Kube Yini Nature Reserve

KwaZulu-Natal
South Africa

Protected Area Management Plan
October 2023

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Authorisation

This Management Plan for ~~Rood~~ KUBE YINI Nature Reserve is approved:

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TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

Amafa	Amafa KwaZulu-Natali (KwaZulu-Natal Provincial Heritage Agency)
BECVOL	Biomass Estimates from Canopy Volumes
CEO	Chief Executive Officer
CPI	Consumer Price Index
DCO	District Conservation Officer
DEA	National Department of Environmental Affairs
DWAS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EWT	Endangered Wildlife Trust
Ezemvelo	Ezemvelo KwaZulu-Natal Wildlife
FPA	Fire Protection Association in terms of the National Veld and Forest Fire Act (No.1 of 1998)
GIS	Geographical Information System
IDP	Municipal Integrated Development Plan
IUCN	International Union for the Conservation of Nature
LSU	Large Stock Unit
MEC	Member of the Executive Council
METT	Management Effectiveness Tracking Tool
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEMA	National Environmental Management Act
NFEPA	National Freshwater Ecosystem Priority Area
NPAES	National Protected Area Expansion Strategy
NSBA	National Spatial Biodiversity Assessment
PA	Protected Area
PES	Present Ecological State (as applied to assessed water resources)
SDF	Municipal Spatial Development Framework
SMME	Small, Micro and Medium Enterprises
SWOT	Strengths, weaknesses, opportunities and threats analysis
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VCA	Veld condition assessment
WCPA	World Commission on Protected Areas
WWF	Word Wildlife Fund

1) BACKGROUND

1.1 Purpose of the plan

Management plans for protected areas are strategic documents that provide the framework for their development and operation.

This management plan informs management at all levels, from the management authority through to support staff within partner organisations and Ezemvelo KZN Wildlife. The purpose of the management plan is to:

- Provide the primary strategic tool for management of Kube Yini Nature Reserve, informing the need for specific programmes and operational procedures.
- Provide for capacity building, future thinking and continuity of management.
- Enable the management authority to develop and manage Kube Yini Nature Reserve in such a way that its values and the purpose for which it has been established are protected.
- Ensure the effective management of Kube Yini Nature Reserve in accordance with relevant provincial, national and international norms and standards.
- The plan outlines the implementation of the conditions laid out in the Protected Area Management Agreement for Kube Yini Nature Reserve, which are to:
    - Preserve the ecological integrity (including vulnerable and ecologically sensitive areas) of the game reserve.
    - Conserve the biodiversity of the game reserve.
    - Protect areas representative of all ecosystems, habitats and species naturally occurring there.
    - Protect threatened or rare species.
    - Assist in ensuring the sustained supply of environmental goods and services provided by the game reserve, including but not limited to enjoyment to the shareholders.
    - Provide for the sustainable use of natural and biological resources.
    - Rehabilitate and restore degraded ecosystems and promote the recovery of threatened and vulnerable species.

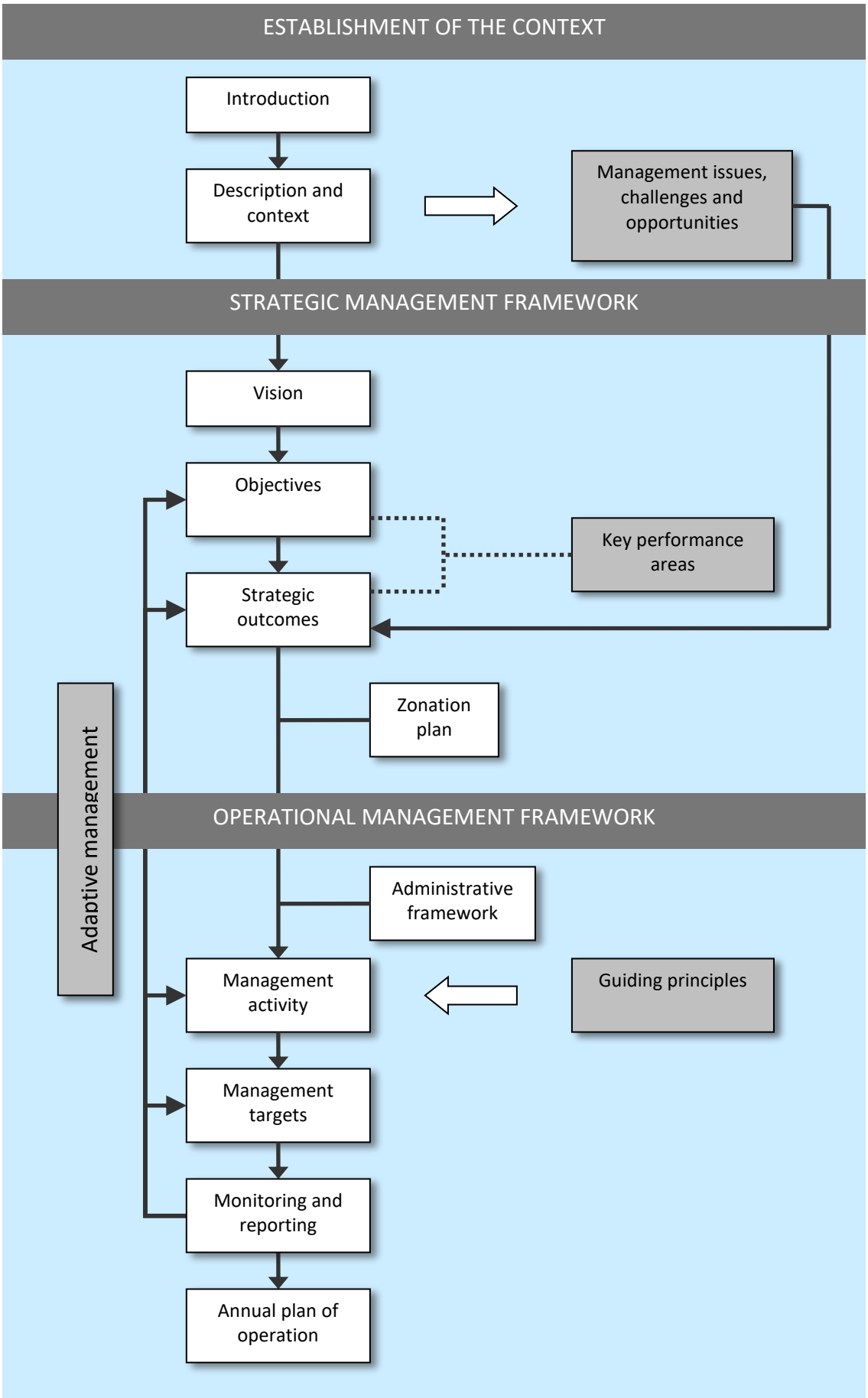

Figure 1: Structure of the Management Plan

1.2 Structure of the plan

Section 1:	Provides an introduction and background to the management plan and Kube Yini Nature Reserve.
Section 2:	Establishes the context of Kube Yini Nature Reserve, providing the basis for the strategic and operational management frameworks that follow.
Section 3:	Sets out the vision and objectives for Kube Yini Nature Reserve.
Section 4:	Sets out the zonation of Kube Yini Nature Reserve, outlining the land uses in particular zones.
Section 5:	Describes the administrative structure that has been established to assist in managing Kube Yini Nature Reserve.
Section 6:	Sets out the management targets that must be achieved in managing the nature reserve.
Section 7:	Sets out the monitoring measures required to determine if management targets are being met.
Section 8:	Describes the components that must be included in the annual plan of operation.

1.3 Alignment with METT

Management effectiveness is defined by the IUCN's World Commission on Protected Areas (WCPAs) as the assessment of how well a protected area is being managed – primarily the extent to which it is protecting values and achieving goals and objectives (Hockings, Stolton & Dudley 2000; Hockings *et al.* 2006). The assessment of management effectiveness using the Management Effectiveness Tracking Tool (METT-SA Version 3, 2015) is not a management performance assessment but is intended to identify areas in which management effectiveness can be improved within a protected area and within the organisation managing the protected area.

As far as possible, this management plan has been aligned with the METT, which focuses on six elements of protected area management:

1. Understanding the context of existing values and threats.
2. Protected area planning and design.
3. The allocation of resources to the protected area.
4. The processes that are implemented in managing a protected area.
5. The outputs of management actions.
6. The outcomes or impacts of management actions.

It must be understood that not all aspects of the METT will be relevant to Kube Yini Nature Reserve but that the METT is able to identify areas in which to focus management activities in an effort to address deficiencies and improve

management. It thus provides a baseline upon which future management effectiveness can be measured and improved.

1.4 Introduction

Kube Yini Nature Reserve, which is 1214 hectares in extent, is located to the south of the town of Mkuze and north of the town of Hluhluwe (Figure 2). It falls within the uMkhanyakude District Municipality and the Big Five Hlabisa Local Municipality. The reserve's northern boundary is adjacent to the Jozini Local Municipality southern boundary.

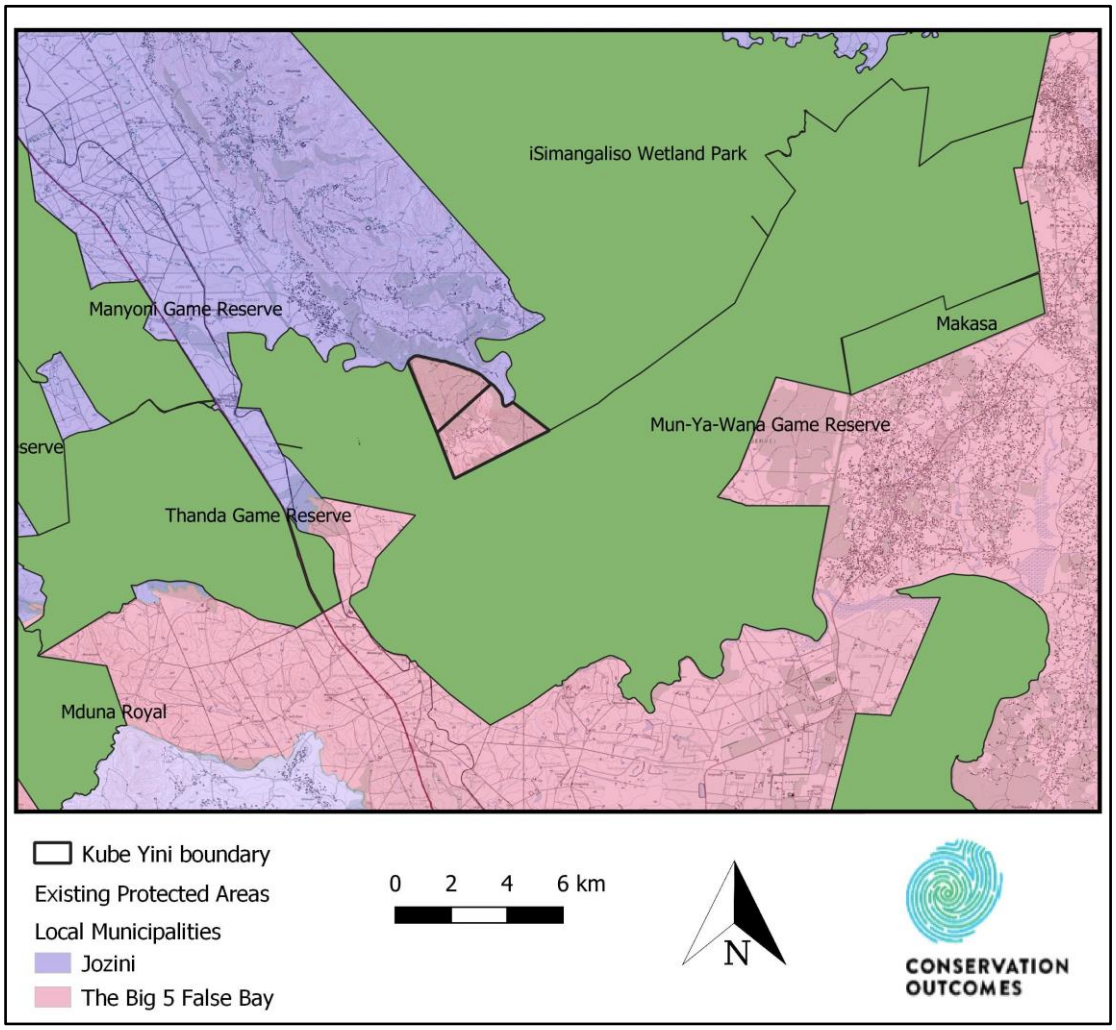

Figure 2: Regional location of Kube Yini Nature Reserve

The reserve forms a linkage between several protected areas as it links with uMkhuze Game Reserve, which is a part of iSimangaliso Wetland Park World Heritage Site, to the north, Mun-Ya-Wana Game Reserve to the east and south, and Thanda Private Game Reserve to the west. As such, it forms part of an important landscape scale conservation initiative, which seeks to link key protected areas across the region.

1.5 The values of Kube Yini Nature Reserve

The values of a place are those remarkable attributes that exemplify it, which led to it being identified as a priority for the Biodiversity Stewardship

Programme and to be proclaimed as a nature reserve. The values are important in planning and management, as they are the aspects of the place that must be protected. The values of Kube Yini Nature Reserve include:

Socio-economic values	▪ Kube Yini Nature Reserve provides benefits to its landowners flowing from non-consumptive resource use. ▪ Kube Yini Nature Reserve contributes to community upliftment through biodiversity conservation, job creation and community upliftment initiatives.
Regional conservation values	▪ Kube Yini Nature Reserve is a model for private sector conservation, regionally.
Habitat and species values	▪ Kube Yini Nature Reserve provides suitable habitat for plant and animal species representative of the region. ▪ A large variety of rare, endemic and threatened animal and plant species are found at Kube Yini Nature Reserve.
Ecosystem function values	▪ The Msunduze River flows along the northern boundary of Kube Yini Nature Reserve and a number of its tributaries start on the reserve. The Msunduze feeds into the St Lucia wetland system. ▪ Kube Yini Nature Reserve provides a critical connection to surrounding natural habitat and other protected areas.
Scenic values	▪ The beauty, views and vistas of the area, the high topographical variation and contrasting habitats make Kube Yini Nature Reserve a place of high aesthetic appeal and scenic values. ▪ Kube Yini Nature Reserve is a place of beauty that makes an important contribution to the sense of place of the region.
Scientific, research and educational values	▪ Kube Yini Nature Reserve enables research in species, ecology and ecosystem function that contributes to the understanding of the biodiversity and conservation imperatives of such systems. ▪ Kube Yini Nature Reserve is an educational asset that enables people of all ages and education levels to improve their understanding and appreciation of nature.

Consistent with Section 17 of the Protected Areas Act, the purpose of Kube Yini Nature Reserve is to:

- Protect representative areas of Southern Lebombo Bushveld.
- Provide landscape level biodiversity conservation that connects protected areas and contributes to the protection of the ecological integrity of the region.
- Protect part of the catchment of the Msunduze River, which feeds into the St Lucia wetland system.
- Protect threatened, rare and endemic species.
- Assist in the supply of sustained environmental goods and services.
- Be a successful model of biodiversity conservation.

1.5.1 Protection of the values

The protected area's values, in particular those that underlie the functioning of its ecosystems and the protection of its rare and threatened species, will be given the highest degree of protection to ensure the persistence of these systems predominantly unaltered by human activity.

1.5.2 Ecosystem-based management

Decision-making associated with the protection of the reserve's ecosystems will be scientifically based on internationally accepted principles and concepts of conservation biology. The protected area ecosystems will be managed with minimal interference to natural processes. Specific management may be desirable, when the structure or function of a habitat or ecosystem has been altered by human induced impacts or previous management. Specific management will only be considered when this option is the best alternative available to restore ecological integrity.

Where directed management is required, it will be based on scientific research, and will employ techniques that emulate natural processes as closely as possible.

1.6 Adaptive management

The preparation of this management plan has been undertaken based on the guiding principles of adaptive management, which is a structured, iterative process in which decisions are made using the best available information, with the aim of obtaining better information through monitoring of performance (Figure 3). In this way, decision making is aimed at achieving the best outcome based on current understanding, whilst accruing the information needed to improve future management. Adaptive management can lead to revision of a part or if necessary, the whole management plan.

Adaptive management enables landowners and managers to:

i) Learn through experience.

ii) Take account of, and respond to, changing factors that affect the biodiversity stewardship site.

iii) Develop or refine management processes.

iv) Adopt best practices and new innovations in biodiversity conservation management.

v) Demonstrate that management is appropriate and effective.

Figure 3: The adaptive management cycle (Management Strategy Evaluation, 2009)

2) DESCRIPTION OF KUBE YINI NATURE RESERVE AND ITS CONTEXT

2.1 The history of Kube Yini Nature Reserve

Kube Yini is a 1214-hectare private game reserve, which was established on the 31st of December 1990. Originally a cattle and game farm, Kube Yini was sold to a developer in 1989, who saw the potential to nurture the veld back to its natural state, to be owned by like-minded people who would preserve and conserve the 1214 hectares. Kube Yini Share Block (Pty) Ltd was therefore established and purchased the land.

There are 50 house-sites on the reserve, of which, three remain undeveloped. The sites are all unfenced and are clustered onto approximately 100 hectares, which has been zoned as a 'Moderate Use Zone'. Kube Yini Share Block (Pty) Ltd comprises 85 shares, split between the 50 house-sites (i.e. certain sites comprise multiple shareholders).

The reserve is used for the enjoyment of the shareholders, some of whom live on the property permanently. Others utilise their houses as holiday homes and may syndicate up to five times (as per the Kube Yini Share Block (Pty) Ltd articles of association). The houses may not be used for commercial purposes.

Shareholders pay a monthly levy to Kube Yini Share Block (Pty) Ltd, which is used to manage the reserve in its entirety, intercluding *inter alia:* key ecological and habitat management interventions, such as fire management and invasive alien plant control, as well as infrastructure maintenance such as fencing, roads and communal buildings. The shareholders are responsible for the maintenance of their buildings and immediate surrounds.

Table 1: Properties that comprise KYNR

Property Description	Area (ha)
Farm Kube Yini 13736	467,5
Farm Lowane 13735	746,5

2.2 The legal context for the management of Kube Yini Nature Reserve

There is a large body of legislation that is relevant to the management of Kube Yini Nature Reserve, but the primary legislation guiding the management of protected areas is the National Environmental Management: Protected Areas Act (No.57 of 2003).

The Protected Areas Act establishes the legal basis for the creation and administration of protected areas in South Africa, as its objectives include provisions "for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes". The Act sets out the mechanisms for the declaration of protected areas and the requirements for their management.

A detailed list of relevant legislation is provided in Appendix B. As the management authority, Kube Yini Nature Reserve should familiarise itself with the purpose and contents of the statutes and their subsequent amendments and regulations.

2.2.1 Proclamation status of Kube Yini Nature Reserve

Kube Yini Nature Reserve is in the first phase of the declaration process. The Intention to Declare Notice was published in the government gazette on the 31 March 2022 (Appendix C) and the public participation process was initiated shortly afterwards.

2.2.2 Boundary demarcation and deviations

The Kube Yini Nature Reserve perimeter fence is 1,8m bonnox fence with 3 strands of barbwire along the top, taking the total height to 2,2m. There are 3 electrified off-set strands along the inside of the entire perimeter. This fence design is consistent on the Msunduze River, which is fenced out of the reserve along its entire length (Figure 7).

The boundary of the Kube Yini Nature Reserve is known by the management authority, is fully demarcated and is respected by local residents, neighbouring land users and the public.

Figure 4: KYNRY perimeter fence

2.2.3 Servitude register

There is an Eskom servitude, as well as a Vodacom cell tower, on the property. A register of these servitudes must be compiled and maintained.

2.2.4 Invasive species control in terms of the Biodiversity Act

In terms of Section 76 of the National Environmental Management: Biodiversity Act (No.10 of 2004), the management authority of a protected area must incorporate an invasive species control plan in the protected area management plan. This is addressed in Sections 3 and 4 below. Furthermore, Kube Yini Nature Reserve has a comprehensive invasive alien species control plan, which meets the requirements of the Biodiversity Act. The plan includes the identification of key invasive alien plants species, their distributions and densities, and a series of management and control strategies that include the use of fire, chemical and manual control, and the maintenance of boundaries and buffer zones to prevent new infestations.

2.3 Ecological context of Kube Yini Nature Reserve

2.3.1 Climate and weather

Kube Yini Nature Reserve has a warm to hot, humid, tropical to subtropical climate with hot summers and cool to warm winters. Tropical cyclones, which occur infrequently along the coast, generally from January to March, and are often accompanied by high wind speeds, result in occasional episodic large-scale floods.

More than 75% of the annual rainfall occurs between the months of October and March with February having the highest expected rainfall at an average of almost 120 mm and July having the lowest average rainfall at below 20 mm.

The area is generally climatically stable with the mean annual temperature fluctuation less than 12 ^{o}C (Bothma 2002). The mean temperature is 21.8 ^{o}C, the highest average monthly temperature occurs in January, with an average of 25.5 ^{o}C and the lowest average temperature occurs in July, at 16.4 ^{o}C.

Annual and seasonal variations in the weather are one of the most important drivers of the Kube Yini ecosystem. It is thus important the records are kept to build up a predictive understanding of the Reserve's ecological functioning and adaptive management. Rainfall data is collected manually at approximately 8:00AM every day. The reserve is small enough to justify having only one rain gauge. This data should work closely with the annual veld condition assessment programme.

2.3.2 Topography

The physiography of Kube Yini comprises a ridge line on the western boundary, formed by the Lebombo Mountains, and a central plateau, oriented east-west. A steep escarpment is located on the northern edge of the plateau, dropping dramatically down to an alluvial terrace, some 200 metres below, which runs the length of the Msunduze River. The area to the north and south of the plateau comprises a series of dissected river valleys. The altitude varies from 80 to 340 metres above sea level. See Figure 5 for a depiction of the 5m contour lines. (Macdonald, I.A.W *et al*. 2010)

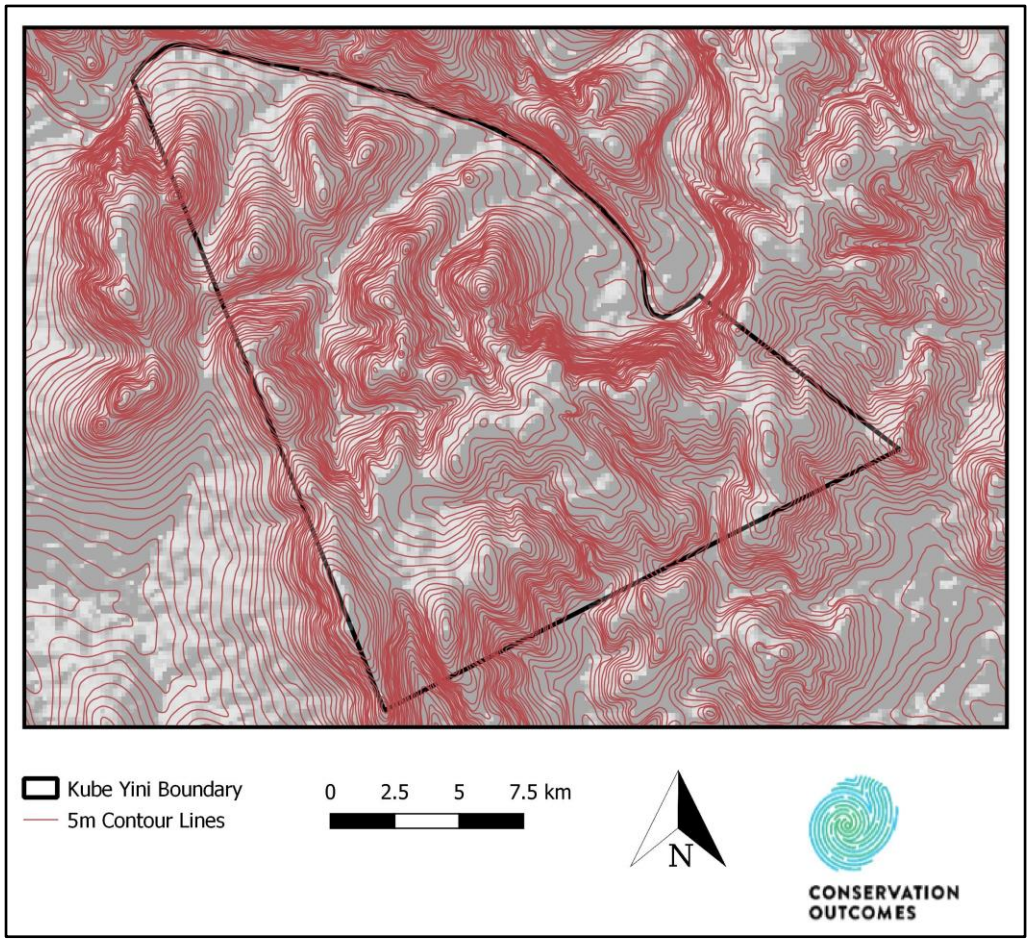

Figure 5: Topography of KYNR and its surrounds

2.3.3 Geology and soils

Kube Yini is situated within the Lebombo Mountain Range, which is a long, narrow range extending from Hluhluwe town in the South to Punda Maria (Kruger National Park) in the North. The Lebombo range is comprised largely of Stormberg rhyolites of the Jozini Formation. These were extruded volcanically a relatively short time before the disruption of Gondwanaland, which happened approximately 140 million years ago.

The soils are generally shallow, with a low potential for conventional agricultural practices such as cultivation for crops or pastures.

The geology of the slopes of the upper regions of the property are mainly rhyodacite of the geceny formation, Lebombo group with interpolated pyroclastic flows, acid lava, clastic glass and vitreous tuff, basalt, and andacite with occasional dolorite dykes. Essentially the major rock formations of the reserve are derived from volcanic activity and hence the overall topography of the property.

The lower reaches of the reserve, on the colluvial and alluvial terrace, are derived from recent deposits and comprise relatively young soils mainly formed by deep alluvium. The alluvium here was deposited by movement of the soil off the slopes and by the river in its younger days. The river itself is still

fairly active, with larger silt loads and bed changes taking place during periods of extreme rainfall. (Macdonald, I.A.W *et al.* 2010). (Figure 6)

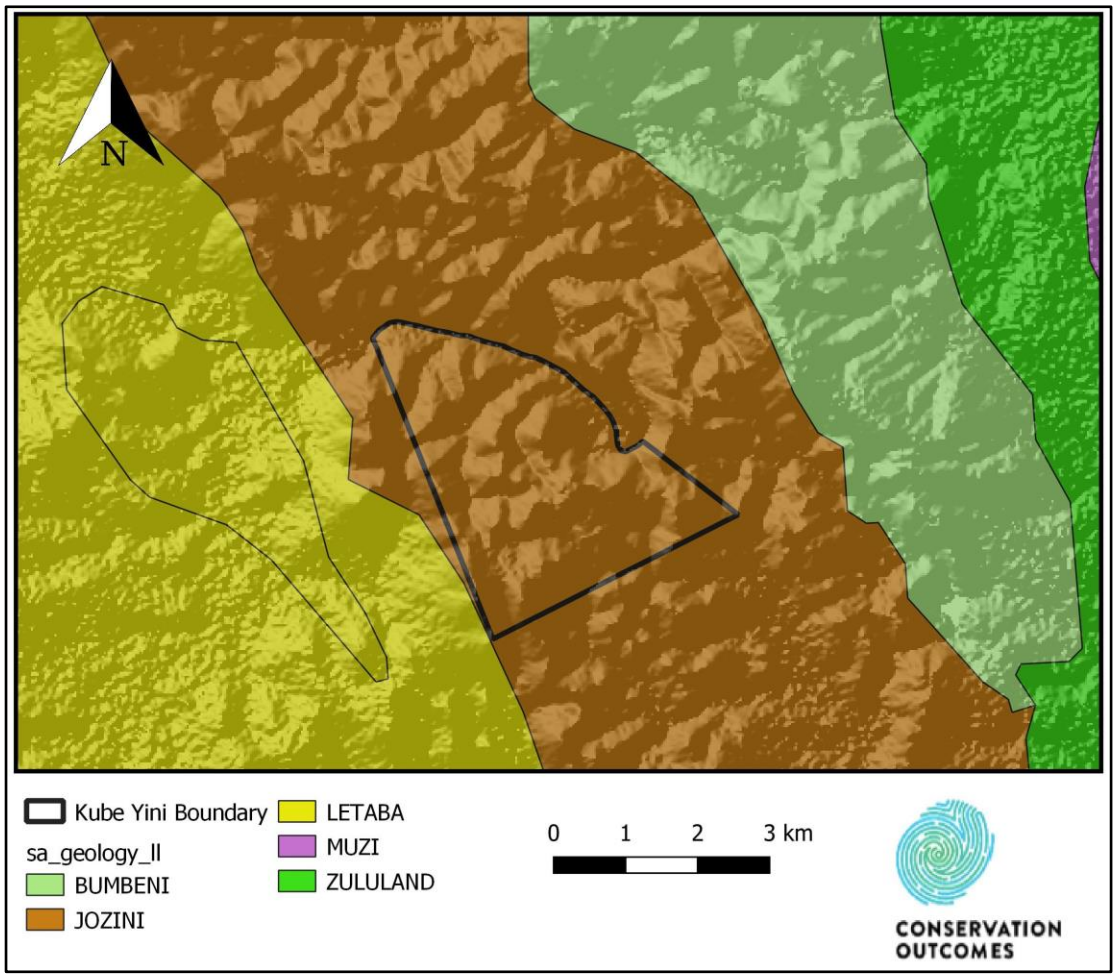

Figure 6: Geology of KYNR and its surrounds

2.3.4 Drainage and hydrology

Kube Yini Nature Reserve is drained by a number of small, seasonal drainage lines, off the plateau, north towards the Msunduze River, which forms the northern boundary of the reserve. The Msunduze River is a declared NFEPA (National Freshwater Ecosystem Protected Area) and therefore an important part of the national freshwater system. While it is fenced out of the reserve, Kube Yini plays an important role in its protection through its positive impacts, including *inter alia:* removal of alien plants which would otherwise enter the river system and prevention land-use change on its southern bank.

There are also a number of small NFEPA wetlands on the reserve (Figure 7)

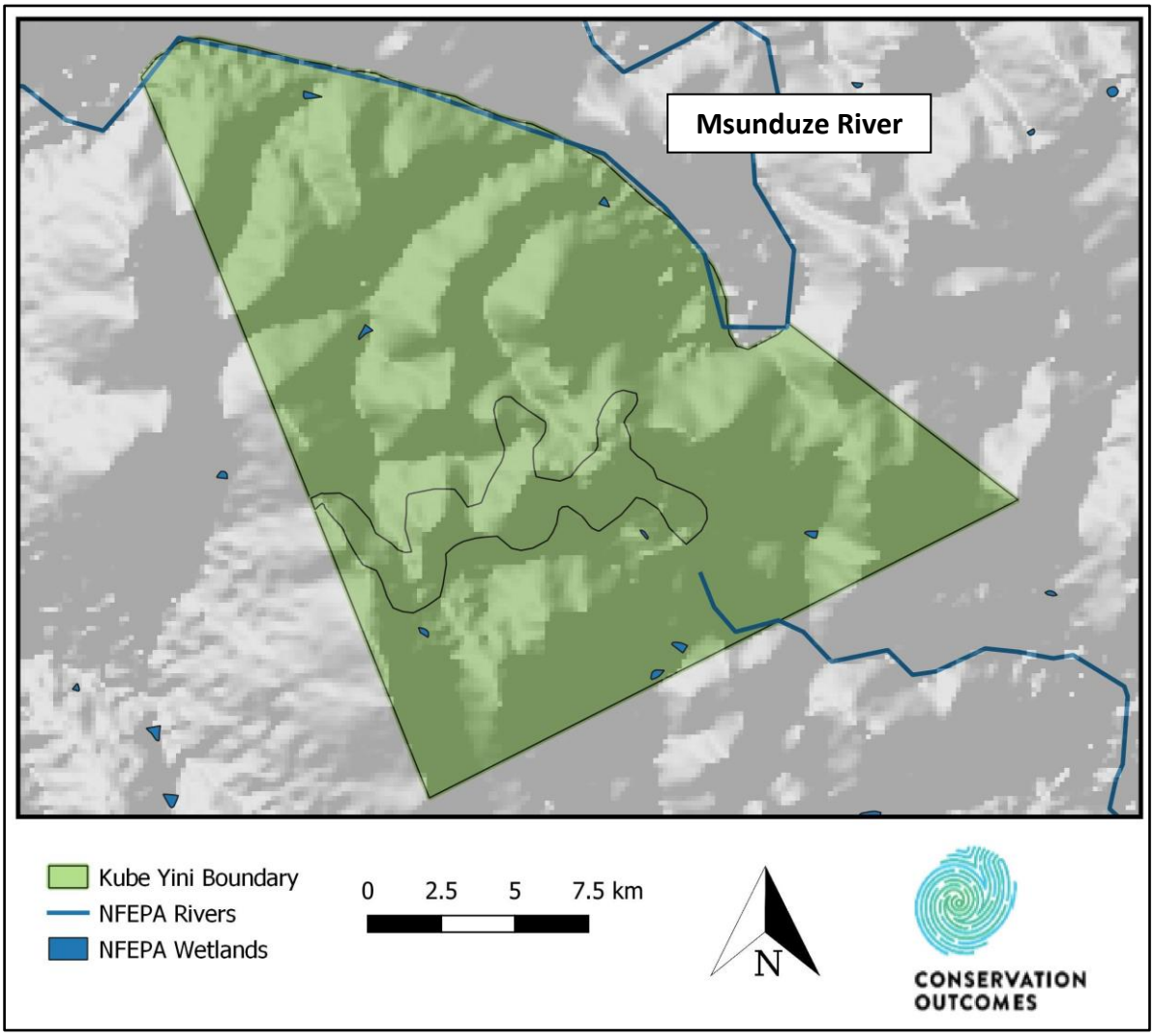

Figure 7: Drainage and hydrology of KYNR and its surrounds

2.3.5 Vegetation

The updated KZN vegetation layer, which has refined the vegetation types identified by Mucina and Rutherford's (2006) national layer, has identified 1 vegetation type within Kube Yini (Figure 8). A finer scale vegetation assessment done by Goode (2021) identified four different habitat types within this vegetation type, namely: Grassland, Mixed Lebombo bushveld, Rocky faces, and seasonal streambed / Sub-tropical dry forest.

For the purposes of this management plan though, the focus will be on the vegetation type identified in the KZN vegetation layer, as this is used to determine the contribution of the reserve to provincial and national biodiversity and protected area targets (Table 2).

Table 2: Vegetation types in KYNR and their contribution towards protected area targets

Vegetation type	Threat status	Extent of vegetation within the reserve (ha)	Proportion of provincial extent of veg type within the reserve	Contribution to biodiversity targets
Southern Lebombo Bushveld	Least threatened	1214	1,25%	4,34%

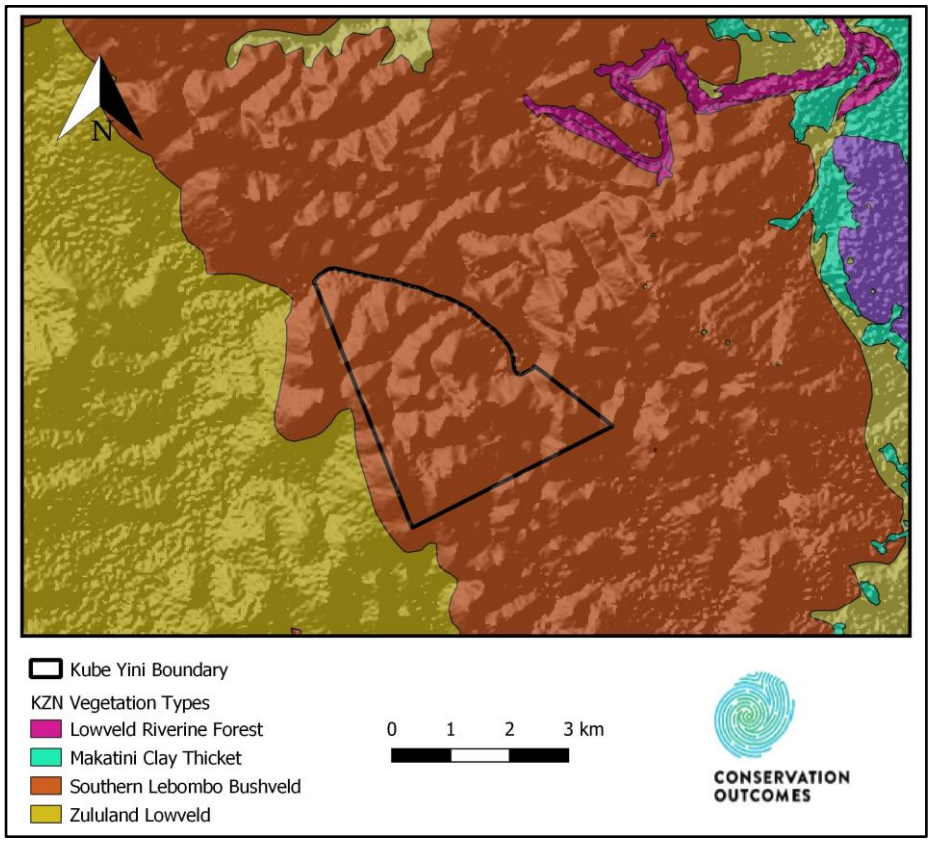

Figure 8: Vegetation of KYNR (KZN vegetation layer)

Southern Lebombo Bushveld (Mucina and Rutherford 2006) is the only vegetation type in Kube Yini Nature Reserve. It occurs in Mpumalanga, KwaZulu-Natal and Swaziland at altitudes between 100 and 600 metres. It is an open bushveld dominated by *Acacia* and *Combretum* species. Biogeographically important species associated with this vegetation type include Pachycarpus lebomboensis (a Lebombo endemic) and Gasteria batesiana (a northern KZN endemic).

2.3.6 Plant species

There are a number of confirmed threatened and endemic plant species that occur within Kube Yini Nature Reserve (Table 3).

Table 3: Threatened and endemic plant species present within KYNR

Common Name	***Scientific name***		***Status***
Bushveld saffron	Eleaodendron	transvaalense	Near-Threatened
Red currant	Rhus	chirindensis	Vulnerable

In addition to the threatened and endemic plant species present in Kube Yini Nature Reserve, there are a number of trees that are Protected in terms of the National Forest Act 1998 (Act No. 84 of 1998):

- *Sclerocarya birrea* subsp. *caffra*
- *Elaeodendron transvaalense*

A comprehensive plant list is included in Appendix D.

2.3.7 Threatened and endemic animal species

There are a number of confirmed threatened and endemic animal species that occur within Kube Yini Nature Reserve (Table 4).

Table 4: Threatened and animal endemic species present within KYNR

Common Name	***Scientific name***		***Status***
MAMMALS			
Mountain Reed Buck	*Redunca*	*fulvorufula*	Endangered
Suni	*Neotragus*	*moschatus*	Endangered
Leopard	*Panthera*	*pardus*	Vulnerable
Red Duiker	*Cephalophus*	*natalensis*	Near-Threatened
Spotted Hyaena	*Crocuta*	*crocuta*	Near-Threatened
Square-lipped Rhinoceros	*Ceratotherium*	*simum*	Near-Threatened
Tomb Bat	*Taphozous*	*mauritianus*	Near-Threatened
AMPHIBIANS			
Mottled Shovel-nosed Frog	Hemisus	marmoratus	Near-Threatened
REPTILES			
Bell's Hinged Tortoise	*Knixys*	*belliana*	Vulnerable
Natal Hinged Tortoise	*Knixys*	*natalensis*	Vulnerable
Tello's Thread Snake	*Leptotyphlops*	*telloi*	Near-Threatened
BIRDS			

White-backed Vulture	*Gyps*	*africanus*	Critically endangered
Lappet-faced Vulture	*Torgos*	*tracheliotos*	Endangered
Bateleur	*Terathopius*	*ecaudatus*	Endangered
Tawny Eagle	*Aquila*	*rapax*	Vulnerable
Woolly-necked Stork	*Ciconia*	*episcopus*	Near-Threatened
Marabou Stork	*Leptoptilos*	*crumenfier*	Near-Threatened

2.3.8 Mammalian fauna

Kube Yini Nature Reserve is home to white rhino, along with a suite of plains game and free-roaming predators such as leopard, spotted hyena and serval.

A list of mammal species is included in Appendix D.

2.3.9 Avifauna

Kube Yini Nature Reserve has a high diversity of bird species, with 338 recorded species, associated with its high habitat heterogeneity. In addition, the reserve is significant for avifaunal conservation because of its inclusion in a new Important Bird Area (IBA) to be known as the Zululand IBA, which has been proposed by BirdLife South Africa.

The Zululand IBA

One of the primary reasons for the creation of the Zululand IBA is that it will incorporate breeding populations of savanna associated vultures and raptors, most of which occur in Ezemvelo KZN Wildlife reserves. Important components of these populations occur outside of Ezemvelo KZN Wildlife in a number of biodiversity stewardship sites in the region. The proclamation of these sites and the creation of the IBA enable appropriate landscape level conservation that will capture much of the breeding and feeding areas of these vultures and other raptors. Importantly, all of the vulture species are listed as globally threatened.

The IBA is also significant because it supports a number of species at the southernmost limit of their range, including:

- Bennet's Woodpecker.
- Burchell's Starling.
- Red-billed Buffalo Weaver.
- Magpie Shrike.
- Pearl-spotted Owlet.
- Red-headed Weaver.
- Brown-headed Parrot.
- Grey and Red-billed Hornbills.
- Levaillant's Cuckoo.
- Purple Roller.

The IBA also supports a number of East Coast Endemics, including:

- Rudd's Apalis.
- Pink-throated Twinspot.
- Lemon-breasted Canary.
- Neergard's Sunbird.

While Kube Yini does not support *all* the species listed on the IBA, it does form an important additional linkage and valuable space in the Zululand area.

A list of bird species is included in Appendix D.

2.3.10 Herpetofauna (reptiles and amphibians)

No formal studies have been done for reptiles and amphibians on Kube Yini Nature Reserve, however there are a number of interested shareholders that have developed relatively comprehensive species lists. There have been 22 amphibian species, 4 tortoise and terrapin species, 20 lizard species, and 30 snake species. These lists are contained in Appendix D.

2.3.11 Invertebrates

Little is known about the invertebrate species within Kube Yini Nature Reserve, but it is likely that similar species assemblages and diversity as would occur in surrounding protected areas would be present within the reserve.

2.3.12 Fire and herbivore management

Fire is a key driver of ecological dynamics in southern African systems, which are largely driven by patterns of disturbance. Fire contributes to patterns of disturbance by removing the vegetative growth of plants, and in contrast to grazing it does this non-selectively, which reduces the competitive advantages of species adapted to grazing. An important aspect of fire in savanna environments is the role that it plays in controlling bush encroachment and stimulating new growth for both grazing and browsing species. This can be used as a tool to encourage game to move from over-utilised to under-utilised areas of a property (Bothma 2002).

In 2011, a veld condition assessment programme was introduced together with simple, reliable techniques for assessing range condition and for collecting appropriate ecological data. Range condition was used to determine management decisions and range management practices could be adapted to maintain optimal habitat conditions. The data is used to determine management considerations such as forage and fuel potential, trends in ecological status and resistance to soil erosion across the reserve. Through the Kube Yini Veld Condition Assessment (VCA) Monitoring Programme that has subsequently developed in the reserve, there are 12 veld condition assessment sites on the reserve that are used to collect data, which guides rangeland management practices such as such as stocking rates, grazing management and burning programmes (Figure 9). These are particularly important in drought years, where appropriate stocking rates and fire management are extremely important.

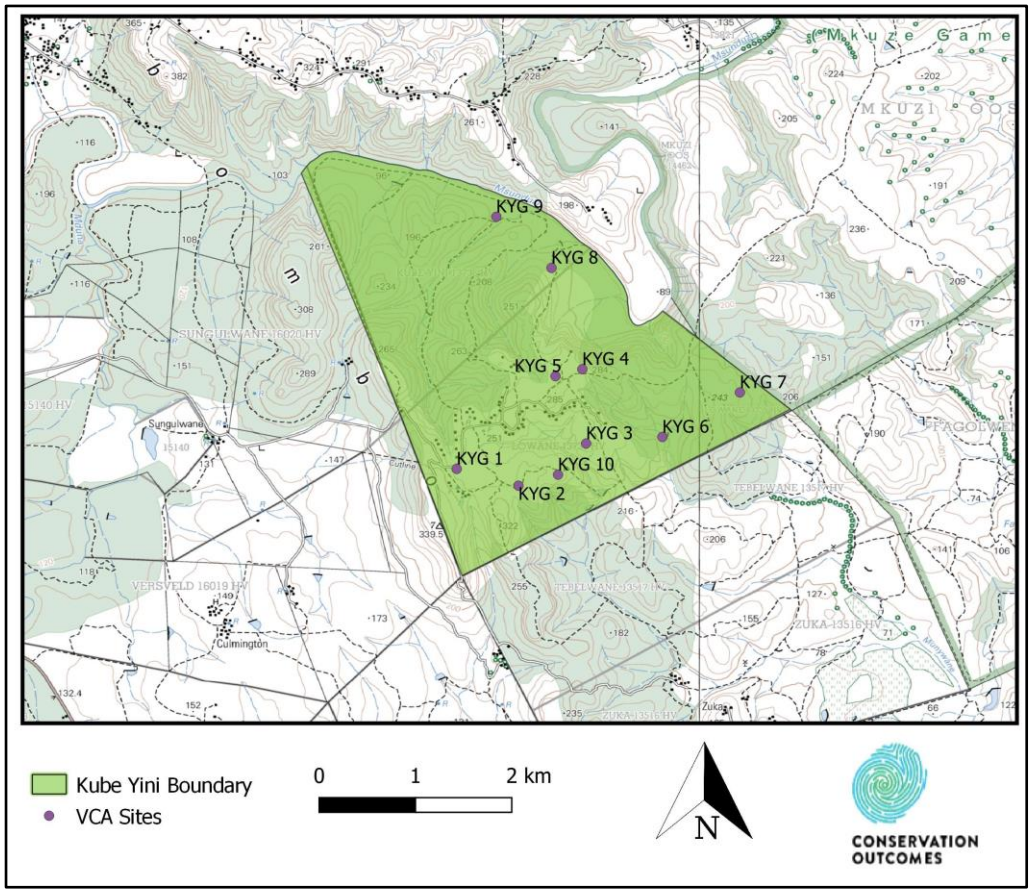

Figure 9: Location of VCA sites at KYNR

Issues that are considered particularly important in determining burning practices include the effects of management practices on the forage production of the reserve to support herbivores and the effects that burning has on the productivity of the reserve's rangelands, bush encroachment and alien plant species such as *Chromolaena odorata*. Monitoring enables the reserve to maintain the rangeland in optimal condition in an effort to maintain the wildlife population in an optimal productive condition, which is important for the ecological stability of the reserve.

The Kube Yini VCA Report provides a detailed overview of the behaviour of fire, its effects on African grasslands and savannas, considering issues such as fire intensity, season of burning, frequency of burning, and the interaction between fire and herbivory. The plan provides a detailed methodology for the implementation of the veld monitoring programme and the process of interpreting the data that emerges from it. It describes the ecological criteria for prescribed burning that aims to achieve the following:

- The maintenance of a high species diversity of perennial grass plants.
- The maintenance of an optimum relationship between herbaceous and woody vegetation that maintains the grass sward in a vigorous and palatable condition that ensures that flow of forage for grazing animals and provides adequate resistance to accelerated soil erosion.

- Limits on the extent of the area of the reserve burnt in any one season, in which not more than 50% of the total area available for burning is burnt during a growing season, in an effort to maintain sufficient forage for the reserve's ungulate population.

The report prescribes burning for the season, based on the findings of the Veld Condition Assessment Monitoring Programme, after which proposed areas to be burnt are discussed and agreed upon. The plan identifies the burn blocks and prescribes general fire requirements and burn frequencies for each of them. For example, areas that are productive with relatively high rainfall are recommended to be burnt every three years, whilst areas that are less productive or are more at risk for wildfires have different recommendations.

It is recommended that the reserve management develop SOP's for fire management on the reserve, including *inter alia:*

- the training, staff, and equipment requirements related to fire
- fire safety procedures
- the requirements for the establishment and maintenance of fire breaks
- a map depicting the location of boundary and internal firebreaks that are to be maintained in the reserve.
- the legislative requirements for fire management that the Kube Yini Nature Reserve must adhere to (see: National Veld and Forest Fire Act (Act No. 101 of 1998).

Importantly, the Kube Yini Nature Reserve is a member, and for compliance purposes must remain so, of the Zululand Fire Protection Association.

The Kube Yini VCA Report prescribes stocking rates, based on the empirical outcomes of the assessment and rainfall data. It should therefore provide the foundation for all decisions around extreme climatic conditions, including *inter alia:* droughts and above average rainfall years.

2.3.13 Invasive species

The alien plant programme on Kube Yini has been ongoing since 1996. Kube Yini has, over the years, structured various management strategies, especially in the early phases of the programme, as Kube Yini was extremely infested with *Chromolaena odorata.* The strategies included mechanical removal via cut stump, foliar spray and hand pulling.

In 2010 an updated strategy was implemented, which allowed for better monitoring and implementation of area management.

After many years of hard work, the reserve is now in a maintenance phase across the reserve. There are generally very few problems with invasive alien animals within Kube Yini Nature Reserve. However, maintenance must continue and always be budgeted for in the APO. (Russell Lloyd, 2022)

A variety of invasive alien plant species are known to occur within the reserve (Table 5).

Table 5: Identified listed invasive alien plant species that must be controlled within the reserve in terms of NEMBA

Common name	Scientific name	NEMBA category
Chromolaena / Triffid weed / Parafienbos	*Chromoleana odorata*	1b
Famine weed	*Partehnium hysterophorus*	1b
Lantana / Tickberry	*Lantana camara*	1b
Smelter's bush	*Flaveria bidentis*	1b
Guava	*Psidium guajava*	3

In terms of the National Environmental Management: Biodiversity Act (No.10 of 2004 – NEMBA) and the Conservation of Agricultural Resources Act (No.43 of 1983 – CARA), landowners are required to control and eradicate listed invasive alien species on their land. NEMBA categorises such plants on the following basis:

Category 1a: Prohibited - a person in control of a Category 1a Listed Invasive Species must comply with the provisions of section 73(2) of NEMBA; immediately take steps to combat or eradicate listed invasive species in compliance with sections 75(1), (2) and (3) of NEMBA; and allow an authorised official from DEA to enter onto land to monitor, assist with or implement the combatting or eradication of the listed invasive species.

Category 1b: Prohibited/exempted if in possession or under control – a person in control of a Category 1b Listed Invasive Species must control the listed invasive species in compliance with sections 75(1), (2) and (3) of NEMBA. A person contemplated in sub-regulation (2) must allow an authorised official from DEA to enter onto the land to monitor, assist with or implement the control of the listed invasive species, or compliance with the Invasive Species Management Programme contemplated in section 75(4) of the Act.

Category 2: Permit required - Category 2 Listed Invasive Species are those species listed by notice in terms of section 70(1)(a) of the Act as species which require a permit to carry out a restricted activity within an area specified in the notice or an area specified in the permit. A landowner on whose land a Category 2 Listed Invasive Species occurs or person in possession of a permit, must ensure that the specimens of the species do not spread outside of the land, or the area specified in the notice or permit. Unless otherwise specified in the notice, any species listed as a Category 2 Listed Invasive Species that occurs outside the specified area contemplated in sub-regulation (1), must, for purposes of these regulations, be considered to be a Category

1b Listed Invasive Species and must be managed according to Regulation 3. Persons or organ of state must ensure that the specimens of such Listed Invasive Plant Species do not spread outside of the land over which they have control.

Category 3: Prohibited - Category 3 Listed Invasive Species are species that are listed by notice in terms of section 70(1)(a) of NEMBA, as species which are subject to exemptions in terms of section 71(3) and prohibitions in terms of section 71A of the Act, as specified in the notice. Any plant species identified as a Category 3 Listed Invasive Species that occurs in riparian areas, must, for the purposes of these regulations, be considered to be a Category 1b Listed Invasive Species and must be managed according to regulation 3.

Although it is not currently a major problem, Kube Yini Nature Reserve, falls within an area highly susceptible to invasion by *Parthenium hysterophorus* (famine weed), which originates from the Caribbean/Central and South America. This species is a highly aggressive invader that has been found in the reserve. It is a very fast-growing, rapidly spreading annual plant that forms dense stands and is extremely difficult to eradicate (Figure 10). It exhibits "allelopathy" which means that it exudes chemicals that actively inhibit the germination or growth of nearby plants of other species. It poses an extremely high invasion risk to all the lowveld savanna areas of South Africa and has a very strong adverse impact on the areas invaded as it completely out-competes native plants, and causes severe allergic reactions (on the skin, e.g. dermatitis and in the respiratory tract, e.g. asthma) in a large proportion of people who come into repeated contact with it (measured as being greater than 7 out of 10 people exposed to it in a recent Australian study). It also causes severe physiological impacts on domestic livestock (e.g., "toxic to cattle") and wildlife that can result in death in extreme cases of continuous high-level exposure.

Figure 10: Famine weed (*Parthenium hysterophorus*)

2.4 Cultural and heritage context of Kube Yini Nature Reserve

Kube Yini Nature Reserve has not had any formal assessments done for their cultural, archaeological or paleontological resources, therefore very little is

known. However, in 2012 a heritage survey of the Mun-Ya-Wana Nature Reserve, which neighbours Kube Yini Nature Reserve. The survey of the reserve revealed that a number of middle to late stone age sites exist within the Mun-Ya-Wana, consisting of scattered tools at low density, most of which are of low significance. One site, which includes early, middle and late Stone Age artefacts and artefacts from the late Iron Age and historic period is considered of high significance due to the variety of artefacts present. Several other sites were of medium significance because of the density or variety of artefacts found or because they form part of the cultural landscape.

Of particular importance, there are a number of paleontological sites, which were surveyed as part of the heritage assessment. These include several fossilised trees and one site containing a very large area of Cretaceous fossils at various stratigraphic levels. The types of fossils present include:

- Ammonites and bivalves (*Trigonia*)
- Infilled worm or arthropod burrows
- Ammonite – *Puzosia*
- Nautiloid
- Ammonite – *Pervinquieria*
- *Acanthoceras fluxosum* Crick, 1907
- Fossilised wood
- Oyster - *Gryphaea*

Given its proximity to the Mun-Ya-Wana, it is highly likely that Kube Yini Nature Reserves houses similar cultural, archaeological or paleontological assets.

It would be advisable to gain a better understanding of these resources on the reserve, so that they can be protected and managed accordingly.

2.5 Socio-economic role of Kube Yini Nature Reserve

Kube Yini has close linkages to the community on its northern boundary, north of the Msunduze River and has provided assistance in a number of ways, including provision of employment.

During years of drought, one of the reserve's boreholes was of crucial importance to the community, providing water for the people and their domestic livestock. Reserve management assists with the maintenance of these boreholes (inside the reserve) and related infrastructure (piping to the community). In addition, reserve management has assisted with maintenance at Empileni Creche.

Kube Yini has, over the years, worked with a number of charitable organisations to provide feeding schemes to the neighbouring communities in times of need and the provision of schooling equipment.

2.6 The regional and local planning context of Kube Yini Nature Reserve

2.6.1 Protected areas expansion

Areas of Kube Yini Nature Reserve are priorities for both the national and KZN Protected Areas Expansion strategies. In addition, the reserve forms an important linkage with two macro-ecological corridors (Figure 11):

- The Hluhluwe-iMfolozi Park Corridor
- The Lebombo South Corridor

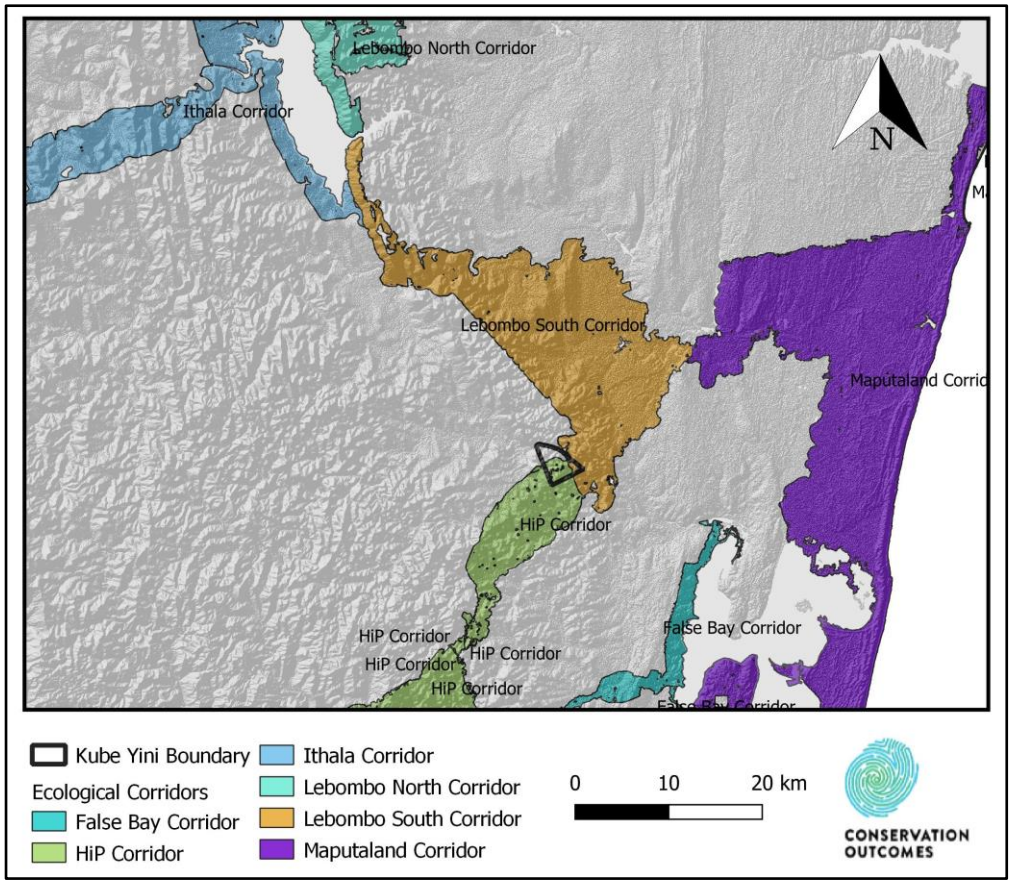

Figure 11: Location of Kube Yini Nature Reserve in relation to KZN macro-ecological corridors

At a landscape level this means that the Kube Yini Nature Reserve is important in linking other protected areas, in enabling large-scale ecological processes across the region and in enabling climate change adaptation through facilitating the movement of wide-ranging species across different areas and habitat types.

Kube Yini Nature Reserve forms part of a landscape-level biodiversity conservation initiative, implemented through the KZN Biodiversity Stewardship Programme. The reserve forms an important linkage between sites that stretch from Pongola Nature Reserve in the north to uMkhuze Game Reserve and iSimangaliso Wetland Park World Heritage Site to the east and south (Figure 12).

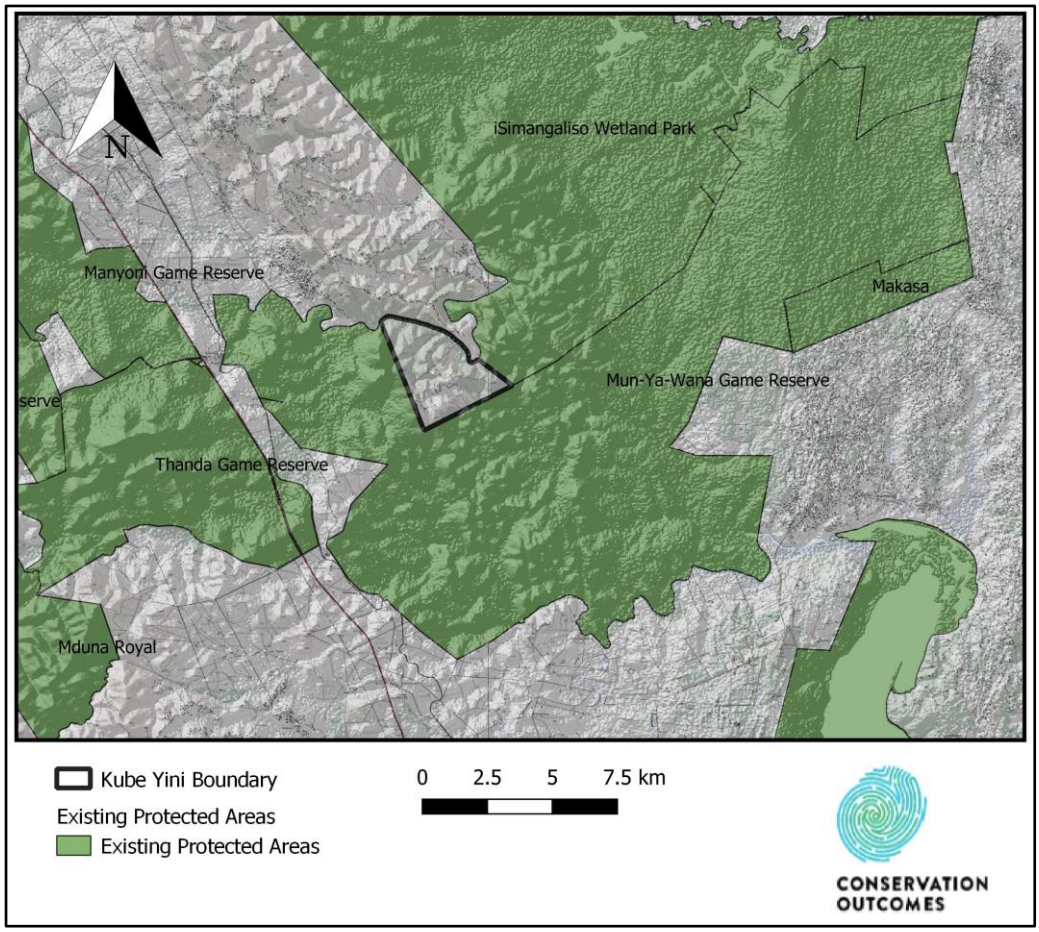

Figure 12: Role of Kube Yini Nature Reserve within the Zululand landscape conservation initiative

The reserve is thus an integral part of a protected area expansion effort that seeks to link a number of protected areas in northern Zululand, in an effort to enable landscape-level ecological function and the provision of habitat to wide-ranging species, in particular a number of threatened bird species.

2.6.2 Regional and local planning frameworks

Kube Yini Nature Reserve falls within uMkhanyakude District Municipality and The Big Five Hlabisa Local Municipality (Figure 13), which set the regional and local planning frameworks.

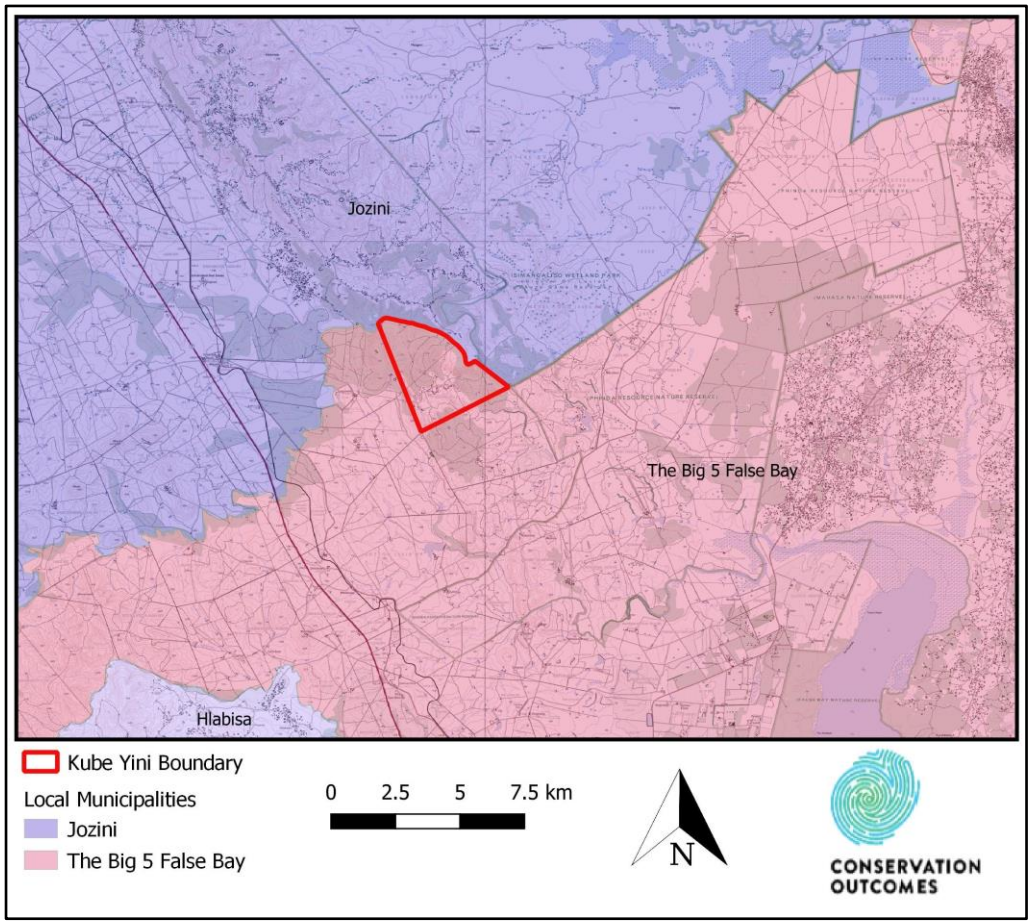

Figure 13: Local municipalities within which Kube Yini Nature Reserve falls

The SDF includes the Kube Yini Nature Reserve within its category of protected and conservation areas, which it acknowledges are sensitive areas that are restricted for development. Specifically, the map depicting the land use management framework in the SDF identifies the Kube Yini Nature Reserve as a nature reserve, thus acknowledging the reserve's land use and its ecological and biodiversity importance.

2.7 Operational management within Kube Yini Nature Reserve

The core focus and business, which drives the operational management and resources the conservation of Kube Yini Nature Reserve, are the shareholders. Each of the shareholders contributes a monthly levy to the Kube Yini Share Block (Pty) Ltd, which provides budget for the operational management of the reserve. It is therefore logical that one of the Key Performance Areas for the reserve is the "satisfaction of the shareholders". The share blocks cannot be used for commercial purposes, only by the owners themselves. This encourages a respect for the assets of the reserve, both conservation and infrastructure

In addition to levies from the shareholders, the Kube Yini Share Block (Pty) Ltd receives an annual rental from Vodacom for the presence of their tower on the reserve. The tower is on the highest point of the reserve, in the south-western corner.

The reserve also generates income from the live sale of game; however, these sales have slowed significantly in recent years due to a number of reasons, including *inter alia:* an outbreak of Bovine Tuberculosis, Foot and Mouth Decease, and low market prices.

A Board of Directors is elected each year at the Annual General Meeting to guide the management of the Reserve of the next 12 months. The Board normally comprises five members, although this can be increased, either –

- By co-opting additional member(s) during any particular year, or
- By election at a General Meeting.

The term of office for all Board members is one year and terminates at the next Annual General Meeting. (Macdonald, I.A.W, *et al.* 2010).

Kube Yini Share Block (pty) Ltd hires a team of staff for the operational management.

2.7.1 Infrastructure

The infrastructure found within Kube Yini Nature Reserve is primarily related to the management of the reserve and the share block houses (Figure 14). As a result, it includes:

- A perimeter fence and access gates.
- A workshop
- An office
- A clubhouse with a pool and tennis court
- 3 hides
- 12 picnic sites, which are brush cut regularly and have tables (one has a built braai facility)
- 2 pump houses
- Five houses for staff accommodation (one of which is communal)
- 50 house sites, of which 47 have houses (owned by shareholders)

In addition to this there is a range of support infrastructure, which includes:

- 7 boreholes
- 10 dams.
- A road network consisting of main access roads, management tracks and tracks for conducting guided game viewing drives.
- Powerlines, including surface and below ground lines.
- Water pipelines.
- Masts for radio and IT communications infrastructure (these will be added to the Vodacom tower).
- Vodacom Cell tower, which provides rental to the reserve.

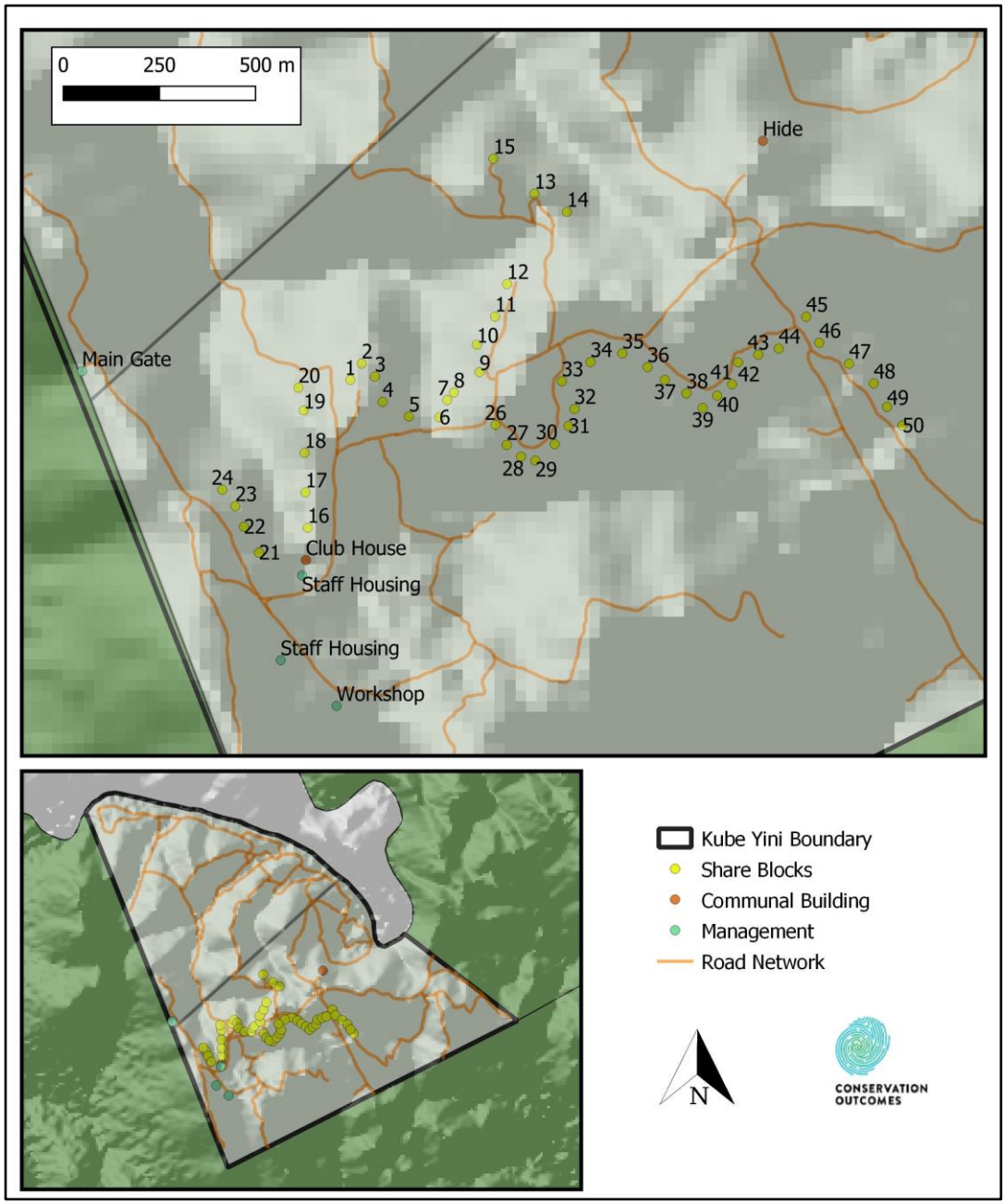

Figure 14: Infrastructure with Kube Yini NR

2.8 Summary of management issues, challenges and opportunities

The following section summarises the key management issues and challenges outlined in the descriptive sections above, which must be addressed through the management plan. The issues and challenges have been grouped under key performance areas, which flow through the strategic and operational management frameworks that follow (Table 6).

Table 6: Management issues, challenges and opportunities

Key performance area	Issue	Opportunity	Challenge
Legal compliance and law enforcement	Legal protection of Kube Yini Nature Reserve through formal proclamation.	▪ Declare the reserve to ensure it is properly legally protected.	▪ Ensure that all the land within the reserve is declared as a protected area.
	Poaching and security	▪ Collaboration between partners, neighbours and landowners to achieve improved law enforcement.	▪ Increasing poaching pressure, particularly on rhino.
	Servitude register	▪ Develop a detailed register of all servitudes registered against the title deeds of the properties within the reserve.	▪ Uncertainty or ignorance of servitudes and their legal status.
	Development of appropriate tourism ventures that contribute towards the business and financial viability of Kube Yini Nature Reserve.	▪ Optimise the income generation and return on investment of the reserve.	▪ Maintaining the balance between financial returns and the ecological integrity of the reserve.
Financial resource management	Sustaining the management of the reserve, while at the same time maintaining the affordability for the shareholders.	▪ Looking at creative and sustainable funding and/or business opportunities.	▪ Finding financial opportunities that do not negatively impact the reserve or the shareholder experience.
Community relations	Provision of socio-economic benefits to the surrounding communities neighbouring Kube Yini Nature Reserve.	▪ Optimising socio-economic benefits of the reserve, such that it is directly associated with the reserve.	▪ Ensuring broad support for the reserve through the programmes being implemented with the communities.
	Environmental education, interpretation and awareness.	▪ Address environmental education and awareness activities within the management plan.	▪ Ensuring support for the reserve through raising awareness of its biodiversity and ecology.
Conservation management	Management of game species mix and numbers, considering the lack of large predators and potential risk of diseases.	▪ Maintenance of an optimal species mix and numbers that incorporates appropriate ratios of bulk to selective feeders and is within carrying capacity.	▪ Impacts on plant species composition and diversity, associated with over-utilisation by herbivore species.
	Implementation of a fire management regime based on an ecological approach to burning.	▪ Implement an ecologically based fire regime, which maintains heterogeneity, ecological functioning of the habitats within the reserve and facilitates a natural programme of rest and non-selective grazing.	▪ Implementing a burning programme that addresses bush encroachment and avoids land degradation and over-utilisation of sensitive habitats.
	Conservation of key sensitive habitats within Kube Yini Nature Reserve.	▪ Maintenance of sensitive habitat types in an optimal condition, particularly regarding bush encroachment.	▪ Impacts associated with over-utilisation and bush encroachment.

Table 6 (cont)

Key performance area	Issue	Opportunity	Challenge
Conservation management (continued)	Specific management measures for rare and threatened species that occur within the nature reserve.	▪ Management of threatened fauna, particularly white rhino. ▪ Management of rare and threatened plant and animal species.	▪ Balancing the requirements of rare and threatened species within the overall species mix of the reserve.
	Control of infestations of invasive plant species listed in terms of the Biodiversity Act and CARA.	▪ Continue to contain invasive plant species in an effort to keep them at maintenance levels.	▪ Threat of infestations by *Parthenium hysterophorus* (famine weed).
Cultural heritage and sense of place	Protection of the reserve's cultural heritage and paleontological artefacts	▪ Ensure that artefacts are properly protected whilst enabling visitors to appreciate the history and palaeontology of the reserve.	▪ Loss of or damage to artefacts and degradation of historically or paleontologically important sites.
Research and monitoring	Aligning budgeted research and monitoring with key reserve management and operational issues.	▪ Encouragement and support to research and monitoring programmes and projects that can inform key management issues.	▪ Finding adequate funding for important research questions. ▪ Ensure continuation of the on-going veld Condition Assessments as a key management tool.
	Controlling and providing guidance to "hobby" research on the reserve without impacting the culture of research or the shareholder experience.	▪ Developing a positive Standard Operating Procedure for research requests which is in line with the objectives of the Management Plan.	▪ Developing a Kube Yini Research Policy that all interested parties agree to.
Zone of influence	Alignment with local and regional planning in determining appropriate buffers and land uses around the nature reserve.	▪ Collaboration between other protected areas, the iSimangaliso Park World Heritage Site and the municipality to ensure appropriate land uses surrounding the reserve.	▪ Ensuring that impacting land uses do not affect the ecology or species of the reserve.
	Identification of a zone of influence for the reserve.	▪ Identification of a zone of influence which can be discussed with the local authorities in an effort to ensure appropriate land use and activities in the regions around the reserve.	▪ Inappropriate land use and activities in the areas around the reserve.

Table 6 (cont.)

Key performance area	Issue	Opportunity	Challenge
Operational management	Maintenance of infrastructure	▪ Ensuring that all infrastructure and equipment is appropriately managed to avoid unnecessary environmental impacts.	▪ Impacts associated with insufficient maintenance.
	Human resource management systems	▪ Creation of HR management systems that allow for staff performance reviews and skills development.	▪ Implementation of ad hoc staff performance and skills development approaches.
	Ensuring compliance with the Occupational Health and Safety Act.	▪ Ensuring the health and safety of staff and visitors within the reserve.	▪ Legal liability and risk associated with non-compliance with the Occupational Health and Safety Act.
	Development of standard operating procedures.	▪ Ensuring all key standard operating procedures have been developed and are being implemented.	▪ Ad hoc, inconsistent approaches to key management issues.

3) STRATEGIC MANAGEMENT FRAMEWORK

The strategic framework is aimed at providing the basis for the long-term protection, development and operation of Kube Yini Nature Reserve. The vision describes the long-term goal for the operation and management of the reserve. The objectives and strategic outcomes that follow are intended to provide the basis for the achievement of the vision.

3.1 Kube Yini Nature Reserve's vision

Our mission is to position Kube Yini Private Game Reserve as one of the top Private Nature Reserves within South Africa. This is achieved by the efficient and effective management of the Reserve's natural, human and financial resources and the provision of an appropriate level of service to its shareholders, whilst at all times being committed to:

· The protection of the Reserve's environmental integrity

· The sustainable utilization of the Reserve's resources

· The maintenance of the capital asset value of the Reserve, for the benefit and enjoyment of shareholders, at an affordable cost

The ecological value of the Kube Yini Nature Reserve extends beyond its immediate surrounds, where it forms a fundamental link in a landscape level conservation initiative. The following key guiding principles inform the achievement of the reserve's vision and objectives:

- The formation of partnerships that integrate the Kube Yini Nature Reserve in regional initiatives that support the reserve's vision.
- Conservation of key biodiversity features, biophysical processes, landscapes, abiotic, historical and archaeological resources.
- The efficient and effective management of the reserve's assets, both natural and non-natural, for their conservation and their value to the Shareholders.

3.2 Objectives and strategic outcomes

An objective has been identified for each of the Kube Yini Nature Reserve's key performance areas, which follow from the management challenges, issues and opportunities, and relate to the important functions and activities necessary to protect, develop and manage it effectively. The objectives have then been translated into strategic outcomes, which form the basis for the management activities and targets set out in the operational management framework, described in Section 6 below. Table 7 sets out the key performance areas, the objective for each key performance area and the strategic outcomes, required to realise the objectives.

Table 7: Objectives and strategic outcomes for Kube Yini Nature Reserve

Key performance area	Objective	Strategic outcome
Legal compliance and law enforcement	Comply with and enforce legislation pertaining to the protection, development and management of Kube Yini Nature Reserve.	• Kube Yini Nature Reserve is a legally declared nature reserve. • Wildlife risks to neighbours, visitors, staff, infrastructure and livelihoods are minimised. • Ensure that there is a well-trained and adequate security team for regular patrol. • Ensure all permitting is up-to-date, comprehensive and compliant. • Develop a register of all servitudes registered against the Title Deeds of the properties making up the nature reserve. • Ensure clear legally sound mapping of boundaries of constituted properties and perimeter.
Operational management	Provide adequate human resources, equipment and funding to ensure that Kube Yini Nature Reserve is protected for the purpose for which the nature reserve was established, and to enable its effective operational management and development.	• Facilities and infrastructure in the nature reserve are well maintained. • The nature reserve is staffed for its effective management and operation. • Ensure that the reserve is a fair and ethical employer. • Infrastructure on the reserve is managed to minimise environmental harm. • Annual plans of operation include maintenance plans and detailed budgetary requirements. • Strive for efficient and sustainable water use. • Ensure effective management of the constituted arrangement, including *inter alia:* AGMS, operational meetings and budget planning. • Enable effective information management to ensure that it is usable for applicable parties and facilitates adaptive management.
Financial resource management	Management of the reserves financial resources to ensure its sustainability and its effective management.	• Development of an approved annual budget, that identifies the resources required to achieve the objectives of the nature reserve. • The reserves financials are audited annually, in terms of the Companies Act. • There is sustainable use of natural resources to help ensure the viability of the nature reserve.
Community relations	Foster community relationships with to ensure strong support for the reserve and meaningful socio-economic benefits to the surrounding communities.	• Provide employment and business opportunities to local community members. • Where possible, support programmes focussed on health, education, and social upliftment of communities surrounding the reserve, in a manner that community development is directly linked to the Nature Reserve. • Support environmental education programmes where suitable.

Table 7 (cont.)

Key performance area	Objective	Strategic outcome
Conservation management	Protect the ecosystem functioning, ecological integrity, habitat and species of Kube Yini Nature Reserve through active interventions based on principles of adaptive management. Protect and manage the threatened, rare, vulnerable and endemic species to ensure their continued survival.	• Maintain optimal species mix and numbers informed by carrying capacity estimates and ecological principles. • Contribute to the conservation of threatened, rare, vulnerable and endemic species. • Maintain key and sensitive habitat types in optimal conditions. • Implementation of the burn recommendations by the VCA findings for the reserve. • Development of Fire Management SOPs for the reserve. • Implementation of the Alien and Invasive Species Control Plan for the nature reserve. • Identify and rehabilitate areas that have been affected by soil erosion. • Develop and maintain a road network based on ecological guidelines and is compliant with legislation. • If extractive resource use is undertaken, it is done sustainably and conforms to legislation relative to a Nature Reserve.
Research and monitoring	Encourage and support research and monitoring that informs key management interventions and improves knowledge and understanding of the reserve's ecology, species, and habitats.	• Budgeted research and monitoring programmes must align with reserve management objectives. • Ensure research activities that are ethical and in line with approved practices. • Develop and maintain an ecosystem monitoring programme for the reserve that will enable adaptive management. • Develop a positive Research Policy on the reserve, which all parties agree to, and is in line with the reserve's objectives.
Cultural heritage and sense of place	Protect the sense of place, natural character and cultural heritage of Kube Yini Nature Reserve.	• Encourage an understanding of the cultural, historical, archaeological and paleontological resources on the reserve. • Maintain and enhance the shareholder experience. • The cultural, historical, archaeological, paleontological and living heritage of the area (sites recognised by AMAFA and listed) is safeguarded.
Zone of Influence	Foster positive and collaborative relationships with neighbouring reserves and stakeholders.	• Maintain positive and collaborative relationships with neighbouring reserves. • Ensure that management and shareholder actions do not negatively impact neighbours.

4) ZONATION PLAN

The purpose of the zonation of the Kube Yini Nature Reserve is to identify types and levels of usage that are acceptable based on an area's sensitivity and resilience, and to manage visitor experience and inter-user conflict. Zonation may be used to identify areas in which appropriate uses and infrastructure may be located and developed (Figure 15).

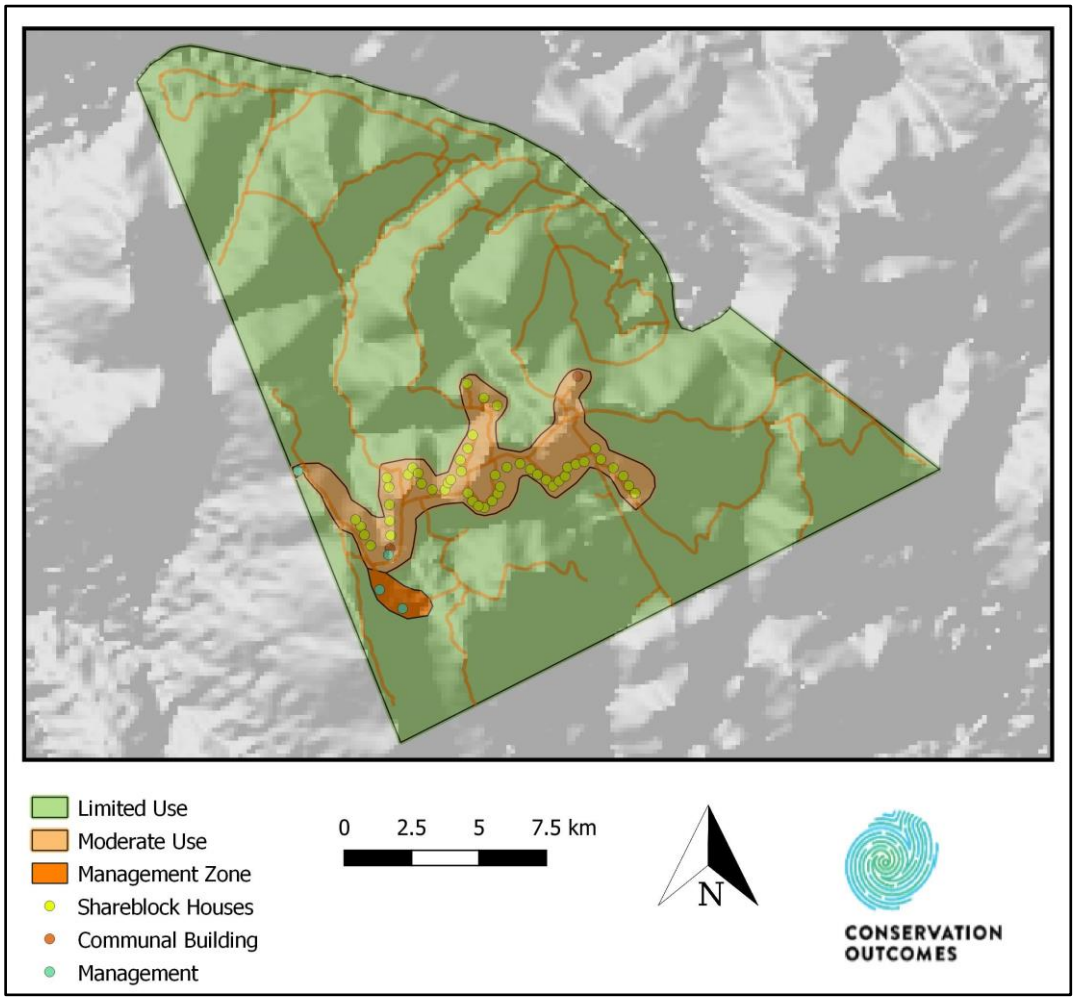

Figure 15: Zonation Map

Zonation enables a protected area to be zoned along a continuum, from highly sensitive areas subject to low levels of use and impact, to higher intensity nature-based uses. The zonation system adopted for the Kube Yini Nature Reserve recognises and reflects:

- Sensitive features associated with a protected area (i.e., biophysical, cultural and sense of place).
- A general gradation in the zonation categories, in which the next use level provides a buffer to the lower use level.
- Influence of existing and historic facilities, infrastructure and use.
- Opportunities and constraints (biophysical, social or managerial constraints) for use.

The zonation system applied to the Kube Yini Nature Reserve includes the following categories:

Limited use zone	An area where the ecotourism principles of low human impact will prevail. This area is largely free of any built infrastructure.
Moderate use zone	This is an area which allows higher use and infrastructure for the share blocks houses, communal buildings and staff housing. It also includes the main gate and access roads.
Park management node	This is a node within the moderate use zone, which includes facilities for operational infrastructure.

4.1 Conceptual development guidelines

4.1.1 Limited Use Zone

This zone is designated for areas in which activities are to be limited to low-impact ecotourism uses and conservation management interventions. Motor vehicle access for game viewing and management purposes is allowed in this zone but off-road driving is prohibited for all purposes other than essential reserve management activities. The objective of this zone is to enable access and usage of the nature reserve whilst limiting the impacts of this.

Permissible activities:

- Game drives, walks and cycling.
- Brush cutting existing picnic sites.
- Development of operational management and visitor infrastructure such as 4x4 vehicle trails and field ranger outposts.

Non-permissible activities:

- Clearing of new areas for the staging of bush meals or weddings without prior approval from the Board of Directors and Management.
- Development of infrastructure other than 4x4 vehicle trails and field ranger outposts, unless essential for management purposes.
- The possession or use of firearms unless authorised by reserve management.
- Landscaping or gardening.
- Introduction (temporary or permanent) of domestic pets such as dogs or cats, unless authorised by the management authority.

4.1.2 Moderate use zone

This zone covers areas that encompass the share blocks and their respective infrastructure, as well as the communal buildings. Furthermore, this zone is

designated for areas of relatively high vehicle usage such as for visitors travelling to and from the houses. The objective of this zone is to accommodate share blocks infrastructure and communal infrastructure.

Permissible activities:

- Game drives, walks and cycling.
- Development of houses on the share blocks, as per the architectural guidelines of the Kube Yini Share Block (Pty) Ltd internal rules.
- Low impact, water-wise gardening with indigenous plants that are naturally occurring within the reserve.
- Maintenance of the main entry points and access roads through the nature reserve and to all the houses.

Non-permissible activities:

- Removal of indigenous plants without the necessary permits.
- Introduction of any plant species not naturally found within the reserve for landscaping purposes.
- Introduction (temporary or permanent) of domestic pets such as dogs or cats, unless authorised by the management authority.
- The possession or use of firearms unless authorised by reserve management.

4.1.3 Reserve Management Zone

This zone covers areas specifically for reserve management. The objective of this zone is to enable the development of operational management infrastructure such as stores and maintenance areas.

Permissible activities:

- Development of the nature reserve's park management node comprising infrastructure such as entrances, staff housing, offices, workshops, storehouses and bomas.
- Waste management, within the legal parameters.

Non-permissible activities:

- Removal of indigenous plants without the necessary permits.
- Introduction of any plant species not naturally found within the reserve for landscaping purposes.
- Introduction (temporary or permanent) of domestic pets such as dogs or cats, unless authorised by the management authority.
- The possession or use of firearms unless authorised by reserve management.

5) ADMINISTRATIVE STRUCTURE

An indicative organisational structure for the Kube Yini Nature Reserve is set out in Figure 16. The figure identifies the role of the site's landowners, the management authority and its staff together with key partners such as Ezemvelo KZN Wildlife. In terms of the structure, it is the responsibility of the management staff to undertake day-to-day management of Kube Yini Nature Reserve. It is the responsibility of the board to ensure that the reserve is appropriately managed and conserved in terms of the Kube Yini Nature Reserve Constitution.

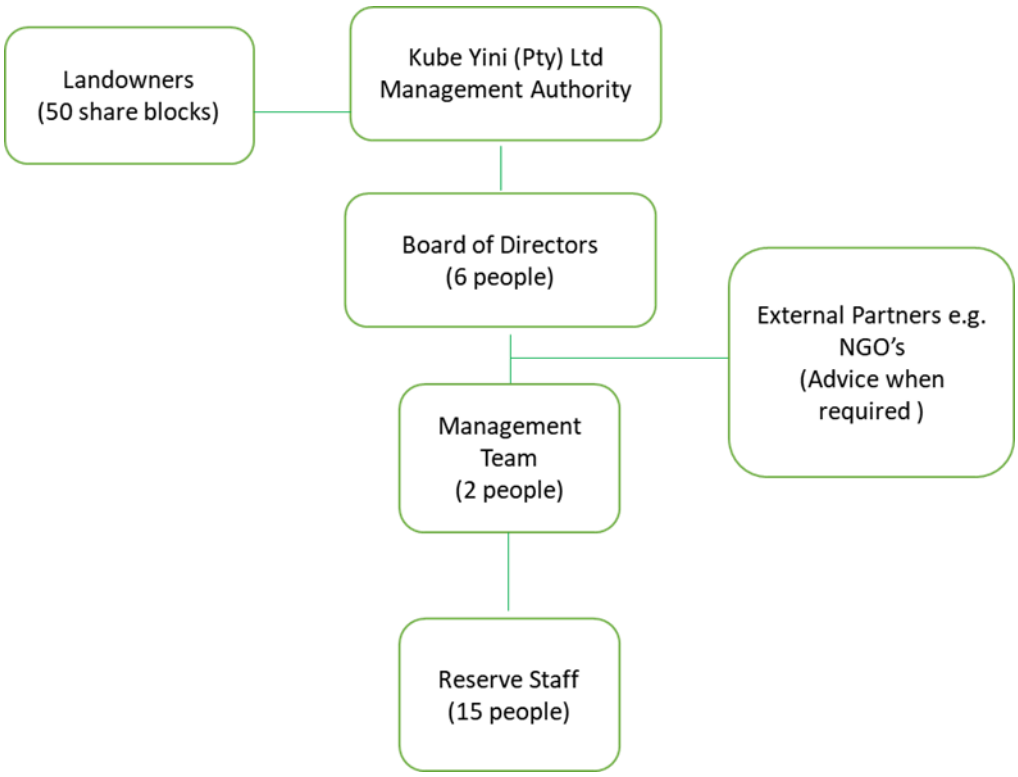

Figure 16: Organisational structure for the Kube Yini Nature Reserve

6) OPERATIONAL MANAGEMENT FRAMEWORK

This section translates the strategic framework described in Section 3 above into management activities and targets, which will be used to inform annual plans of operation and the resources required to implement them. The management targets will form the basis for monitoring of performance in implementing the plan and are thus material outcomes that lead to tangible results, which as far as possible, are measurable.

6.1 Legal compliance and law enforcement

The owners and managers of Kube Yini Nature Reserve have a responsibility to ensure that laws related to the conservation of the reserve and efforts to combat illegal activities, in particular poaching, are enforced. Furthermore, it is important that the reserve is properly legally secured, and any legal risks and liabilities are appropriately addressed and managed. On this basis, the following guiding principles apply:

- All reasonable efforts must be made to ensure the effective conservation of biodiversity within and on the boundaries of the nature reserve.
- Law enforcement efforts should be coordinated with the relevant authorities including Ezemvelo KZN Wildlife and the South African Police Service in addressing offences and breaches of the law.
- Law enforcement in the reserve will be undertaken through surveillance, monitoring and appropriate reaction in the event of an offence.
- Wildlife risks to people and infrastructure, both within the reserve and in neighbouring areas, will be managed and minimised to ensure that all minimum legal requirements are met and exceeded.

The operational requirements for legal compliance and law enforcement are set out in Table 8.

Table 8: Framework for legal compliance and law enforcement

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
NATURE RESERVE DECLARATION						
Kube Yini Nature Reserve is a legally declared nature reserve.	▪ The nature reserve must be declared in terms of the Protected Areas Act.	▪ Legal protection of the entire extent of Kube Yini Nature Reserve in terms of the requirements of the Protected Areas Act.	▪ No title deed endorsement on declared properties.	***Year 1***	Completion of legal agreements.	Completion of the declaration process.
WILDLIFE RISKS AND LIABILITIES						
Wildlife risks to neighbours, visitors, staff, infrastructure and livelihoods are minimised.	▪ Risks and liabilities associated with wildlife-related emergencies and breakouts that may lead to injury, death, damage to infrastructure or impacts on livelihoods are regularly assessed and measures are implemented to minimise them.	▪ Standard operating procedures are regularly reviewed and updated to address risks, procedures and compensation associated with wildlife breakouts and emergencies.	▪ Human injury or death related to wildlife incidents. ▪ Damage to infrastructure or crops.	***Year 1***	Development of standard operating procedures.	Collaboration on similar issues (e.g., within uMkhuze Game Reserve).
LAND MATTERS						
Any boundary deviations are addressed through formal agreements.	▪ Development of legally binding formal agreements that address any boundary deviations and ensure agreements on how they are to be managed.	▪ A formal agreement, addressing any boundary deviations.	▪ Deviations to the reserve's cadastral boundaries that are not legally addressed.	***Year 1***	Joint development of the agreement.	Joint development of the agreement.
A servitude register is developed for the reserve.	▪ Preparation of a detailed register of all servitudes registered against the title deeds of properties within the reserve.	▪ An up-to-date, accurate servitude register for the reserve.	▪ Uncertainty or ignorance of servitudes and their legal status.	***Year 1***	Preparation of the servitude register.	Advice if applicable.
Ensure all permitting is up to date, comprehensive and compliant.	▪ Develop a roster of recurring and *ad hoc* permitting required. ▪ Renew applicable permits annually.	▪ All permitting up-to-date and fully compliant.	▪ Uncompliant due to missed permits.	***Ongoing***	Preparation of rosters and all application	Advice on required permits
SECURITY						

Ensure that there is a well-trained and adequate security team for regular patrol.	▪ Enforce applicable legislation to prevent trespassing, and illegal activities such as poaching and plant harvesting in the nature reserve.	▪ Implement appropriate standard operating procedures and processes in responding to illegal incidents.	▪ Illegal access. ▪ Arson fires. ▪ Losses of species, particularly rhino. ▪ Losses of rare and endangered plant species.	***Year 1***	Develop standard operating procedures.	Prosecution of offenders.
	▪ Implement a programme of patrols of the nature reserve and their boundaries.	▪ Regular patrols covering the full extent of the nature reserve. ▪ Prosecution of any offender caught committing an offence.		***Ongoing***	Provision of staff and resources to undertake patrols.	Prosecution of offenders.

6.2 Operational management

6.2.1 Infrastructure and equipment

In order for Kube Yini Nature Reserve to operate appropriately, adequate infrastructure and equipment need to be provided and maintained for management. In addressing infrastructure and equipment needs in the reserve, the following guiding principles will be adhered to:

- Infrastructure and equipment must be maintained to avoid any damage to the environment and ensure the safety of staff and visitors to the nature reserve.
- Infrastructure and equipment must be provided to ensure the effective management and operation of the nature reserve.

6.2.2 Financial and human resources

The Kube Yini Nature Reserve cannot be effectively managed without adequate sustained funding and sufficient human resources. The following guiding principles should be adhered to:

- Adequate funding must be provided for the management of the reserve to ensure its sustained functioning.
- Adequate, properly trained and experienced staff must be employed at the nature reserve to undertake the operations required for its effective management.

6.2.3 Management systems

Management systems are required to ensure the health and safety of visitors, staff and contractors working within the Kube Yini Nature Reserve. Furthermore, standard approaches to addressing specific operational interventions are required. The following guiding principles should be adhered to:

- Risks and legal liabilities related to visitor, staff and contractor health and safety are identified and appropriately addressed.
- Standard operating procedures that ensure consistency in management are developed and implemented.

The detailed operational requirements for infrastructure and equipment, financial and human resources, and management systems are set out in Table 9.

Table 9:: Framework for infrastructure and equipment, financial and human resources, and management systems

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
INFRATSRUCTURE AND EQUIPMENT						
Facilities and infrastructure in the nature reserve are maintained.	▪ Develop sufficient facilities and obtain sufficient equipment to enable the effective operation of the nature reserve.	▪ Sufficient facilities, assets, infrastructure and equipment to support the effective management and operation of the nature reserve.	▪ An inability to effectively manage the reserve due to inadequate infrastructure or equipment.	***Ongoing***	Implementation of a maintenance programme.	Provision of advice and assistance with monitoring.
Strive for efficient and sustainable water use.	▪ Ensure water infrastructure is regularly serviced and leaks are timeously attended to. ▪ Encourage shareholders to use water efficiently. ▪ Minimise the size of formal gardens. Where this is unavoidable, use water-wise plants and implement grey water systems if possible.	▪ Regular scheduled maintenance of all water infrastructure and equipment.	▪ Water loss due to leaks. ▪ Inappropriate garden design and related water use.	***Ongoing***		
Infrastructure on the reserve is managed to minimise environmental harm.	▪ Ensure proper maintenance is being undertaken for service infrastructure, including that for water supply, electricity and sewerage, and if necessary, upgrade infrastructure. ▪ Septic tanks are inspected annually. ▪ Determine appropriate strategies for the management and recycling of waste in the nature reserve. ▪ Implement a scheduled maintenance programme to maintain infrastructure and equipment.	▪ Appropriately functioning infrastructure and systems that do not cause harm to the environment, in accordance with the environmental maintenance management plan. ▪ Regular scheduled maintenance of all infrastructure and equipment.	▪ Pollution events or incidents associated with service infrastructure and systems.	***Ongoing***		

Table 9 (cont.)

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
HUMAN RESOURCES						
Annual plans of operation include maintenance plans and are directly related to the annual budget.	▪ Management costs must be factored in as part of the nature reserve's annual management meeting.	▪ Inclusion of a cost estimate in the Annual Plan of Operation.	▪ Lack of funds to complete management targets.	***Annually***	Preparation of budgets.	Assistance in identifying costs and sourcing funds.
The nature reserve is staffed for its effective management and operation.	▪ Undertake periodic reviews of staff and positions to determine the human resource needs to effectively manage the reserve. ▪ Employ sufficient, appropriately skilled staff to meet the management and operational requirements of the nature reserve. ▪ Undertake regular training and skills development to ensure that staff are able to effectively complete their duties.	▪ Develop a profile of staff members to identify qualifications, skills and experience, and areas in which capacity development is required. ▪ Implement a structured system to assess and determine staff job performance and to identify further training and capacity development needs. ▪ Implement measures to ensure that staff are sufficiently trained and capable to undertake the functions required of their job positions.	▪ Insufficient staff to undertake the key operational functions of the reserve. ▪ Insufficient expertise and experience within the reserve's staff.		Human resource management of reserve staff	Assistance in implementing training and capacity development programmes.
Ensure that the reserve is a fair and ethical employer.	▪ Perform routine interviews with staff to enable effective and safe communication channels with Management. ▪ Ensure that the reserve is legally compliant in terms of the Basic Conditions of Employment Act.	▪ Develop a happy and healthy work culture on the reserve.	▪ An unhappy and/or unhealthy work environment. ▪ Concerns are not dealt with timeously by management and/or the Board.	***Annually***		

Table 9 (cont.)

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
MANAGEMENT SYSTEMS						
Ensure effective management of the constituted arrangement.	▪ Ensure that the processes around the constituted arrangement are upheld. Including o AGM o Operational Meetings o Budget Planning	▪ Efficient and well-documented management of the constituted arrangement. Including: o Minutes of the AGM o Shared and agreed budget.	▪ No AGM, or annual budgetary planning.	***Year 3***	Make arrangements for the required actions.	Advice, where possible.
Enable effective information management to ensure that it is useable for applicable parties and facilitates adaptive management.	▪ Develop an efficient and usable platform for the storage of data and research. ▪ Implement systems around the storage and sharing of research and data.	▪ A list of all research conducted on the reserve. ▪ A platform that promotes the effective storage and use of data.	▪ A lack of consistency or continuity in the management of information and data. ▪ No (or nor easy) access to information. ▪ Research findings do not lead to adaptive management.	***Year 3***	Development of standard operating procedures around research and information sharing. Implementation of those SOPS.	Provision of assistance and expertise, including providing examples of relevant standard operating procedures applied in other protected areas.

6.3 Financial resource management

6.3.1 Effective and sustainable use of the financial resources

The funds used to maintain and manage Kube Yini Nature Reserve are currently generated from the levies paid by the shareholders, the sale of live game (when ecologically appropriate) and rental from the Vodacom tower. It is important that these resources are managed effectively to ensure the nature reserve's sustainability and the shareholders 'affordability.

The operational requirements for financial resource management are set out in Table 10.

Table 10: Framework for financial resource management

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
ANNUAL BUDGET						
Annual plans of operation include maintenance plans and detailed budgetary requirements.	▪ Management costs must be factored in as part of the nature reserve's annual management meeting.	▪ Inclusion of a cost estimate in the Annual Plan of Operation.	▪ Lack of funds to complete management targets.	***Annually***	Preparation of budgets.	Assistance in identifying costs and sourcing funds.
Development of an approved annual budget, that identifies the resources required to achieve the objectives of the nature reserve.	▪ An annual budget is discussed and approved by the board, in alignment with the reserve Annual Plan of Operation.	▪ An annual budget that is in alignment with the reserve Annual Plan of Operation.	▪ No reserve budget ▪ A reserve budget that does not speak to the Annual Plan of Operation.	***Annually***	Preparation of the budget and the APO	Advice, if necessary
FINANCIALS						
The reserve's financials are audited annually, in terms of the Companies Act	▪ Enable the effective storage of information and appropriate financial systems. ▪ Facilitate the annual audit	▪ An efficient and compliant annual audit.	▪ Inefficient financial record systems ▪ Non-compliant audit	***Ongoing***	Implementation of financial systems and facilitation of the annual audit.	Provision of advice and support, if required.
Sustainable use of natural resources to help ensure the viability of the nature reserve.	▪ Identify ecologically sound off-take opportunities that could improve the reserve's viability. ▪ Ensure all off-takes are done in an ethical and sustainable manner and are in line with ecological principles.	▪ Sustainable and ethical offtakes that improve the reserve's viability.	▪ Unsustainable offtakes that impact the ecological integrity of the nature reserve.	***Ongoing***	Identification of and implementation of sustainable offtake opportunities.	

6.4 Community relations

6.4.1 Fostering community partnerships and support

Constructive relationships with adjacent landowners and neighbouring communities are an important aspect of the effective conservation of protected areas. In ensuring that these groups derive socio-economic benefits from the Kube Yini Nature Reserve, efforts should be aimed at developing a strong sense of partnership between the neighbours and communities around the reserve and its managers. The following guiding principles should be adhered to:

- Efforts should be made to ensure that the community members living around the nature reserve are aware of the role that it fulfils in regional economic development, biodiversity protection and the provision of ecosystem services.
- A common understanding of the issues that affect both the nature reserve and the surrounding communities should be developed and efforts to resolve them should be undertaken cooperatively.
- Wherever possible, support local businesses, service providers and produce.
- Wherever possible, recruitment for new positions should be carried out locally first.

The operational requirements for community relations are set out in Table 11.

Table 11: Framework for community relations

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
FOSTERING COMMUNITY PARTNERSHIPS AND SUPPORT						
Provide employment and business opportunities to local community members	▪ Wherever possible, choose to support local businesses and employ people from the communities surrounding the nature reserve.	▪ All reserve service providers are sourced locally and recruitment for new positions always starts locally.	▪ Limited economic benefit to the local communities. ▪ Recruitment occurring outside of the local communities.	***Ongoing***	Implementation of employment policies and other efforts aimed at providing benefits to the communities.	Provision of advice and support, including potentially assisting with skills and capacity development efforts.
Where possible, support programme focussed on health, education, and social upliftment of communities surrounding the reserve, in a manner that community development is directly linked to the Nature Reserve.	▪ Where possible, actively enable community development and ensure that this development is directly linked to Kube Yini Nature Reserve in the minds of the people.	▪ Community development projects result in positive relationships and trust with the surrounding communities.	▪ Kube Yini Nature Reserve provides no benefit to the local communities. ▪ Upliftment initiatives are seen by local communities to be unrelated to the nature reserve.	***Ongoing***	Enable active community development in a way that fosters positive relationships with local communities.	Provision of advice and support where necessary.
Support environmental education programmes where suitable.	▪ Explore opportunities to support environmental education within the local communities, especially the youth	▪ Provision of environmental education opportunities to local communities, especially youth, where possible.	▪ No interest in finding opportunities to support environmental education. ▪ No environmental awareness programmes.	***Ongoing***	Implementation of an education, awareness and interpretation programme.	Provision of advice and support, if required.

6.5 Conservation management

6.5.1 Ecosystem management

The KwaZulu-Natal systematic biodiversity plan identifies conservation targets for the province. The conservation of Kube Yini Nature Reserve contributes towards the achievement of a portion of the target for Southern Lebombo Bushveld. The untransformed extent of the vegetation type within the reserve is 1114 hectares, which contributes 1% towards the provincial target.

It is important that key and sensitive habitats within the reserve are maintained in optimal conditions, according to ecological principles.

6.5.2 Species management

Specific management interventions related to animal and plant species will be limited to those that are for the purposes of safeguarding populations of rare and threatened species or enhancing the ecological functioning of the Kube Yini Nature Reserve, to meet set conservation targets. In addition, interventions may be required for problem animal management. In addressing species management, the following guiding principles should be adhered to:

- Species management must be focussed primarily on protecting the ecological functioning of the nature reserve and meeting set conservation targets for species and vegetation types.
- All removals (live or dead) must be applied for through the necessary authorities and protocols regarding *inter alia:* disease management and transportation are followed.
- Population management of wildlife species may be required to ensure that such species are not causing ecological degradation of the nature reserve.
- Animals that become a danger or excessive nuisance to persons and property due to either habituation or aberrant behaviour must be managed in accordance with relevant policies and standard operating procedures.

Kube Yini Nature Reserve has identified specific interventions for particular species. Accordingly, the approach to managing these species will be to:

- Conserve and manage white rhino population for optimal sustainable economic and conservation benefits.

The operational requirements for ecosystem and species management are set out in Table 12

Table 12: Framework for ecosystem and species management

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
ECOSYSTEM AND SPECIES MANAGEMENT						
Maintain optimal species mix and numbers informed by carrying capacity estimates and ecological principles.	▪ Stocking rates are maintained below the ecological carrying capacity of the reserve and are adjusted based on annual wildlife census, annual climatic conditions, and the Kube Yini Veld Condition Assessment Report. ▪ Wildlife population management is undertaken through a combination of live capture of game and/or meat harvesting.	▪ Undertake an annual wildlife species census to determine animal numbers and required off-takes. ▪ Modify game species mix and numbers if they are found to be negatively impacting on biodiversity.	▪ Decline in rangeland/habitat condition. ▪ Changes in species composition that favour undesirable species. ▪ Overgrazing and/or selective grazing. ▪ Bush encroachment.	***Annually***	Game species mix and population number control.	Provision of technical assistance.
Maintain key and sensitive habitat types in optimal conditions	▪ Ensure that the vegetation types within the reserve and being managed optimally for biodiversity conservation. ▪ Use of fire to shift grazing and browsing pressure around the nature reserve on an annual basis, as per the VCA Report. ▪ Where necessary, control bush encroachment through mechanical means.	▪ Undertake periodic rangeland assessments to determine the state of the habitat and the influence of management interventions. ▪ Herbivore pressure is alleviated through the use of fire to draw wildlife into rested areas.		***Year 5***	Implementation of rangeland assessments.	
Rare and threatened species management is undertaken using the best available scientific knowledge.	▪ Ensure that the nature reserve is included in or are aware of research that is being conducted on relevant rare and threatened species. ▪ Adopt procedures for the management of rare and endangered species, based on available literature and known best practices.	▪ White rhino management may include a de-horning programme and sustainable off-takes to maintain an optimal population.	▪ Declining numbers of rare and threatened species that occur within the nature reserve.	***Ongoing***	Engage with NGOs, partners and tertiary institutions to encourage targeted research.	Engage with NGOs, partners and tertiary institutions to encourage targeted research.

If extractive resource is undertaken, it is done sustainably and conforms to legislation relative to the nature reserve.	▪ Offtakes are calculated using the Rangeland assessments and the annual game counts. They are based on ecological principles.	▪ Off-takes are legally compliant, sustainable and ecologically sound. ▪ Off-takes based on the principles of adaptive management.	▪ Unsustainable off-takes that are not sensitive to applicable data.	***Ongoing***	Species mix and population number control.	Provision of technical assistance.

6.5.3 Fire and herbivore management

Fire and herbivore management are heavily inter-related, which requires:

- Herbivore management must allow for the recovery of desirable plant species, which requires periodic rest or alleviated herbivore pressure during the growing season.
- Fire should be used as a management tool to encourage herbivore utilisation on areas that have received a level of rest or reduced usage in the previous season/s.
- The overall long-term stocking rate for the reserve should not exceed its carrying capacity.

Fire plays an important role in southern African ecology, and has important effects on vegetation composition, primary productivity and nutrient cycling. The following guiding principles should be adhered to:

- Burning must be undertaken with consideration of the biodiversity conservation requirements of the site and the need to protect rare and threatened species.
- Burning and fire management must be undertaken in a safe manner that is legally compliant with the National Veld and Forest Fire Act.

6.5.4 Invasive plant species control

A listed invasive species means any species, which is listed in terms of the Conservation of Agricultural Resources Act and section 70 of the Biodiversity Act and its regulations, whose establishment and spread occurs outside of its natural distribution range. In undertaking invasive plant control for the, the following guiding principles will be adhered to:

- Invasive plant control will require an ongoing programme that prioritises key infestations along watercourses, drainage lines and upper catchment areas.
- Initial clearing efforts should focus on containing infestations that are most likely to spread into new areas.
- All follow-up requirements must be strictly adhered to otherwise the problem will be exacerbated.

6.5.5 Soil erosion management

In addressing soil erosion, the following guiding principles should be adhered to:

- Areas susceptible to soil erosion or showing early signs of soil erosion such as loss of vegetation cover, must be managed to prevent soil erosion.
- Roads must be adequately maintained to prevent risk of soil erosion.

The operational requirements for fire and herbivore management, invasive plant species control and soil erosion management are set out in Table 13.

Table 13: Framework for fire and herbivore management, invasive plant species control and soil erosion management

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
FIRE MANAGEMENT						
Implementation of the burn recommendations as per the annual VCA report.	▪ Implement a burning regime in accordance with the Kube Yini Nature Reserve's VCA report. ▪ Utilise the VCA report to inform decisions around drought management.	▪ Establishment of a series of internal firebreaks to facilitate the recommended burning regime. ▪ Burning the reserve annually in accordance with the VCA recommendations and SOP ▪ Five-yearly review and update of the Kube Yini Nature Reserve Fire Management SOP.	▪ Inappropriate burning in contravention to the reserve's VCA findings and/or SOP. ▪ Ecological degradation as a result of the inappropriate use of fire.	***Annually***	Implementation of the burning regime	Provision of technical advice.
Development of Fire Management SOPs for the reserve	▪ Develop a Fire Management SOP for the reserve, which includes *inter alia:* o Fire safety procedures o Required equipment and PPE o Minimum requirements for legal compliance	▪ A functional and effective Fire Management SOP	▪ Lack of SOPs for Fire Management on the reserve.			
Adequate fire safety within the reserve is ensured.	▪ Maintain a system of firebreaks on the boundaries of the site that are of adequate extent. ▪ Ensure that staff are trained, and that adequate firefighting equipment is available at the site. ▪ Maintain membership of the local Fire Protection Association.	▪ Compliance with the National Veld and Forest Fires Act.	▪ Inadequate personnel or equipment. ▪ Wildfires spreading onto the site or from the site to neighbours.			
INVASIVE PLANT CONTROL						
Implementation of the Alien and Invasive Species Control Plan for Kube Yini Nature Reserve	▪ Implement concerted, sustained control efforts in identified areas of invasive plant infestation, as per the AIS Control Plan.	▪ Implementation of invasive alien plant control in accordance with the reserve's invasive alien plant control plan. ▪ Five-yearly review and update of the Kube Yini Nature Reserve Invasive Alien Plant Control Plan.	▪ Spread of existing levels of infestation of listed invasive species. ▪ Persistence of existing infestations.	***Annually***	Implementation of invasive plant control measures.	Advice in planning for alien invasive plant control Assistance in the provision of

	▪ Continued management of low levels of infestation of invasive alien plant species.	▪ Ongoing control and eradication of listed invasive species to a point where maintenance control is all that is required.	▪ New infestations of listed invasive species.			chemicals and/or access to Working for Water.

Table 13 (cont.)

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
SOIL EROSION CONTROL						
Identify and rehabilitate areas that are being impacted by soil erosion.	▪ Identify the requirements for soil erosion control and rehabilitation within the nature reserve. ▪ Implement soil erosion control measures, focussing strategically on areas such as those impacting on watercourses or that are growing larger. ▪ Undertake preventative measures in areas with low plant cover that may be at risk of soil erosion.	▪ A map depicting areas of soil erosion within the nature reserve. ▪ Implementation of soil erosion control measures in areas in which plant cover is low, which are susceptible to erosion.	▪ Erosion of susceptible areas. ▪ Sedimentation impacts in watercourses and wetland areas.	***Year 3***	Appointment of a specialist to undertake the survey.	Assistance in mapping areas impacted by soil erosion and assistance with advice in managing impacted areas.
Develop and maintain a road network based on ecological principles	▪ Develop and maintain roads that will complement the shareholder and management activities on the reserve. ▪ New roads are designed such that sensitive habitats are avoided. ▪ Maintain the road network such that risk of erosion is minimised and impacts on vegetation are limited.	▪ Road maintenance is adequately addressed in the APO, such that soil erosion is minimised.	▪ Road design negatively impacts on sensitive habitats. ▪ Lack of road maintenance leads to soil erosion.	***Ongoing***	Ensure adequate road design and maintenance.	Provision of ecological and management advice.

6.6 Research and monitoring

Kube Yini has a well-structured veld condition monitoring programme in place, which works hand-in-hand with the annual game counts. Veld Condition Assessments, which include fixed point photography, are conducted on an annual basis, as are the game counts. This monitoring is designed to determine if the management interventions, namely: fire and population management, are meeting the management objective, namely: maintaining habitats in optimal conditions using ecological principles.

Kube Yini Nature Reserve also fosters a culture of conservation research, both in terms of official projects by registered students and informal research done by the shareholders. Research plays an important role in the enjoyment of many of the shareholders and is a culture that should be encouraged. In continuing to undertake scientific research and monitoring within the reserve, the following guiding principles will apply:

- Research that is financed by the management Authority will primarily be undertaken to assist in improving the knowledge and understanding of species, habitats and key ecological drivers within the Kube Yini Nature Reserve, thus providing for more informed management interventions.
- Scientific research that assists in broadening the knowledge and understanding of species, habitats and ecological drivers within natural systems in southern Africa will be encouraged.
- Any research activities that involve physical interventions with living creatures on the Nature Reserve must be approved by the Management Authority.
- All research must comply with the Kube Yini Research Policy (Appendix E), which will be developed by the Management Authority.

6.7 Cultural heritage and sense of place

Kube Yini Nature Reserve has immense scenic values that relate to the reserve's natural beauty, topographical variation, and aesthetic appeal that are integral to the sense of place one experiences in the reserve. It is important that the reserve's scientific and cultural heritage, and sense of place are protected and retained. The following guiding principles apply:

- Development within the reserve must be sensitive to its sense of place and aesthetic appeal and must be designed and constructed to complement them.
- Important historic, archaeological and paleontological sites and artefacts must be properly documented and preserved as an important component of South Africa's scientific, historical and cultural heritage.

The operational requirements for research and monitoring, and cultural heritage and sense of place are set out in Table 14 and 15 respectively.

Table 14: Framework for research and monitoring

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
RESEARCH AND MONITORING						
Budgeted research and monitoring programmes must align with reserve management objectives.	▪ Ensure that research and monitoring activities which are financed by the Management Authority are in line with the reserve management objectives and requirements.	▪ An annual review of research efforts is conducted to discuss and disseminate key findings and identify areas where further research is required. ▪ Research is in line with key management objectives, such that adaptive management is facilitated.	▪ Gaps in understanding the implications of key management interventions. ▪ Inability to apply informed adaptive management in response to management interventions.	***Annually***	Organisation of an annual forum to discuss research findings and gaps. Development and implementation of surveillance and monitoring plans.	Participation in research forums.
Ensure that research activities are ethical and in line with approved practices.	▪ Ensure that all research activities are ethical and follow the principles of best practice. ▪ Research activities that involve the physical interventions with living creatures are approved by the management authority.	▪ All research on the reserve is ethically done and in line with best practice principles. ▪ All research activities involving physical interference have been approved by the Management Authority. ▪ The Management Authority is aware of all research conducted on the reserve.	▪ The management authority is unaware of research activities being conducted on the reserve, which involve physical interventions with living creatures.	***Annually***	Engagement with partners and research organisation.	
Develop and maintain an ecosystem monitoring programme for the reserve that will enable adaptive management.	▪ Develop surveillance and monitoring plans for key management interventions. ▪ Review research and monitoring efforts annually to ensure they are in line with management objectives and will facilitate adaptive management.	▪ Engagement with partners and research organisations to promote research that addresses key ecological management interventions. ▪ Awareness and monitoring of all key management interventions.	▪ Lack of data on key management interventions and therefore the inability to learn from those interventions.	***Ongoing***	Development and implementation of surveillance and monitoring plans	Assistance in identifying and including the reserve in relevant research efforts.

Table 15: Framework for cultural heritage and sense of place

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
CULTURAL HERITAGE AND SENSE OF PLACE						
Encourage an understanding of the cultural, historical, archaeological and paleontological resources on the reserve.	▪ Facilitate and encourage research activities around the cultural, historical, archaeological and paleontological resources on the reserve. ▪ If funding is available undertake a more comprehensive inventory of cultural, historical and archaeological artefacts within the reserve.	▪ A more comprehensive understanding of the cultural, historical, archaeological and paleontological assets of the reserve.	▪ Lack of understanding of the reserve's cultural, historical, archaeological and paleontological assets	***As required***	Facilitate research	Facilitation of assistance from AMAFA and relevant research organisations.
Maintain and enhance the shareholder experience.	▪ Ensure that the sense of place and beauty of Kube Yini Nature Reserve is maintained.	▪ The architecture of all structures will be ecologically and aesthetically sensitive and structures will be sited so that they do not impact adversely on habitat and flora or on views within the reserve.	▪ Inappropriate infrastructure which alters the sense of place of the reserve and negatively impacts the beauty.	***Ongoing***	Oversee all new development / infrastructure	
The cultural, historical, archaeological, paleontological and living heritage of the area (sites recognised by AMAFA and listed) is safeguarded.	▪ Identified cultural, historical, archaeological and paleontological sites and artefacts are appropriately managed and protected to ensure that they are adequately preserved.	▪ Shareholder and management activities are controlled and limited in areas that have been identified as particularly sensitive to impacts.	▪ Loss of artefacts or damage to the integrity of cultural, historical or archaeological sites.	***Year 5***	Appointing a specialist to undertake the assessment	

6.8 Zone of Influence

6.8.1 Zone of influence

In order to safeguard its biodiversity and to counter threatening processes or edge effects, appropriate land uses in the surrounds of the reserve should be encouraged. In addition, the management authority must ensure that management and shareholder actions do not negatively impact neighbouring reserves and communities. Kube Yini Nature Reserve takes pride in its collaborate and positive relationships with neighbouring protected areas and should endeavour to maintain this culture. The following guiding principles will be adopted in terms of the zone of influence:

- Appropriate actions must be taken to manage threatening processes and edge effects on the nature reserve's boundaries and beyond them.
- Appropriate actions must be taken to negate any negative impacts that management or shareholder actions may have on neighbouring protected areas and communities.
- Positive and collaborative relationships with neighbouring protected areas and communities must be maintained.

6.8.2 Protected area expansion

The subject of the reserve dropping fences with the Mun-Ya-Wana has never been formally discussed by the shareholders. However, there is a general feeling that the reserve remains an independently fenced area, thereby allowing the shareholders to continue to use the Reserve for activities such as walking and cycling, which would not be permissible in a "Big 5" game reserve.

The operational requirements for the zone of influence are set out in Table 16.

Table 16: Framework for buffer zone protection, regional management and protected area expansion

Strategic outcome	Management activities	Management targets	Indicators of Concern	Timing	Mgt. authority responsibility	Partner responsibility
ZONE OF INFLUENCE						
Efforts to secure the Kube Yini Nature Reserve's river catchments are made through engagements with relevant authorities and partners.	▪ Engagement with partners and authorities in an effort to engender better cooperation in the management of water resources and the enforcement of applicable legislation within the Kube Yini Nature Reserve's upper catchment areas.	▪ Improved water resource management through the establishment of appropriate institutional structures and better cooperation in managing catchment areas upstream of the reserve.	▪ Declines in water flows and quality.	***Annually***	Engagement with relevant authorities such as Department of Water Affairs and Catchment Management Authorities.	Engagement with relevant authorities such as Department of Water Affairs and Catchment Management Authorities.
Maintain positive and collaborative relationships with neighbouring reserves.	▪ Determine options for cooperation, including joint law enforcement and joint ecological management, if feasible. ▪ Determine options for cooperation on joint socio-economic and community upliftment initiatives.	▪ Streamlined and integrated socio-economic initiatives undertaken in cooperation with partners. ▪ Positive and collaborative relationships with surrounding protected areas and communities.	▪ Ecological isolation of Kube Yini Nature Reserve. ▪ Overlap and duplication of efforts to uplift and improve livelihoods within surrounding communities.	***Annually***	Establishment of cooperative processes between surrounding protected areas and other partners.	Facilitation of cooperation between state protected areas and biodiversity stewardship sites.

7) MONITORING AND REPORTING

Monitoring and reporting is a critical component of the adaptive management cycle. It enables the effective assessment of management interventions and, if necessary, can be used to direct modifications of management in an effort to achieve the outcomes required.

7.1 Annual monitoring

The annual monitoring schedule should be designed to monitor the implementation of aspects of the management plan. It should be designed to be straightforward and relatively easy to implement by on-site staff.

Records should be maintained of key management interventions and of problem events or incidents such as uncontrolled access, poaching, illegal plant collection or uncontrolled/arson fires.

Scientific monitoring programmes may be established to monitor specific management interventions such as measures for the protection of flagship species. Most of the outcomes of the monitoring process will be captured in an annual report, which will be used to inform the following year's annual plan of operation.

On this basis, a monitoring schedule for Kube Yini Nature Reserve is set out in Table 17.

Table 17: Annual monitoring schedule for Kube Yini Nature Reserve

Management issue	Parameters to be monitored	Monitoring measures	Monitoring frequency	Responsibility	Reporting requirements
Law enforcement	Schedule of patrols	Written record	Weekly	Management authority	Annual report
	Recovery of snares	Photographs/written record	Weekly		Annual report
	Illegal incidents	Photographs/written record	Per event		Record of event
Species monitoring reports	Specific reports are to be prepared for the following species: ▪ White rhino ▪ Spotted Hyena ▪ Zebra ▪ Leopard	Written record	Annually	Management authority	Annual submission to EKZNW
Fire management	Burning of firebreaks as part of fire management	Written record/map/photography	Annually	Management authority	Annual report
	Burning of blocks as part of controlled burning		Annually		Annual report
	Unplanned wildfires	Written record/map/photography	Per event		Record of event
Game management	Annual game census	Written record	Annually	Management authority	Annual report
Rangeland condition	Grass species composition and rangeland condition score.	Grass assessment	Annually	Management authority	Annual report
	Browse species composition and condition score.	Browse assessment	Every 4 years	Management authority	Every 4 years

Table 17 (continued)

Management issue	Parameters to be monitored	Monitoring measures	Monitoring frequency	Responsibility	Reporting requirements
Invasive plant control	Areas subject to invasive plant control	Photographs/written record	Quarterly	Management authority	Annual report
	State of areas in which invasive plants have been eradicated				
	Records of labour hours/days	Written record	Annually		Annual report
	Herbicide usage	Written record	Annually		Annual report
Soil erosion control	Areas subject to erosion control	Photographs/written record	Quarterly	Management authority	Annual report
	State of rehabilitated areas of erosion				Annual report
Human resources	Staff and training levels	Annual report on staff	Annually	Management authority	Annual report
Financial management	Reserve capital and operational finances	Written record	Annually	Management authority	Annual report
Facilities and infrastructure	State of roads, paths, fences and dams	Photographs/written records	Quarterly	Management authority	Annual report
	State of facilities and service infrastructure	Maintenance schedule/written records	Monthly	Management authority	Annual report
	Pollution events	Photographs/written records	Per event		Record of event

7.2 Annual protected area management plan implementation review

The purpose of undertaking an annual review of implementation of the protected area management plan will be to:

- Determine how effectively the management plan has been implemented.
- Assist in determining the focus for the annual plan of operation and the setting of appropriate time frames.
- Enable effective adaptive management by identifying changes and modifying management interventions.

The minutes of the annual management meeting will form the basis of the report on the management plan review. The minutes should include records of recommendations for update/changes to the five-year plan so that when the five-year plan is revised for the subsequent five years, these recommendations can be assessed and included where necessary.

8) KUBE YINI NATURE RESERVE'S ANNUAL PLAN OF OPERATION

Each year an annual plan of operation will be prepared, based on the objectives, strategic outcomes, management activities and targets contained in the management plan.

8.1 Implementation of the management plan

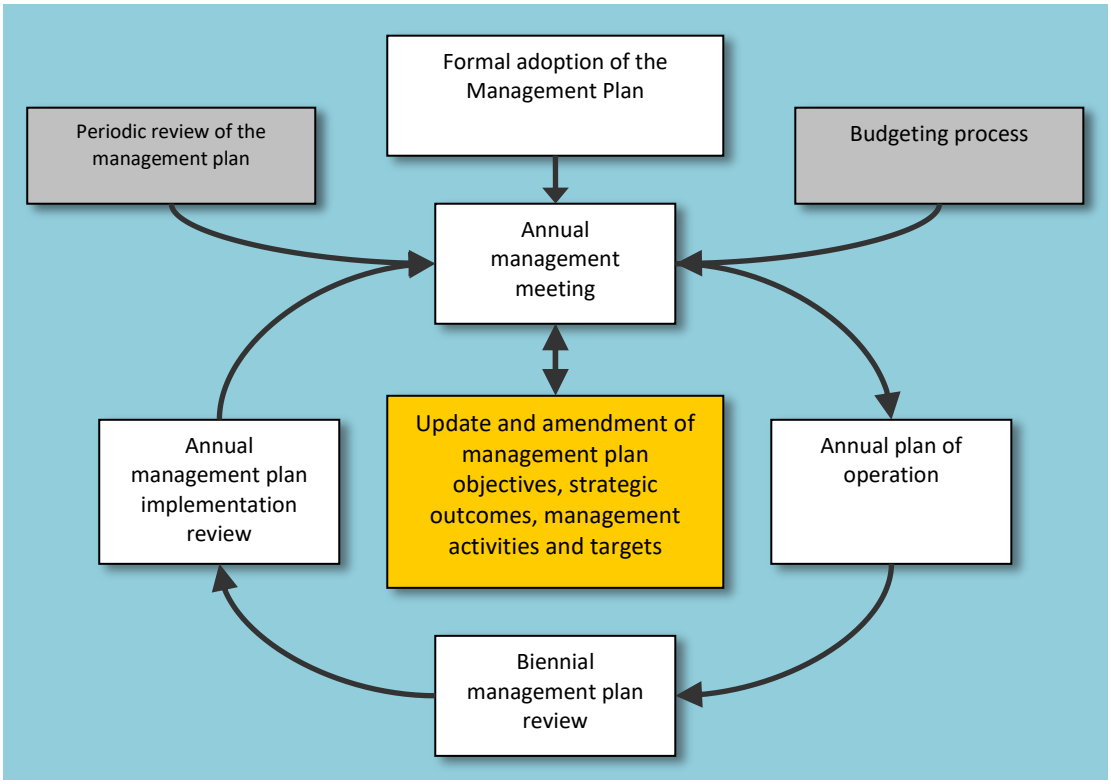

Figure 17: Process for the implementation of Management Plans

Each year an annual management meeting is to be held for the biodiversity stewardship site. In terms of the implementation of the management plan, the purpose of the annual management meeting for Kube Yini Nature Reserve will be to:

- Finalise the annual report, as part of the annual management plan review described in Section 7.2 above.
- As part of the annual performance review, determine the need to modify or change any of the management plan's objectives, strategic outcomes, management activities or targets.
- Determine management activities for the coming year and to set goals for the year, based on the key performance areas set out in the management plan.
- Determine how budgets will be spent in an effort to achieve the goals for each of the quarters of the coming year.

The minutes and notes of the annual management meeting will be compiled in an annual plan of operation, which will include all of the information, set out above, and will determine what management activities need to be

completed for the coming year, based on the management plan. A pro forma annual plan of operation is set out in Appendix F.

8.2 Responsibilities in implementing the protected area management plan

In the tables in the operational management framework, the responsibilities for the completion of management activities are identified. In many cases the people responsible for implementing the activities will be in attendance at the annual management meeting and the requirements for the achievement of the management activities can be discussed and agreed to at the meeting. In some cases, however, it may be required to refer the management activities to another partner to ensure that they implement the management activity.

8.3 Kube Yini Nature Reserve's resource requirements

In developing annual plans of operation for Kube Yini Nature Reserve, the resource requirements, associated with management activities and targets set out in the operational management framework must be considered and budgeted for. The following section broadly identifies the issues that must be considered in determining adequate human resources, funds and equipment for the site.

8.3.1 Staff and equipment

Annual plans of operation must consider the staff, equipment and budgetary needs to undertake the following activities:

- Administration and management of the reserve.
- Patrolling of the site and its boundaries.
- Community liaison and the implementation of socio-economic projects aimed at improving livelihoods within the communities surrounding the reserve.
- Periodic rangeland condition assessments and other technical ecological management activities.
- An annual game census.
- Annual game off-takes and population control.
- Species-specific interventions such as de-horning of rhino, and fitting of tracking devices on particular species.
- An annual burning programme and firefighting response to wildfires.
- An ongoing invasive alien plant species control programme, and an ongoing bush encroachment control programme.
- An ongoing soil erosion control and rehabilitation programme.
- The implementation and maintenance of scientific research, surveillance and monitoring programmes.
- Maintenance of roads, paths and fences within the site.
- Maintenance of facilities and infrastructure within the site.

- Human resource management, and staff training and capacity development.
- Compliance with requirements in terms of the Occupational Health and Safety Act.

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DEFINITIONS OF TERMS

Alien species	Species or genotypes, which are not indigenous to Kube Yini Nature Reserve and the surrounding area including hybrids and genetically altered organisms.
Biodiversity	The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems (as per the National Environmental Management: Biodiversity Act, 2004 [Act No. 10 of 2004]).
Bioprospecting	In relation to indigenous biological resources, means any research on, or development or application of, indigenous biological resources for commercial or industrial exploitation, and includes – the systematic search, collection or gathering of such resources or making extractions from such resources for purposes of such research, development or application (as per the National Environmental Management: Biodiversity Act, 2004 [Act No. 10 of 2004])
Board	The KwaZulu-Natal Nature Conservation Board as defined by the KwaZulu-Natal Nature Conservation Management Act, 1997 (Act No.9 of 1997).
Buffer zone	An area surrounding a protected area that has restrictions placed on its use or where collaborative projects and programmes are undertaken to afford additional protection to the nature reserve.
Co-management	The term 'Co-management' must be understood within the context of Section 42 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).
Cultural heritage	As defined in Article 1 of the World Heritage Convention (UNESCO) 1972 , 'cultural heritage' is considered as "monuments, architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of (…) value from the point of view of history, art or science, groups of buildings, groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of significance from the point of view of history, art or science, sites, works of man or the combined works of nature and man, and areas including archaeological sites which are of (…) value from the historical, aesthetic, ethnological or anthropological point of view." For the purpose of this IMP, living heritage features such as mountains, pools, rivers, boulders, etc. as well as palaeontological features are included under this definition.
Ecotourism	The travel to natural areas to learn about the way of life and cultural history of people, the natural history of the environment, while taking care not to change the environment and contributing to the economic welfare of the local people (adapted from a definition of ecotourism by Hecto Ceballos Lascurain).
Ecological integrity	The sum of the biological, physical and chemical components of an ecosystem and its products, functions and attributes (as per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
Ecosystem	A dynamic complex of animal, plant and micro-organism communities and their non-living environment interacting as a functional unit (as per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).

Ecosystem services	As defined in Section 1 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) as "environmental goods and services" meaning: a. Benefits obtained from ecosystems such as food, fuel and fibre and genetic resources. b. Benefits from the regulation of ecosystem processes such as climate regulation, disease and flood control and detoxification. c. Cultural non-material benefits obtained from ecosystems such as benefits of a spiritual, recreational, aesthetic, inspirational, educational, community and symbolic nature;" For the purposes of this IMP, sustainable water production is also specifically included under this definition.
Environmental degradation	The deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the loss of species or undesirable reduction of species population numbers from a specific area from an environmental health perspective
Ezemvelo KZN Wildlife	Nature Conservation Service as established in terms of the KwaZulu-Natal Nature Conservation Management Act No. 9 of 1997.
Indigenous species	In relation to a specific protected area, means a species that occurs, or has historically occurred, naturally in a free state of nature within that specific protected area, but excludes a species introduced in that protected area as a result of human activity (as per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
Invasive species	Means any species whose establishment and spread outside of its natural distribution range – a. Threaten ecosystems, habitats or other species or have a demonstrable potential to threaten ecosystems, habitats or other species. b. May result in economic and environmental harm or harm to human health. (As per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
Joint management	The agreed co-ordination of management and/or management actions by landowners and/or mandated managers on their individual or combined properties in order to achieve common management objectives.
Local community	Any community of people living or having rights or interests in a distinct geographical area (as per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
Management	In relation to a protected area, includes control, protection, conservation, maintenance and rehabilitation of the protected area with due regard to the use and extraction of biological resources, community-based practices and benefit sharing activities in the area in a manner consistent with the Biodiversity Act (as per the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).

Management authority	In relation to a protected area, means the organ of state or other institution or person in which the authority to manage the protected area is vested (as per the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
Monitoring	The collection and analysis of repeated observations or measurements to evaluate change in status, distribution or integrity in order to track the impacts of directed management implemented to achieve a stated management objective.
Nature conservation	The conservation of naturally occurring ecological systems, the sustainable utilisation of indigenous plants and animals therein, and the promotion and maintenance of biological diversity (as per the KwaZulu-Natal Nature Conservation Management Act, 1997 [Act No.9 of 1997]).
Neighbouring community	The communities and people permanently living in the local municipal area/s bordering onto the Nature Reserve.
Natural heritage	As defined in Article 2 of the World Heritage Convention (UNESCO) 1972 'natural heritage' is as: "natural features consisting of physical and biological formations or groups of such formations, which are of (…) value from the aesthetic or scientific point of view, geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of (…) value from the point of view of science or conservation, natural sites or precisely delineated natural areas of (…) value from the point of view of science, conservation or natural beauty." For the purposes of this IMP, this would include the required ecological integrity of the protected area for the production of ecosystem services.
Partnerships	A co-operative and / or collaborative arrangement between the Game Reserve management / EKZNW and a third party that supports the achievement of the Game Reserve management objectives.
Protected areas	• Means any area declared or proclaimed as such in terms of section 3 or listed in the Second Schedule to the KwaZulu-Natal Nature Conservation Management Act, 1997 (Act No. 9 of 1997); or • Means any of the protected areas referred to in section 9 of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).
Protected area management committee	Is the management body that deals with the day-to-day management of the protected area and is chaired by the OIC.
Ramsar Convention	Means: "The Convention on Wetlands of International Importance, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty, which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources." (There are presently 158 Contracting Parties to the Convention, the Convention has broadened its scope to cover all aspects of wetland conservation and wise use, recognising wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.)

Stakeholders/ interested parties	These are interested individuals or groups concerned with or affected by an activity and its consequences. These include the authorities, local communities, investors, work force, consumers, environmental interest groups and the general public. According to the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), "stakeholder" means 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).
Surveillance	The collection and analysis of single or repeated measurements to establish status or distribution or integrity at a point in time in the absence of a specific management context or objective.
Sustainable	In relation to the use of a biological resource, means the use of such resource in a way and at a rate that would not lead to its long-term decline; would not disrupt the ecological integrity of the ecosystem in which it occurs; and would ensure its continued use to meet the needs and aspirations of present and future generations of people (as per National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
Wilderness area	Means an area designated in terms of section 22 or 26 for the purpose of retaining an intrinsically wild appearance and character, or capable of being restored to such and which is undeveloped and roadless, without permanent improvements or human habitation (as defined by the National Environmental Management: Protected Areas Act, 2003 [Act No. 57 of 2003]).
World heritage site	Means a World Heritage Site as defined in the World Heritage Convention Act, No. 49 of 1999 under Chapter 1, section 1 subsection (xxiv).

LIST OF STATUTES TO WHICH KUBE YINI NATURE RESERVE IS SUBJECT

Biodiversity and Cultural Resource Management and Development:

- Animals Protection Act [No. 71 of 1962]
- Atmospheric Pollution Prevention Act [No. 45 of 1965]
- Conservation of Agricultural Resources Act [No. 43 of 1983]
- Constitution of the Republic of South Africa [No. 108 of 1996]
- Criminal Procedures Act [1977]
- Environment Conservation Act [No. 73 of 1989]
- Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act [No. 36 of 1947]
- Forest Act [No. 122 of 1984]
- Hazardous Substances Act [No. 15 of 1973]
- KwaZulu Nature Conservation Act [No. 8 of 1975]
- KwaZulu-Natal Heritage Management Act [No. 10 of 1997]
- KwaZulu-Natal Nature Conservation Management Act [No. 9 of 1997]
- National Environmental Management Act [No. 107 of 1998]
- National Environmental Management: Biodiversity Act [No. 10 of 2004]
- National Environmental Management: Protected Areas Act [No. 57 of 2003]
- National Forests Act [No. 84 of 1998]
- National Heritage Resources Act [No. 25 of 1999]
- National Water Act [No. 36 of 1998]
- National Water Amendment Act [No. 45 of 1999]
- National Veld and Forest Fire Act [No 101 of 1998]
- Nature Conservation Ordinance [No. 15 of 1974]

General Management:

- Development Facilitation Act [No. 67 of 1995]
- Disaster Management Act [No. 57 of 2002]
- Fire Brigade Services Act [No. 99 of 1987]
- Local Government: Municipal Systems Act [No. 32 of 2000]
- National Road Traffic Act [No. 93 of 1996]
- National Building Standards Act [No. 103 of 1977]
- Natal Town Planning Ordinance [No. 27 of 1949]
- Occupational Health and Safety Act [No. 85 of 1993]
- KwaZulu-Natal Planning and Development Act [No. 5 of 1998]
- Water Services Act [No. 108 of 1997]

Financial Management:

- Public Finance Management Act [No. 1 of 1999]

Human Resource Management:

- Basic Conditions of Employment Act [No. 75 of 1997]
- Broad-Based Black Economic Empowerment Act [No. 53 of 2003]
- Compensation for Occupational Injuries and Diseases Act [No. 130 of 1993]
- Employment Equity Act [No. 55 of 1998]
- Labour Relations Act [No. 66 of 1995]
- Occupational Health and Safety Act [No. 85 of 1993]
- Pension Funds Act [No. 24 of 1956]
- Skills Development Act [No. 97 of 1998]
- Skills Development Levies Act [No. 9 of 1999]
- Unemployment Insurance Act [No. 63 of 2001]

COPY OF KUBE YINI NATURE RESERVE'S NATURE RESERVE INTERNTION TO DECLARE NOTICE

PROVINCIAL NOTICE 209 OF 2022

KWAZULU-NATAL DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS

CONSULTATION PROCESS IN TERMS OF SECTION 33(1) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT, 2003 – NOTICE OF INTENTION TO DECLARE THE KUBE YINI NATURE RESERVE

I, Ravigasen Ranganathan Pillay, in my capacity as Member of the KwaZulu-Natal Executive Council for Economic Development, Tourism and Environmental Affairs, and in terms of section 33(1) of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) hereby –

(1) give notice of my intention to declare the properties described in the Schedule hereunder, as a Nature Reserve as contemplated in terms of section 23(1) of the National Environmental Management: Protected Areas Act, 2003, to be named the Kube Yini Nature Reserve; and

(2) invite members of the public to submit written representations on, or objections to, the proposed declaration of the above-mentioned Kube Yini Nature Reserve, as well as any comments on the draft Management Plan of the Kube Yini Nature Reserve, within 60 days of the publication of this notice: Provided that –

(a) the Draft Management Plan may be viewed at the Offices of Ezemvelo KZN Wildlife at Queen Elizabeth Park, Pietermaritzburg, 3201, or on http://www.kznwildlife.com/stewardship.html; and

(b) written submissions must be lodged:

(i) in HARD COPY to The MEC for Economic Development, Tourism and Environmental Affairs, 270 Jabu Ndlovu Street, Pietermaritzburg, 3201, For Attention: The Chief Directorate: Environmental Management; or

(ii) in PDF Format via e-mail to: biodiversitydeclarations@kznedtea.gov.za.

Given under my hand at DURBAN on this 17th day of FEBRUARY Two Thousand and Twenty two

MR. R R PILLAY, MPL
Member of the KwaZulu-Natal Executive Council responsible for Environmental Affairs

SCHEDULE

Name: Kube Yini Nature Reserve
Protected area type: Nature Reserve

Description of the properties which are proposed to be declared as the Kube Yini Nature Reserve are described as–

a. The Farm Lowane Number 13735, registration division HV, Province of KwaZulu Natal, in extent 746,5550 (SEVEN HUNDRED AND FORTY SIX comma FIVE FIVE FIVE ZERO) hectares; held under title deed T6056/1990

b. The Farm Kube Yini Number 13736, registration division HV, province of KwaZulu Natal, in extent 467,5745 (FOUR HUNDRED AND SIXTY SEVEN comma FIVE SEVEN FOUR FIVE) Hectares; held under Title Deed No. T6056/1990

SPECIES LISTS

BIRDS	
COMMON NAME	**SCIENTIFIC NAME**
Apalis, Bar-throated	*Apalis flavida*
Apalis, Rudd's	*Apalis ruddi*
Apalis, Yellow-breasted	*Apalis flavida*
Babbler, Chestnut-vented	*Sylvia subcaerulea*
Barbet, Acacia pied	*Tricholaema leucomelas*
Barbet, Black-collared	*Lybius torquatus*
Barbet, Crested	*Trachyphonus vaillantii*
Barbet, White-eared	*Stactolaema leucotis*
Bateleur	*Terathopius ecaudatus*
Batis, Cape	*Batis capensis*
Batis, Chinspot	*Batis molitor*
Bee-eater, Blue-cheeked	*Merops persicus*
Bee-eater, European	*Merops apiaster*
Bee-eater, Little	*Merops pusillus*
Bee-eater, White-fronted	*Merops bullockoides*
Bishop, Southern Red	*Euplectes orix*
Bittern, Dwarf	*Ixobrychus sturmii*
Bokmakierie	*Telophorus zeylonus*
Boubou, Southern	*Laniarus ferrugineus*
Broadbill, African	*Smithornis capensis*

BIRDS CONTINUED	
COMMON NAME	**SCIENTIFIC NAME**
Lapwing, Blacksmith	*Vanellus armatus*
Lapwing, Crowned	*Vanellus coronatus*
Lapwing, Senegal	*Vanellus lugubris*
Lark, Chestnut-backed Sparrow	*Eremopterix leucotis*
Lark, Flappet	*Mirafra rufocinnamomea*
Lark, Rufous-naped	*Mirafra affricana*
Lark, Sabota	*Calendulauda sabota*
Longclaw, Yellow-throated	*Macronyx croceus*
Mannikin, Bronze	*Lonchura cucullata*
Mannikin, Red-backed	*Lonchura bicolor*
Martin, Banded	*Riparia cincta*
Martin, Brown-throated	*Riparia paludicola*
Martin, Common House	*Delichon urbicum*
Martin, Rock	*Ptyonoprogne fuligula*
Martin, Sand	*Riparia riparia*
Moorhen, Lesser	*Gallinula angulate*
Mousebird, Red-faced	*Urocolius indicus*
Mousebird, Speckled	*Colius striatus*
Myna, Common	*Acridotheres tristis*
Neddicky	*Cisticola fulvicapilla*

Brownbul, Terrestrial	*Phyllastrephus terrestris*
Brubru	*Nilaus afer*
Bulbul, Dark-capped	*Pycnonotus tricolor*
Bunting, Cinnamon-breasted	*Emberiza tahapisi*
Bunting, Golden-breasted	*Emberiza flaviventris*
Buttonquail, Black rumped	*Turnix nanus*
Buttonquail, Common	*Turnix sylvaticus*
Buzzard, Common	*Buteo buteo*
Buzzard, European Honey	*Pernis apivorus*
Buzzard, Jackal	*Buteo rufofuscus*
Buzzard, Lizard	*Kaupifalco monogrammicus*
Camaroptera, Green-baked	*Camaroptera brachyura*
Canary, Lemon-breasted	*Crithagra sulphurata*
Canary, Yellow-fronted	*Crithagra mozambica*
Chat, Buff-streaked	*Myrmecocichla formicivora*
Chat, Cape Robin	*Cossypha caffra*
Chat, Familiar	*Cercomela familiaris*
Chat, Mocking Cliff	*Thamnolaea cinnamomeiventris*
Cisticola, Croaking	*Cisticola natalensis*
Cisticola, Lazy	*Cisticola aberrans*
Cisticola, Rattling	*Cisticola chiniana*
Cisticola, Red-faced	*Cisticola erythrops*
Cisticola, Zitting	*Cisticola juncidis*
Cormorant, Reed	*Microcarbo africanus*
Cormorant, White-breasted	*Phalacrocorax lucidus*

Nicator, Eastern	*Nicator gularis*
Nightjar, Fiery-necked	*Caprimulgus pectoralis*
Openbill, African	*Anastomus lamelligerus*
Oriole, Black-headed	*Oriolus larvatus*
Oriole, Eurasian Golden	*Oriolus oriolus*
Owl, African wood	*Strix woodfordii*
Owl, Marsh	*Asio capensis*
Owl, Spotted Eagle	*Bubo africanus*
Owl, Verreaux	*Bubo lacteus*
Owl, Western Barn	*Tyto alba*
Owlet, Pearl-spotted	*Glaucidium perlatum*
Oxpecker, Red-billed	*Buphagus erythrorhynchus*
Pelican, Great White	*Pelecanus onocrotalus*
Pelican, Pink-backed	*Pelecanus rufescens*
Petronia, Yellow-throated	*Gymnoris superciliaris*
Pigeon, African Green	*Treron calvus*
Pigeon, African Olive	*Columba arquatrix*
Pipit, African	*Anthus cinnamomeus*
Pipit, Bushveld	*Anthus caffer*
Pipit, Plain-backed	*Anthus leucophrys*
Pipit, Striped	*Anthus lineiventris*
Prinia, Tawny-flanked	*Prinia subflava*
Puffback, Black-backed	*Dryoscopus cubla*
Pytilia, Green-winged	*Pytilia melba*
Quail, Common	*Coturnix coturnix*

Corncrake	*Crex crex*
Coucal, Black	*Centropus grillii*
Coucal, Burchell's	*Centropus burchellii*
Coucal, Green	*Centropus chlororhynchos*
Crake, African	*Crex egregia*
Crake, Black	*Amaurornis flavirostra*
Crake, Striped	*Aenigmatolimnas marginalis*
Crombec, Long-billed	*Sylvietta rufescens*
Crow, Pied	*Corvus albus*
Cuckoo, African Emerald	*Chrysococcyx cupreus*
Cuckoo, African	*Cuculus gularis*
Cuckoo, Black	*Cuculus clamosus*
Cuckoo, Common	*Cuculus canorus*
Cuckoo, Diederik	*Chrysococcyx caprius*
Cuckoo, Jacobin	*Clamator jacobinus*
Cuckoo, Klaas'	*Chrysococcyx klaas*
Cuckoo, Red-chested	*Cuculus solitarius*
Cuckoo, Thick-billed	*Pachycoccyx audeberti*
Cuckoo-Hawk, African	*Aviceda cuculoides*
Cuckoo-shrike, Black	*Campephaga flava*
Cuckooshrike, Grey	*Ceblepyris caesius*
Darter, African	*Anhinga rufa*
Dove, Cape turtle	*Streptopelia capicola*
Dove, Emerald-spotted Wood	*Turtur chalcospilos*
Dove, Laughing	*Spilopelia senegalensis*

Quail, Harlequin	*Coturnix delegorguei*
Quelea, Red-billed	*Quelea quelea*
Raven, White-necked	*Corvus albicollis*
Robin, Bearded Scrub	*Cercotrichas quadrivirgata*
Robin, Brown Scrub	*Cercotrichas signata*
Robin, White-browed Scrub	*Erythropygia leucophrys*
Robin-Chat, Red-capped	*Cossypha caffra*
Robin-chat, White throated	*Cossypha humeralis*
Robin-Chat, White-browed	*Cossypha heuglini*
Roller, Broad-billed	*Eurystomus glaucurus*
Roller, European	*Coracias garrulous*
Roller, Lilac-breasted	*Coracias caudatus*
Roller, Purple	*Coracias naevius*
Sandpiper, Common	*Actitis hypoleucos*
Sandpiper, Wood	*Tringa glareola*
Sandplover, Three banded	*Charadrius tricollaris*
Saw-wing, Black	*Psalidoprocne pristoptera*
Scimitarbill, Common	*Rhinopomastus cyanomelas*
Secretarybird	*Sagittarius serpentarius*
Seedeater, Brimstone	*Crithagra sulphurata*
Seedeater, Streaky-headed	*Crithagra gularis*
Shikra	*Accipiter badius*
Shrike, Gorgeous Bush-	*Telophorus viridis*
Shrike, Grey headed Bush-	*Malaconotus blanchoti*
Shrike, Olive Bush	*Lanius minor*

Dove, Lemon	*Columba larvata*
Dove, Namaqua	*Oena capensis*
Dove, Red eyed	*Streptopelia semitorquata*
Dove, Tambourine	*Turtur tympanistria*
Drongo, Fork-tailed	*Dicrurus adsimilis*
Drongo, Square-tailed	*Dicrurus ludwigii*
Duck, African Black	*Anas sparsa*
Duck, Knob-billed	*Sarkidiornis melanotos*
Duck, White-faced Whistling	*Dendrocygna viduata*
Eagle, African Fish	*Haliaeetus vocifer*
Eagle, Black-chested Snake	*Circaetus pectoralis*
Eagle, Booted	*Hieraaetus pennatus*
Eagle, Brown Snake	*Circaetus cinereus*
Eagle, Crowned	*Stephanoaetus coronatus*
Eagle, Lesser Spotted	*Clanga pomarina*
Eagle, Long-crested	*Lophaetus occipitalis*
Eagle, Martial	*Polemaetus belliicosus*
Eagle, S Banded Snake	*Circaetus fasciolatus*
Eagle, Steppe	*Aquila nipalensis*
Eagle, Tawny	*Aquila rapax*
Eagle, Wahlbergs	*Hieraaetus wahlbergi*
Egret, Great	*Ardea alba*
Egret, Little	*Egretta garzetta*
Egret, Western Cattle	*Bubulcus ibis*
Eremomela, Burnt-necked	*Eremomela usticollis*
Shrike, Orange breasted Bush-	*Lanius collurio*
Shrike, Red-backed	*Gallinago media*
Sparrow, Grey-headed	*Passer diffuses*
Sparrow, House	*Passer melanurus*
Sparrowhawk, Black	*Accipiter melanoleucus*
Sparrowhawk, Little	*Accipiter minullu*
Spoonbill, African	*Platalea alba*
Spurfowl, Natal	*Pternistis natalensis*
Starling, Black-bellied	*Lamprotornis corruscus*
Starling, Cape Glossy	*Lamprotornis nitens*
Starling, Red-winged	*Onychognathus morio*
Starling, Violet-backed	*Cinnyricinclus leucogaster*
Starling, Wattled	*Creatophora cinereal*
Stilt, Black-winged	*Himantopus himantopus*
Stonechat, African	*Saxicola torquatus*
Stork, Black	*Ciconia nigra*
Stork, Marabou	*Leptoptilos crumeniferus*
Stork, White	*Ciconia ciconia*
Stork, Wooly-necked	*Ciconia episcopus*
Stork, Yellow-billed	*Mycteria ibis*
Sunbird, Amethyst	*Chalcomitra amethystine*
Sunbird, Collared	*Hedydipna collaris*
Sunbird, Grey	*Cyanomitra veroxii*
Sunbird, Marico	*Cinnyris mariquensis*
Sunbird, Neergard's	*Cinnyris neergaardi*

Eremomela, Yellow-bellied	*Eremomela icteropygialis*
Falcon, Amur	*Falco amurensis*
Falcon, Lanner	*Falco biarmicus*
Falcon, Peregrine	*Falco peregrinus*
Falcon, Sooty	*Falco vespertinus*
Finch, African Quail	*Ortygospiza fuscocrissa*
Finch, Cuckoo	*Anomalospiza imberbis*
Finfoot, African	*Podica senegalensis*
Firefinch, Jamison's	*Lagonosticta rhodopareia*
Firefinch, Red-billed	*Lagonosticta senegala*
Fiscal, Southern	*Lanius collaris*
Flamingo, Greater	*Phoenicopterus roseus*
Flufftail, Buff spotted	*Sarothrura elegans*
Flycatcher Spotted	*Muscicapa striata*
Flycatcher, African dusky	*Muscicapa adusta*
Flycatcher, African Paradise	*Terpsiphone viridis*
Flycatcher, Ashy	*Fraseria caerulescens*
Flycatcher, Blue-mantled crested	*Trochocercus cyanomelas*
Flycatcher, Fiscal	*Sigelus silens*
Flycatcher, Pale	*Bradornis pallidus*
Flycatcher, Southern Black	*Melaenornis pammelaina*
Flycatcher, Grey Tit-	*Myioparus plumbeus*
Francolin, Crested	*Ortygornis sephaena*
Francolin, Shelley's	*Scleroptila shelleyi*
Go-away-bird, Grey	*Corythaixoides concolor*
Sunbird, Olive	*Cinnyris jugularis*
Sunbird, Purple-banded	*Cinnyris bifasciatus*
Sunbird, Scarlet-chested	*Chalcomitra senegslensis*
Sunbird, White-bellied	*Cinnyris talatala*
Swallow, Barn	*Hirundo rustica*
Swallow, Greater Striped	*Cecropis cucullate*
Swallow, Lesser Striped	*Cecropis abyssinica*
Swallow, Red-breasted	*Cecropis semirufa*
Swallow, Wire-tailed	*Hirundo smithii*
Swift, African Black	*Apus barbatus*
Swift, African Palm	*Cypsiurus parvus*
Swift, Horus	*Apus **horus***
Swift, Little	*Apus affinis*
Swift, White-rumped	*Apus caffer*
Tchagra, Black-crowned	*Tchagra senegalus*
Tchagra, Brown-crowned	*Tchagra australis*
Teal, Red-billed	*Anas erythrorhyncha*
Thick-knee, Spotted	*Burhinus capensis*
Thick-knee, Water	*Burhinus vermiculatus*
Thrush, Kurrichane	*Turdus libonyanus*
Tinkerbird, Red-fronted	*Pogoniulus pusillus*
Tinkerbird, Yellow-rumped	*Pogoniulus bilineatus*
Tit, Grey Penduline	*Anthoscopus caroli*
Tit, Southern Black	*Parus niger*
Trogon, Narina	*Apaloderma narina*

Goose, Egyptian	*Alopochen aegyptiaca*
Goose, Spur-winged	*Plectropterus gambensis*
Goshawk, African	*Accipiter tachiro*
Goshawk, Gabar	*Micronisus gabar*
Grebe, Little	*Tachybaptus ruficollis*
Greenbul, Sombre	*Andropadus importunus*
Greenbul, Yellow-bellied	*Tachybaptus ruficollis*
Greenshank, Common	*Tringa nebularia*
Guineafowl, Crested	*Guttera pucherani*
Guineafowl, Helmeted	*Numida meleagris*
Hamerkop	*Scopus umbrette*
Harrier, Montague's	*Circus pygargus*
Harrier-Hawk, African	*Polyboroides typus*
Hawk-eagle, African	*Aquila spilogaster*
Helmetshrike, Retz's	*Prionops retzii*
Helmetshrike, White-crested	*Prionops plumatus*
Heron, Black-crowned Night	*Nycticorax nycticorax*
Heron, Black-headed	*Ardea melanocephala*
Heron, Goliath	*Ardea goliath*
Heron, Green-backed	*Butorides striata*
Heron, Grey	*Ardea cinereal*
Hobby, Eurasian	*Falco subbuteo*
Honeybird, Brown-backed	*Prodotiscus regulus*
Honeyguide, Greater	*Indicator indicator*
Honeyguide, Lesser	*Indicator minor*

Turaco, Purple-crested	*Tauraco porphyreolophus*
Twinspot, Green	*Mandingoa nitidula*
Twinspot, Pink-throated	*Hypargos margaritatus*
Vulture, Cape	*Gyps coprotheres*
Vulture, Hooded	*Necrosyrtes monachus*
Vulture, Lappet-faced	*Torgos tracheliotus*
Vulture, Palm nut	*Gypohierax angolensis*
Vulture, White-backed	*Gyps africanus*
Vulture, White-headed	*Trigonoceps occipitalis*
Wagtail, African pied	*Motacilla aguimp*
Wagtail, Cape	*Motacilla capensis*
Wagtail, Mountain	*Motacilla clara*
Warbler, African Reed	*Acrocephalus baeticatus*
Warbler, Broad-tailed	*Schoenicola platyuru*
Warbler, Dark caped-Yellow	*Iduna natalensis*
Warbler, Garden	*Sylvia borin*
Warbler, Great Reed	*Acrocephalus arundinaceus*
Warbler, Icterine	*Hippolais icterina*
Warbler, Lesser Swamp	*Acrocephalus gracillirostris*
Warbler, Marsh	*Acrocephalus palustris*
Warbler, Sedge	*Acrocephalus schoenobaenus*
Warbler, Stierling's Wren	*Calamonastes stierlingi*
Warbler, Willow	*Phylloscopus trochilus*
Waxbill, Blue	*Uraeginthus angloensis*
Waxbill, Common	*Estrilda astrild*

Honeyguide, Scaly-throated	*Indicator variegatus*
Hoopoe, African	*Upupa Africana*
Hornbill, Crowned	*Tockus alboterminatus*
Hornbill, Southern ground	*Bucorvus leadbeateri*
Hornbill, Sthn Yellow-billed	*Tockus leucomelas*
Hornbill, Trumpeter	*Bycanistes buccinator*
Ibis, Glossy	*Plegadis falcinellus*
Ibis, Hadeda	*Bosttychia hagedash*
Indigobird, Dusky	*Vidua funereal*
Indigobird, Village	*Vidua chalybeata*
Jacana, African	*Actophilornis africanus*
Kestrel, Rock	*Falco nrupicolos*
Kingfisher, African Pygmy	*Ispidina picta*
Kingfisher, Brown-hooded	*Halcyon albiventris*
Kingfisher, Giant	*Megaceryle maxima*
Kingfisher, Grey-headed	*Halcyon leucocephala*
Kingfisher, Malachite	*Alcedo cristata*
Kingfisher, Pied	*Ceryle rudis*
Kingfisher, Striped	*Halcyon chelicuti*
Kite, Black	*Milvus migrans*
Kite, Black-shouldered	*Elanus caeruleus*
Kite, Yellow-billed	*Milvus parasitus*
Korhaan, Black-bellied	*Lissotis melanogaster*
Lapwing, African Wattled	*Vanellus senegallus*
Waxbill, Grey	*Glaucestrilda perreini*
Waxbill, Orange-breasted	*Amandava subflava*
Waxbill, Swee	*Estrilda melanotis*
Weaver, Cape	*Ploceus capensis*
Weaver, Dark-backed	*Ploceus bicolor*
Weaver, Lesser Masked	*Ploceus intermedius*
Weaver, Red-headed	*Anaplectes rubriceps*
Weaver, Southern Masked	*Ploceus velatus*
Weaver, Spectacled	*Ploceus ocularis*
Weaver, Thick-billed	*Amblyospiza albifrons*
Weaver, Village	*Ploceus cucullatus*
Weaver, Yellow	*Ploceus subaureus*
White-eye, Cape	*Zosterops capensis*
Whydah, Long-tailed Paradise	*Vidua pardisaea*
Whydah, Pin-tailed	*Vidua macroura*
Widowbird, Fan-tailed	*Euplectes axillaris*
Widowbird, Red-collared	*Euplectes ardens*
Widowbird, White-winged	*Euplectes albonotatus*
Wood-hoopoe, Green	*Phoeniculus purpureus*
Woodpecker, Bearded	*Dendropicos namaquus*
Woodpecker, Cardinal	*Dendropicos fuscuscens*
Woodpecker, Golden-tailed	*Campethera abingoni*
Woodpecker, Olive	*Dendropicos griseocephalus*

MAMMALS				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Bovidae	*Aepyceros*	*melampus*	Impala	Least Concern
Bovidae	*Cephalophus*	*natalensis*	Red Duiker	Near-Threatened
Bovidae	*Connochaetes*	*taurinus*	Blue Wildebeest	Least Concern
Bovidae	*Kobus*	*ellipsiprymnus*	Common Waterbuck	Least Concern
Bovidae	*Oreotragus*	*oreotragus*	Klipspringer	Least Concern
Bovidae	*Raphicerus*	*campestris*	Steenbok	Least Concern
Bovidae	*Redunca*	*fulvorufula*	Mountain Reed Buck	Endangered
Bovidae	*Redunca*	*arundinum*	Reedbuck	Least Concern
Bovidae	*Sylvicapra*	*grimmia*	Common (Grey) Duiker	Least Concern
Bovidae	*Tragelaphus*	*scriptus*	Bushbuck	Least Concern
Bovidae	*Tragelaphus*	*strepsiceros*	Kudu	Least Concern
Bovidae	*Tragelaphus*	*angasii*	Nyala	Least Concern
Canidae	*Canis*	*mesomelas*	Black-backed Jackal	Least Concern
Cercopithecidae	*Cercopithecus*	*pygerythus*	Vervet Monkey	Least Concern
Cercopithecidae	*Papio*	*ursinus*	Chacma Baboon	Least Concern
Emballonuridae	*Taphozous*	*mauritianus*	Tomb Bat	Near-Threatened
Equidae	*Equus*	*quagga burchelli*	Common Zebra	Least Concern
Felidae	*Felis*	*caracal*	Caracal	Least Concern
Felidae	*Panthera*	*pardus*	Leopard	Vulnerable
Galagidae	*Otolemur*	*crassicaudatus*	Thick-tailed Bushbaby	Least Concern
Giraffidae	*Giraffa*	*camelopardalis*	Giraffe	Least Concern
Gliridae	*Graphiurus*	*murinus*	Woodland Dormouse	Least Concern
Herpestidae	*Atilax*	*palludinosus*	Water Mongoose	Least Concern

MAMMALS CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Herpestidae	*Herpestes*	*sanguinea*	Slender Mongoose	Least Concern
Herpestidae	*Ichneumia*	*albicauda*	White-tailed Mongoose	Least Concern
Herpestidae	*Mungos*	*mungo*	Banded Mongoose	Least Concern
Hipposideridae	*Hipposideros*	*caffer*	Sundevall's leaf-nosed bat	Least Concern
Hyaenidae	*Crocuta*	*crocuta*	Spotted Hyaena	Near-Threatened
Hystricidae	*Hystrix*	*africaeaustralis*	Porcupine	Least Concern
Leporidae	*Lepus*	*saxatilis*	Scrub Hare	Least Concern
Molossidae	*Chaerophon*	*pumilus*	Little free-tailed bat	Least Concern
Molossidae	*Mops*	*condylurus*	Angolan free-tailed bat	Least Concern
Molossidae	*Tadarida*	*aegyptica*	Egyptian Free-tailed Bat	Least Concern
Muridae	*Aethomys*	*ineptus*	Red veld rat	Least Concern
Muridae	*Grammomys*	*dolichurus*	Long-tailed Forest Mouse	Least Concern
Muridae	*Lemniscomys*	*rosalia*	Single-striped mouse	Least Concern
Muridae	*Mastomys*	*natalensis*	Multimammate mouse	Least Concern
Muridae	*Mus*	*minutoides*	Pygmy mouse	Least Concern
Mustelidae	*Mellivora*	*capensis*	Honey Badger	Least Concern
Nesomyidae	*Dendromus*	*mysticalis*	Chestnut climbing mouse	Least Concern
Nesomyidae	*Saccostomus*	*campestris*	Pouched mouse	Least Concern
Orycteropodidae	*Orycteropus*	*afer*	Aardvark	Least Concern
Procaviidae	*Procavia*	*capensis*	Cape Rock Hyrax	Least Concern
Rhinocerotidae	*Ceratotherium*	*simum*	Square-lipped Rhinoceros	Near-Threatened
Rhinolophidae	*Rhinolophus*	*simulator*	Bushveld horseshoe bat	Least Concern
Rhinolophidae	*Rhinolophus*	*darlingi*	Darling’s horseshoe bat	Least Concern

MAMMALS CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Soricidae	*Crocidura*	*silacea*	Lesser grey-brown musk shrew	Least Concern
Soricidae	*Crocidura*	*hirta*	Lesser red musk shrew	Least Concern
Soricidae	*Suncus*	*lixus*	Greater dwarf shrew	Least Concern
Soricidae	*Suncus*	*infinitesimus*	Least dwarf shrew	Least Concern
Suidae	*Phacochoerus*	*aethiopicus*	Warthog	Least Concern
Suidae	*Potamochoerus*	*porcus*	Bushpig	Least Concern
Thryonomyidae	*Thryonomys*	*swinderianus*	Greater Canerat	Least Concern
Vespertilionidae	*Hypsugo*	*anchietae*	Anchieta's bat	Least Concern
Vespertilionidae	*Miniopterus*	*fraterculus*	Lesser long-fingered bat	Least Concern
Vespertilionidae	*Miniopterus*	*natalensis*	Schreibers's long-fingered bat	Least Concern
Vespertilionidae	*Neoromicia*	*zuluensis*	Aloe serotine	Least Concern
Vespertilionidae	*Neoromicia*	*capensis*	Cape serotine Cape serotine	Least Concern
Vespertilionidae	*Nycticeinops*	*schlieffeni*	Schlieffzn's bat	Least Concern
Vespertilionidae	*Pipistrellus*	*hesperidus*	Dusky pipistrelle	Least Concern
Vespertilionidae	*Scotophilus*	*dinganii*	Yellow House Bat	Least Concern
Viverridae	*Civettictis*	*civetta*	Civet	Least Concern
Viverridae	*Genetta*	*tigrina*	Large-spotted Genet	Least Concern

REPTILES				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Agamidae	*Acanthocercus*	*atricollis*	Southern Tree Agama	Least concern
Agamidae	*Agama*	*armata*	Peter's Ground Agama	Least concern
Attractaspidae	*Amblyodipsas*	*concolor*	Natal Purple-glossed Snake	Least concern
Attractaspidae	*Amblyodipsas*	*polylepis*	Common Purple-glossed Snake	Least concern
Boidae	*Python*	*sebae*	Natal Rock Python	Least concern
Chamaeleonidae	*Chamaeleo*	*dilepis*	Flap-necked Chameleon	Least concern
Colubridae	*Ahaetulla*	*nasuta*	Vine Snake	Least concern
Colubridae	*Boaedon*	*capensis*	Brown House Snake	Least concern
Colubridae	*Crotaphopeltis*	*hotamboeia*	Herald Snake	Least concern
Colubridae	*Dasypeltis*	*scabra*	Rhombic Egg-eater	Least concern
Colubridae	*Dendroaspis*	*polylepis*	Black Mamba	Least concern
Colubridae	*Dipsadoboa*	*aulica*	Marbled Tree Snake	Least concern
Colubridae	*Dispholidus*	*typus*	Boomslang	Least concern
Colubridae	*Duberria*	*lutrix*	Common Slug Eater	Least concern
Colubridae	*Limaformosa*	*capensis*	Cape File Snake	Least concern
Colubridae	*Lycodonomorphus*	*inornatus*	Olive House Snake	Least concern
Colubridae	*Lycodonomorphus*	*rufulus*	Common Brown Water Snake	Least concern
Colubridae	*Naja*	*melanoleuca*	Forest Cobra	Least concern
Colubridae	*Naja*	*mossambica*	Mozambique Spitting Cobra	Least concern
Colubridae	*Notechis*	*scutatus*	Eastern Tiger Snake	Least concern
Colubridae	*Philothamnus*	*semivariegatus*	Spotted Bush Snake	Least concern
Colubridae	*Philothamnus*	*occidentalis*	Western Green Snake	Least concern

REPTILES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Colubridae	*Philothamnus*	*natalensis*	Natal Green Snake	Least concern
Colubridae	*Prosymna*	*stuhlmannii*	East African Shovel-snout	Least concern
Colubridae	*Psammophis*	*brevirostris*	Short-snouted Grass Snake	Least concern
Colubridae	*Psammophis*	*mossambicus*	Olive Grass Snake	Least concern
Gekkonidae	*Hemidactylus*	*mabouia*	Moreau's Tropcial House Gecko	Least concern
Gekkonidae	*Homopholis*	*wahlbergii*	Wahlberg's Velvet Gecko	Least concern
Gekkonidae	*Lygodactylus*	*capensis*	Cape Dwarf Gecko	Least concern
Lacertidae	*Broadleysaurus*	*major*	Rough-scaled Plated Lizard	Least concern
Lacertidae	*Smaug*	*warreni*	Warren's Girdled Lizard	Least concern
Lacertidae	*Tetradactylus*	*africanus*	African Long-tailed Seps	Least concern
Leptotyphlopidae	*Leptotyphlops*	*scutifrons*	Peter's Thread Snake	Least concern
Leptotyphlopidae	*Leptotyphlops*	*telloi*	Tello's Thread Snake	Near threatened
Scincidae	*Acontias*	*plumbeus*	Giant Legless Skink	Least concern
Scincidae	*Lampropholis*	*delicata*	Rainbow Skink	Least concern
Scincidae	*Scelotes*	*mossambicus*	Mozambique Dwarf Burrowing Skink	Least concern
Scincidae	*Trachylepis*	*varia*	Variable Skink	Least concern
Scincidae	*Trachylepis*	*capensis*	Cape Skink	Least concern
Scincidae	*Trachylepis*	*homalocephala*	Red-sided Skink	Least concern
Scincidae	*Trachylepis*	*striata*	Striped Skink	Least concern
Testudines	*Kinixys*	*belliana*	Bell's Hinged Tortoise	Vulnerable
Testudines	*Kinixys*	*natalensis*	Natal Hinged Tortoise	Vulnerable
Testudines	*Stigmochelys*	*pardalis*	Leopard Tortoise	Least concern
Triochronydae	*Pelomedusa*	*subrufa*	Marsh Terrapin	Least concern

REPTILES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Varanidae	*Varanus*	*albigularis*	Rock Monitor	Least concern
Varanidae	*Varanus*	*salvator*	Water Monitor	Least concern
Viperadae	*Bitis*	*arietans*	Puff Adder	Least concern
Viperadae	*Causus*	*rhombeatus*	Rhombic Night Adder	Least concern

AMPHIBIANS				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Pipidae	*Xenopus*	*laevis*	Common Platanna	Least Concern
Pipidae	*Xenopus*	*muelleri*	Tropical Platanna	Least Concern
Hyperolidae	*Afrixalus*	*aureus*	Golden Leaf-Folding Frog	Least Concern
Hyperolidae	*Afrixalus*	*fornasinii*	Greater Leaf-folding Frog	Least Concern
Hyperolidae	*Semnodactylus*	*wealii*	Rattling Frog	Least Concern
Hyperolidae	*Kassina*	*senegalensis*	Bubbling Kassina	Least Concern
Hyperolidae	*Hyperolius*	*marmoratus*	Painted Reed Frog	Least Concern
Hyperolidae	*Hyperolius*	*nasutus*	Long Reed Frog	Least Concern
Hyperolidae	*Hyperolius*	*semidiscus*	Yellow-striped Reed Frog	Least Concern
Hemisotidae	*Hemisus*	*marmoratus*	Mottled Shovel-nosed Frog	Near threatened
Microhylidae	*Breviceps*	*mossambicus*	Mozambique Rain Frog	Least Concern
Arthroleptidae	*Arthroleptis*	*wahlbergii*	Bush Squeaker	Least Concern
Buffonidae	*Amietophrynus*	*garmani*	Eastern Olive Toad	Least Concern
Buffonidae	*Schismaderma*	*carens*	Red Toad	Least Concern
Ranidae	*Ptychadena*	*mossambica*	Broad-banded Grass Frog	Least Concern
Ranidae	*Ptychadena*	*oxyrhynchus*	Sharp-nosed Grass Frog	Least Concern

AMPHIBIANS CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
Ranidae	*Ptychadena*	*porosissima*	Striped Grass Frog	Least Concern
Ranidae	*Phrynobatrachus*	*natalensis*	Dwarf Puddle Frog	Least Concern
Ranidae	*Phrynobatrachus*	*natalensis*	Snoring Puddle Frog	Least Concern
Ranidae	*Tomopterna*	*natalensis*	Natal Sand Frog	Least Concern
Ranidae	*Tomopterna*	*cryptotis*	Tremolo Sand Frog	Least Concern
Rhacophoridae	*Chiromantis*	*xerampelina*	Foam Nest Frog	Least Concern

TREES				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
ANACARDIACEAE	*Harpephyllum*	*caffrum*	Wild plum	least concern
ANACARDIACEAE	*Ozoroa*	*engleri*	Drooping resin tree	least concern
ANACARDIACEAE	*Ozoroa*	*sphaerocarpa*	Currant resin tree	least concern
ANACARDIACEAE	*Sclerocarya*	*birrea subsp.caffra*	Marula	least concern
ANACARDIACEAE	*Searsia*	*chirindensis*	Red currant	vulnerable
ANACARDIACEAE	*Searsia*	*gueinzii*	Thorny karee	least concern
ANACARDIACEAE	*Searsia*	*pentheri*	Crow berry	least concern
ANACARDIACEAE	*Searsia*	*rehmanniana var. rehmaniana*	Blunt leaved currant	least concern
ANNONACEAE	*Uvaria*	*caffra*	Small fruit cluster pear	least concern
APIACEAE	*Heteromorpha*	*arborescens*	Parsely tree	least concern
APOCYNACEAE	*Acokanthera*	*rotundata*	Round leaved poison bush	least concern
APOCYNACEAE	*Carissa*	*tetramera*	Sand num-num	least concern
ARALIACEAE	*Cussonia*	*natalensis*	Rock cabbage tree	least concern
ARALIACEAE	*Cussonia*	*spicata*	Cabbage tree	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
ARALIACEAE	*Cussonia*	*zuluensis*	Zulu cabbage tree	least concern
ARECACEAE	*Hyphaene*	*coriacea*	Lala palm	least concern
ASPHODELACEAE	*Aloe*	*marlothii*	Mountain aloe	least concern
ASPHODELACEAE	*Aloe*	*spicata*	Lebombo aloe	least concern
ASTERACEAE	*Brachylaena*	*discolor*	Coastal silver oak	least concern
ASTERACEAE	*Tarchonanthus*	*camphoratus*	Camphor bush	least concern
ASTERACEAE	*Tarchonanthus*	*trilobus var.galpinii*	Broad leaved camphor bush	least concern
BIGNONIACEAE	*Tecomaria*	*capensis*	Cape honeysuckle	least concern
BORAGINACEAE	*Cordia*	*caffra*	Septee tree	least concern
BORAGINACEAE	*Ehretia*	*rigida*	Puzzle bush	least concern
BRASSICACEAE	*Capparis*	*fascicularis var. fascicularis*	Caper bush	least concern
BRASSICACEAE	*Capparis*	*sepiaria var. citrifolia*	Hedge caper bush	least concern
BRASSICACEAE	*Capparis*	*tomentosa*	Woolly caper bush	least concern
BRASSICACEAE	*Cladostemon*	*kirkii*	Tonga kierie	least concern
BRASSICACEAE	*Maerua*	*rosmarinoides*	Needle leaved bush cherry	least concern
BURSERACEAE	*Commiphora*	*neglecta*	Sweet root corkwood	least concern
BURSERACEAE	*Commiphora*	*harveyi*	Copper stemmed corkwood	least concern
BURSERACEAE	*Commiphora*	*schimperi*	Glossy leaved corkwood	least concern
CELASTRACEAE	*Eleaodendron*	*transvaalense*	Bushveld saffron	near threatened
CELASTRACEAE	*Gymnosporia*	*glaucophylla*	Blue spikethorn	least concern
CELASTRACEAE	*Gymnosporia*	*maranguensis*	Tropical spikethorn	least concern
CELASTRACEAE	*Gymnosporia*	*senegalensis*	Confetti spikethorn	least concern
CELASTRACEAE	*Maytenus*	*undata*	Koko tree	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
CELASTRACEAE	*Mystroxylon*	*aethiopicum subsp. schlechteri*	Kooboo berry	least concern
CELASTRACEAE	*Pleurostylia*	*capensis*	Coffee pear	least concern
CELASTRACEAE	*Putterlickia*	*verrucosa*	Forest false spikethorn	least concern
CLUSIACEAE	*Garcinia*	*livingstonei*	African mangosteen	least concern
COMBRETACEAE	*Combretum*	*apiculatum subsp. apiculatum*	Red bushwillow	least concern
COMBRETACEAE	*Combretum*	*molle*	Velvet bushwillow	least concern
COMBRETACEAE	*Terminalia*	*phanerophlebia*	Lebombo cluster leaf	least concern
DIDIEREACEAE	*Portulacaria*	*afra*	Spekboom	least concern
EBENACEAE	*Diospyros*	*dichrophylla*	Poison star apple	least concern
EBENACEAE	*Diospyros*	*lycioides*	Bluebush star apple	least concern
EBENACEAE	*Diospyros*	*simii*	Climing star apple	least concern
EBENACEAE	*Euclea*	*daphnoides*	White stemmed guarri	least concern
EBENACEAE	*Euclea*	*divinorum*	Magic guarri	least concern
EBENACEAE	*Euclea*	*racemosa*	Dune guarri	least concern
ERYTHROXYLACEAE	*Erythroxylum*	*delagoense*	Small leaved coca tree	least concern
ERYTHROXYLACEAE	*Erythroxylum*	*emarginatum*	African coca tree	least concern
ERYTHROXYLACEAE	*Erythroxylum*	*pictum*	Blue leaved coca tree	least concern
EUPHORBIACEAE	*Acalypha*	*glabrata var. glabrata*	False nettle	least concern
EUPHORBIACEAE	*Clutia*	*abyssinica var. abyssinica*	Large lightening bush	least concern
EUPHORBIACEAE	*Euphorbia*	*cooperi*	Bushveld candelabra euphorbia	least concern
EUPHORBIACEAE	*Euphorbia*	*ingens*	Naboom	least concern
EUPHORBIACEAE	*Euphorbia*	*tirucalli*	Rubber hedge euphorbia	least concern
EUPHORBIACEAE	*Euphorbia*	*triangularis*	River euphorbia	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
EUPHORBIACEAE	*Spirostachys*	*africana*	Tamboti	least concern
EUPHORBIACEAE	*Suregada*	*africana*	Canary berry	least concern
FABACEAE	*Albizia*	*adianthifolia*	Flat crown Albizia	least concern
FABACEAE	*Craibia*	*zimmermannii*	Sandforest craibia	least concern
FABACEAE	*Dalbergia*	*obovata*	Climbing flat bean	least concern
FABACEAE	*Dichrostachys*	*cinerea*	Sickle bush	least concern
FABACEAE	*Erythrina*	*humeana*	Dwarf coral tree	least concern
FABACEAE	*Erythrina*	*latissima*	Broad-leaved coral tree	least concern
FABACEAE	*Erythrina*	*lysistemon*	Sacred coral tree	least concern
FABACEAE	*Ormocarpum*	*trichocarpum*	Hairy catterpillar pod	least concern
FABACEAE	*Peltophorum*	*africanum*	African wattle	least concern
FABACEAE	*Schotia*	*brachypetala*	Weeping boerbean	least concern
FABACEAE	*Senegalia*	*ataxacantha*	Flame thorn	least concern
FABACEAE	*Senegalia*	*burkei*	Black monkey thorn	least concern
FABACEAE	*Senegalia*	*caffra*	Common hook thorn	least concern
FABACEAE	*Senegalia*	*senegal var. rostrata*	Bushy three hook thorn	least concern
FABACEAE	*Vachellia*	*gerrardii var. gerrardii*	Red thorn	least concern
FABACEAE	*Vachellia*	*natalitia*	Palebark sweetthorn	least concern
FABACEAE	*Vachellia*	*nilotica subsp. kraussiana*	Scented pod thorn	least concern
FABACEAE	*Vachellia*	*tortilis subsp. heteracantha*	Umbrella thorn	least concern
FABACEAE	*Vachellia*	*xanthophloea*	Fever tree acacia	least concern
HETEROPYXIDACEAE	*Heteropyxis*	*natalensis*	Lavender tree	least concern
ICACINACEAE	*Apodytes*	*dimidiata subsp. dimidiata*	White pear	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
LAMIACEAE	*Clerodendrum*	*glabrum var. glabrum*	Smooth tinderwood	least concern
LAMIACEAE	*Premna*	*mooiensis*	Skunkbush	least concern
LAMIACEAE	*Vitex*		Fingerleaf	least concern
LOGANIACEAE	*Strychnos*	*gerrardii*	Coastal monkey orange	least concern
LOGANIACEAE	*Strychnos*	*henningsii*	Red bitterberry	least concern
LOGANIACEAE	*Strychnos*	*madagascariensis*	Black monkey orange	least concern
LOGANIACEAE	*Strychnos*	*spinosa*	Spiny monkey orange	least concern
LOGANIACEAE	*Strychnos*	*usambarensis*	Blue bitterberry	least concern
LYTHRACEAE	*Galpinia*	*transvaalica*	Galpinia	least concern
MALPIGHIACEAE	*Acridocarpus*	*natilitius var.linearifolius*	Moth fruit	not evaluated
MALVACEAE	*Dombeya*	*rotundifolia*	Wild pear	least concern
MALVACEAE	*Dombeya*	*tiliacea*	Forest dombeya	least concern
MALVACEAE	*Grewia*	*bicolor*	White leaved raisin	least concern
MALVACEAE	*Grewia*	*caffra*	Climbing raisin	least concern
MALVACEAE	*Grewia*	*flava*	Velvet raisin	least concern
MALVACEAE	*Grewia*	*flavescens*	Sandpaper raisin	least concern
MALVACEAE	*Grewia*	*hexamita*	Giant raisin	least concern
MALVACEAE	*Grewia*	*monticola*	Grey raisin	least concern
MALVACEAE	*Grewia*	*occidentalis*	Cross berry	least concern
MALVACEAE	*Grewia*	*villosa*	Mallow raisin	least concern
MALVACEAE	*Thespesia*	*acutiloba*	Lagoon tulip tree	least concern
MELIACEAE	*Trichilia*	*emetica*	Natal mahogany	least concern
MELIACEAE	*Turraea*	*floribunda*	Honeysuckle tree	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
MELIACEAE	*Turraea*	*obtusifolia*	Small honeysuckle tree	least concern
MORACEAE	*Ficus*	*abutilifolia*	Large leaved rock fig	least concern
MORACEAE	*Ficus*	*glumosa*	Hairy rock fig	least concern
MORACEAE	*Ficus*	*ingens*	Red leaved rock fig	least concern
MORACEAE	*Ficus*	*natalensis*	Coastal strangler fig	least concern
MORACEAE	*Ficus*	*polita subsp. polita*	Heart leaved fig	least concern
MORACEAE	*Ficus*	*salicifolia*	Wonderboom fig	least concern
MORACEAE	*Ficus*	*sycomorus subsp. sycomorus*	Sycomore fig	least concern
OCHNACEAE	*Ochna*	*natalitia*	Showy ochna	least concern
OLACACEAE	*Ximenia*	*americana*	Blue sourplum	least concern
OLACACEAE	*Ximenia*	*caffra*	Sourplum	least concern
OLEACEAE	*Olea*	*europea subsp. africana*	African olive	least concern
PHYLLANTHACEAE	*Cleistanthus*	*schlechteri*	Umzinthi (False tamboti)	least concern
PHYLLANTHACEAE	*Flueggea*	*virosa*	Whiteberry bush	least concern
PHYLLANTHACEAE	*Phyllanthus*	*reticulatus*	Potato bush	least concern
RHAMNACEAE	*Berchemia*	*zeyheri*	Red ivory	least concern
RHAMNACEAE	*Ziziphus*	*mucronata*	Buffalo thorn	least concern
RHIZOPHORACEAE	*Cassipourea*	*malosana*	Onion wood	least concern
RUBIACEAE	*Canthium*	*ciliatum*	Hairy turkey berry	least concern
RUBIACEAE	*Canthium*	*inerme*	Turkey berry	least concern
RUBIACEAE	*Canthium*	*setiflorum subsp setiflorum*	Rough leaved turkey berry	least concern
RUBIACEAE	*Coddia*	*rudis*	Small bone apple	least concern
RUBIACEAE	*Gardenia*	*cornuta*	Tonga gardenia	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
RUBIACEAE	*Gardenia*	*volkensii*	Bushveld gardenia	least concern
RUBIACEAE	*Kraussia*	*floribunda*	Rhino coffee	least concern
RUBIACEAE	*Pavetta*	*edentula*	Gland leaf brides bush	least concern
RUBIACEAE	*Plectroniella*	*capillaris*	False turkey berry	least concern
RUBIACEAE	*Pyrostria*	*hystrix*	Porcupine bush	least concern
RUBIACEAE	*Tarenna*	*supra-axillaris*	Narrow leaved butterspoon	least concern
RUBIACEAE	*Vangueria*	*monteiroi*	Dune pendent medlar	least concern
RUBIACEAE	*Vangueria*	*madagascariensis*	Smooth wild medlar	least concern
RUTACEAE	*Clausena*	*anisata*	Perdepis	least concern
RUTACEAE	*Ptaeroxylon*	*obliquum*	Sneezewood	least concern
RUTACEAE	*Teclea*	*gerrardii*	Flakey bark cherry orange	least concern
RUTACEAE	*Vepris*	*reflexa*	Rock white ironwood	least concern
RUTACEAE	*Zanthoxylum*	*capense*	Small knobwood	least concern
SALICACEAE	*Dovyalis*	*caffra*	Kei apple	least concern
SALICACEAE	*Dovyalis*	*rhamnoides*	Sourberry	least concern
SALICACEAE	*Scolopia*	*zeyheri*	Thorn pear	least concern
SAPINDACEAE	*Allophylus*	*decipiens*	Simple leaved false Currant	least concern
SAPINDACEAE	*Deinbollia*	*oblongifolia*	Dune soak berry	least concern
SAPINDACEAE	*Hippobromus*	*pauciflorus*	False perdepis	least concern
SAPINDACEAE	*Pappea*	*capensis*	Jacket plum	least concern
SAPOTACEAE	*Manilkara*	*concolor*	Forest milk berry	least concern
SAPOTACEAE	*Sideroxylon*	*inerme subsp inerme*	White milkwood	least concern
SAPOTACEAE	*Vitellariopsis*	*marginata*	Milkwood	least concern

TREES CONTINUED				
Family	**Genus**	**Species**	**Common Name**	**Red list status**
STRELITZIACEAE	*Strelitzia*	*nicolai*	Coastal strelitzia	least concern
ULMACEAE	*Chaetachme*	*aristata*	Thorny elm	least concern
URTICACEAE	*Obetia*	*tenax*	Rock tree nettle	least concern
URTICACEAE	*Pouzolzia*	*mixta*	Soap nettle	least concern
VITACEAE	*Rhoicissus*	*rhomboidea*	Glossy forest grape	least concern
VITACEAE	*Rhoicissus*	*tomentosa*	Common forest grape	least concern
VITACEAE	*Rhoicissus*	*tridentata*	Bushmans grape	least concern

Amphibians and Reptiles of Kube Yini, cont.

Snakes	
Fam: Leptotyphlopidae	***Fam: Colubridae (continued)***
Peter's Thread Snake	Spotted Bush Snake
Tello's Thread Snake	Western Green Snake
	Natal Green Snake
Fam: Boidae	Rhombic Egg-eater
Natal Rock Python	Herald Snake
	Eastern Tiger Snake
Fam: Attractaspidae	Marbled Tree Snake
Natal Purple-glossed Snake	Boomslang
Common Purple-glossed Snake	Vine Snake
	Forest Cobra
Fam: Colubridae	Mozambique Spitting Cobra
Common Brown Water Snake	Black Mamba
Brown House Snake	
Olive House Snake	***Fam: Viperadae***
Cape File Snake	Rhombic Night Adder
Common Slug Eater	Puff Adder
East African Shovel-snout	
Short-snouted Grass Snake	
Olive Grass Snake	

Tree Species- Kube Yini Private Game Reserve						
This Tree species list was prepared by Richard Boon (27 May 2004)						
With reference to a list prepared by Dave Johnson & Doggy Kewley						
Genus	**species**	**Common name**		**Genus**	**species**	**Common name**
Acacia	ataxacantha	Flame thorn		Combretum	apiculatum subsp. apiculatum	Red bushwillow
Acacia	burkei	Black monkey thorn		Combretum	molle	Velvet bushwillow
Acacia	caffra	Common hook thorn		Combretum	zeyheri	Large-fruited bushwillow
Acacia	gerrardii var. gerrardii	Red thorn		Commiphora	neglecta	Sweet root corkwood
Acacia	natalitia	Palebark sweetthorn		Commiphora	harveyi	Copper stemmed corkwood
Acacia	nilotica subsp. kraussiana	Scented pod thorn		Commiphora	schimperi	Glossy leaved corkwood
Acacia	robusta subsp.clavigera	River thorn		Cordia	caffra	Septee tree
Acacia	schweinfurthii var.schweinfurthii	River climbing thorn		Craibia	zimmermannii	Sandforest craibia
Acacia	senegal var. rostrata	Bushy three hook thorn		Cussonia	natalensis	Rock cabbage tree
Acacia	tortilis subsp. heteracantha	Umbrella thorn		Cussonia	spicata	Cabbage tree
Acacia	xanthophloea	Fever tree acacia		Cussonia	zuluensis	Zulu cabbage tree
Acalypha	glabrata var. glabrata	False nettle		Dalbergia	obovata	Climbing flat bean
Acokanthera	rotundata	Round leaved poison bush		Deinbollia	oblongifolia	Dune soak berry
Acokanthera	oppositifolia	Common Poison-bush		Dichrostachys	cinerea	Sickle bush
Acridocarpus	natilitius var.linearifolius	Moth fruit		Diospyros	dichrophylla	Poison star apple
Albizia	adianthifolia	Flat crown Albizia		Diospyros	lycioides	Bluebush star apple
Allophylus	decipiens	Simple leaved false Currant		Diospyros	simii	Climing star apple
Aloe	marlothii	Mountain aloe		Diospyros	whyteana	Bladdernut
Aloe	spicata	Lebombo aloe		Dombeya	cymosa	Hairless dombeya

Lagynias (Ancylanthos) monteiroi		Dune pendent medlar		Dombeya	rotundifolia	Wild pear
Apodytes	dimidiata subsp. dimidiata	White pear		Dombeya	tiliacea	Forest dombeya
Berchemia	zeyheri	Red ivory		Dovyalis	caffra	Kei apple
Brachylaena	discolor	Coastal silver oak		Dovyalis	rhamnoides	Sourberry
Brachylaena	ilicina	Small leaved silver oak		Drypetes	natalensis	Natal Ironplum
Canthium	ciliatum	Hairy turkey berry		Ehretia	rigida	Puzzle bush
Canthium	inerme	Turkey berry		Eleaodendron	transvaalense	Bushveld saffron
Canthium	setiflorum subsp setiflorum	Rough leaved turkey berry		Erythrina	humeana	Dwarf coral tree
Capparis	brassii			Erythrina	latissima	Broad-leaved coral tree
Capparis	fascicularis var. fascicularis	Caper bush		Erythrina	lysistemon	Sacred coral tree
Capparis	sepiaria var. citrifolia	Hedge caper bush		Erythroxylum	delagoense	Small leaved coca tree
Capparis	tomentosa	Woolly caper bush		Erythroxylum	emarginatum	African coca tree
Carissa	bispinosa var. bispinosa	Common num-num		Erythroxylum	pictum	Blue leaved coca tree
Carissa	tetramera	Sand num-num		Euclea	daphnoides	White stemmed guarri
Cassipourea	malosana	Onion wood		Euclea	divinorum	Magic guarri
Cassine	transvaalensis	Transvaal Saffron		Euclea	natalensis	Natal Guarri
Chaetachme	aristata	Thorny elm		Euclea	racemosa	Dune guarri
Cladostemon	kirkii	Tonga kierie		Euphorbia	cooperi	Bushveld candelabra euphorbia
Clausena	anisata	Perdepis		Euphorbia	ingens	Naboom
Cleistanthus	schlechteri	Umzinthi (False tamboti)		Euphorbia	tirucalli	Rubber hedge euphorbia
Clerodendrum	glabrum var. glabrum	Smooth tinderwood		Euphorbia	triangularis	River euphorbia
Clutia	abyssinica var. abyssinica	Large lightening bush		Ficus	abutilifolia	Large leaved rock fig
Clutia	pulchella	Lightening bush		Ficus	glumosa	Hairy rock fig
Coddia	rudis	Small bone apple		Ficus	ingens	Red leaved rock fig

Ficus	sycomorus subsp. sycomorus	Sycomore fig		Ficus	natalensis	Coastal strangler fig
Flueggea	virosa	Whiteberry bush		Ptaeroxylon	obliquum	Sneezewood
Galpinia	transvaalica	Galpinia		Putterlickia	verrucosa	Forest false spikethorn
Garcinia	livingstonei	African mangosteen		Pyrostria	hystrix	Porcupine bush
Gardenia	cornuta	Tonga gardenia		Rhoicissus	rhomboidea	Glossy forest grape
Gardenia	volkensii	Bushveld gardenia		Rhoicissus	tomentosa	Common forest grape
Grewia	bicolor	White leaved raisin		Rhoicissus	tridentata	Bushmans grape
Grewia	caffra	Climbing raisin		Rhus	chirindensis	Red currant
Grewia	flava	Velvet raisin		Rhus	gueinzii	Thorny karee
Grewia	flavescens	Sandpaper raisin		Rhus	kwazuluana	?
Grewia	hexamita	Giant raisin		Rhus	pentheri	Crow berry
Grewia	monticola	Grey raisin		Rhus	rehmanniana var. rehmaniana	Blunt leaved currant
Grewia	occidentalis	Cross berry		Schrebera	alata	Wing-leaved Wooden-pear
Grewia	villosa	Mallow raisin		Schotia	brachypetala	Weeping boerbean
Gymnosporia	glaucophylla	Blue spikethorn		Sclerocarya	birrea subsp.caffra	Marula
Gymnosporia	maranguensis	Tropical spikethorn		Scolopia	zeyheri	Thorn pear
Gymnosporia	senegalensis	Confetti spikethorn		Sideroxylon	inerme subsp inerme	White milkwood
Harpephyllum	caffrum	Wild plum		Spirostachys	africana	Tamboti
Heteromorpha	arborescens	Parsely tree		Strelitzia	nicolai	Coastal strelitzia
Heteropyxis	natalensis	Lavender tree		Strychnos	gerrardii	Coastal monkey orange
Hippobromus	pauciflorus	False perdepis		Strychnos	henningsii	Red bitterberry
Hyphaene	coriacea	Lala palm		Strychnos	madagascariensis	Black monkey orange
Kigelia	africana	Sausage Tree		Strychnos	spinosa	Spiny monkey orange
Kraussia	floribunda	Rhino coffee		Strychnos	usambarensis	Blue bitterberry

Maerua	rosmarinoides	Needle leaved bush cherry		Suregada	africana	Canary berry
Maerua	nervosa	Natal Bush-cherry		Tarchonanthus	camphoratus	Camphor bush
Manilkara	concolor	Forest milk berry		Tarchonanthus	trilobus var.galpinii	Broad leaved camphor bush
Maytenus	undata	Koko tree		Tarenna	supra-axillaris	Narrow leaved butterspoon
Maytenus	heterophylla	Common Spike-thorn		Teclea	gerrardii	Flakey bark cherry orange
Mystroxylon	aethiopicum subsp. schlechteri	Kooboo berry		Tecomaria	capensis	Cape honeysuckle
Obetia	tenax	Rock tree nettle		Terminalia	phanerophlebia	Lebombo cluster leaf
Ochna	natalitia	Showy ochna		Thespesia	acutiloba	Lagoon tulip tree
Olea	europea subsp. africana	African olive		Tricalysia	delagoensis	Tonga jackal coffee
Ormocarpum	trichocarpum	Hairy catterpillar pod		Trichilia	emetica	Natal mahogany
Ozoroa	engleri	Drooping resin tree		Turraea	floribunda	Honeysuckle tree
Ozoroa	sphaerocarpa	Currant resin tree		Turraea	obtusifolia	Small honeysuckle tree
Pappea	capensis	Jacket plum		Uvaria	caffra	Small fruit cluster pear
Pavetta	catophylla	Sand brides bush		Vangueria	madagascariensis	Smooth wild medlar
Pavetta	edentula	Gland leaf brides bush		Vepris	reflexa	Rock white ironwood
Peltophorum	africanum	African wattle		Vernonia	colorata	Lowveld Biter-tea
Phyllanthus	reticulatus	Potato bush		Vitellariopsis	emarginata	Milkwood
Plectroniella	armata	False turkey berry		Vitex		Fingerleaf
Pleurostylia	capensis	Coffee pear		Ximenia	americana	Blue sourplum
Portulacaria	afra	Spekboom		Ximenia	caffra	Sourplum
Pouzolzia	mixta	Soap nettle		Zanthoxylum	capense	Small knobwood
Premna	mooiensis	Skunkbush		Ziziphus	mucronata	Buffalo thorn

Research Policy and Procedures document

22 May 2022

DOCUMENT PURPOSE

This document sets out to define the operational research policy and procedures that will govern the practical implementation of the principals and operational requirements set out in the Protected Area Management plan (PAMP) for Kube Yini Private Game Reserve.

The rules and procedures defined in this document aim to define an operational framework to govern all research and monitoring activities carried out within the Kube Yini Private Game Reserve.

The goal is to ensure all research and monitoring activity is:

- regulated to ensure it is aligned to the both the Kube Yini strategic and operational management framework plans.
- made available to the Kube Yini Private Game Reserve management and stakeholders as a key source of information required to successfully implement the Adaptive Management Approach prescribed in Protected Area Management Plan.

For the purposes of this policy document Kube Yini Stakeholders are defined as the Kube Yini shareholders and nominated users.

RESEARCH AND MONITORING GUIDING PRINCIPLES

The Kube Yini research policy is to support a culture of research and monitoring investigations that may be beneficial to the management of Kube Yini Private Game Reserve or are deemed to be of environmental merit. Research and monitoring activities play an important role in the enjoyment of many of the stakeholders and forms a culture that should be encouraged for the benefit of all Kube Yini stakeholders.

The following guiding principles will apply:

- research and monitoring will primarily be undertaken to assist in improving the knowledge and understanding of species, habitats and key ecological drivers within Kube Yini Private Game Reserve, thus providing for more informed adaptive management interventions.
- scientific research and monitoring that assists in broadening the knowledge and understanding of species, habitats and ecological drivers within natural systems in Southern Africa will also be encouraged.
- all research and monitoring activities must be conducted in accordance with the approved Kube Yini research policy and procedures document, aimed at ensuring all approved research activities are ethical in nature, compliant with environmental and animal rights considerations and ensure the preservation the Kube Yini sense of place.
- the results and findings of all approved research and monitor projects are for the benefit of the wider Kube Yini stakeholder community and are to be made freely available and accessible to interested parties from this community via the Kube Yini research platform.

OPERATIONAL REQUIREMENTS

- All research projects shall be registered with and approved by the Kube Yini Board of Directors.

- Approval will be subject to a motivation of protocol. A guiding Research proposal template document will be made available for use. This will be completed and submitted to the Kube Yini Reserve Director for an initial screening process.
- If recommended, the project will be submitted for consideration for final Board approval prior to commencing any research activity.
- All approved research and monitor projects are required to comply with the access to information requirements, making the project proposal, regular progress updates and any results and findings available to the Reserve management and the wider Kube Yini stakeholder community via the Kube Yini research platform.
- The maximum validity period of any research or monitoring project will be included in the research proposal document.

DETAILED REGISTRATION AND APPROVAL OF RESEARCH PROJECTS:

The following operational procedure is required to be followed to ensure a research and monitoring activity is deemed to be compliant, conducted and shared in a way that is beneficial to the wider Kube Yini stakeholders.

Access to information requirements

A Kube Yini cloud platform has been made available to facilitate the process and ensure research information is made available to the reserve management and other interested Kube Yini stakeholders.

A Google Drive platform is provided with the following directory structure:

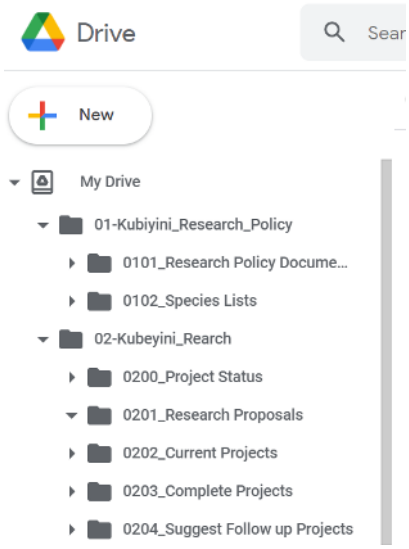

Fig. 1 Kube Yini Research Platform

Access to the platform can be requested from the Reserve Director via mail to Kubeyini.Research.A2Z@gmail.com

0200_Project Status

This folder will contain a single project summary spreadsheet with a list of all projects and their current approval status:

- Proposed
- Screened
- Approved
- Completed
- Rejected

0201_Research and Monitoring Project Application Template

A Project proposal template is available under this folder and should be completed for all proposed new research and monitoring projects. The template requests the following information used to approve the project:

- Objective
  Brief outline and objectives of the research or monitoring activity.
- Benefits
  - Expected benefits that could be gained from the research in relation to improving the knowledge and understanding of species, habitats and key ecological drivers within Kube Yini Private Game Reserve, thus providing for more informed adaptive management interventions.
  - Expected contribution to the broadening of knowledge and understanding of species, habitats and ecological drivers within natural systems in southern Africa.
- Methods
  - Outline and description of the research methods proposed to be utilised including detail of specific research equipment: Camera traps, drones, traps, tracking devices etc.
  - Detail providing evidence that the proposed methods are aligned with accepted "Best Practice" and will be carried out in a way to ensure a positive and ethical research outcome.
  - Relevant training, qualifications and experience of researchers (if applicable)
  - Details on the specific species that form the focus of the research or monitoring activities and motivation there-of.
  - Details on any expected impact on specific species, habitats or ecological systems.
  - Details on any impact on other stakeholders and the preservation of the Kube Yini sense of place. (Defined in the PAMP document).
  - Details of any other impact related to the research and monitoring guiding principles outlined in this document and the Kube Yini Protected Area Management Plan.
- Timeline
  - Proposed timescale and total duration of the project and motivation there-of.
  - Description and frequency of commitment to project feedback reporting of progress and findings (Project findings to be updated under folder 0202_Current Projects)
  - Description and timing of project completion and final reporting of findings. (To be updated under folder 0203_Project Conclusion)
  - Projects with a duration of longer than one year will be subject to an annual assessment and extension based on the project adherence to the conduct and protocols set out to in this document.
- Supporting documents & reference to similar projects
  - Details of supporting information relevant for the approval process including any affiliations to or backing from recognised research organisations.

All project proposals will be reviewed by the Reserve Director with input from the Reserve Manager or other selected qualified persons and evaluated in-terms of acceptable research methodology, potential impact, research value and possible benefits to adaptive management interventions required for Kube Yini Private Game Reserve. A recommendation is then made to the Board for a final approval decision. The Board's rejection or approval of the proposed project will be done against the principals defined in the Kube Yini Protected Area Management Plan and the adherence to the procedures set out in this document. As such individual projects may be required to comply with specific requirements, set out by the Board as deemed fit, to ensure alignment and compliance with these principles.

0202_Current Projects

A Project directory folder is to be created for each approved project and the agreed project updates and findings record as defined and agreed in the Project approval document.

- Any variation in activity or methods defined in the project should be agreed with the Reserve Director and on his/her discretion can be referred for Board approval.
- Failure to provide the agreed project progress updates may results in the project approval being revoked by the Board.

0203_Project Conclusion

A Project directory folder is to be created for each approved project and the agreed project reporting and findings recorded as defined and agreed in the Project approval document.

- Any extension to this agreed time period will be subject to a new approval/motivation process.

0204_Future Projects

This folder is to be used to document any suggested follow-on future projects. Suggestions can be provided by the research project owners, the Reserve Manager or other Kube Yini stakeholder community. Suggested projects should be aligned with existing approved projects or deemed to be beneficial to the adaptive management of Kube Yini Private Game Reserve.

RESERVE MANAGEMENT REQUIREMENTS:

- Review all new research proposals and provide advice and guidance in both the initial project screening and final Board review process.
- Engagement with the participants of approved research and monitoring projects to promote research that addresses key ecological management interventions.
- Periodic Monitoring of projects to ensure activities and methods used are aligned with those defined and approved in the project proposal document.
- Conduct quarterly reviews of current research projects to ensure project updates have been provided as per the agreed project schedule. (Including projects due for closure)
- Conduct regular reviews of current research projects to determine how their findings may inform management and to identify key gaps in research that may address key management interventions.
- Conduct an annual review and feedback to the Board on research efforts to disseminate key findings and identify areas where further research is required.

STAKEHOLDER PARTICIPATION AND FEEDBACK:

One of the objectives of adopting the protocol set out in this policy document is to provide transparency and access to information to all Kube Yini stake holders on the research projects, the relevant approval process and the measures and principles against which the approval of each project is granted by the Kube Yini Board. This document together with the Protected Area Management Plan (PAMP) provides a framework for the Board to make informed decisions in what is deemed to be in the best interest of Kube Yini Private Game Reserve.

Stakeholder comment and feedback on specific projects is welcome, however this must be directed to the Kube Yini Board and not to the Reserve management or the research project owners directly.

Feedback is requested to be constructive and aligned to the guiding principles set out to encourage and support research that is in accordance with the defined principles agreed by the majority of the stakeholders. Stakeholders providing feedback on specific projects are respectfully requested to review the project specific documentation published on the Kube Yini research platform and address any feedback in relation to the guidelines, principals and policies set out in the Protected Area Management Plan (PAMP) and the Research Policy and Procedures document for Kube Yini Private Game Reserve.

Appendix F

PRO FORMA ANNUAL PLAN OF OPERATION

Notes of a management meeting for Kube Yini Nature Reserve held at … on …

Present:

Apologies:

CC:

Appendix F

Table 18 Progress and goals set for Kube Yini Nature Reserve

Management target	2022/2023 Progress	2023/24 goals	Completion date	Responsibility	Action
NATURE RESERVE DECLARATION					
Legal protection of the entire extent of Kube Yini Nature Reserve in terms of the Protected Areas Act.			Year 1	Ezemvelo KZN Wildlife	
SECURITY					
Implement appropriate standard operating procedures and processes in responding to illegal incidents.			Year 1	Management Authority	Provision of advice from Ezemvelo
Regular patrols covering the full extent of the nature reserve.			Ongoing	Management Authority	
Prosecution of any offender caught committing an offence.			Ongoing	Management Authority	Requires the assistance of EKZNW
LAND MATTERS					
An up-to-date, accurate servitude register for the reserve.			Year 1	Management Authority	
A formal agreement, addressing boundary deviations.					
All permitting up-to-date and fully compliant.					
WILDLIFE RISKS AND LIABILITIES					
Standard operating procedures are regularly reviewed and updated to address risks, procedures and compensation associated with wildlife breakouts and emergencies.			Year 1	Management Authority	EKZNW to assist in reviewing

Management target	2022/2023 Progress	2023/24 goals	Completion date	Responsibility	Action
INFRASTRUCTURE AND EQUIPMENT					
Sufficient facilities, assets, infrastructure and equipment to support the effective management and operation of the nature reserve.			Ongoing	Management Authority	
Regular scheduled maintenance of all infrastructure and equipment.			Ongoing	Management Authority	
Appropriately functioning infrastructure that does not cause harm to the environment.			Ongoing	Management Authority	
Regular scheduled maintenance of all infrastructure and equipment.			Ongoing	Management Authority	
HUMAN RESOURCES					
Inclusion of a cost estimate in the Annual Plan of Operation.			Annually	Management Authority	
Develop a profile of staff members to identify qualifications, skills and experience, and areas in which capacity development is required.			Annually	Management Authority	
Implement a structured system to assess and determine staff job performance and to identify further training and capacity development needs.			Annually	Management Authority	
Implement measures to ensure that staff are sufficiently trained and capable to undertake the functions required of their job positions.			Annually	Management Authority	

Appendix F

Management target	2022/2023 Progress	2023/24 goals	Completion date	Responsibility	Action
MANAGEMENT SYSTEMS					
Efficient and well-documented management of the constituted arrangement. Including: o Minutes of the AGM Shared and agreed budget.			Year 3	Management Authority	Management Authority
A list of all research conducted on the reserve.			Year 3	Management Authority	Management Authority
A platform that promotes the effective storage and use of data.			Year 3	Management Authority	Management Authority
ANNUAL BUDGET					
Inclusion of a cost estimate in the Annual Plan of Operation.			Annually	Management Authority	With the assistance from Stewardship partner, if required
An annual budget that is in alignment with the reserve Annual Plan of Operation.			Annually	Management Authority	With the assistance from Stewardship partner, if required
FINANCIALS					
An efficient and compliant annual audit.			Ongoing	Management Authority	
Sustainable and ethical offtakes that improve the reserve's viability.			Ongoing	Management Authority	

Management target	2022/2023 Progress	2023/24 goals	Completion date	Responsibility	Action
FOSTERING COMMUNITY PARTNERSHIPS AND SUPPORT					
All reserve service providers are sourced locally and recruitment for new positions always starts locally.			Ongoing	Management Authority and reserve management staff	
Community development projects result in positive relationships and trust with the surrounding communities.			Ongoing	Management Authority and reserve management staff	
Provision of environmental education opportunities to local communities, especially youth, where possible.			Ongoing	Management Authority and reserve management staff	
ECOSYSTEM AND SPECIES MANAGEMENT					
Undertake an annual wildlife species census to determine animal numbers and required off-takes.			Annually	Management Authority	
Modify game species mix and numbers if they are found to be negatively impacting on biodiversity.			Annually	Management Authority	
Undertake periodic rangeland assessments to determine the state of the habitat and the influence of management interventions.			Year 5	Management Authority	
Herbivore pressure is alleviated through the use of fire to draw wildlife into rested areas.			Year 5	Management Authority	
White rhino management may include a de-horning programme and sustainable off-takes to maintain an optimal population.			Ongoing	Management Authority	

Management target	2022/23Progress	2023/24 goals	Completion date	Responsibility	Action
ECOSYSTEM AND SPECIES MANAGEMENT (CONT.)					
Off-takes are legally compliant, sustainable and ecologically sound.			Ongoing	Management Authority	
Off-takes based on the principles of adaptive management.			Ongoing	Management Authority	
FIRE MANAGEMENT					
Establishment of a series of internal firebreaks to facilitate the recommended burning regime.			Annually	Management Authority	
Burning the reserve annually in accordance with the recommendations of the VCA report and SOP			Annually	Management Authority	
Five-yearly review and update of the Kube Yini Nature Reserve Fire Management SOP			Annually	Management Authority	With support from Working on Fire
A functional and effective Fire Management SOP			Annually	Management Authority	
Compliance with the National Veld and Forest Fires Act.			Annually	Management Authority	
INVASIVE PLANT CONTROL					
Implementation of invasive alien plant control in accordance with the reserve's invasive alien plant control plan.			Annually	Management Authority	
Five-yearly review and update of the Kube Yini Nature Reserve Invasive Alien Plant Control Plan			Annually	Management Authority	
Ongoing control and eradication of listed invasive species to a point where maintenance control is all that is required.			Annually	Management Authority	

SOIL EROSION CONTROL					
A map depicting areas of soil erosion within the nature reserve			Year 1	Management Authority	
Implementation of soil erosion control measures in areas in which plant cover is low, which are susceptible to erosion.			Ongoing	Management Authority	
Road maintenance is adequately addressed in the APO, such that soil erosion is minimised.			Ongoing	Management Authority	
CULTURAL HERITAGE AND SENSE OF PLACE					
A more comprehensive understanding of the cultural, historical, archaeological and paleontological assets of the reserve.			As required	Management Authority	
The architecture of all structures will be ecologically and aesthetically sensitive and structures will be sited so that they do not impact adversely on habitat and flora or on views within the reserve.			Ongoing	Management Authority	
Shareholder and management activities are controlled and limited in areas that have been identified as particularly sensitive to impacts			Year 5	Management Authority	
RESEARCH AND MONITORING					
An annual review of research efforts is conducted to discuss and disseminate key findings and identify areas where further research is required.			Annually	Management Authority	
Budgeted research is in line with key management objectives, such that adaptive management is facilitated.			Annually	Management Authority	With inputs from research partners

All research on the reserve is ethically done and in line with best practice principles.			Annually	Management Authority	
All research activities involving physical interference have been approved by the Management Authority.			Annually	Management Authority	Engagement with research partners
Engagement with partners and research organisations to promote research that addresses key ecological management interventions.			Ongoing	Management Authority	
Awareness and monitoring of all key management interventions.			Ongoing	Management Authority	
ZONE OF INFLUENCE					
Improved water resource management through the establishment of appropriate institutional structures and better cooperation in managing catchment areas upstream of the reserve.			Annually	Management Authority	EKZNW to assist with engagement with the municipality
Streamlined and integrated socio-economic initiatives undertaken in cooperation with partners.			Annually	Management Authority	
Positive and collaborative relationships with surrounding protected areas and communities.			Annually	Management Authority	