information relating to cultural heritage, specifically related to the areas incorporated within the Park.

A detailed lower level plan outlining the rationale and operational approach is available.

This programme links with high level objective 4 and objective 3.1 – 3.3 on page 37.

CULTURAL HERITAGE PROGRAMME					
High level objective: To provide opportunities to have a full suite of cultural experience by protecting and enhancing cultural and historical heritage assets as well as raising awareness and education of tangible and intangible cultural values typical of the Addo region.					
Objective: To continuously improve the inventory of cultural heritage assets by identifying, recording and accurately documenting all cultural resources (including Indigenous Knowledge and Oral History).					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To promote research on the cultural heritage assets of the park.	Solicit research projects.	PM	Research projects	Year 5	
	Implement research recommendations.	PM, Manager Cultural Heritage	Monthly reports	Ongoing	
	Record the oral history of the park.	PM	Report	Year 6, ongoing	
Objective: To preserve the tangible and intangible cultural heritage assets for current and future generations and wherever possible sustainably utilising these assets.					
Develop a cultural heritage resource management plan.	Develop and update the cultural heritage database.	PM	Updated site database	Ongoing	NHRA
	Grade sites according to significance.	PM	Ranking of sites	Year 1	SANParks policies
	Develop a tentative list for declaration of sites as national sites.	PM, Manager Cultural Heritage	Nomination dossier submitted	Year 3	NHRA
	Investigate the Alexandria dune field as a possible World Heritage Site (WHS) option.	PM	WHS nomination dossier	Year 5	NHRA, WHC
	Revise the cultural heritage management plan.	PM, CSD	Management plan	Year 6	
	Standardise routine monitoring, inspection and conservation of sites.	Manager Cultural Heritage, PM	Monthly reports	Ongoing	NHRA SANParks policies
Objective: To promote understanding and tolerance of other cultures by creating awareness and appreciation of the different cultural heritage assets.					
To promote responsible cultural heritage tourism.	Identify sites suitable for cultural heritage tourism.	PM, Manager Cultural Heritage	Sites develop for tourism	Year 2	NHRA
	Develop site management plans for selected sites.	PM	Site plans	Year 5	NHRA
	Facilitate community access to sites.	PM	Monthly reports	Year 2, ongoing	SANParks policies NHRA



10.4.3 Environmental education programme

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

An integrated approach to environmental education (EE) and interpretation has been adopted in SANParks which includes a broader stakeholder base and develops relevant programmes addressing a variety of issues i.e. caring for the environment and impacts that negatively affect the environment. The current beneficiaries of this program are mainly school and youth groups as well as the broader community. This approach is taking the form of organised, high quality and interactive activities which are categorised into:

- Formal programmes:**
 These programmes will target the formal education sector and will be directed at school groups visiting the park, and through outreach programmes at communities adjacent to the park. These programmes are aligned with the school curriculum. Examples of these formal programmes are the Junior Rangers, Kids in Parks and Imbewu programmes.
- Informal programmes:**
 The informal programmes are aimed at community oriented initiatives targeting specific stakeholders such as such as farmers, women and youth and the content will be conservation issue-specific. Examples of the informal programmes are creating awareness, information sharing between communities and the park, eco clubs / gardens and *ad hoc* request for assistance.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 2 and objective 2.4 on page 36.

ENVIRONMENTAL EDUCATION AND INTERPRETATION PROGRAMME					
High level objective: To maintain and strengthen several stakeholder relations and political goodwill by adhering to and enhancing existing formal agreements; maintaining integrated and collaborative institutional relationships; and providing socio economic empowerment opportunities associated with the Addo brand in a secure learning environment.					
Objective: To build constituencies in support of AENP's endeavours through promoting a variety of educational opportunities and initiatives both formal and informal.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To plan, develop and present formal education programmes for organised school and other youth groups.	Develop an environmental education plan and update annually.	PM	Document	Ongoing	
	Organise and conduct applicable environmental education programmes (i.e. Kids in Parks, Imbewu, calendar days, Wilderness schools).	PM	Monthly reports	Ongoing	
To plan, develop and present formal education programmes for organised school and other youth groups.	Organise and conduct outreach programmes (e.g. Eco-Schools, Langbos programmes).	PM	Monthly reports	Ongoing	
	Identify infrastructure to accommodate the Wilderness schools programme.	PM	Upgraded facility	Year 2	
	Develop new and update existing programme information.	PM	Documents	Ongoing	

ENVIRONMENTAL EDUCATION AND INTERPRETATION PROGRAMME					
High level objective: To maintain and strengthen several stakeholder relations and political goodwill by adhering to and enhancing existing formal agreements; maintaining integrated and collaborative institutional relationships; and providing socio economic empowerment opportunities associated with the Addo brand in a secure learning environment.					
Objective: To build constituencies in support of AENP's endeavours through promoting a variety of educational opportunities and initiatives both formal and informal.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To plan, develop and present informal education programmes.	Develop an annual programme to be implemented.	PM	Programme	Annually	
	Facilitate community awareness programme initiatives targeting specific stakeholders on conservation issue-specific matters.	PM	Programme reports, monthly reports	Ongoing	

10.4.4 Local socio-economic development programme

The purpose of this programme is to play a significant, targeted and effective role in contributing to local economic development, economic empowerment and social development in communities and neighbouring areas. This will be achieved by partnering with Local Government through the Integrated Development Plans (IDP's), participating in Government Programmes such as the Expanded Public Works Programme (EPWP), beneficiation (i.e. tourism products) and local and regional procurement.

The EPWP remains a significant focus area of the organisation to effectively contribute to local socio-economic development. The park currently manages various programmes e.g. Working for Water, Working on Fire, Working on Land, Working for the Coast, Working on High Altitude, Addo nursery, and Environmental Monitors. These programmes focus on poverty alleviation and are labour intensive projects that create temporary jobs in the short term while simultaneously achieving biodiversity objectives. Between 2009 and 2014, 3, 957 temporary jobs were created and R 44, 714, 317 was spend on salaries and operational requirements.

Skills development and capacity building is regarded as a cornerstone to enable economic activity. Great emphasis is placed on skills development in the above programmes. The park will continue to facilitate and encourage skills development through learnership and internship programmes in a broad range of fields (i.e. reception, field guiding experiential training for students etc.).

The park continues to support and develop local initiatives or small businesses that provide services that are required during specific events or functions. Where possible, local small medium micro-sized enterprises (SMME's), especially previously disadvantage individuals are favoured when sourcing contractors, provided that all procurement conditions as stated in SANParks procurement policy are adhered to. The Mayibuye Ndlovu Development Trust (neighbouring communities, tourism forum, Sundays River Valley Municipality and AENP) was initially established in 1995 with three mutually beneficial objectives namely, to improve environmental education of the community, economic upliftment and advancing the conservation importance of the park. Over time this has changed with the focus now on assisting with the funding of tertiary education and social upliftment.

The park further supports local economic development through housing the Darlington alien fish harvesting and bee-keeping projects. These business entities are owned by a local entrepreneur / entity and aims to improve local livelihoods through the sustainable harvesting of honey and processing of alien invasive fish species such as barbel *Clarias gariepinus*.

A detailed lower level plan outlining the rationale and operational approach is available. This programme links with high level objective 2 and objective 2.3 on page 36.



LOCAL SOCIO-ECONOMIC DEVELOPMENT PROGRAMME

High level objective: To maintain and strengthen several stakeholder relations and political goodwill by adhering to and enhancing existing formal agreements; maintaining integrated and collaborative institutional relationships; and providing socio economic empowerment opportunities associated with the Addo brand in a secure learning environment.

Objective: To play a significant, targeted and effective role in contributing to local economic development, economic empowerment and social development in surrounding communities.

Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To provide social and economic benefits to local communities.	Provide employment and business opportunities to local communities.	PM	Number of employees	Ongoing	
	Promote procurement from local and regional businesses.	PM	BBBEE and SMME ratings	Ongoing	
	Work closely with local municipalities to implement park based IDP projects.	PM	Minutes of meetings, IDP document	Ongoing	
	Continue supporting the Darlington alien fish harvesting and bee-keeping projects.	BSP, PM	Monthly reports	Ongoing	
To provide skills development and capacity building.	Provide appropriate capacity development through EPWP training and mentoring.	BSP, PM	Training register	Ongoing	
	Provide opportunities for learnerships and internships.	PM	Monthly report	Annually	

10.5 Effective park management

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

10.5.1 Environmental management programme

The purpose of this program is to minimise negative operational impacts on the park and set clear guidelines for the management of environmental impacts.

Given the national and international importance of the park, it is vital to manage this park to world class accepted standards. Proper management of development and operational activities within the park can only be achieved through appropriate planning tools and effective controls. A number of management tools are being used to develop and manage the park in a manner consistent with the relevant legislation and SANParks policy framework. These key tools and controls used by the park forms the basis of an environmental management framework.

The Minister of the Department Environmental Affairs has, in terms of section 24(2) of the National Environmental Management Act, 107 of 1998 (NEMA) , identified activities that may

not commence without authorisation from the competent authority. NEMA is of general application throughout South Africa and relevant provisions therefore apply to the park. Further to the provisions of NEMA, the park will develop standards of best practice to guide all operational activities that may have an impact on the environment. These activities will include any new infrastructure development that is not listed under NEMA; as well as general maintenance. The development of best practice standards will be guided by the precautionary principal. The precautionary principal 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.

This programme links with high level objective 5 and objective 5.1 on page 37.

ENVIRONMENTAL MANAGEMENT PROGRAMME					
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.					
Objective: To ensure compliance with environmental legislation and best practise principles for all management activities.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To manage and reduce the impacts of park activities on the vital attributes by complying with an approved environmental management system.	Make all environmental legislation available to park management.	PM	Electronic / hard copy of applicable legislation	Ongoing	
	Conduct internal scoping of all activities that may potentially impact on the environment and ensure that EIA's and heritage impact assessments are completed.	PM	Documents / reports	Ongoing	
To manage and reduce the impacts of park activities on the vital attributes by complying with an approved environmental management system.	Review and implement a set of best practice principles for the identified activities as required.	PM	Standard operating procedures	Ongoing	
	Minimise physical water losses.	PM	Monthly reports	Ongoing	
	Explore latest technologies to minimise electricity use.	PM	Report	Year 1	

10.5.2 Risk management programme

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

In line with corporate governance best practices and as per PFMA requirements, the Board of SANParks has formalised the risk management processes by adopting a Corporate Risk Management Framework (CRMF). As its foundation, the risk management framework has an enterprise-wide risk identification and assessment process, based on thorough understanding of the environment in which the organisation operates and the strategic corporate objectives it intends to deliver on.

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

Acknowledging that all activities occurring at different levels within the organisation are exposed to the various types of risks, the focus of this framework is to shift the attention of this organisation towards a philosophy of optimising the balance between potential risks and the potential rewards that may emanate from both pro-active and conscious risk oriented actions. As such, SANParks maintains a corporate 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, how each is addressed and, or monitored.



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

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

This programme links with high level objective 5 and objective 5.2 on page 37.

RISK MANAGEMENT PROGRAMME					
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.					
Objective	Actions	Responsibility	Indicators	Timeframe	Reference
To establish and maintain effective, efficient and transparent systems of risk management.	To identify and assess risks for all business operations in the park.	PM	Risk register	Annually	
	To develop responses to address and prevent or mitigate issues of risk.	PM	Risk response plan	Annually	PFMA, OHS Act, NEM:PAA NHBC reg's etc.
	To monitor effectiveness in terms of the risk response plan and improve as needed.	PM	Report	Quarterly	
	Identify and develop interventions to ensure visitor safety.	PM	Visitor safety risk mitigation plan	Ongoing	

10.5.3 Financial management and administration programme

The purpose of the 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 Public Finance Management Act, Act 1 of 1999 (as amended by Act 29 of 1999), and it is listed as Schedule 3 Part A: 25 public entity. The financial management and administration unit consists of the following sections, trade income, reconciliations, creditors, financial administration and supply chain management.

Trade income manages all income received by the park which includes monthly billing of trade debtors and confirming payments received. The reconciliation unit will verify and ensure that all transactions captured in the financial system correspond with the income received and expenditure incurred.

The creditors unit ensures payment of all suppliers and service providers and will follow up on outstanding invoices and queries received from suppliers. The financial administration unit is responsible to supervise, guide and provide the necessary assistance with the budget process, asset management and related administration. SANParks budget policy dictates a zero-based approach, which implies that every category must be critically assessed, evaluated and supported by an approved business plan. Annual budgets should be compiled in accordance with budget guidelines and instructions issued by the Corporate Finance Division. The financial and administration unit in collaboration with senior middle management ensure sound and proper budget management.

Supply chain management unit assists the park in procuring goods and services, ensures compliance and manages contracts. The financial and administration unit is responsible for asset control and manages a wide range of assets in support of the park.

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

This programme links with high level objective 5 and objective 5.3 on page 37.

FINANCIAL MANAGEMENT AND ADMINISTRATION PROGRAMME					
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.					
Objective: To ensure sound financial management and administration.					
Objective	Actions	Responsibility	Indicators	Timeframe	Reference
To attain effective financial management.	Ensure less than 1% variance on cost of operations.	PM	Statements with <1% variance	Annually	
	Ensure sound financial management of special projects - WfW, WfWet, WoF.	PM	Budget targets achieved	Annually	
	Participate in the independent audit of AENP financial records.	PM	Audit report	When required	
To grow revenue (Including alternative sources of revenue).	Identify new and align existing business opportunities within the AENP with the commercialisation programme of SANParks.	PM	Opportunities identified in line with policy.	Ongoing	
	Identify possible external funding to supplement current income streams.	PM	Funding proposals submitted	Year 1, ongoing	
	When required, develop support mechanisms and procedures for the park to receive grants and donations.	PM	Procedures	Year 1	
To improve the management of financial resources.	Prepare accurate and realistic annual budgets in consultation with management team that are in line with the sound management plan objectives.	PM	Annual budgets prepared	Annually	
	Provide monthly financial reports timeously by cost centre.	PM	Financial reports	Monthly	
To ensure proper asset management and SCM.	Verify and manage assets registers.	PM	Asset register	Annually	
	Assist with the procurement of goods and services.	PM	Monthly reports	Ongoing	
	Manage and maintain existing contracts for the supply of goods and services.	PM	Contract register	Ongoing	



10.5.4 Human capital development programme

The purpose of the human capital development programme is to ensure that the park has an adequate human resources function to render effective conservation, visitor and supporting services. SANParks has developed corporate human resources policies, guidelines and procedures to guide the park and its workforce in an effectively organised structure while delivering the outputs of the management plan.

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

Park human resource capacity is not only defined by development of current staff, but requires the holistic management of the appropriate human capital. This includes the creation of a learning environment, developing leadership skills, sharing of knowledge and experiences as well as developing socially important lifestyle management programmes to help employees and their families deal with the negative effects of lifestyle diseases such as HIV-AIDS. Park administration must report on deaths, new appointments, attendance registers, overtime claims, leave *etc.* A salary instruction is prepared from this for processing and preparation of monthly salaries. The park reviews training needs on an annual basis and submits the training need analysis and requirements for approval. Compilation of training needs starts off with the Individual Development Plans (IDP) for each staff member and is then followed by training, skills development and performance appraisals. Park management encourages all staff to improve their levels of skills and qualifications in their relevant field of expertise through study bursaries and training on an on-going basis.

The park currently has 141 permanent positions, 41 contract positions and 50 EPWP contract positions. Additional management functions especially in tourism and conservation departments as outlined in this plan will make it necessary to grow the staff establishment.

This programme links with high level objective 5 and objective 5.4 on page 37.

HUMAN CAPITAL DEVELOPMENT PROGRAMME					
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.					
Objective: To ensure sufficient and effective staff capacity to achieve management objectives by adhering to corporate human resource policies and guidelines.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To ensure the park attracts and retains the most suitable human capital To implement the performance management system.	Implement the corporate selection and recruitment policy.	PM	Procedures followed for appointments	Ongoing	SANParks recruitment and selection policy
	Promote awareness and ensure that category C and up have signed balance scorecards.	PM	Balance scorecard documents	Quarterly	Performance management policy

HUMAN CAPITAL DEVELOPMENT PROGRAMME					
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.					
Objective: To ensure sufficient and effective staff capacity to achieve management objectives by adhering to corporate human resource policies and guidelines.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To ensure the park attracts and retains the most suitable human capital To implement the performance management system.	Preparation and processing of monthly salaries and leave management.	PM	Salary instructions	Ongoing	
	Ensure implementation of the prescribed disciplinary code and procedures.	PM	Reports	As required	
	Establish EE forum, design EE plan and fill vacancies as per EE targets.	PM	Meetings, plan	Ongoing	EE report submitted
To implement plans and skills development strategies to meet the strategic goals of the organisation.	Identify training needs and conduct training interventions.	PM	Training plan in place, % of employees trained, and of budget spent on training	Annually	
	Develop human capital in the fields of tourism, conservation and administration through the internship programmes.	PM	Implementation of internship programme	Bi-annual & Annual	
To implement plans and skills development strategies to meet the strategic goals of the organisation.	Develop human capital in the field of people & conservation and ecotourism by introducing tourism and conservation experiences to learners and community groups.	PM	Learner and community groups addressed	Annually	
Implement workplace health care programmes which focus on preventative physical and mental health care.	Conduct wellness awareness workshops.	PM	Workshops	Annually	Corporate HIV policy
	Provide private facilities at all areas within the AENP to enable employee's access to ICAS.	PM	Facilities	Ongoing	People well-being Policy
	Invite professionals to the AENP to promote awareness on OHS and health issues.	PM	Attendance registers	Ongoing	OHS Act
	Commemorate all events related to wellness (e.g. AIDS day, world blood donor day, days of activism on non-violence against women).	PM	Attendance registers	Annually	People well-being Policy

10.5.5 Information management programme

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

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

The priorities for research will be developed through a priority needs analysis which will be articulated through the development of an overarching science plan. This plan will determine the suitable park



indicators (including Thresholds of Potential Concern) to monitor, as well as the varying mechanisms to collect the data (e.g. internal research, universities, commissioned studies, etc.).

This programme links with high level objective 5 and objective 5.5 on page 37.

INFORMATION MANAGEMENT PROGRAMME					
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.					
Objective: To implement best practices in the field of records and information management.					
Sub-objectives	Actions	Responsibility	Indicators	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 plans within the various areas of the park, and implement a single file plan.	PM	File plan	Year 2	National Archives and Records Services of SA Act
	Implement the AENP records management and file plan.	PM	Records and documents filed	Ongoing	Corporate file plan and policy
To develop and implement a records management and file plan for the park in accordance with SANParks policies and procedures.	Ensure appropriate access to park files and records in accordance to corporate records management policy and guidelines.	PM	Access procedures recorded and implemented	Ongoing	Corporate file plan and records management policy

10.5.6 Infrastructure programme

The purpose of this programme is to provide guidance for the upgrading and maintenance (day to day and scheduled) of infrastructure. This is primarily to ensure that the park's infrastructure (buildings, roads, fences etc.) and services infrastructure (provision of water, electricity and waste management) is well maintained and its capacity is continually improved in order to provide safe, reliable and affordable products to its clients and visitors. Technical Department's key responsibility is to provide leadership and guidance in the delivery and implementation of departmental programmes and to ensure the realisation of set goals regarding the above.

Infrastructure in the park consists of facilities in support of conservation (such as management roads and tracks, office facilities, staff housing, fences, bulk services, workshops and stores) and tourism (such as tourist roads and tracks, walking trails, office facilities, staff housing, bulk services, public 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 providing a tourism product at the best possible standard.

Management policies and procedures ensure that infrastructure is maintained, renovated, upgraded and replaced at the required intervals and specifies design norms and standards,

including national construction regulations, “green building” and “touch the earth lightly” principles and water saving measures and minimising waste. The ten year strategic plan addresses issues related to securing funding for upgrading, renovation / maintenance and replacement. The technical department continues to periodically review and assess performance in an attempt to align activities and allocate resources.

This programme links with high level objective 5 and objective 5.6 on page 37.

INFRASTRUCTURE PROGRAMME					
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.					
Objective: To upgrade and maintain existing infrastructure and develop new infrastructure in support of conservation and tourism in compliance with the zonation.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To ensure that infrastructure in the park is maintained to a desired state.	Compile an inventory of all infrastructure in the park, assess construction types and determine extent of maintenance needed.	PM	Inventory	Year 1	
	Document the scope of maintenance needs in accordance with relevant specifications.	PM	Reports	Year 1	Building and Electrical regulations
	Prioritise maintenance needs and develop a 10-year maintenance plan for the park.	PM	Maintenance plan and schedules	Ongoing	
	Implement the 10-year maintenance plan according to the annual maintenance schedules.	PM	Monthly and annual reports	Ongoing	
	Assess progress, revise annual maintenance schedules and evaluate standard of work.	PM	Annual report	Ongoing	
To ensure that all mechanical and electrical equipment is maintained to a desirable state.	Compile an inventory of all mechanical and electrical equipment in the park, determine maintenance schedules of each and list service providers.	PM	Inventory	Year 1	
	Develop an annual maintenance schedule for all equipment.	PM	Schedule	Ongoing	OHS Act, Electrical regulations
	Implement the annual maintenance schedule.	PM	Schedule	Ongoing	
To regulate all unwanted structures and facilities.	Identify and list all such structures <i>etc.</i>	PM	List	Year 1	
	To regulate or remove relevant structures.	PM	Reports, Notices	Year 5	

10.5.7 Safety and security programme

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

The park is the only national park that is home to the “Big 7” and very unique biodiversity. Any compromise with regards to safety would receive negative international coverage. The risks to visitors



to the area remains low but at the same time the risk to our natural resources is real, due to the ever growing pressures of society and organised crime syndicates on our natural heritage. The urban communities in close proximity to the park are increasing exponentially and pose an increasing threat to our resources.

All staff must be familiar with standard operating procedures related to safety and security. Formal training of staff who deals with all forms of illegal activity in the park has been elevated and receives high priority. The Safety and Security Plan comprehensively addresses both the strategic and operational aspects of visitor safety and security. A detailed SWOT analysis of issues affecting safety and security in the park has been developed and the resulting strengths, weaknesses, opportunities and threats have been converted into achievable objectives and are reviewed regularly. Proactive consideration including those listed are discussed in some detail: working hours, law and order, high risk areas, personnel, infrastructure, resources, equipment, staff training, reporting, data capture, record keeping, monitoring, information and intelligence. In addition to this a number of reactive considerations including: immediate action drills, emergency procedures and evacuation plans have been developed.

This programme links with high level objective 5 and objective 5.7 on page 37.

SAFETY AND SECURITY PROGRAMME					
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.					
Objective: To provide a safe and secure environment for both visitors and SANParks employees and to ensure that the integrity of the natural and cultural resources is secured.					
Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To provide a high level of safety and security to staff and visitors.	Review relevant safety and security plan and emergency action drills.	PM	Review safety and security plan and SoAIM audit	Biannual	Safety and security plan
	Develop a security plan for the concession areas.	PM	Safety and security plan	Year 1	
	Train staff in area integrity management, conservation guardianship and readiness to react to emergency situations.	PM	Training plan	Ongoing	
	Asses readiness of staff and functionality of equipment.	PM	SoAIM audits	Ongoing	
	Develop and implement a performance management system for field rangers.	PM	Performance management system	Annually	
To provide a high level of safety and security to staff and visitors.	Develop and implement a performance management system for contracted security.	PM	Performance Management system	Annually	
	Implement safety and security plans for concession holders and review quarterly.	PM	Safety and security plan	Year 2, bi-annually	
	Conduct regular patrols to ensure that area integrity is maintained.	PM	Monthly reports	Ongoing	

SAFETY AND SECURITY PROGRAMME

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.

Objective: To provide a safe and secure environment for both visitors and SANParks employees and to ensure that the integrity of the natural and cultural resources is secured.

Sub-objectives	Actions	Responsibility	Indicators	Timeframe	Reference
To improve overall park safety through interactions with external role players.	Align safety and security activities to accommodate collaborative operations with external partners, e.g. SAPS.	PM, ECI	Safety and security plan	Ongoing	
	Develop and maintain an active informant network.	PM, ECI	List	Ongoing	
	To actively participate in various external safety and security forums.	PM, ECI	Reports	Ongoing	



Section 11: Costing

Introduction

In line with the legal requirements, 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 solid financial management support the achievement of the objectives of this plan;
- Compliance to the Public Finance Management Act as well as SANParks financial policy and procedures.

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

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

Income

SANParks manages a number of National Parks as part of the national park system, currently twenty in total. Not all of these parks are financially viable, currently only 5 National Parks *i.e.* Addo Elephant National Park, Au-grabies Falls National Park, Kalahari Gemsbok National Park, Kruger National Park and Table Mountain National Park make a surplus. SANParks receives an annual grant from the DEA 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.* which is not allocated to individual parks and must also be funded by the revenue generated in financially viable parks. Total income for 2015 / 2016 is budgeted at –R 72, 946, 433, increasing to -R 95, 617, 894 in 2019 / 2020. A summary is presented in Table 16.

Table 12. A summary of the total income for Addo Elephant National Park management plan over the next five years.

	2015 / 2016	2016 / 2017	2017 / 2018	2018 / 2019	2019 / 2020
Total income	-R 72, 946, 433	-R 78, 052, 684	-R 83, 516, 372	-R 89, 362, 518	-R 95, 617, 894

Recurring costs

The annual directly allocated cost (includes staff, travel and supplies and tools) is estimated at R 60, 343, 669 for 2015 / 2016. These ongoing costs are split according to the programmes listed in Table 13.

Table 13. The estimated annual operational costs for Addo Elephant National Park for 2015 / 2016.

Programme	Amount	Percentage of total
Degradation and rehabilitation	R 15, 256, 752	25.3%
Alien and invasive species	R 11, 923, 993	19.8%
Tourism	R 10, 455, 061	17.3%
Infrastructure	R 8, 979, 691	14.9%
Safety and security	R 5, 498, 976	9.1%
Species of special concern	R 1, 420, 550	2.4%
Financial management and administration	R 1, 393, 115	2.3%
Marine	R 1, 002, 910	1.7%
Herbivore	R 649, 102	1.1%
Human capital management	R 543, 987	0.9%
Carnivore	R 493, 536	0.8%
Freshwater	R 298, 059	0.5%
Stakeholder participation	R 266, 975	0.4%
Mainstreaming biodiversity	R 260, 554	0.4%
Fire	R 221, 490	0.4%
Environmental management	R 220, 680	0.4%
Environmental education	R 220, 065	0.4%
Park consolidation	R 217, 412	0.4%
Local socio economic development	R 198, 122	0.3%
Cultural heritage	R 171, 608	0.3%
Sense of place	R 160, 554	0.3%
Disease management	R 158, 536	0.3%
Information management	R 157, 112	0.3%
Risk management	R 153, 458	0.3%
Reintroduction	R 12, 603	0.0%
Pollination	R 8, 768	0.0%
Total	R 60, 343, 669	100.0%

Once off costs

In addition to the above there is a further once-off cost estimated at R 103, 000, 000 over the next five years (see Table 14).

Table 14. The estimated once off cost of the various programmes in Addo Elephant National Park.

Programme	Estimated budget
Park consolidation	R 103, 000, 000
New infrastructure	R 155, 612, 200
Total	R 258, 612, 200

Unallocated fixed costs

The unallocated fixed costs for 2015 / 2016 amounts to R 8, 759, 639.

Maintenance

A breakdown of the infrastructure, both existing and new with their replacement value and an estimate of the ongoing annual maintenance for 2015 / 2016 is provided in Table 15. The projected



maintenance for existing infrastructure is estimated at R 5, 137, 266 in 2015 / 2016. If the new planned infrastructure is developed it will add a further R 2, 286, 280 (at 2015 / 2016 rates) onto this annual maintenance budget, increasing it to R 7, 423, 546. The maintenance requirement was calculated as a percentage of the replacement value.

Table 15. 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 Addo Elephant National Park.

Estimated replacement value			Estimated maintenance			
	Existing (R)	New (R)	Total (R)	Existing (R)	New (R)	Total (R)
Buildings	204, 387, 874	134, 839, 000	339, 226, 874	1, 256, 036	1, 941, 682	3, 197, 717
Roads & tracks	149, 965, 000	8, 100, 000	158, 065, 000	2, 640, 812	154, 500	2, 794, 750
Trails	541, 000	0	541, 000	10, 820	0	10, 820
Fencing	69, 450, 000	12, 316, 000	81, 766, 000	1, 041, 750	184, 740	1, 226, 490
Water system	5, 958, 300	0	5, 958, 300	122, 260	0	122, 260
Electricity	1, 162, 020	357, 200	1, 519, 220	58, 965	5, 358	64, 323
Sewerage	60, 000	0	60, 000	864	0	864
Other	288, 000	0	288, 000	5, 760	0	5, 760
Total	431, 812, 194	155, 612, 200	587, 424, 394	5, 137, 266	2, 286, 280	7, 423, 546

Replacement of minor assets

With many of the vehicles being leased along with the computers, this will significantly reduce this requirement as these items are expensive and require frequent replacement. To calculate the replacement provision, the cost price of the assets was divided by the estimated useful life. SANParks applies certain standards in this regard. The estimated asset value for various categories based on their original purchase price and the estimated budget required annually to make provision for their replacement. Management should make provision for about R 2, 220, 154 in 2015 / 2016, this figure is presented in Table 16.

Table 16. The total value based on the original purchase price of various categories of minor assets for Addo Elephant National Park.

Asset type	Asset value	Provision for replacement
Air conditioners	R 417, 668	R 59, 667
Aircraft	R 172, 353	R 24, 622
Computer equipment	R 585, 443	R 195, 148
Firearms	R 2, 622, 707	R 374, 672
Furniture	R 181, 051	R 18, 105
Mechanical equipment	R 4, 441, 811	R 634, 544
Office equipment	R 170, 802	R 17, 080
Vehicles and trailers	R 371, 535	R 53, 076
Watercraft	R 2, 780, 069	R 397, 153
White goods	R 450, 961	R 64, 423
Total	R 14, 814, 803	R 2, 220, 154

Summary

It is estimated that the park will require an annual operating budget of R 71, 323, 462 for 2015 / 2016, increasing to R 90, 044, 227 in 2019 / 2020. In addition to this amount the park will also require R 258, 612, 200 over the next five years for once off costs. A summary is presented in Table 17.

Table 17. A summary of the annual and once off costs that is required to fully implement the activities in the Addo Elephant National Park management plan over the next five years.

	2015 / 2016	2016 / 2017	2017 / 2018	2018 / 2019	2019 / 2020
Annual operational costs	R 71, 323, 462	R 75, 602, 870	R 80, 139, 042	R 84, 947, 384	R 90, 044, 227
Once off costs over 5 years	R 258, 612, 200				
SANParks budget for AENP	R 67, 738, 464	R 71, 802, 772	R 76, 110, 938	R 80, 677, 595	R 85, 518, 250
Deficit	R 3, 584, 998				

The deficit can be broken down as follows:

- An additional amount of R 879, 634 is needed to cover the current maintenance shortfall;
- An additional amount of R 394, 000 is needed for the replacement of assets;
- An additional amount of R 1, 540, 360 is needed for the new Nguni rest camp, this includes staff and operational budget;
- An additional amount of R 771, 004 is needed for the new Matyholweni campsite, this includes staff and operational budget;

Implications:

Should the park be unsuccessful in securing the deficit amount of R 3, 584, 998 then the following programmes will be affected;

- Infrastructure programme: The park will not be able to maintain the current infrastructure to a high standard;
- Tourism programme: The park will not be able to open and operate the two new camps and therefore adversely affect the income stream; and
- Assets: The park will not be able to replace assets that have reached the end of their life span.

The park envisage that the shortfall will be covered in year 5 by the additional income made from the new Nguni rest camp and Matyholweni campsite.



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Appendix 1: Declarations

Government Notice 243 / Government Gazette 1963 of 3 July 1931 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act No. 56 of 1926)

1. "Mentone", formerly Forest Reserve, Division of Alexandria, in extent 934 morgen 330.75 square roods. [Farm Mentone 150, Division of Alexandria, in extent (GIS) 803.27 hectares];
2. "Strathmore", formerly Forest Reserve, Division of Alexandria, in extent 2,064 morgen 403.06 square roods. [Farm Strathmore 149, Division of Alexandria, in extent (GIS) 1777.19 hectares];
3. "Hathi", portion of the farm Kenmure, Division of Alexandria, in extent 500 morgen 2 square roods. [Portion Hathi 1 of Farm Kenmure 154, Division of Alexandria, in extent 428.2689 hectares, held under title deed T639/1926];
4. "Indlovu North", portion of the Vellore Outspan, Division of Alexandria, in extent 166 morgen 216 square roods. [Farm Indlovu North 151, Division of Alexandria, in extent (GIS) 133.63 hectares];
5. "Indlovu", portion of the farm Brackendale, Division of Uitenhage, in extent 600 morgen. [Portion Indlovu 2 of Farm Brackendale 112, Division of Uitenhage, in extent 513.9192 hectares, held under title deed T10987/1925];
6. "Krompoort", a further portion of the farm Brackendale, Division of Uitenhage, in extent 100 morgen. [Portion Krompoort 3 of Farm Brackendale 112, Division of Uitenhage, in extent 85.6532 hectares, held under title deed T10987/1925 and T56726/2008];
7. "Brand Laagte", portion of the farm Commando Kraal Estate, Division of Uitenhage, in extent 902 morgen 481 square roods. [Portion Brand Laagte 255 of Farm The Commando Kraal Estate 113, Division of Uitenhage, in extent 773.2786 hectares, held under title deed T52125/1981].

Government Notice 134 / Government Gazette 2287 of 12 July 1935 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act No. 56 of 1926)

1. Portion Addo Reserve 2 a portion of Farm Kenmure 154, Division of Alexandria, in extent 428.2643 hectares, held under title deed T1937/1936 & T97910/2001;
2. Remainder of the Farm Commando Kraal Estate 113, Division of Uitenhage, in extent 1468.3119 hectares, held under title deed T8614/1977;
3. Portion Liwandi 252 of the Farm Commando Kraal Estate 113, Division of Uitenhage, in extent (GIS) 21.38 hectares, SG Diagram 5216/1920.

Government Notice 14 / Government Gazette of 12 July 1965 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act No. 42 of 1962)

1. Remainder of the farm Kenmure 154, Division of Alexandria, in extent 449.8771 hectares, held under title deed T9757/1966 & T97910/2001.

Government Notice 266 / Government Gazette 4911 of 28 February 1975 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 42 of 1962)

1. A certain piece of quitrent land, being the remainder of the land known as Kenmure, in the division of Alexandria, in extent of 449.8771 hectares, held under title deed T9757/1996;
2. Portion 251 (a portion of Portion 199) of the farm Commando Kraal Estate 113, in the division of Uitenhage, in extent of 48.3385 hectares, held under title deed T19007/1968;
3. Lot 1, Block G, a portion of the farm Commando Kraal Estate 113, in the division of Uitenhage, in extent of 4.2641 hectares, held under title deed T1856/1965;

4. Portion 296 (a portion of Lot 2, Block G) of the farm Commando Kraal Estate 113, in the division of Uitenhage, in extent of 42.9902 hectares, held under title deed & T3427/1966.

Government Notice 262 / Government Gazette 7973 of 31 December 1981 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 2 of the farm Marion Bareë 120, in the division of Uitenhage, in extent of 860.5763 hectares, described in SG diagram 5653/1951.

Government Notice 1766 / Government Gazette 15125 of 24 September 1993 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 268 (a portion of Portion 204) of the farm Commando Kraal Estate 113, in the division of Uitenhage, in extent of 33.7317 hectares;
2. Remainder of Portion 2 of the farm 91, situated in the division of Alexandria, in extent of 44.3755 hectares;
3. The farm 158, situated in the division of Alexandria, in extent of 850.2222 hectares.

Government Notice 37 / Government Gazette 15420 of 14 January 1994 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 1 of the farm Duncairn 109, situated in the division of Alexandria, in extent 555.5381 hectare, described in SG diagram A117/1925;
2. Portion 5 (a portion of Portion 3) of farm 91, situated in the division of Alexandria, in extent of 87.3674 hectares, described in SG diagram 1544/1895;
3. Remainder of portion 6 of the farm 91, situated in the division of Alexandria, in extent of 226.4818 hectares, described in SG diagram 7728/1903;
4. Remainder of the farm Mimosa 89, situated in the division of Alexandria, in extent of 506.9986 hectares, described in SG diagram A737/1924;
5. Remainder of the farm Thornleigh 85, situated in the division of Alexandria, in extent of 169.4341 hectares, described in SG diagram B563/1886;
6. The farm Unamore 88, situated in the division of Alexandria, in extent of 495.5095 hectares.

Government Notice 1227 / Government Gazette 15854 of 15 Julie 1994 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 1 of the farm Good Hope 38, situated in the division of Uitenhage, in extent of 565.8193 hectares, described in SG diagram 1149/1912;
2. Portion 4 (a portion of Portion 2) of the farm Doorn Nek 73, situated in the division of Alexandria, in extent of 685.2215 hectares, described in SG diagram 5976/1947;
3. Portion 6 of the farm Woodlands 45, situated in the division of Uitenhage, in extent of 1, 204.5562 hectares.

Government Notice 1228 / Government Gazette 15854 of 15 Julie 1994 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 14 (a portion of Portion 8) of the farm 91, situated in the division of Alexandria, in extent of 342.6128 hectares, described in SG diagram A161/1923;
2. Remaining extent of Portion 12 (a portion of Portion 8) of the farm 91, situated in the division of Alexandria, in extent of 208.3400 hectares, described in SG diagram 2629/1921;
3. Remaining extent of Portion 13 (a portion of Portion 8) of the farm 91, situated in the division of Alexandria, in extent of 195.6219 hectares, described in SG diagram A160/1923;
4. Remaining extent of Portion 21 (a portion of Portion 8) of farm 91, situated in the division of Alexandria, in extent of 271.9211 hectares, described in SG diagram 2164/1936;
5. Remaining extent of Portion 22 (a portion of Portion 8) of farm 91, situated in the division of Alexandria, in extent of 271.9194 hectares, described in SG diagram 2165/1936.

Government Notice 1582 / Government Gazette 16755 of 13 October 1995 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 4 of the farm Break Neck 24, situated in the division of Uitenhage, in extent of 2, 183.9243 hectares, described in SG diagram 5357/1972;



2. The farm Kabougas Poort 26, situated in the division of Uitenhage, in extent of 457.1883 hectares, described in SG diagram B825/1927;
3. Portion 7 (a portion of Portion 1) of the farm Woodlands 45, situated in the division of Uitenhage, in extent of 977.8743 hectares, described in SG diagram 12356/1965;
4. The farm Rockleigh 27, situated in the division of Uitenhage, in extent of 1, 865.4994 hectares, described in SG diagram 535/1886;
5. The farm Coldstream 28, situated in the division of Uitenhage, in extent of 1, 814.9369 hectares, described in SG diagram 536/1886;
6. The farm Glencoe 29, situated in the division of Uitenhage, in extent of 2, 168.1451 hectares, described in SG diagram 537/1886;
7. The farm Ravensworth 30, situated in the division of Uitenhage, in extent of 1, 518.0751 hectares, described in SG diagram 538/1886;
8. The farm Glenorgal 31, situated in the division of Uitenhage, in extent of 1, 933.2502 hectares, described in SG diagram 539/1886;
9. The farm Lulworth 32, situated in the division of Uitenhage, in extent of 863.6192 hectares, described in SG diagram 540/1886;
10. The farm Durlstone 33, situated in the division of Uitenhage, in extent of 935.2274 hectares, described in SG diagram 541/1886;
11. The farm Clifton 34, situated in the division of Uitenhage, in extent of 1, 542.9343 hectares, described in SG diagram 542/1886;
12. An unsurveyed, unregistered portion of State land situated in the division of Uitenhage, bounded within the former Sundays River State Forest, which previously formed an integral part of the Zuurberg State Forest (Farm 35), in extent of 822.2708 hectares;
13. The farm 74, (formerly Lot 16), situated in the division of Alexandria, in extent of 1, 939.6938 hectares, described in SG diagram 3402/1876;
14. The farm Ferniebrae 71, situated in the division of Alexandria, in extent of 656.9178 hectares, described in SG diagram 6693/1974;
15. The farm 72, situated in the division of Alexandria, in extent of 277.5974 hectares, described in SG diagram 6694/1974;
16. The farm Heatherbrae 69, situated in the division of Alexandria, in extent of 820.2674 hectares, described in SG diagram 562/1886.

Government Notice 1138 / Government Gazette 17314 of 12 Julie 1996 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. The farm Buffelskuil 84, situated in the division of Alexandria, in extent of 656.9178 hectares, described in SG diagram 394/1829;
2. Portion 1 of the farm Coerney 83, situated in the division of Alexandria, in extent of 306.5289 hectares, described in SG diagram 1349/1906;
3. Remainder of the farm Coerney 83, situated in the division of Alexandria, in extent of 417.7921 hectares, described in SG diagram 73/1905;
4. The farm Buffelskop, a portion of the farm Buffelskuil, situated in the division of Alexandria, in extent of 217.5591 hectares, described in SG diagram 377/1909;
5. Portion 7 of the farm Coerney 83, situated in the division of Alexandria, in extent of 296.3601 hectares, described in SG diagram 2883/1949;
6. Portion 2 of the farm Buffelskuil 84, situated in the division of Alexandria, in extent of 309.6364 hectares, described in SG diagram 702/1910.

Government Notice 1139 / Government Gazette 17314 of 12 Julie 1996 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Remainder of Portion 1 of the farm The Wells 87, situated in the division of Alexandria, in extent of 278.6167 hectares, described in SG diagram 3152/1920;

2. Portion 18 (a portion of Portion 2) of the farm 91, situated in the division of Alexandria, in extent of 235.3907 hectares, described in SG diagram 162/1924;
3. Portion 17 (a portion of Portion 12) of the farm 91, situated in the division of Alexandria, in extent of 134.2728 hectares, described in SG diagram 205/1924;
4. Portion 11 (a portion of Portion 8) of the farm 91, situated in the division of Alexandria, in extent of 256.9625 hectares, described in SG diagram 2630/1921;
5. Portion 3 (a portion of Portion 1) of the farm The Wells 87, situated in the division of Alexandria, in extent of 299.7880 hectares, described in SG diagram 7612/1954;
6. Portion 4 (a portion of Portion 1) of the farm Coerney 83, situated in the division of Alexandria, in extent of 114.5641 hectares, described in SG diagram 3995/1928;

Government Notice 1140 / Government Gazette 17314 of 12 Julie 1996 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 3 of Farm 37, situated in the division of Uitenhage, in extent of 426.7763 hectares, described in SG diagram 1285/1944;
2. Portion 2 of Farm 38, situated in the division of Uitenhage, in extent of 185.2679 hectares, described in SG diagram 1156/1912;
3. Remainder of Portion 2 of the farm Slag Boom 39, situated in the division of Alexandria, in extent of 15.2199 hectares, described in SG diagram 11556/1912;
4. Farm 33, situated in the division of Uitenhage, in extent of 992.2667 hectares, described in SG diagram B1549/11876;
5. Remainder of Portion 1 of the farm Klein Plaats 2, situated in the division of Alexandria, in extent of 381.1567 hectares, described in SG diagram A2014/1926.

Government Notice 1106 / Government Gazette 22809 of 02 November 2001 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. The farm Boxwood 256, situated in the division of Alexandria, in extent of 881.1930 hectares;
2. Farm 270, situated in the division of Alexandria, in extent of 1, 160.0000 hectares;
3. Farm 272, situated in the division of Alexandria, in extent of 612.0000 hectares;
4. Farm 292, situated in the division of Alexandria, in extent of 602.0000 hectares;
5. Unsurveyed Farm 308, situated in the division of Alexandria, in extent of 3, 436.0000 hectares;
6. Unsurveyed Farm 318, situated in the division of Alexandria, in extent of 6, 589.0000 hectares;
7. The remainder of the farm Midfor 327, situated in the division of Alexandria, in extent of 2, 593.2142 hectares, held under title deed T7619/1967;
8. The farm Mainfor 328, situated in the division of Alexandria, in extent of 4, 995.9528 hectares, held under title deed T7619/1967.
9. The remainder of the farm Kwaihoek 349, situated in the division of Alexandria, in extent of 382.9812, held under title deed T43/1948.

Government Notice 940 / Government Gazette 25134 of 04 Julie 2003 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. The remainder of the farm Deep Drift 18, situated in the division of Uitenhage, in extent of 2, 345.5704 hectares, held under title deed T30661/1984.

Government Notice 1499 / Government Gazette 25562 of 17 October 2003 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. Portion 6 of the farm Woodlands 45, situated in the division of Uitenhage, in extent of 1, 204.5562 hectares, held under title deed T45364/1993;
2. Portion 357 of the farm Strathsomers Estate 42, situated in the division of Uitenhage, in extent of 1, 670.0227 hectares, held under title deed T26422/1996;
3. The remainder of the farm Woodlands 45, situated in the division of Uitenhage, in extent of 898.4117 hectares, held under title deed T26063/1996;
4. Portion 5 of the farm Nieuwe Post 68, situated in the division of Alexandria, in extent of 231.4781 hectares, held under title deed T61263/1971;
5. Portion 3 of the farm Nieuwe Post 68, situated in the division of Alexandria, in extent of 25.4775 hectares, held under title deed T61263/1971;



6. Portion 4 of the farm Nieuwe Post 68, situated in the division of Alexandria, in extent of 642.3970 hectares, held under title deed T61263/1971;
7. The remainder of the farm Marion Baree 120, situated in the division of Uitenhage, in extent of 133.1420 hectares, held under title deed T58631/1997;
8. Portion 1 of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 436.8352 hectares, held under title deed T58631/1997;
9. Portion 6 of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 214.1330 hectares, held under title deed T58631/1997;
10. The remainder of the farm Lismore 208, situated in the division of Uitenhage, in extent of 893.8143 hectares, held under title deed T58631/1997;
11. Portion 2 of the farm Lot De B Penhurst 123, situated in the division of Uitenhage, in extent of 285.5133 hectares, held under title deed T58631/1997;
12. Portion 3 of the farm Vygeboom 326, situated in the division of Somerset East, in extent of 771.1714 hectares, held under title deed T889/1997;
13. Portion 1 of the farm Weltevrede 67, situated in the division of Alexandria, in extent of 327.0733 hectares, held under title deed T79387/1997;
14. Portion 6 of the farm Weltevrede 67, situated in the division of Alexandria, in extent of 139.4019 hectares, held under title deed T101297/1997;
15. Portion 4 of the farm Woodlands 45, situated in the division of Uitenhage, in extent of 648.0806 hectares, held under title deed T35507/1998;
16. Portion 4 of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 496.1968 hectares, held under title deed T77716/1998;
17. Remainder of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 249.8601 hectares, held under title deed T77716/1998;
18. Portion 2 of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 287.3420 hectares, held under title deed T77716/1998;
19. Portion 5 of the farm Addo Heights 209, situated in the division of Uitenhage, in extent of 128.4786 hectares, held under title deed T75543/1998;
20. Portion 2 of the farm Rietpoort 19, situated in the division of Uitenhage, in extent of 405.7944 hectares, held under title deed T82517/1999;
21. The remainder of the farm Rietpoort 19, situated in the division of Uitenhage, in extent of 1, 650.3244 hectares, held under title deed T82517/1999;
22. The remainder of the farm Die Dorings 21, situated in the division of Uitenhage, in extent of 459.3244 hectares, held under title deed T82517/1999;
23. The remainder of Farm 630, situated in the division of Uitenhage, in extent of 213.7463 hectares, held under title deed T8987/1999;
24. The remainder of the farm Fascadale 213, situated in the division of Uitenhage, in extent of 1, 401.6661 hectares, held under title deed T89188/1999;
25. Portion 2 of the farm Die Dorings 21, situated in the division of Uitenhage, in extent of 226.4341 hectares, held under title deed T98322/1999;
26. The remainder of the farm 75, situated in the division of Alexandria in extent of 401.9019 hectares, held under title deed T101587/1999;
27. The remainder of the farm 76, situated in the division of Alexandria in extent of 204.8824 hectares, held under title deed T102587/1999;
28. Portion 2 of the farm Doring Nek 73, situated in the division of Alexandria, in extent of 132.1361 hectares, held under title deed T102587/1999;
29. The farm Koms 70, situated in the division of Alexandria, in extent of 949.1587 hectares, held under title deed T102587/1999;
30. The remainder of the farm Dirks Kraal 286, situated in the division of Somerset East in extent of 967.7702 hectares, held under title deed T4386/2000;
31. Portion 4 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 522.4894 hectares, held under title deed T25107/2000;
32. Portion 9 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 522.4796 hectares, held under title deed T25107/2000;

33. Portion 2 of the farm Modderfontein 338, situated in the division of Somerset East, in extent of 342.6128 hectares, held under title deed T53486/2000;
34. Portion 5 of the farm Dirks Kraal 286, situated in the division of Somerset East in extent of 342.6128 hectares, held under title deed T53483/2000;
35. Portion 3 of the farm Dirks Kraal 286, situated in the division of Somerset East in extent of 784.2393 hectares, held under title deed T53486/2000;
36. The remainder of the farm Zoute Fontein 210, situated in the division of Uitenhage in extent of 416.8585 hectares, held under title deed T62546/2000;
37. Portion 1 of the farm Zoute Fontein 210, situated in the division of Uitenhage in extent of 513.9182 hectares, held under title deed T62547/2000;
38. Portion 1 of the farm Riet Poort 19, situated in the division of Uitenhage in extent of 89.4327 hectares, held under title deed T75186/2000;
39. Portion 2 of the farm Lismore 208, situated in the division of Uitenhage in extent of 473.0541 hectares, held under title deed T90192/2000;
40. Portion 3 of the farm Vaalnek 233, situated in the division of Jansenville in extent of 494.1019 hectares, held under title deed T94191/2000;
41. Portion 5 of the farm Coerney 83, situated in the division of Alexandria, in extent of 396.0146 hectares, held under title deed T107910/2000;
42. The remainder of the farm Lynwood 86, situated in the division of Alexandria in extent of 515.9264 hectares, held under title deed T107910/2000;
43. Portion 2 of the farm Tomleigh 85, situated in the division of Alexandria, in extent of 599.5274 hectares, held under title deed T2272/2001;
44. The remainder of the farm Henderson 410, situated in the division of Somerset East in extent of 2, 885.2478 hectares, held under title deed T30574/2001;
45. Portion 3 of the farm Rietrivier 230, situated in the division of Jansenville, in extent of 140.6155 hectares, held under title deed T30574/2001;
46. Portion 6 of the farm Dwaas 232, situated in the division of Jansenville, in extent of 507.0669 hectares, held under title deed T30574/2001;
47. Portion 10 of the farm Dwaas 232, situated in the division of Jansenville, in extent of 189.8420 hectares, held under title deed T30574/2001;
48. Portion 2 of the farm Zoute Fontein 210, situated in the division of Uitenhage in extent of 85.6542 hectares, held under title deed T75782001;
49. Portion 4 of the farm Weltevrede 67, situated in the division of Alexandria, in extent of 308.2208 hectares, held under title deed T79836/2001;
50. Portion 7 of the farm Weltevrede 67, situated in the division of Alexandria, in extent of 122.1355 hectares, held under title deed T79836/2001;
51. The remainder of the farm Nieuwe Post 68, situated in the division of Alexandria in extent of 217.2168 hectares, held under title deed T89684/2001;
52. Portion 2 of Farm 65, situated in the division of Alexandria, in extent of 257.0296 hectares, held under title deed T93047/2001;
53. Portion 9 of the farm Weltevrede 67, situated in the division of Alexandria, in extent of 447.5129 hectares, held under title deed T98508/2002;
54. Portion 10 of the farm Vista 367, situated in the division of Alexandria, in extent of 780.3857 hectares, held under title deed T10629/2002;
55. Portion 1 of the farm Henderson 410, situated in the division of Somerset East in extent of 817.2515 hectares, held under title deed T23048/2002;
56. The remainder of Farm 296, situated in the division of Jansenville, in extent of 3, 231.5208 hectares, held under title deed T23048/2002;
57. The remainder of the farm Oudekraal 327, situated in the division of Somerset East, in extent of 552.2629 hectares, held under title deed T23179/2002;
58. Portion 1 of the farm Die Dorings 21, situated in the division of Uitenhage, in extent of 329.0408 hectares, held under title deed T27706/2002;
59. Portion 7 of the farm Dirks Kraal 286, situated in the division of Somerset East in extent of 861.5604 hectares, held under title deed T49208/2002;
60. Portion 6 of the farm Ingleside 215, situated in the division of Uitenhage, in extent of 402.2331 hectares, held under title deed T49731/2002;
61. The remainder of the farm Zuurkloof 17, situated in the division of Uitenhage, in extent of 180.5959 hectares, held under title deed T62467/2002;
62. Portion 2 of Farm 52, situated in the division of Uitenhage, in extent of 396.8827 hectares, held under title deed T62467/2002;
63. Portion 3 of the farm Henderson 410, situated in the division of Somerset East in extent of 3, 023.2080 hectares, held under title deed T63799/2002;
64. Portion 2 of the farm Rietrivier 230, situated in the division of Jansenville, in extent of 342.4105 hectares, held under title deed T63799/2002;



65. Portion 7 of the farm Rietrivier 230, situated in the division of Jansenville, in extent of 22.0356 hectares, held under title deed T63799/2002;
66. Portion 349 of the farm Strathsomers Estate 42, situated in the division of Uitenhage, in extent of 691.6924 hectares, held under title deed T86530/2002;
67. Portion 1 of Farm 296, situated in the division of Jansenville, in extent of 1, 720.3823 hectares, held under title deed T30082/2002;

Government Notice 281 / Government Gazette 27408 of 01 April 2005 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. The St Croix Island Reserve;
2. Algoa Bay Bird Island Provincial Nature Reserve;
3. Stag Island Provincial Nature Reserve;
4. Algoa Bay Seal Island Provincial Nature Reserve;
5. Algoa Bay Black Rocks Nature Reserve.

Government Notice 1066 / Government Gazette 28185 of 28 October 2005 declared the following land to be part of the Addo Elephant National Park in terms of the National Parks Act (Act 57 of 1976)

1. The remainder of Farm 212, situated in the division of Uitenhage, in extent of 146.8552 hectares, held under title deed T6977/1998;
2. Portion 1 of Farm 212, situated in the division of Uitenhage, in extent of 146.8581 hectares, held under title deed T6977/1998;
3. Portion 2 of Farm 212, situated in the division of Uitenhage, in extent of 146.8596 hectares, held under title deed T6977/1998;
4. The remainder of the farm Kenkelbosch Outspan 301, situated in the division of Alexandria, in extent of 584.9726 hectares, held under title deed T6977/1998;
5. Portion 5 of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 409.7961 hectares, held under title deed T115343/2003;
6. The remainder of Erf 881 Colchester, situated in the division of Uitenhage, in extent of 35.7614 hectares, held under title deed T29410/2004;
7. Portion 1 of the farm Brakvlei 353, situated in the division of Somerset East, in extent of 429.0579 hectares, held under title deed T60752/2003;
8. Portion 3 of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 819.6183 hectares, held under title deed T20752/2003;
9. Portion 4 of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 409.8281 hectares, held under title deed T20752/2003;
10. Portion 5 of the farm Volkers Rivier 244, situated in the division of Somerset East, in extent of 3.3600 hectares, held under title deed T68500/2004;
11. The remainder of the farm Brakvlei 353, situated in the division of Alexandria, in extent of 433.7252 hectares, held under title deed T68502/2004;
12. The remainder of the farm Volkers Rivier 244, situated in the division of Somerset East, in extent of 1, 395.9030 hectares, held under title deed T67258/2003;
13. Portion 2 (a portion of Portion 1) of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 513.9235 hectares, held under title deed T67258/2003;
14. The remainder of Portion 1 of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 767.2022 hectares, held under title deed T67258/2003;
15. Portion 1 of the farm Boerslaagte 245, situated in the division of Somerset East, in extent of 9.3733 hectares, held under title deed T67258/2003;
16. Portion 6 (a portion of Portion 1) of the farm Palmiet Fontein 281, situated in the division of Somerset East, in extent of 349.1273 hectares, held under title deed T67260/2003;

17. The remainder of the farm Klein Dirks Kraal 287, situated in the division of Somerset East, in extent of 1, 387.3480 hectares, held under title deed T75605/2003;
18. The Farm 366, situated in the division of Somerset East, in extent of 132.9823 hectares, held under title deed T75605/2003;
19. Portion 3 of the farm Olievenfontein 292, situated in the division of Somerset East, in extent of 336.0460 hectares, held under title deed T75605/2003;
20. Portion 2 of the farm Olievenfontein 292, situated in the division of Somerset East, in extent of 642.3990 hectares, held under title deed T75605/2003;
21. The remainder of the farm Klein Brakpoort 285, situated in the division of Somerset East, in extent of 545.2851 hectares, held under title deed T67544/1999;
22. Portion 14 (a portion of Portion 9) of the farm Dwaas 232, situated in the division of Jansenville, in extent of 77.1972 hectares, held under title deed T67544/1999;
23. Portion 4 of the farm Henderson 410, situated in the division of Somerset East in extent of 3, 973.3500 hectares, held under title deed T93672/1998;
24. Portion 3 of the farm Deep Drift 18, situated in the division of Uitenhage, in extent of 13.0438 hectares, held under title deed T93672/1998;
25. Portion 1 of the farm Wilger Fontein Annex 25, situated in the division of Uitenhage, in extent of 4.8904 hectares, held under title deed T93672/1998;
26. Portion 2 of the farm Break Neck 24, situated in the division of Uitenhage, in extent of 129.6343 hectares, held under title deed T93672/1998;
27. The farm Bedrog Fontein 23, situated in the division of Uitenhage, in extent of 1, 905.1756 hectares, held under title deed 936721998;
28. The remainder of the farm Glenmore 155, situated in the division of Alexandria, in extent of 478.2661 hectares, held under title deed T75544/1998;
29. Portion 3 of the farm Alva 156, situated in the division of Uitenhage, in extent of 121.3080 hectares, held under title deed T75544/1998.

Government Notice 399 / Government Gazette 32094 of 09 April 2009 declared the following land to be part of the Addo Elephant National Park in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003)

1. Portion 1 of the farm Nieuwe Post 68, situated in the division of Alexandria in extent of 285.6820 hectares, held under title deed T79682/2001;
2. Portion 6 of the farm Nieuwe Jaars Kop 300, situated in the division of Alexandria in extent of 171.4050 hectares, held under title deed T4507/2007;
3. The remainder of Portion 3 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 213.9313 hectares, held under title deed T4507/2007;
4. Portion 5 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 213.9175 hectares, held under title deed T4507/2007;
5. The remainder of Portion 6 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 156.4013 hectares, held under title deed T4507/2007;
6. Portion 7 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 327.7020 hectares, held under title deed T4507/2007;
7. Portion 8 of the farm Cypherfontein 160, situated in the division of Alexandria, in extent of 171.3107 hectares, held under title deed T4507/2007;
8. The remainder of Portion 9 of the farm Dwaas 232, situated in the division of Jansenville, in extent of 262.6862 hectares, held under title deed T28805/2005;
9. The farm Schiethoogte 279, situated in the division of Jansenville, in extent of 2, 892.5086 hectares, held under title deed T78895/2002;
10. Portion 5 of the farm Rietrivier 230, situated in the division of Alexandria, in extent of 173.1094 hectares, held under title deed T78895/2002;
11. Portion 4 of the farm Brak Poort 284, situated in the division of Somerset East in extent of 56.2372 morgen (≡ 48.1784ha), held under title deed T78895/2002;
12. Portion 5 of the farm Brak Poort 284, situated in the division of Somerset East in extent of 33.4875 morgen (≡ 28.6887ha), held under title deed T78895/2002;
13. Portion 6 of the farm Brak Poort 284, situated in the division of Somerset East in extent of 6.8137 morgen (≡ 5.8373ha), held under title deed T78895/2002.



Government Notice 156 / Government Gazette 35073 of 02 March 2012 declared the following land to be part of the Addo Elephant National Park in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003)

1. The remainder of the farm Vaalnek 233, situated in the division of Jansenville, in extent of 665.5194 hectares, held under title deed T35366/2009;
2. Portion 1 of the farm Vaalnek 233, situated in the division of Jansenville, in extent of 494.1031 hectares, held under title deed T35366/2009;
3. Portion 1 of the farm Request 234, situated in the division of Jansenville, in extent of 890.7790 hectares, held under title deed T35366/2009;
4. Portion 2 of the farm Request 234, situated in the division of Jansenville, in extent of 896.1295 hectares, held under title deed T35366/2009;
5. Portion 32 of the farm Addo Drift East 124, situated in the division of Uitenhage, in extent of 193.0685 hectares, held under title deed T34155/2010;
6. The remainder of the farm Milverton 121, situated in the division of Uitenhage, in extent of 229.7868 hectares, held under title deed T34155/2010;
7. The remainder of Portion 2 of the farm Milverton 121, situated in the division of Uitenhage, in extent of 496.9017 hectares, held under title deed T34155/2010;
8. Portion 5 of the farm Milverton 121, situated in the division of Uitenhage, in extent of 510.9593 hectares, held under title deed T75631/2008;
9. Portion 1 of the farm Marion Baree 120, situated in the division of Uitenhage, in extent of 993.7182 hectares, held under title deed T75631/2008;
10. The remainder of Portion 1 of the farm Lismore 208, situated in the division of Uitenhage, in extent of 402.7628 hectares, held under title deed T75631/2008.

Government Notice 811 / Government Gazette 36951 of 25 October 2013 declared the following land to be part of the Addo Elephant National Park in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003)

1. Portion 305 of the farm Strathsomers Estate 42, situated in the division of Uitenhage, in extent of 68.5251 hectares, held under title deed T3642/2011;
2. The remainder of Portion 279 of the farm Strathsomers Estate 42, situated in the division of Uitenhage, in extent of 27.8702 hectares, held under title deed T3642/2011;
3. The Farm 416, situated in the division of Alexandria, in extent of 6.3129 hectares, held under title deed T17070/2011;
4. Portion 2 of the farm Bloukrans 23, situated in the division of Alexandria, in extent of 38.7152 hectares, held under title deed T17070/2011;
5. Portion 8 (a portion of Portion 5) of the farm Coerney 83, situated in the division of Alexandria, in extent of 24.4884 hectares, held under title deed T39080/2008.

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Appendix 2: Zonation

Introduction

The primary objective of a park zoning plan is to establish a coherent spatial framework in and around a park to guide and co-ordinate conservation, tourism and visitor experience initiatives, and minimise conflict between these sometimes antagonistic activities. A zoning plan is also a legislated requirement of the NEM:PAA, which stipulates that the management plan, which is to be approved by the Minister, must contain “a zoning of the area indicating what activities may take place in different sections of the area and the conservation objectives of those sections”.

The zoning of the park was based on an analysis and mapping of the sensitivity and value of a 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 park objectives. This was undertaken in an iterative and consultative process. This document – which is extracted from the full CDF (SANParks, 2005b) for the park (SANParks 2006a) – 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 6 Map 4a-c, and summarised in Table 18.

Guiding principles underpinning the Conservation Development Framework

The principles underpinning park zonation, as listed below, were informed by SANParks CDF manual, the guidelines for strategic environmental assessment in South Africa, integrated environmental management and the National Environmental Management Act (NEMA). Accordingly the zonation:

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

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

Furthermore, the expectations and recreational objectives of people that visit the park may differ. Some people are visiting the park purely to see wildlife as well as natural landscapes. Others wish to experience intangible attributes such as solitude, remoteness, wildness, and serenity (which can be grouped as wilderness qualities), while some visit to engage in a range of nature-based recreational activities, or to socialise in a rest camp. Different people have different accommodation requirements ranging from extreme “roughing it up” to luxury catered accommodation. There is often conflict between the requirements 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 or objectives (especially the conservation of the protected area’s natural systems and its biodiversity) can continue in appropriate areas. Use zones serve to ensure that high intensity facilities and activities are placed in areas that are robust enough to tolerate intensive use, as well as to protect more sensitive areas of the park from over-utilisation.

The zoning system

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

- Visitor use zones covering the entire park,
- Special management overlays; and
- A buffer zone.

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 a park’s biophysical, heritage and scenic resources. This analysis examined the biophysical characteristics of the park including: habitat value (in particular the contribution to national conservation objectives) and vegetation vulnerability to physical disturbance, based on the map of Vlok *et al.* (2003); special habitat value (the value of the area to rare and endangered species); hydrological sensitivity (areas vulnerable to disruption of hydrological processes such as floodplains and wetlands); topographic sensitivity (steep slopes); soil sensitivity (soils that are vulnerable to erosion). In addition, the heritage value and sensitivity of sites was examined (including paleontological, archaeological, historical and current cultural aspects). The visual sensitivity of the landscape was also examined in order to identify sites where infrastructure development could have a strong aesthetic impact. This analysis was used to inform the appropriate use of different areas of the park, as well as to help define the boundaries between zones. The zoning was also informed by the park’s current infrastructure and tourism products, as well as the regional context (especially linkages to neighbouring areas and impacts from activities outside the 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 objectives and undertaken in an iterative and consultative process.

Appendix 6 Map 5 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 tourist use. Further, in many cases the boundaries between zones are based on changes in environmental sensitivity. Table 19 summarises the percentage area of the park covered by each zone, as well as the percentage of the highly environmentally sensitive and valuable areas (defined as areas with values in the top quartile of the sensitivity value analysis) that are in each zone. This indicates that over two thirds of the park is covered by zones that are strongly conservation orientated in terms of their objectives (*i.e.* remote and primitive). Further, the table shows a good correlation between spatial distribution of environmentally sensitive areas and the conservation orientated zones, with the remote zone covering nearly 24% of the park yet containing over 52% of the highly valuable and sensitive areas. Conversely, the tourist orientated low intensity leisure zone covers about 32% of the park yet contains only around 11.6% of sensitive areas.

Table 18: Summary of use zone characteristics for AENP.

Zone	General Characteristics	Experiential Qualities	Interaction between users	Type of Access	Type of activities	Type of Facilities	Limits of acceptable change: Biophysical	Limits of acceptable change: Aesthetics and recreational	Guidelines for operational infrastructure
REMOTE*	Retains an intrinsically wild appearance and character (essentially no Infrastructure), or capable of being restored to such.	Soilitude and awe inspiring natural characteristics	None to very low	Controlled access, non-motorised	Hiking in small groups. Possibly mountain biking or horse riding.	Established to or paths where erosion may be a problem. Essentially undeveloped and roadless	Deviation from a natural/pristine state should be minimized, and existing impacts should be reduced	Activities which impact on the intrinsically wild appearance and character of the area will not be tolerated.	Ideally there should be no management infrastructure, but temporary infrastructure may be present only to limit biodiversity loss
PRIMITIVE	Generally retains wilderness qualities, but with basic self-catering facilities. Access is controlled, or limited to 4x4 vehicles. Provides access to the Remote Zone, and can serve as a buffer.	Experience wilderness qualities	Low	Controlled access, Accompanied or Unaccompanied Foot; 4x4 vehicles	Hiking; 4x4 drives; game viewing; possibly horse riding	Small, basic, self-catering, distributed to avoid contact between users; or limited concessions with limited numbers; 4x4 trails; hiking trails	Deviation from a natural/pristine state should be small and limited to restricted impact footprints. Existing impacts should be reduced.	Activities which impact on the intrinsically wild appearance and character of the area should be restricted, and impacts limited to the site of the facility.	Small, isolated permanent but low spec (usually dirt road) infrastructure may be present. This may be to help manage biodiversity, or service to unstaffed facilities
QUIET	This zone allows unaccompanied non-motorised access to areas which generally retain a natural appearance and character. Access is not specifically controlled.	Wide range of activities; relaxation in a natural environment	Frequent	Unaccompanied non-motorised access. Mainly on foot, non-motorised access to specific facilities.	Hiking; walking; bird watching; mountain biking; possibly horse riding and non-motorised water based activities.	Hiking trails; to or paths; management tracks; bird hides. Adition facilities may be provided in high use areas. Heritage structures may be used for recreation. No accommodation, and no tourist access by vehicle.	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	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 wilderness to und in this zone	Management infrastructure might be more sophisticated and abundant here, to service to unstaffed infrastructure. Care should be taken that management activities do not impact on tourism products.
LOW INTENSITY LEISURE	The underlying characteristic of this zone is motorised self-drive access with basic self-catering facilities . The numbers of visitors are higher than in the Remote and Primitive Zones. Camps are without large commercial facilities such as shops and restaurants.	Comfortable facilities in a relatively natural environment.	Moderate to high	Motorised self-drive access	Motorised self-drive game viewing; picnicking; walking; hiking; cycling; adventure activities; restaurants.	Facilities limited to basic self-catering picnic sites; abolition facilities; information/education centres; parking areas. Small self-catering (incl. camping) rest camps with abolition facilities. May contain small or seasonal convenience stores or tea gardens. Low spec access roads to provide a more wild experience.	Deviation from a natural/pristine state should be minimized and limited to restricted impact footprints as far as possible. However, it is accepted that some damage to the biophysical environment associated with tourist activities and facilities will be inevitable	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, these should be managed and limited to ensure that the area still provides a relatively natural outdoor experience	Where this is the highest usage zone anticipated in a Park, management infrastructure should be concentrated here as far as is feasible; allowing management to efficiently make use of existing high volume infrastructure. To limit impacts, management infrastructure should be placed close to the park boundary.
HIGH INTENSITY LEISURE	The main characteristic is that of a high density tourist development node, with commercial amenities , where more concentrated human activities are allowed.	Comfortable and sophisticated facilities while relating a natural ambience	High	Accessible by motorised transport (car/bus) on high volume transport routes, including delivery vehicles.	As above. Additional sophisticated infrastructure. Larger, organised adventure activities. Dining at restaurants.	High density/tourist camps with commercial amenities. Footpaths, transport systems, accommodation, restaurants, cuto and refreshment stalls; information/education centres. High volume roads.	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.	Where this is the highest usage zone in a Park, management infrastructure should be concentrated here as far as is feasible, allowing management to efficiently make use of existing high volume infrastructure. To limit impacts, management infrastructure should be placed close to the park boundary.	



Table 19: Summary of the percentage area of the park covered by each zone, as well as the percentage of the highly environmentally sensitive and valuable areas (defined as areas with values in the top quartile of the sensitivity value analysis) that are in each zone.

Zone emphasis	Use zone	Zone as a % of park area	% of highly sensitive areas that are in a zone
Conservation orientated	Remote	23.63	52.57
	Primitive	43.88	35.75
Tourism orientated	Quiet	0.39	0.085
	Low Intensity Leisure	31.92	11.57
	High Intensity Leisure	0.18	0.016

Remote zone

Objective

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

Characteristics

This is an area retaining an intrinsically wild appearance and character, or capable of being restored to such a state, and which is essentially undeveloped and road less. There are no permanent improvements or any form of human habitation. It provides outstanding opportunities for solitude with awe inspiring natural characteristics. If present at all, sight and sound of human habitation and activities are barely discernible and at a far distance.

Visitor activities and experience

Activities: Access is strictly controlled and non-motorised. Groups must be small, and can either be accompanied by a guide or unaccompanied. Several groups may be in area at the same time, but if necessary densities and routes should be defined so that groups are unaware of each other. The principles 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 where unavoidable, and existing impacts should 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.) will not be allowed.

Facilities

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

Sophistication of facilities: Permitted visitor are allowed to make use of self-carried tents. Guidelines for washing, ablution and cooking must be defined according to the "Pack it in Pack it out" principles.

Audible equipment and communication structures: None.



Access and roads: Public access is non-motorised. Vehicular access and parking is provided in the adjoining zone. Established footpaths may be provided where erosion risks occur, or to direct usage away from more sensitive areas.

Location in Park: Remote areas were designated in the mountainous areas of the Zuurberg section and in sections of the Woody Cape dune fields, both of which are landscapes with high environmental sensitivity and value.

Guidelines on management infrastructure and utilisation

Ideally there should be no management infrastructure, and natural processes should 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) to continue without management intervention, which would eventually impact biodiversity negatively. For this reason, concessions are made on management infrastructure in this zone, but only to prevent loss of biodiversity. Infrastructure might include footpaths where erosion might be a problem, or identified (barely) traversable routes for fire management or securing 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 should be rare.

Primitive Zone

Objectives

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 reduce tourism pressure by controlling access and numbers of visitors.

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 size of groups. The zone shares the wilderness qualities of wilderness areas and remote zones, but with the provision of basic self-catering facilities and 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 act as a buffer between conservation orientated and tourist orientated zones, e.g. remote (or wilderness areas) and low intensity leisure respectively. It may accommodate the basic self-catering facilities and access. It also provides access to the remote area zone. 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 numbers, frequency and size of groups. Activities include hiking, 4x4 drives and game viewing. Access is controlled either through only allowing access to those with bookings for specific facilities, or alternatively through a specific booking or permit for a particular hiking trail or 4x4 route. Several groups may be in area at the same time, but access should be managed to minimise interaction between groups if necessary.

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

Limits of acceptable change

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

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

Facilities

Type and size: Facilities are small, often very basic, and are distributed to avoid contact between users. Alternatively facilities designed for high levels of luxury, but where limited visitor numbers are accommodated (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 access to facilities is limited to low-spec roads, often 4x4 only. Tourist and game viewing roads are usually 4x4. Established footpaths are provided to avoid erosion and braiding.

Location in park

Primitive areas were designated to protect most of the remaining sensitive areas from high levels of tourist activity. Primitive areas were also designated in areas with relatively low environmental sensitivity to allow access into remote mountainous areas. Most contractual park sections were designated primitive, as the controlled access associated with primitive is compatible with the activities undertaken by the concessionaires. Controlled access trail areas (such as the Alexandria hiking trail) traverse this zone.

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 “twee spoor” management tracks, permanent bomas for wildlife, ranger camps and outposts, and possible even permanent helipads. The onus is on park management to coordinate tourist road network usage in such a way that tourists do not encounter management infrastructure in this zone, or by the use of no entry signs. Low volume access gates or entrances to access 4x4 routes could be accommodated in this zone.

Quiet zone

Objective

The main objective of this tourist orientated zone is to provide non-motorised visitor access to areas whilst limiting impacts by not providing infrastructure for motorised access or accommodation facilities.

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. A larger numbers of visitors are allowed here than in the primitive zone and contact between visitors is more frequent.



The main accent is on unaccompanied non-motorised access. Within this zone, more sensitive areas should be protected by precinct level planning, which should direct development and utilisation to more robust areas. This zone can also provide non-motorised access within low and high intensity leisure zones away from vehicular access roads.

Visitor activities and experience

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

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

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” experienced in this zone.

Facilities

Type and size: Hiking trails, footpaths, bird hides, basic information displays. 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 horse and mountain bike activities could be accommodated. Although hard surfaces (paved or tar roads) may be provided for tourist movement, there is no access for tourists by motorised vehicle.

Location in park

Quiet areas were designated primarily along coastal sections of the park to accommodate non-motorised beach user access. This included most of the Kwaaihoek section between Kenton on Sea and Diaz Cross, the coastal section west of Cannon Rocks, and along the beach from Sundays River mouth eastward to the start of the proposed MPA restricted zone. This zone has limited application in the park due to the widespread presence of dangerous animals which preclude unaccompanied pedestrian access in many areas.

Guidelines on management infrastructure and utilisation

Permanent management infrastructure is permissible in this zone, but operational driving access should be minimised as far as possible in keeping with the pedestrian nature of the zone. Given the potentially high volume tourist usage of the zone, park operations staff may

need to service tourist facilities in this zone. Infrastructure may include hard surfaces (paved or tarred roads) as long as road vehicle usage is restricted to operational staff, and usage complies with general environmental (e.g. coastal) regulations. If possible, efforts should be made to reduce noise and air pollution from operations vehicles in this zone during tourist usage, so as not to impact too negatively on visitor experiences. Measures could include restricting operational usage to off-peak periods, or using electric vehicles.

Low intensity leisure zone

Objectives

The objective of this tourist orientated zone is to provide infrastructure for day and overnight visitors in a natural environment. While large game viewing areas may be zoned low intensity leisure (LIL) to allow for flexibility of game viewing road networks, in reality, development footprints should be localised, with some areas having more of a primitive or even remote zone “feel”. Impacts should 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 could be accommodated; however, these should be small and still align within the general ambiance of the zone. Numbers of visitors are higher than in 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 tar. 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 restrictions.

Visitor activities and experience

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

Interaction with other users: Moderate to high

Limits of acceptable change

Biophysical environment: 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.

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

Facilities

Type and size: Picnic sites, view sites, information centres, ablution facilities, parking areas, education centres etc. Small self-catering (including camping) camps of low to medium density (25 - 35 beds). Additional facilities could 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 could be provided; such as kiosks, small tourist convenience stores, or tea gardens. However, these should still fall within the general ambiance of the zone – and as such may make use of converted or restored farm houses. Larger commercial facilities and larger concessional operators (e.g. Cattle Barons, Mug-and-Bean), should rather 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 characteristic 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, e.g. Jack's picnic site.

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 sedan car 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 in the game viewing areas (Addo main camp and Colchester, Kabouga, Nyathi, and Darlington sections); and in relatively high use recreational areas such as around the administrative area of the Woody Cape section, and the drive-in and car park section of Kwaaihoek. Low intensity leisure areas were only designated if relatively high tourist activity did not conflict with the underlying landscape sensitivity and value analysis.

Guidelines on management infrastructure and utilisation

The placement of permanent management infrastructure is encouraged in this zone, particularly when this is the highest level use zone anticipated for a park. In parks where HIL already exists, such as in the park, or is anticipated, attempts should 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 could be accommodated in LIL. Examples may include park reception, or park management offices, which may wish to be close to park reception facilities. This would allow management and operations to make use of high volume access routes, which would be built to accommodate high traffic volume, and if positioned close to the boundary of the park, would involve shorter commuting distances, limiting disturbance to both wild life and tourists, and limiting wear and tear to roads. Types of operational infrastructure that could be accommodated here include: park offices and administration, or high volume access or main entrance gates.

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 in a restricted and designated area, which is robust enough to tolerate development, and where these diverse activities can piggyback off multi-use infrastructure (roads, plumbing, power), thus reducing their overall footprint. As impacts and particularly cumulative impacts are higher, where possible the HIL zone should ideally be placed on the periphery of the park, and in areas that have low sensitivity values, and are robust enough to tolerate development. Staff not directly associated with tourism facilities should be accommodated outside of the park if possible. When inside a park, all industrial type facilities such as laundries, abattoirs, maintenance depots and workshops, should ideally be located close to the park boundary or, if possible, outside of the park 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 associated more sophisticated infrastructure, sightseeing at tourist destinations, picnicking, walking, cycling, rock climbing, hiking, adventure activities (orienteering, scuba diving, fun runs), 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 still retains a level of ecological integrity consistent with a protected area.

Aesthetics and recreational environment: 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.*), these should 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, 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 should be made to concentrate these sites close to the periphery of the park. Staff villages and administrative centres should be restricted to core staff. Non-essential staff housing, administration and industrial infrastructure should be positioned outside of or close to the periphery of the park where possible.

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 required to retain relative level of solitude.

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

Location in park

High intensity leisure areas were designated at Addo main camp rest camp, Matyholweni camp, the eastern bank of the Sundays River estuary, and the area around the Zuurberg tourist development node. The Zuurberg has been identified as future development tourist node, with planned infrastructure including a youth hostel, a viewing platform and a Peace monument. A HIL area was also designated on fenced out land near Caesar's Dam, to accommodate future potential commercial community development projects. Regional infrastructure upgrades include the tarring of the Addo-Somerset East road (R335), which will improve access and may increase visitor numbers to the Zuurberg section of the park. The area west of the Bushmans River was noted as a potential HIL site, as an alternative to Sundays River mouth for the EIA, and is awaiting the outcome of that process. If the Sundays River mouth assessment is successful, this area will remain as LIL.



Guidelines on management infrastructure and utilisation

Management guidelines that apply to LIL apply to HIL as well. Generally, the presence of HIL in a park indicates higher or more intense utilization 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 should be located in an area of low sensitivity, the development of management and operations infrastructure in this zone should be favoured. In the park, most operations and administration infrastructure is situated in the existing and well established HIL tourist node at Addo main camp near the periphery of the park.

Overview of the special management overlays

Special management overlays (SMO's) which designate specific areas of the park that require special management interventions were identified. Special management overlays were designated on Darlington Dam to regulate boat usage to preserve sense of place, to control fishing activities, and to protect fish breeding areas (Map 4a; Table 20). Special management overlays were also designated on marine islands that had listed threatened breeding colonies of marine birds (penguins and gannets), and where there was a seal colony (Map 4b and 4c; Table 21).

Table 20: Special conservation and special management overlays for Darlington Dam.

Special Management Overlays (SMO)		
	Restricted boating, non-motorised craft only, no fishing	As this is a fish spawning area, fishing is not allowed. Craft access is restricted, motorised vessels are excluded to reduce disturbance.
	Restricted boating, subject to approval	Boating is usually restricted in this area, except via special permission from the management authorities, or for authorised events.
	Reserved shore angling area	Fishing from the eastern shore is reserved for visitors making use of the two bush camps on the eastern side of the dam.
	Open shore angling areas	Fishing area open to day - and overnight visitors.

Table 21: Special conservation and special management overlays for the marine islands.

Special Management Overlays (SMO)		
	Penguin colony	Due to the Sea birds and Seals protection act of 1973, and because African Penguins are Endangered, a penguin SCO was demarcated. Management interactions include preventing seals from hauling out on Bird Island, managing gull numbers to prevent egg and chick predation, and providing artificial shelter for penguins. Intervention may also occur during high rainfall events, to prevent chicks drowning.
	Gannet colony	Due to the Sea birds and Seals protection act of 1973, and because Bird Island is home to the largest Cape Gannet colony in the world, with 70 000 breeding pairs, a Gannet SCO was identified for Vulnerable species. Allied with the penguin SCO, seals are prevented from hauling out on Bird Island, and gull numbers are managed to prevent egg and chick predation.
	Seal colony	A seal SCO was identified on Black Rocks, due to the Sea birds and Seals protection act of 1973. Additionally, as seals have already been driven off Stag and Seal islands, and are prevented from hauling out on Bird Island due to bird SCO interventions, this makes Black Rocks the last remaining seal breeding site in Algoa Bay, thus, care should be taken not to disturb the site unnecessarily.

The park buffer zone

The park buffer zones show the areas within which landuse changes could affect the park.

The zones, in combination with guidelines, will serve as a basis for: (i) identifying the focus areas in which park management and scientists should respond to EIA's, (ii) helping to identify the sort of impacts that would be important at a particular site, and most importantly (iii) integrating long term protection of the park into the SDF's of municipalities and other local authorities. To this end, the park will endeavour to forge closer collaborative relationships with neighbouring communities, including (but not limited to) Addo / Nomathamsanqa, Enon-Barsheba, Kirkwood, Bontrug in the Sundays River Valley LM; Colchester, Canonvale in the Nelson Mandela Bay MM; Kenton on Sea, Cannon Rocks and Boknes in the Ndlumbe LM; and Waterford in the Ikwezi LM. The park 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 response, the buffer's zones serve largely to raise red-flags and do not remove the need for carefully considering the exact impact of a proposed development. In particular, they do not address activities with broad regional aesthetic or biodiversity impacts e.g. wind farms.

In AENP, there are three categories within the park buffer zone. The first two are mutually exclusive, but the final visual / aesthetic category can overlay the others (Appendix 6 Map 6).

Priority natural areas

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

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

Development guidelines:

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

Catchment protection

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

Development guidelines:

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

Viewshed protection

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

Development guidelines:

Within these areas any development proposals should be carefully screened to ensure that they do not impact excessively on the aesthetics of the park. The areas identified are only broadly indicative of sensitive areas, as at a fine scale many areas within this category would be perfectly suited for development. Further, very invasive developments outside this zone would also have to be considered.

Current status and future improvements

Certain elements of the park CDF have not been revised. Remote areas will still be investigated for possible formal designation as wilderness areas in terms of Section 22 of the NEM:PAA.



Appendix 3: Stakeholder participation report

STAKEHOLDER EVENTS AND ACTIVITIES

Stakeholder consultation

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

Local government	Cacadu District Municipality, Nelson Mandela Metro; Sundays River Valley; Ndlambe Municipality, Makana Municipality and Ikhwezi Municipality
Provincial government	Eastern Cape Province – Departments of Local Government and Housing; Economic Affairs and Tourism, Rural Development and Land Restitution
National Government	Departments of Economic Affairs, Water and Sanitation, Fishery and Forestry; Environmental Affairs, Rural Development and Land Restitution, Basic Education
Park forum	Addo Elephant National Park
Local residents / neighbours	Communities - Paterson, Nomathamsanqa, Valencia, Enon-Beshiba, Bergsig, Moses Mabida and Colchester
Community organisations	Community police Forums
Business associations	Sundays River Valley Chamber of Business
Research	Nelson Mandela Metropolitan University
Conservation organisations	WESSA, Wilderness Foundation
Tourist associations	Sundays River Valley Local Tourism Organisation

Registration as an interested and affected party

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

Mechanism to register	Description
Media advertisements	Advertisements to inform interested and affected parties of the public days and request to register to participate was placed in the following newspapers on 15 February 2015: <ul style="list-style-type: none"> • Sunday Times; • Rapport.
2. Registration at meetings	Participants were also able to register at the following meetings: <ul style="list-style-type: none"> • Desired state workshop on 20 May 2014; • Public meeting on 09 March 2015 in Alexandria; • Public meeting on 09 March 2015 in Colchester; • Public meeting on 10 March 2015 in Paterson; • Public meeting on 10 March 2015 in Enon-Beshiba; • Public meeting on 11 March 2015 in Valencia; • Public meeting on 11 March 2015 in Nomathamsanqa; • Public meeting on 12 March 2015 in Bergsig; • Public meeting on 12 March 2015 in Moses Mabida; • Public meeting on 13 March 2015 in Jansenville;

Desired state workshop

A range of key stakeholders and SANParks specialists participated in the development of the desired state which entails developing a vision for the park supported by higher level objectives which forms the basis of the management plan.

Activities	Description
Invitations	Park management, certain SANParks specialists and key stakeholders were invited.
Desired State Workshop	The workshop took place on 20 May 2014 at the Valentine Hall in Addo.
Attendance:	<p>Forty six participants (25 stakeholders and 21 SANParks staff members) partook, representing the following constituencies:</p> <ul style="list-style-type: none"> • Mayibuye Ndlovu Development Trust; • Port Elizabeth Opera House; • Addo Community Police Forum; • South African Police Service; • Eden to Addo corridor initiative; • River Bend concession; • Slagboom boerdery; • Lower Sundays River Water Users association; • Sundays River Valley Municipality; • Department Correctional Services; • Wilderness Foundation; • Kuzuko concession; • Witrivier Communal Property Association; • Department of Local Government and Traditional Affairs; • Park Forum; • Eastern Province Shore Angling Association; • Nelson Mandela Metropolitan University; • Coega Development Co-operation • SANParks.

Focus group meetings

These are meetings called with constituencies to discuss critical issue raised during the park management plan revision process.

Group	Purpose	Attendants	Date
Flight safety meeting	Discussing the development of flight corridors	25	25 September 2014
	Discussing the development of flight corridors	9	14 October 2014
Sundays River Valley Municipality	Discussing the draft management plan	12	18 March 2015

Public days to allow comment on the draft management plan

Nine public day meetings were held.

Venue	Date	Number of stakeholders that attended
Alexandria Community Hall	09 March 2015	14
Colchester Community Hall	09 March 2015	43
Paterson Community Hall	10 March 2015	21
Enon-Beshiba Community Hall	10 March 2015	25
Valentia Community Hall	11 March 2015	17
Nomathamsanga Community Hall	11 March 2015	76
Bergsig Community Hall	12 March 2015	14
Moses Mabida Community Hall	12 March 2015	19
Jansenville Town Hall	13 March 2015	10



Dissemination of documentation and feedback to stakeholders

Item	Action
Dissemination of comment and response document	Emailed, mailed, faxed and delivered by hand where no contact details were supplied.
Dissemination of finalised park management plan	<ul style="list-style-type: none">The plan will be available on the SANParks website once approved by the Minister;
	<ul style="list-style-type: none">

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Appendix 4: Tourism product development framework

The product development framework 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 (buffer zone), and may be further restricted to guided activities or events only. 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	Essentially undeveloped & road less. Controlled access - only on foot visitors. Could have footpaths.
2	Primitive	Almost completely natural state to be maintained. Development footprints absolute minimum. Controlled access - 4x4's 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. Infra-structure 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. Park Development Zone (PDZ).
6	Buffer	Land adjacent to national-/ contractual parks. Products indicated are those with which SANParks is comfortable to be associated with and will promote.

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 Addo Elephant National Park.

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under develop-ment?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE						
		YES	NO	YES	NO	Within boundaries of national-/ contractual park					Adjoining	
						1	2	3	4	5		6
Over-nigh facilities	Self-catering - limited service (serviced prior to arrival & after departure only)	Accommodation (budget)		√	√					√	√	√
		Accommodation (economy)		√	√				√	√	√	
		Accommodation (premium) / Guest House		√	√				√	√	√	
		Accommodation backpacking / Youth Hostels		√	√				√	√	√	
		Dormitories / School Groups / Educational Facilities		√	√				√	√	√	
		Game/ Bird Hide		√	√				√	√	√	
		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)		√	√				√	√	√	
Camping bush rustic (protected) (budget facilities)			√	√		√		√	√	√		
Camping bush rustic (protected) (premium facilities)			√	√		√		√	√	√		
Camping bush rustic (unprotected) (self-sufficient)			√	√		√		√	√	√		

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					
			YES	NO	YES	NO	Within boundaries of national-/ contractual park					Adjoining
							1	2	3	4	5	6
Over-night facilities	Full service (generally some/all meals and activities included)	Game / Bush Lodge /Safari Lodge - Under 20 Beds		√	√		√			√	√	
		Game / Bush Lodge /Safari 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 & 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)			√	√					√	√		
Archery			√	√					√	√		
Base Jumping			√	√		√	√		√	√		
Bird Watching			√	√		√	√	√	√	√		
Boat cruises			√	√					√	√		
Botanical sightseeing			√	√		√	√	√	√	√		
Bouldering			√	√		√			√	√		
Bungee / Bungee Jumping			√	√					√	√		
Cableway			√		√				√	√		
Canoe Trails (Varying facilities)			√	√		√	√	√	√	√		
Canoeing			√	√		√	√	√	√	√		
Canopy Tour (Boardwalk)			√	√					√	√		
Canopy Tour / Flying Fox / Zip line (Tree Top)			√	√	√				√	√		
Caving/ Spelunking/ Potholing			√		√				√	√		
Clay-pigeon / Clay Target shooting			√	√					√	√		
Cruise - Birding			√	√					√	√		
Cycling			√		√				√	√		
Diving (Scuba)			√	√		√	√	√	√	√		
Dog walking			√		√				√	√		
Downhill skateboarding			√	√					√	√		
Elephant Backed Rides / Safaris			√	√					√	√		
Fishing (catch and release)	√			√					√	√		
Funicular			√		√				√	√		
Game Drives - Night Drive	√			√					√	√		
Game Drives - Night Drive (Night Vision aided)		√	√					√	√			
Game Drives - Premium		√		√				√	√			
Game Drives - Standard	√		√					√	√			
Game Drives - Universal Access		√	√					√	√			
Games facilities (e.g. table tennis, pool, etc.)		√	√					√	√			

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					
		YES	NO	YES	NO	Within boundaries of national-/ contractual park					Adjoining
						1	2	3	4	5	6
Leisure / recreational	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		√		√		√	√	√	√	√
	Kayaking by Night		√		√		√	√	√	√	√
	Kite surfing / Kite boarding / 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 (Night time)		√		√			√	√	√	√
	Mountaineering		√		√		√	√	√	√	√
	Paddle boats		√		√			√	√	√	√
	Paddle skiing		√	√				√	√	√	√
	Paragliding		√		√		√	√	√	√	√
	Parasailing		√		√					√	√
	Park & Ride		√	√					√	√	√
	Photography		√	√			√	√	√	√	√
	Picnicking (Basic Facilities)	√		√						√	√
	Picnicking (Full Facilities)	√		√						√	√
	Picnicking (No Facilities)		√	√						√	√
	Quad Biking		√	√							√
	Railway		√		√						√
Rap Jumping (Rappelling)		√	√				√	√	√	√	
River Rafting		√	√				√	√	√	√	
Rock Climbing		√	√			√	√	√	√	√	
Sailing		√		√			√	√	√	√	
Sandboarding		√	√				√	√	√	√	

PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently AVAILABLE or under develop-ment?		Is Product APPROPRIATE for the applicable National Park?		ZONING FOR WHICH PRODUCT IS APPROPRIATE					
		YES	NO	YES	NO	Within boundaries of national-/ contractual park					Adjoining
						1	2	3	4	5	6
Leisure / recreational	Self-drive Night Drives		✓		✓				✓	✓	✓
	Skydiving		✓		✓						✓
	Snorkelling		✓	✓			✓	✓	✓	✓	✓
	Spear Fishing		✓		✓		✓	✓	✓	✓	✓
	Sports Facilities (e.g. tennis, squash, bowls, etc.)		✓		✓					✓	✓
	Stairway (via Ferrata / Ironway)		✓	✓		✓	✓	✓	✓	✓	✓
	Stargazing		✓	✓		✓	✓	✓	✓	✓	✓
	Sunset Boat Cruises		✓	✓					✓	✓	✓
	Surf Skiing		✓		✓					✓	✓
	Surfing		✓		✓			✓	✓	✓	✓
	Swimming	✓		✓		✓	✓	✓	✓	✓	✓
	Trail Running		✓	✓			✓		✓	✓	✓
	Trail Running (night time)		✓	✓			✓		✓	✓	✓
	Tubing		✓		✓		✓	✓	✓	✓	✓
	Unicycling		✓		✓			✓	✓	✓	✓
	Walking	✓		✓		✓	✓	✓	✓	✓	✓
	Walks - Day	✓		✓		✓	✓	✓	✓	✓	✓
	Walks - Night		✓	✓		✓	✓	✓	✓	✓	✓
Wildlife/ Game Viewing	✓		✓		✓	✓	✓	✓	✓	✓	
Airborne (Implications of CAA)	Flights over national parks		✓		✓						✓
	Helicopter Flips		✓	✓							✓
	Hot-air Ballooning		✓	✓			✓		✓	✓	✓
	Micro-light flying / Ultra-light aviation		✓		✓					✓	✓
Interpretive	Archaeology		✓	✓			✓	✓	✓	✓	✓
	Endangered Species Breeding Centre		✓	✓							✓
	Films - Amphitheatre		✓	✓					✓	✓	✓
	Films - Auditorium		✓	✓						✓	✓
	Interpretive Centres		✓	✓						✓	✓
	Palaeontology		✓	✓			✓		✓	✓	✓
	Theatre		✓	✓					✓	✓	✓
	Tours - Astronomy		✓	✓			✓	✓	✓	✓	✓
	Tours - Birding		✓	✓			✓	✓	✓	✓	✓
	Tours - Botanical		✓	✓			✓	✓	✓	✓	✓
	Tours - Specialist (Fauna, Flora or Birds)		✓	✓			✓	✓	✓	✓	✓
	Tours - Tree (Dendrology)		✓	✓			✓	✓	✓	✓	✓
	Trails = 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		✓	✓			✓		✓	✓	✓

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					
		YES	NO	YES	NO	Within boundaries of national-/ contractual park					Adjoining
						1	2	3	4	5	6
Cultural / historical	Museums		√	√					√	√	
	Religious Facilities (Prayer or otherwise)		√	√				√	√	√	
	Storytelling		√	√				√	√	√	
	Tours - Battlefield		√	√				√	√	√	
	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		√	√		√	√	√	√	√	
	Survival Skills		√	√		√	√	√	√	√	
	Tracking Skills		√	√		√	√	√	√	√	
	Training - Ranger		√	√		√	√	√	√	√	
	Volunteering		√	√				√	√	√	
Children / youth	Babysitting		√		√			√	√	√	
	Childcare 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 (Kamp Kwena, "summer" camps)		√	√				√	√	√	
Business tourism & events	Events - Any		√	√		√	√	√	√	√	
	Events - Adventure		√	√		√	√	√	√	√	
	Festivals		√	√				√	√	√	

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						
		YES	NO	YES	NO	Within boundaries of national/ contractual park					Adjoining	
						1	2	3	4	5		6
Business tourism & events	Fundraising Events e.g. WWF Swim for Nature		√	√			√			√	√	√
	Lapas / Bomas (to rent)	√		√					√	√	√	√
	MICE (Meetings, Incentives, Conventions & Exhibitions)		√	√					√	√	√	√
	Musical Concerts		√	√			√		√	√	√	√
	Photographic Shoots & 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.)	√		√					√	√	√	√
	Fuel stations	√		√					√	√	√	√
	Gas Equipment Hire		√	√					√	√	√	√
	Hop-on Guides	√		√					√	√	√	√
	Internet Cafes		√	√					√	√	√	√
	Laundromats & Laundry Service		√		√				√	√	√	√
	Pharmacies		√		√				√	√	√	√
	Postal Services		√		√				√	√	√	√
	Proshop		√		√				√	√	√	√
	Road Emergency Services		√		√				√	√	√	√
Shuttle Services		√	√					√	√	√	√	
Vending Machines		√	√					√	√	√	√	
Vendors		√	√					√	√	√	√	
Wifi Facilities (Free or Charged)		√	√					√	√	√	√	
Food & beverage	Bars		√	√					√	√	√	√
	Boma / Lapa Meals	√		√					√	√	√	√
	Bush Meals		√	√					√	√	√	√
	Coffee Shops		√		√				√	√	√	√
	Fast food outlets		√		√				√	√	√	√
	Game Drives Picnic Baskets		√	√					√	√	√	√
	Local cuisine		√	√					√	√	√	√
PRODUCT CATEGORY	PRODUCT OR SERVICE	Is Product currently		Is Product APPROPRIATE for		ZONING FOR WHICH PRODUCT IS APPROPRIATE						

		AVAILABLE or under development?		the applicable National Park?		Within boundaries of national-/ contractual park					Adjoining
		YES	NO	YES	NO	1	2	3	4	5	6
Food & beverage	MICE Catering		√	√		√			√	√	√
	Picnic baskets		√	√		√			√	√	√
	Restaurants	√		√		√			√	√	√
	Room Service		√		√	√			√	√	√
	Sports Bar		√		√	√			√	√	√
	Tea Rooms		√		√	√			√	√	√
Non tourism related activities											
Mining/ Exploratory	Prospecting		√		√	√			√	√	√
	Mining		√		√	√			√	√	√
Consumptive / Subsistence	Fishing (Non release)		√	√		√		√	√	√	√
	Hunting (Lethal)		√	√		√			√	√	√
	Sustainable Harvesting of Resources		√	√		√	√		√	√	√

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Appendix 5: Internal rules

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

Definitions

The words and expressions contained in the rules applicable to all national parks and to individual national parks have the same meaning as have been assigned thereto by the National Environmental Management: Protected Areas Act, 2003 and unless the context otherwise indicates will have the meanings set out below wherever used in any rules made for national parks:

"the Act" means the National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003);

"axle weight", in relation to a vehicle, whether laden or unladen, means the total mass transmitted to the roadway by the wheels of any axle of such vehicle;

"calendar month" means a period extending from any day in one month to the day preceding the day corresponding numerically to that day in the following month, both days inclusive;

"calendar year" and "year" shall be interpreted *mutatis mutandis* in accordance with the definitions of "calendar month" and "month";

"chairman" means the Chairman of the Board of South African National Parks appointed under the provisions of Section 60 of the Act;

"chief executive officer" means the Chief Executive Officer of South African National Parks appointed in terms of Section 72 of the Act;

"month" means a period extending from the first to the last day, both days inclusive, of any one of the 12 months of the year;

"Motor vehicle" means any self-propelled vehicle and includes-

- (a) a trailer; and
- (b) a vehicle having pedals and an engine or an electrical motor as an integral part thereof or attached thereto and which is designed or adapted to be propelled by means of such pedals, engine or motor, or both such pedals and engine or motor, but does not include-
 - (i) any vehicle propelled by electric power derived from storage batteries and which is controlled by a pedestrian; or
 - (ii) any vehicle with a mass exceeding 230 kilograms and specially designed and constructed, and not merely adapted, for the use of any person suffering from some physical defect or disability and used solely by such person;

"Operate in a National Park" or any like expression, in relation to a vehicle, means to use or drive a vehicle or to permit a vehicle to be used or driven on a road or area in a National Park, or to permit a vehicle to be on a road or area in a National Park;

"Regulations" means Regulations made in terms of section 86 of the Act;

"Rules" means rules made for the proper administration of National Parks in terms of Section 52 of the Act;

“SANParks” means South African National Parks.

1. Entering a park

No person shall, subject to the provisions of Section 46 of the Act, without the special permission of SANParks:

1.1 Enter or leave a national park at any other place other than an entrance gate to a park or other place specifically designated and signposted by SANParks as a point of entry into a national park subject to the following conditions:

- 1.1.1 Where a national, provincial or municipal road passes through a national park:
- i. No permission shall be required to pass through the national park to a destination outside the national park in question on such a road;
 - ii. No person shall be permitted to leave a road as described in section 1.1.1 above or enter into a national park from such a road other than in compliance with section 1.1 above.
- 1.1.2 Where a national park permits open access:
- i. The national park in question may:
 - aa. Limit access to specific areas of the national park in question;
 - bb. Prohibit access to specific areas of the national park in question;
 - cc. Regulate conditions of entry into the national park in question by way of one or more of the following means:
 - Signposts;
 - Verbal notification by an employee of SANParks;
 - Written notification.
 - ii. Failure to comply with a condition of open access to a national park as envisaged in this section shall constitute a breach of these rules.

2. Times of entry

No person shall enter or leave a park at any time other than the time prescribed by SANParks from time to time. Admission to a park shall not give any person the right to be outside any rest camp outside the time laid down by SANParks for entry into and exit from a rest camp. No person shall enter or remain in the Game Area of the park at any time, other than the times prescribed by SANParks from time to time.

3. Entrance fees payable

No person shall enter a park without payment of the entrance fees determined by SANParks from time to time.

4. Written voucher necessary for entering

No person shall enter a National park without a written permit / voucher issued by SANParks.

5. Only open part and visitors road may be used

5.1 No person shall enter any part of a park closed to the public or drive any vehicle at any place other than on a road open to visitors.

5.2 No person shall enter or drive on any road in a park shown by a notice as being closed or obstructed in any manner.

6. Types of vehicles allowed

No person shall enter into or operate in a National Park with any vehicle other than a vehicle that conforms to the dimensions and other requirements prescribed by SANParks from time to time.



7. Alighting from motor vehicles prohibited

The driver of any vehicle shall not allow any person to alight from such vehicle, or allow any person within such vehicle to protrude any body part of his or her outside the confines of such vehicle, in a national park unless such vehicle is in a rest camp, the fenced or demarcated area of a picnic site or any other specifically authorised place.

8. Animals not allowed

No person shall bring an animal of whatever nature including pets into a national park. If any person is found in a national park with a pet animal of whatever nature, any officer of SANParks may destroy such animal.

9. Places for staying overnight

No person shall stay or overnight in any park at any place other than a rest camp or any other place designated by SANParks for such stay.

10. Accommodation: availability times

Accommodation in a park can be occupied from 14h00 on the day of arrival and must be vacated before 10h00 on the day of departure.

11. Use of roller skates, skateboards, bicycles and pushbikes prohibited

No person shall use roller skates, skateboards, bicycles and pushbikes in a National park without the authority of a permit.

12. Lighting of fires

No person shall light or attempt to light a fire outside a demarcated fire place or braai area within a National Park, without the written authority of SANParks.

13. Rest camp fees payable

No person shall stay or overnight in a rest camp in a park without payment of the fees determined by SANParks from time to time.

14. Persons in rest camps to report to reception

No person shall stay or overnight in a rest camp in a park before having reported to an employee or officer in the reception office of such rest camp in question: Provided that no person shall stay overnight in a rest camp unless accommodation or a camping site is available for that person

15. Special conditions to be observed

Any person to whom special permission of any nature whatsoever may be granted to enter into or reside in a park shall, in addition to the provisions of the Act, the regulations and these rules, observe all instructions which SANParks may deem fit to issue in connection with such permission.

16. Vehicles to be registered, licensed and roadworthy

16.1 No person shall enter, drive or operate in a National Park, a motor vehicle that is not lawfully registered and licensed, in terms of the National Road Traffic Act.

16.2 No person shall enter, drive or operate in a National Park, a motor vehicle that is not in a roadworthy condition as is set out in the National Road Traffic Act.

16.3 No person shall enter, drive or operate in a National Park a motor vehicle, unless that person is in possession of a valid drivers licence for the vehicle in question.

16.4 No person shall enter, drive or operate in a National Park a motor vehicle, unless such person keeps such valid drivers licence with him or her at all at times whilst entering, driving or operating such vehicle.

17. Traffic laws to apply

17.1 All laws, ordinances and other statutory enactments applicable to public roads in South Africa apply to roads within National Parks.

17.2 In addition to being a contravention of the applicable Act, ordinance or other statutory enactment it shall be a breach of these rules if the applicable provisions are contravened.

17.3 No person shall enter a road in a national park unless it can be done in a manner that does not compromise the safety of the driver, any other person or animals on or near the road.

17.4 No person or driver of any motor vehicle shall remove or move any vehicle involved in, or contributed to, an accident in a National Park in which another person or animal may have been injured or killed from the position in which it came to rest, until such removal has been authorised by a SANParks official, except when such accident caused complete obstruction of the roadway of an road, in which event the vehicle involved may, without such authority and after its position has been clearly marked on the surface of the roadway by the person moving it, be moved sufficiently to allow the passage of traffic and we hereafter the accident must immediately reported to the nearest SANParks official.

17.5 No person or driver of any motor vehicle involved in, or contributed to, an accident in a National Park shall remove a vehicle or vehicles from the scene of such accident, except for the purposes of sufficiently allowing the passage of traffic, without the authority of a SANParks official.

18. Prohibited acts - vehicles

18.1 No person driving any vehicle in a National park shall:

- 18.1.1 Drive, park or stop in such a manner that it constitutes a nuisance, disturbance, inconvenience or danger to any other person, causes an obstruction, blocks the pathway of an emergency vehicle or causes damages of any kind including damage to plants.
- 18.1.2 Park a vehicle in a place other than in a place specifically designated for that purpose.
- 18.1.3 Within a rest camp drive anywhere excepting on the road or other specifically permitted place.
- 18.1.4 Damage or potentially damage any road.
- 18.1.5 Without the special permission of SANParks, in a park exceed such speed limits as SANParks may from time to time impose and display by means of signage.

18.2 No person shall without the permission of SANParks, operate any vehicle or combination of vehicles on any road in any national park if any axle weight thereof exceeds the maximum axle weight determined by SANParks from time to time.

- 18.2.1 Unless specifically stipulated to the contrary of section 19.2, the maximum axle weight permitted in a national park is 8, 164 kg.

18.3 No person shall drive any vehicle in a park in a reckless or negligent manner. Without restricting the ordinary meaning of the word “reckless” a person driving a vehicle will be deemed to have driven



the vehicle in a reckless manner if it is driven in deliberate or wilful disregard for the safety of any person, animal, reptile, bird, plant or property of whatever nature.

18.4 . "The use of drones inside (and over) national parks is prohibited, unless these are used for research or official purposes and with the prior written approval of the Park Management".

19. Driving vehicles in a National Park while under the influence of alcohol or drugs

19.1 No person shall in a National Park:

- 19.1.1 Drive a vehicle; or
- 19.1.2 Occupy the driver's seat of a motor vehicle the engine of which is running, while under the influence of intoxicating liquor or a drug having a narcotic effect.

19.2 No person shall in a National Park:

- 19.2.1 Drive a vehicle; or
- 19.2.2 Occupy the driver's seat of a motor vehicle the engine of which is running, while the concentration of alcohol in any specimen of blood taken from any part of his or her body is not less than 0,05 gram per 100 millilitres, or in the case of a professional driver referred to in section 32, not less than 0,02 gram per 100 millilitres.

19.3 If, in any prosecution for an alleged contravention of a provision of subsection (6.2), it is proved that the concentration of alcohol in any specimen of blood taken from any part of the body of the person concerned was not less than 0,05 gram per 100 millilitres at any time within two hours after the alleged contravention, it shall be presumed, in the absence of evidence to the contrary, that such concentration was not less than 0,05 gram per 100 millilitres at the time of the alleged contravention.

19.4 Where in any prosecution in terms of rules proof is tendered of the analysis of a specimen of the blood of any person, it shall be presumed, in the absence of evidence to the contrary, that any syringe used for obtaining such specimen and the receptacle in which such specimen was placed for despatch to an analyst, were free from any substance or contamination which could have affected the result of such analysis.

19.5 No person shall on a public road-

- 19.5.1 Drive a vehicle; or
- 19.5.2 Occupy the driver's seat of a motor vehicle the engine of which is running, while the concentration of alcohol in any specimen of breath exhaled by such person is not less than 0,24 milligrams per 1 000 millilitres.

19.6 If, in any prosecution for a contravention of a provision of subsection 19.5, it is proved that the concentration of alcohol in any specimen of breath of the person concerned was not less than 0,24 milligrams per 1 000 millilitres of breath taken at any time within two hours after the alleged contravention, it shall be presumed, in the absence of evidence to the contrary, that such concentration was not less than 0,2 milligrams per 1 000 millilitres at the time of the alleged contravention.

19.7 For the purposes of subsection 19.5 the concentration of alcohol in any breath specimen shall be ascertained by using the prescribed equipment.

19.8 Any person detained for an alleged contravention of any provision of this section shall not-

- 19.8.1 During his or her detention consume any substance that contains alcohol of any nature, except on the instruction of or when administered by a medical practitioner;
- 19.8.2 During his or her detention smoke until the specimen referred to in subsection 19.3 or 19.6 has been taken, as the case may be.

19.9 No person shall refuse that a specimen of blood, or a specimen of breath, be taken of him or her.

20. Restrictions on and concessions to persons within a park

20.1 No person shall, without the special prior written permission of SANParks, within a park:

- 20.1.1 Hold or give any public entertainment or collect any money from the public.
- 20.1.2 Discard any burning object in any place where it may set fire to any other object or otherwise act in a manner likely to cause a fire other than where the making of a fire is specifically permitted.
- 20.1.3 Except on any train, be in possession of any live animal or bird or the carcass of any animal or bird or of any unmanufactured part of such carcass, or of any plant or of any unmanufactured part of such plant, which may be indigenous to the park.
- 20.1.4 Exhibit any advertisement or notice.
- 20.1.5 Keep any animals, birds or poultry.
- 20.1.6 Affix to or make on in any manner whatsoever, any tree or any object not belonging to that person any name, letter, figure, symbol, mark, picture or sign or otherwise damage any tree or other object.

21. Damage and nuisance

21.1 No person shall within a park:

- 21.1.1 Damage, hurt or endanger any animal, bird, fish, reptile, human being or property of SANParks.
- 21.1.2 At any time play any radio, CD player, music system, musical instrument or in any way unnecessarily cause any noise in a manner that is likely to disturb any other person.
- 21.1.3 Discard any article or refuse of whatever nature, except in receptacles and containers provided for this purpose by SANParks.

22. General prohibitions

22.1 Subject to the provisions of Section of the Act, no person other than an employee of SANParks acting under the authority of SANParks, may:

- 22.1.1 Convey into a national park or within a national park be in possession of any weapon other than a weapon declared and dealt with, any explosive, trap or poison;
- 22.1.2 Within a national park hunt or otherwise wilfully or negligently kill or injure any animal, bird, fish or reptile;
- 22.1.3 Within a national park wilfully disturb any animal, bird or reptile;
- 22.1.4 Within a national park take, damage or destroy any egg or nest of any bird, or take honey from a beehive;
- 22.1.5 Wilfully or negligently cause a fire, or cause any damage to any object of geological, archaeological, historical, ethnological, oceanographic, educational or other scientific interest, within a national park;
- 22.1.6 Cut, damage, remove or destroy any tree or any part thereof, dry or firewood, grass or other plant (including any marine plant) in a national park;
- 22.1.7 Within a national park remove seed from any tree or other plant without the permission of SANParks; or
- 22.1.8 Feed any animal in a national park.



23. Complying with lawful instructions

No persons shall fail to comply with all lawful instructions issued by SANParks or SANParks officials while inside a National Park.

23. Photography in National Parks

No person shall, except in accordance with the conditions laid down by SANParks from time to time, take any photographs, videos or films or record any images in a national park other than for private purposes.

24. SANParks officers may ask for written authority to be shown

Any person in a park shall hand over the written voucher authorising that person to be within that park to a SANParks officer if requested to do so.

25. Persons failing to show documents when requested shall again pay fees leviable

Any person failing or refusing to comply with any request to hand over the written voucher authorising that person to be within a particular park when requested to do so by a SANParks officer shall, apart from any other liability that person may incur, also be liable for payment of the fees in respect of admission, accommodation or any other service for which fees may be levied by SANParks, even though such fees may already have been paid. Provided that any fees thus paid shall be reclaimable by the person concerned on the submission to SANParks of satisfactory proof that such fees have previously been paid.

26. Weapons may be conveyed into a park on certain conditions

26.1 A person in possession of a valid licence for the weapon in question may convey that weapon into a park subject to the following rules:

- 26.1.1 No unlawful weapons may be conveyed into a park.
- 26.1.2 All weapons and ammunition of whatever nature shall be handed in at the first checkpoint, whether such checkpoint be an entrance gate, a rest camp or an office of a SANParks officer or employee, as the case may be, for the purposes defined in sub regulation 26.1.
- 26.1.3 The officer to whom such weapons and ammunition are handed in under sub regulation 26.1.2 shall seal such weapons in such a manner that the weapons cannot be used without the seals being broken.
- 26.1.4 Both the visitor and the officer shall ensure that the weapons are not loaded when being sealed.
- 26.1.5 When leaving a park, the weapons and ammunition shall again be handed over for inspection to the officer in charge of the rest camp or gate, as the case may be, and if any seals should be found to be broken a satisfactory explanation shall be furnished.

27. Offences and penalties

In addition to any offence in terms of section 89 of the Act, any person who contravenes or fails to comply with—

- 27.1 A provision of these internal rules;

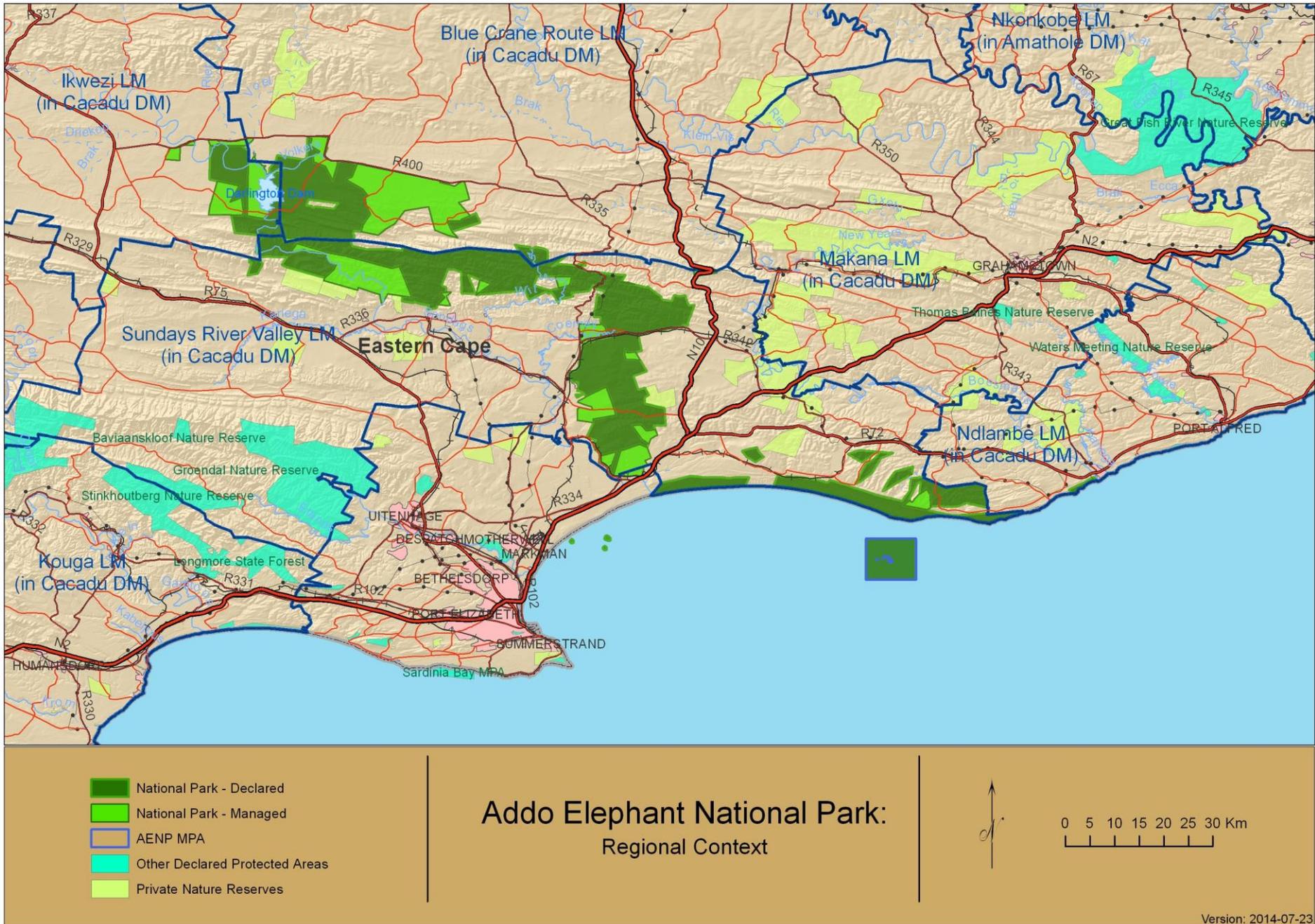
- 27.2 A condition mentioned in a permit issued in terms of these internal rules; or
- 27.3 A prohibition, instruction, rule or order imposed, given or issued under these internal rules;

is guilty of an offence and liable to a fine or to imprisonment for a period not exceeding five years or to both a fine and such imprisonment.

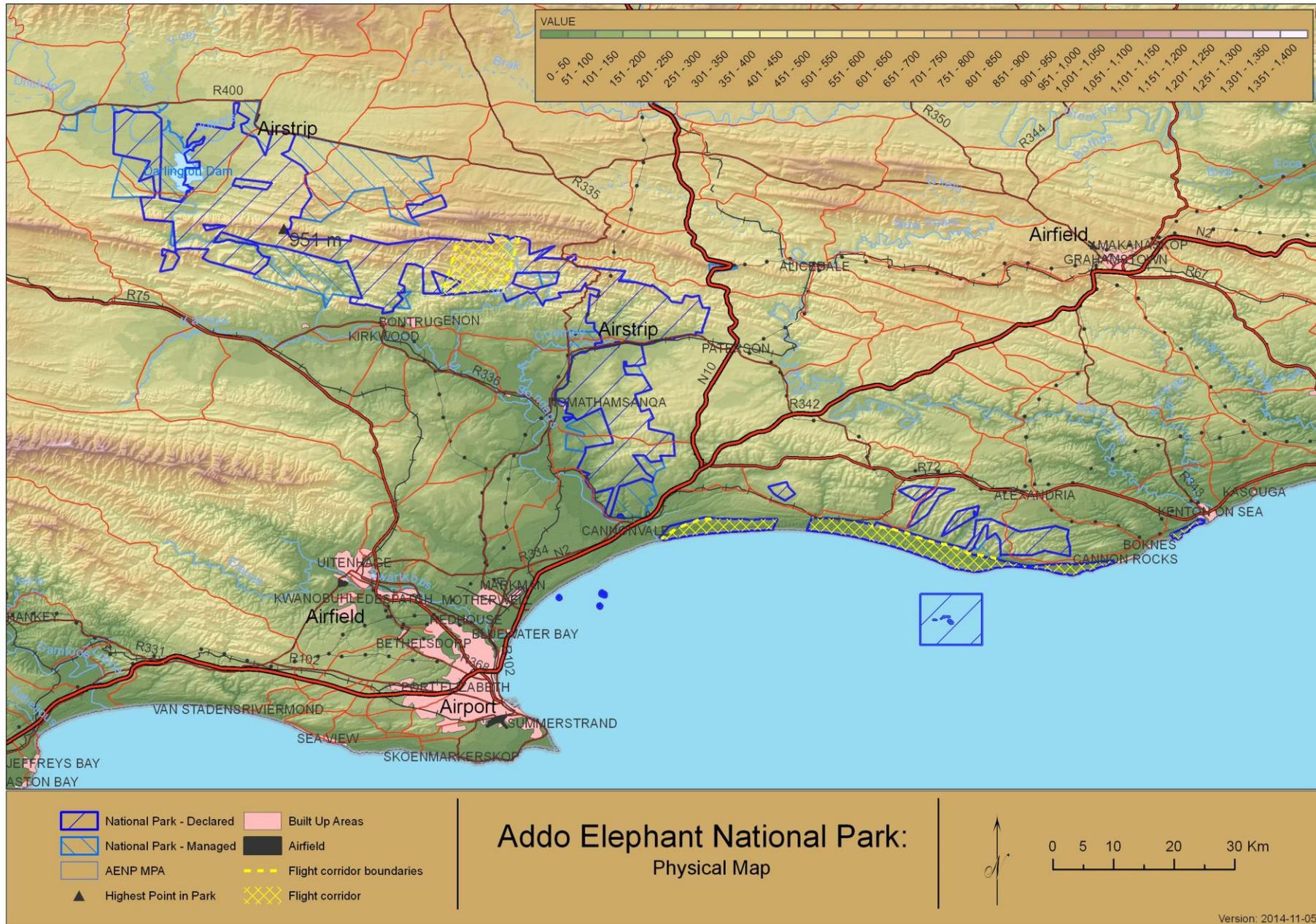


Appendix 6: Maps

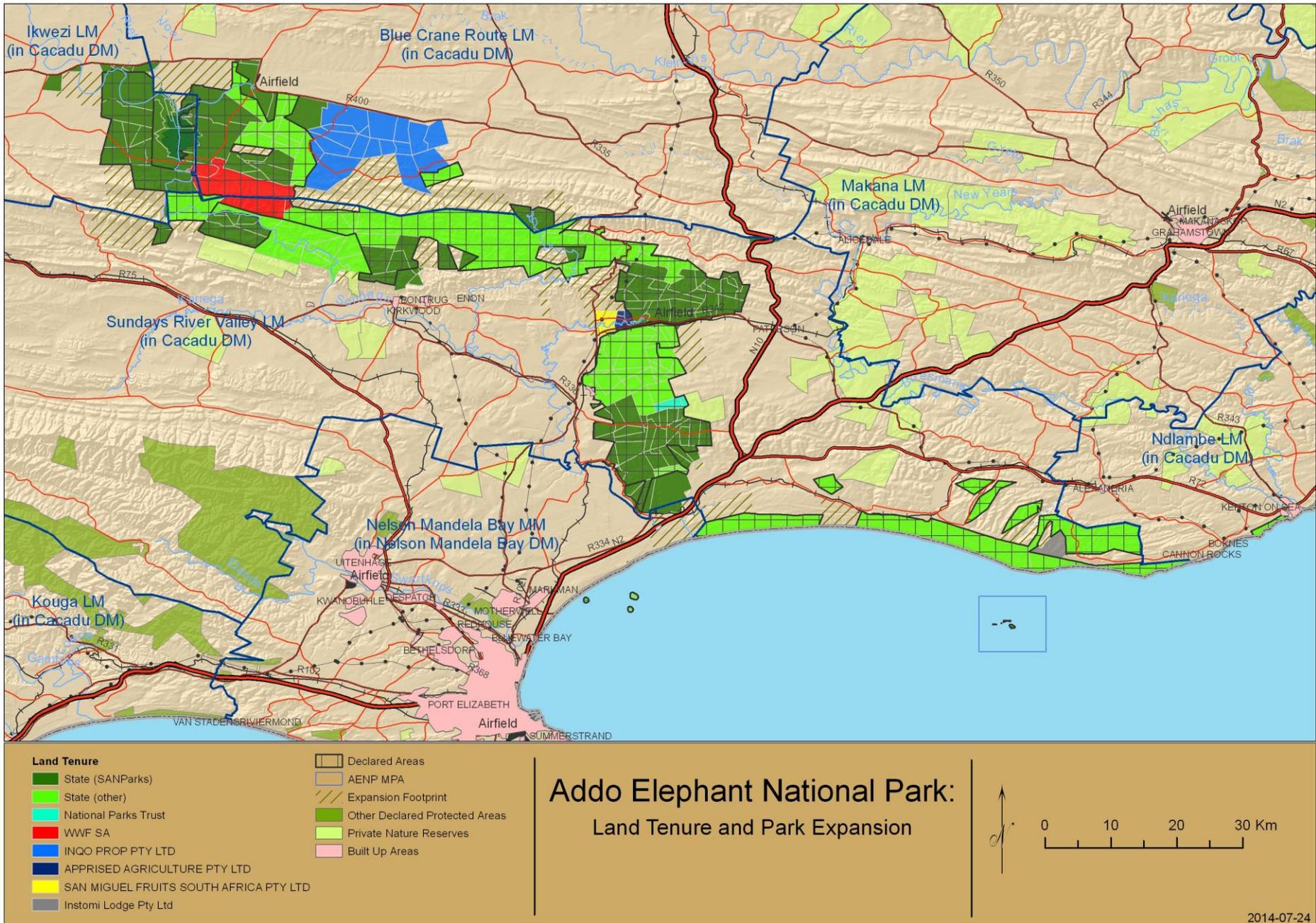
- Map 1: Regional context
- Map 2: Physical features
- Map 3: Land tenure and park expansion
- Map 4a: Zoning
- Map 4b: Zoning
- Map 4c: Zoning
- Map 5: Zoning with sensitivity value
- Map 6: Buffer areas
- Map 7a: Infrastructure and development
- Map 7b: Infrastructure and development
- Map 7c: Infrastructure and development
- Map 8: Vegetation



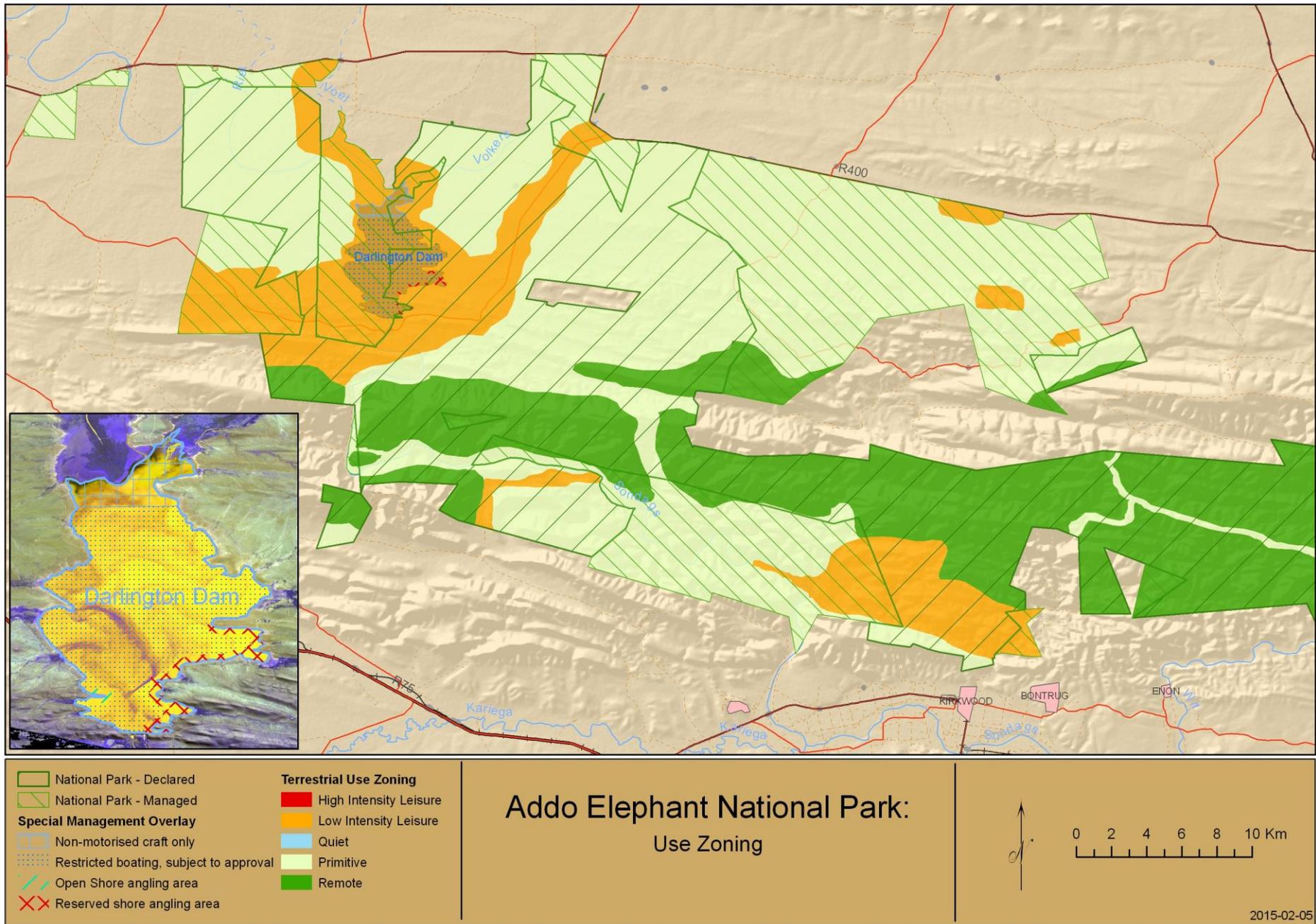
Map 1: Regional context



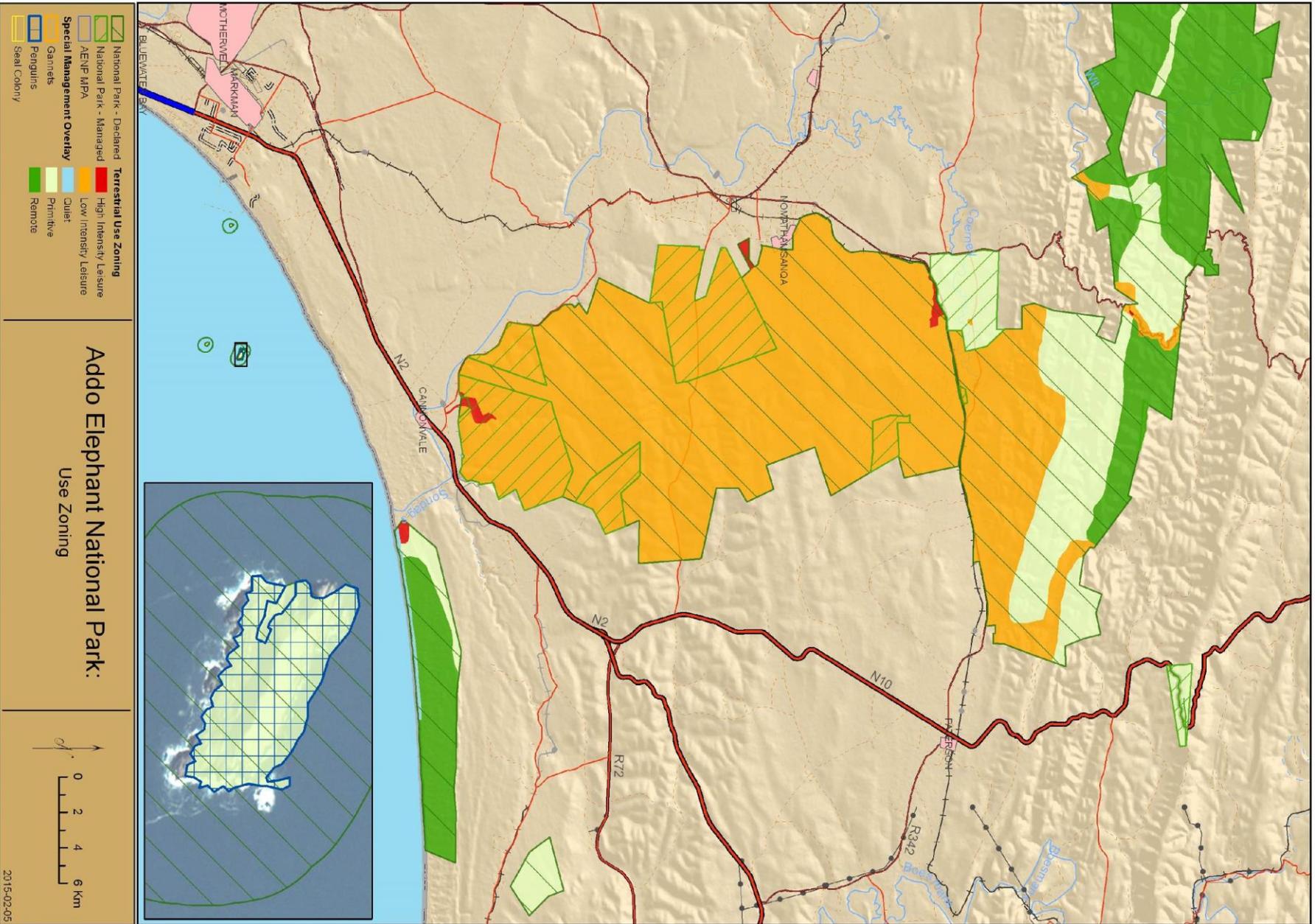
Map 2: Physical features



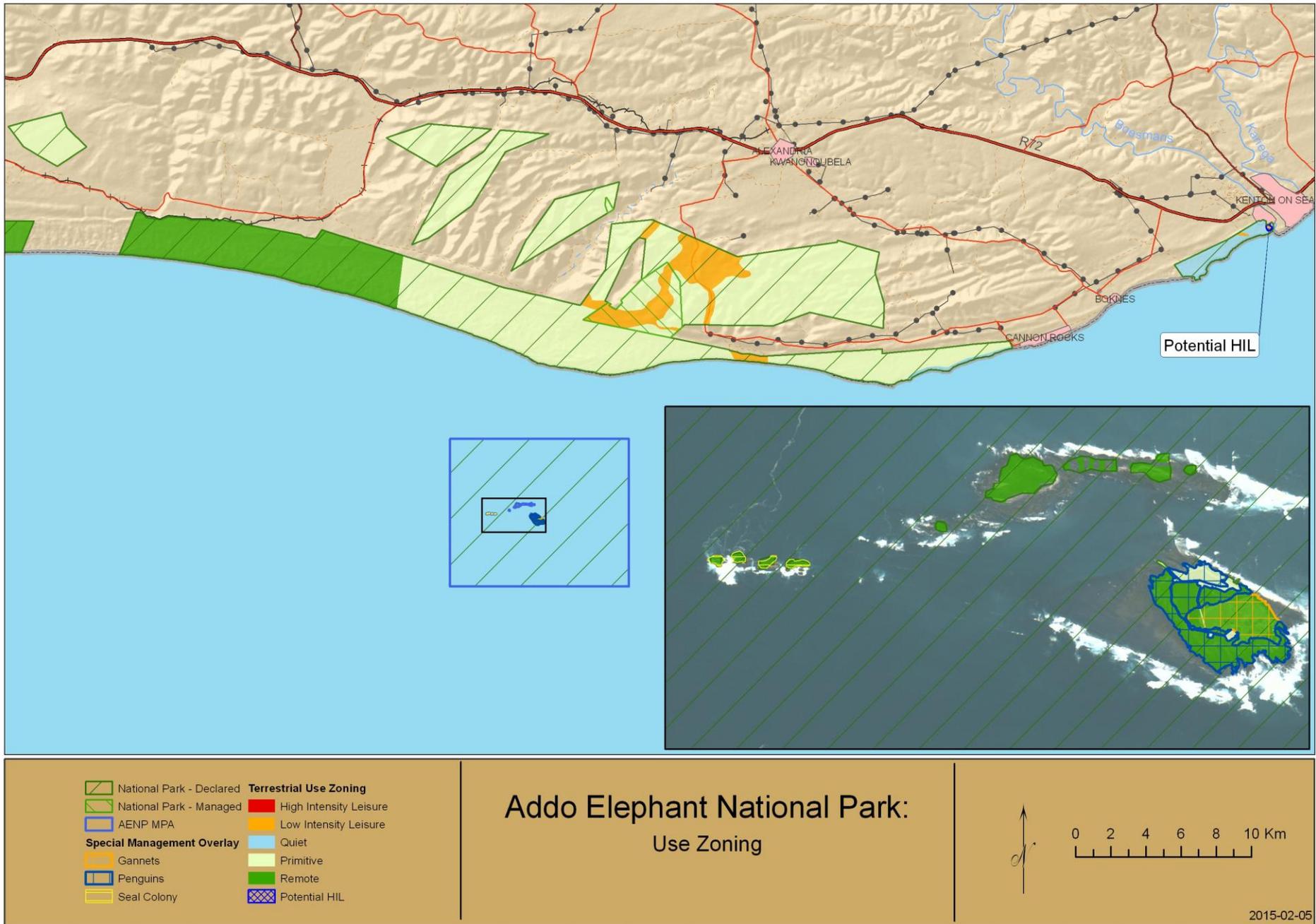
Map 3: Land tenure and potential expansion



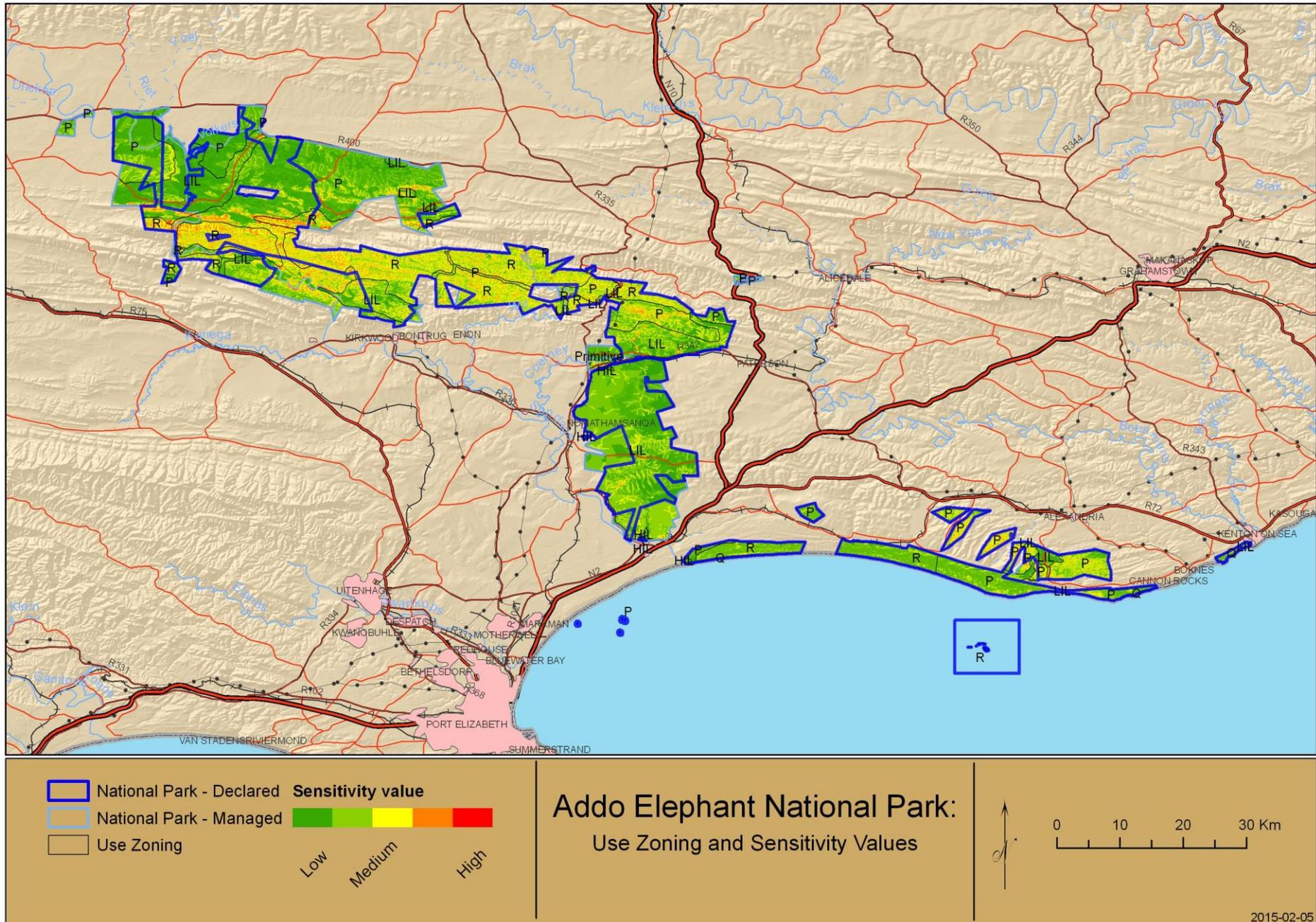
Map 4a: Zoning



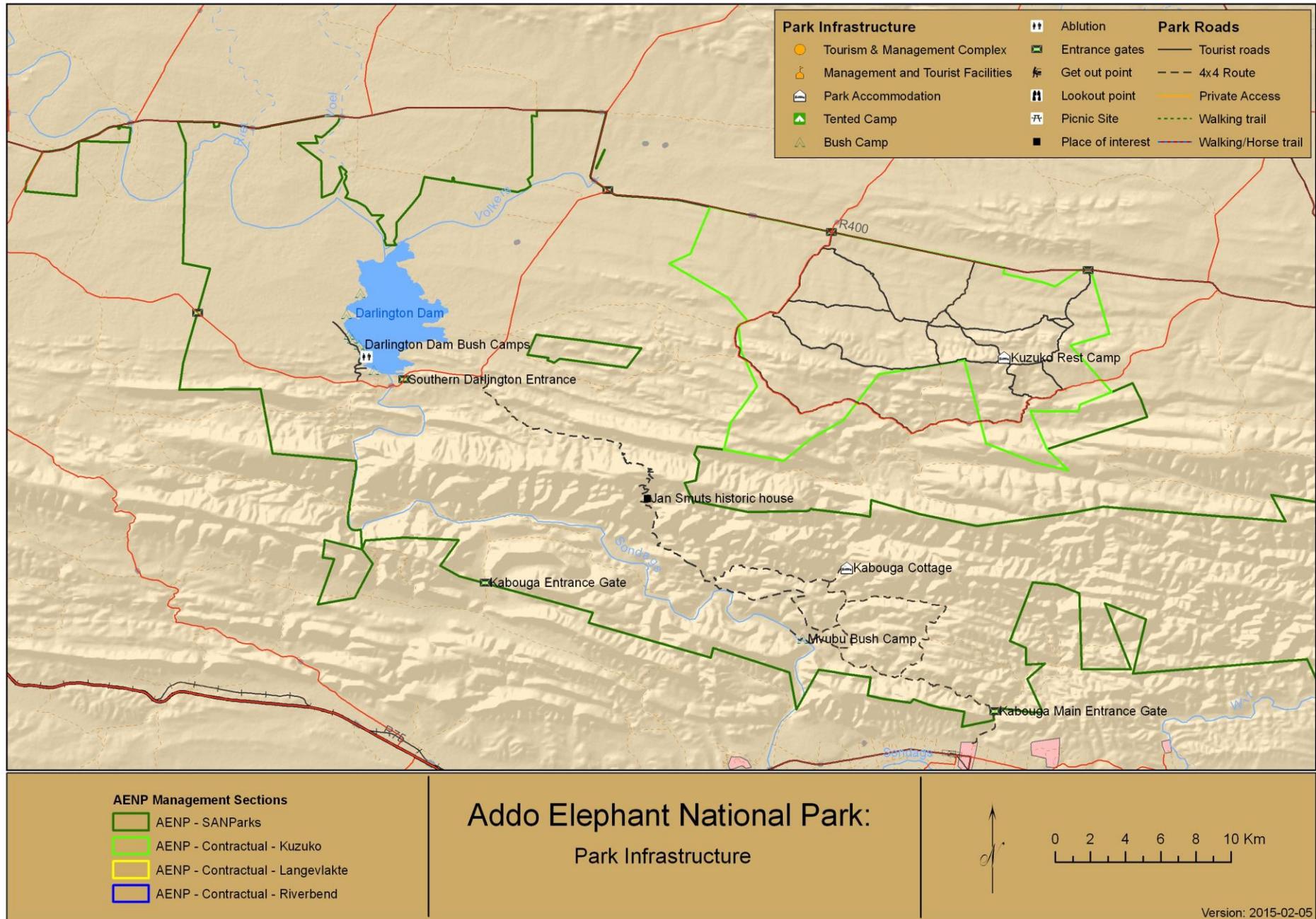
Map 4b: Zoning



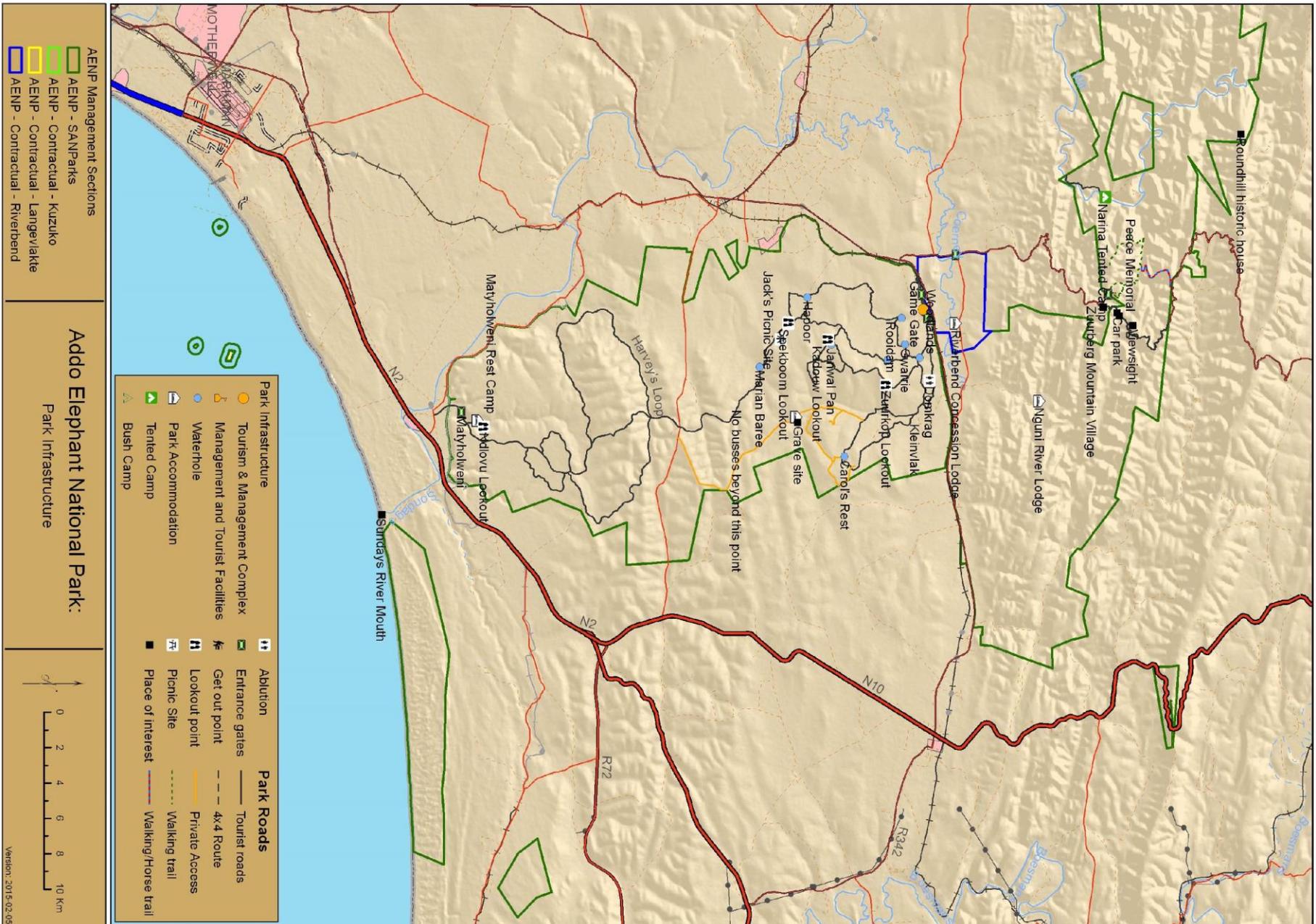
Map 4c: Zoning



Map 5: Zoning and sensitivity



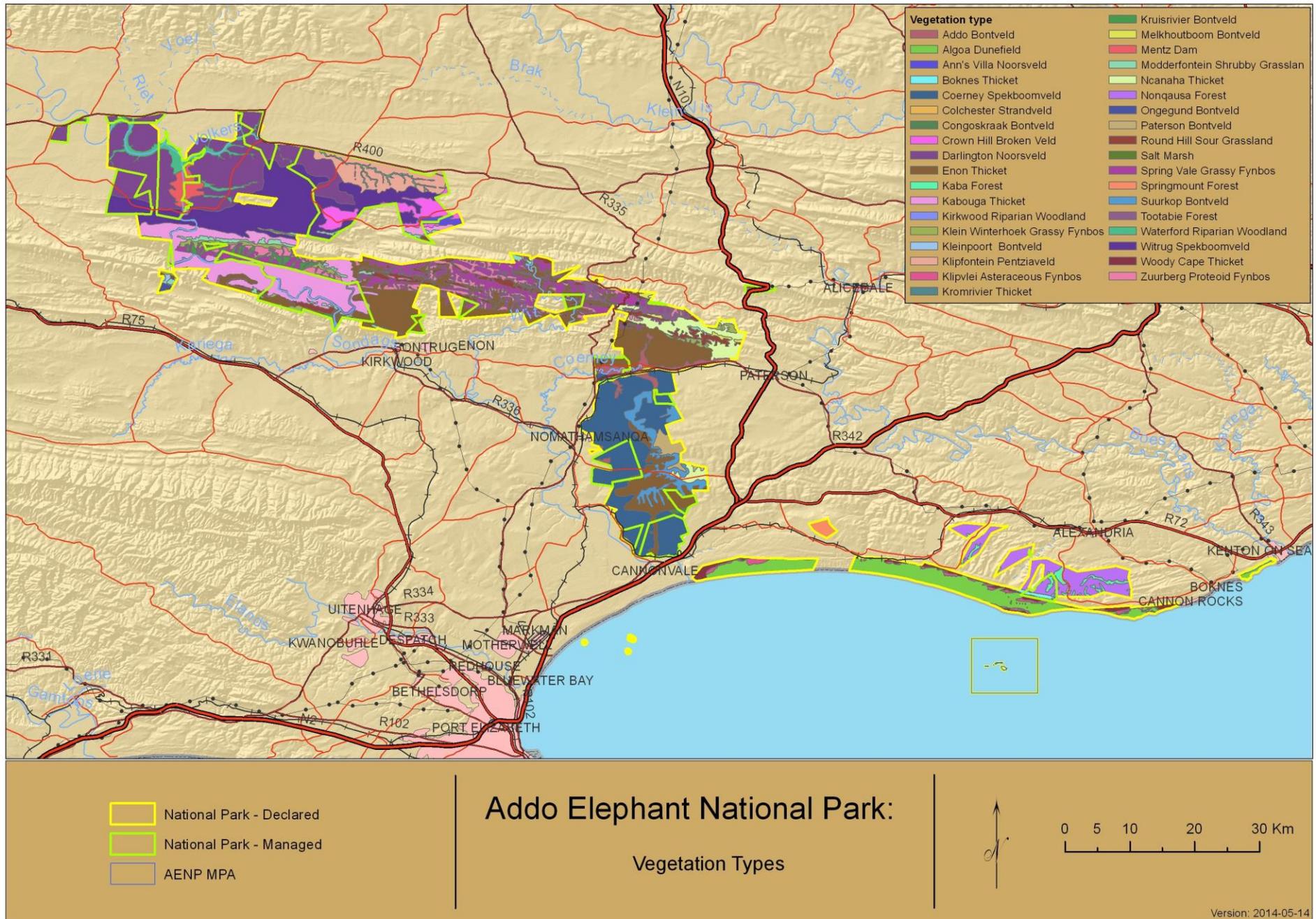
Map 7a: Park infrastructure



Map 7b: Park infrastructure



Map 7c: Park infrastructure



Map 8: Vegetation



South African
NATIONAL PARKS

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