Management Plan
for
Elandsberg Nature Reserve
Western Cape, South Africa
2025 - 2035

Management plan prepared by:
Bernard Wooding, Conservation Manager, Elandsberg Nature Reserve.

Contributors:
Tinie van der Westhuizen, CapeNature.
Dr Antoinette Veldtman, CapeNature.

Acknowledgements:
Arnelle Collison.

Cover image:
Marriette Gregor

Recommended citation:
Elandsberg Nature Reserve Management Plan. Version 1.1. 2025. Bernard Wooding, Rapula Farming.

Review date: **September 2025**

STATUS

The Elandsberg Nature Reserve has been declared as a **Nature Reserve** in terms of section 23 of the National Environmental Management Protected Areas Act, 2003.

Declaration Date:	Government Gazette Notice:
2008-09-26	REF NO. 1542

AUTHORISATION

This Protected Area Management Plan for the Elandsberg Nature Reserve was drafted and recommended by Elandsberg Farms Pty Ltd as the management authority.

Recommended and adopted by:

Name and Title	Signature and Date
Management Authority Elandsberg Farms Pty Ltd	
CapeNature	

Approved by:

Name and Title	Signature and Date
Minister of Local Government, Environmental Affairs and Development Planning	

TABLE OF CONTENTS

LIST OF TABLES PAGE

LIST OF FIGURES PAGE

LIST OF APPENDICES PAGE

1) BACKGROUND

1.1 Purpose of the plan

Management plans for biodiversity stewardship sites are strategic documents that provide the framework for the development and operation of biodiversity stewardship sites. They inform management at all levels, from the management authority through to support staff within CapeNature. The purpose of the management plan is to:

- Provide the primary strategic tool for management of Elandsberg 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 Elandsberg Nature Reserve in such a way that its values and the purpose for which it has been established are protected.

1.2 Structure of the plan

Section 1:	Provides an introduction and background to the management plan and Elandsberg Nature Reserve.
Section 2:	Sets out the vision and objectives for the biodiversity stewardship site.
Section 3:	Establishes the context of the biodiversity stewardship site, providing the basis for the operational management framework that follows.
Section 4:	Sets out the zonation of the biodiversity stewardship site, outlining the land uses in particular zones.
Section 5:	Describes the administrative structure that has been established for Elandsberg Nature Reserve.
Section 6:	Operational Management Framework - Sets out the management targets that must be achieved in managing the nature reserve.
Section 7:	Annual Plan of Operation and Review

1.3 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 1). 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.

Figure 1 The adaptive management cycle (Management Strategy Evaluation, 2009)

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.

1.4 Introduction

Elandsberg Nature Reserve is situated in the Agter-Groenberg area, on the western slopes and adjacent lowlands of the Limietberg Mountains. It is approximately 97 km north east of Cape Town City Centre and approximately 15 km from the town of Hermon. The reserve falls within the Cape Winelands District Municipality, the local Drakenstein Municipal boundary and is approximately 26km north-east of the town of Wellington. It borders in the east directly onto a Provincial Nature Reserve, the Limietberg Nature Reserve Complex, managed by CapeNature.

The declared Nature Reserve covers one land portion and is approximately 3170ha in extent and can be seen in figure 2 below.

The Nature Reserve contains examples of threatened ecosystems in terms of the National Environmental Management: Biodiversity Act, 10 of 2004, (NEMBA). It contains within its borders three vegetation units namely Hawequa Sandstone Fynbos, Swartland Alluvium Fynbos and Swartland Shale Renosterveld, the latter two of which are classified to be Critically Endangered. It also contains one of the last remaining and largest continuous stretch of Lowland Fynbos/Renosterveld left in that area. Five springs originates in- and one river flows through the Reserve and straight into the Berg River system. The property forms an important upland-lowland link and north-south corridor in the landscape and has valuable edaphic interfaces (shale-sandstone). The Reserve is also home to several endemic and critically rare species of fauna and flora, some only known to be found here.

The reserve falls within the core zone of the Cape Winelands Biosphere Reserve, proclaimed and registered with United Nations Educational, Scientific and Cultural Organisation (UNESCO).

Elandsberg Nature Reserve is also a member of the Renosterveld Conservancy, which was formed in 2002.

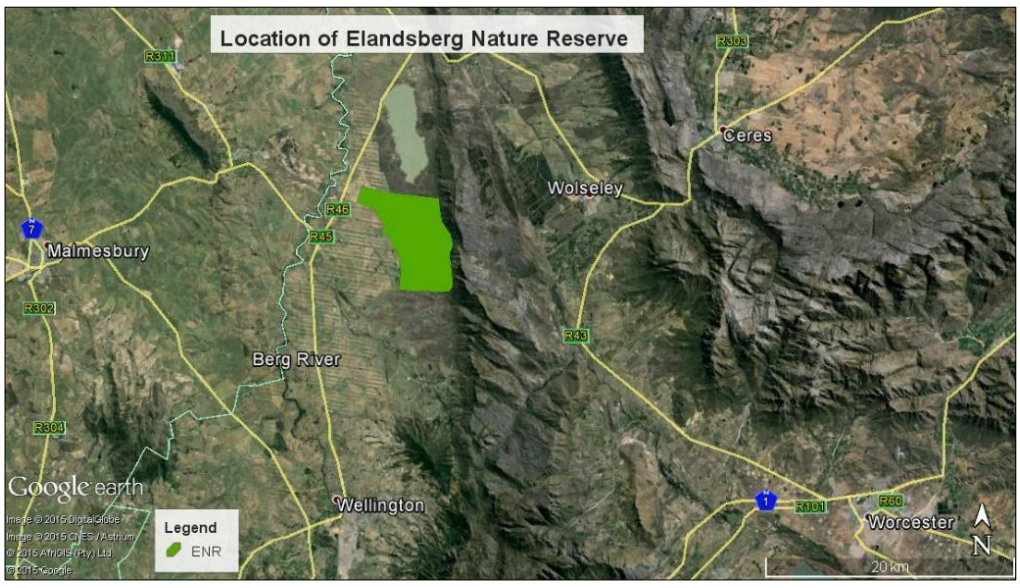


Figure 2 Regional location of Elandsberg Nature Reserve

1.5 The values of Elandsberg Nature Reserve

The values of a site are those remarkable attributes that led to it being identified as a priority for the Biodiversity Stewardship Programme. The values are important in planning and management, as they are the aspects of the place that must be protected. The values of Elandsberg Nature Reserve include:

Natural values	Vegetation types: • Swartland Alluvium Fynbos (CR) • Swartland Shale Renosterveld (CR) • Hawequa Sandstone Fynbos (LT) This property sufficiently captures an upland lowland link as identified by the CAPE processes. Identified in the Lowlands Project as Core Site for the conservation of threatened lowland habitat. Considered to be 100% irreplaceable by CAPE. The Mountain and Lowland Fynbos is in near pristine condition. 90% of the alluvium fynbos and renosterveld areas are undisturbed. The property forms a corridor linking the Limietberg Mountains to the lowland alluvium fynbos and renosterveld. Continuity of fire management, maintenance of edaphic interface and upland-lowland gradients are important reasons to conserve the Swartland Alluvium Fynbos parts.
Biodiversity values	The nature reserve has an exceptionally high plant diversity with 841 species having been identified. Of these plant species, 101 are Species of Conservation Concern. There are also 4 mammals, 3 bird, 2 amphibian and 1 reptile Species of Conservation Concern.
Heritage values	The nature reserve, archaeological and palaeontological sites, landscape, natural features of cultural significance, structures and burial sites including Bosplaas Werf and Bartholomeus Klip Werf, situated on Portion 1 of Farm 1749, have been given formal protection by Heritage Western Cape in terms of section 27(2)of the National Heritage Resources Act 25 of 1999 .
Socio-Economic and Tourism values	The nature reserve creates employment opportunities to fulfil the management activities required within the reserve. The nature reserve encourages research and forms an open-air laboratory for students from nearby tertiary institutions. The nature reserve creates recreational and educational experiences for guests staying at Bartholomeus Klip.

2) STRATEGIC MANAGEMENT FRAMEWORK

The strategic management framework is aimed at providing the basis for the protection, development and operation of the protected area over a ten-year period. It consists of the vision, purpose and objectives of Elandsberg Nature Reserve. It has been prepared collaboratively through a process involving the landowner (Management Authority), site manager and CapeNature.

2.1 Elandsberg Nature Reserve Vision and Purpose

The Vision

Elandsberg Nature Reserve aims to conserve one of the largest remaining cohesive sections of West Coast Renosterveld with its population of geometric tortoises and to maintain biodiversity and sustainability of the natural processes on the reserve through dynamic and adaptive management.

Purpose

According to S17 of NEM:PAA , the purpose is the foundation on which all future actions are based and is in line with the overall management philosophy of the nature reserve.

a) to protect ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes in a system of protected areas.
b) to preserve the ecological integrity of those areas.
c) to conserve biodiversity in those areas.
d) to protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa.
e) to protect South Africa's threatened or rare species.
f) to protect an area which is vulnerable or ecologically sensitive.
g) to assist in ensuring the sustained supply of environmental goods and services.
h) to provide for the sustainable use of natural and biological resources.
i) to create or augment destinations for nature-based tourism.
j) to manage the interrelationship between natural environmental biodiversity, human settlement and economic development.
k) to rehabilitate and restore degraded ecosystems and promote the recovery of endangered and vulnerable species.

Elandsberg Nature Reserve serves in the protection of South Africa's threatened and rare species, provides protection to ecosystems and preserves ecological integrity. Benefits of appropriate nature based economic activities may be utilised to promote human, social, cultural and economic development while protecting ecosystems that are vulnerable and ecologically sensitive.

2.2 Objectives

The objectives that follow are intended to provide the basis for the achievement of the vision.

The objectives were derived from the vision and purpose and are grouped into Key Performance Areas (KPA) in which achievement must be obtained in order to support the management intention. Objectives are then prioritised through the development of action plans which are set out in the Operational Management Framework.

Table 1 sets out the key performance areas, the objective for each key performance area and the key deliverables, required to realise the objectives.

Table 1 Objectives and Key Deliverables for Elandsberg Nature Reserve

Key Performance Area	Objective	Key Deliverable
Biodiversity Management		
Fire management	Ensure conservation of species and processes by maintaining and improving ecosystem functioning. Allow for natural fire processes to occur without impacting on safety and infrastructure. Implement effective Integrated Catchment Management.	Reduce/Prevent the Spread of Fires. Maintain Partnerships to Improve Fire Management. Determine and Implement Thresholds of Potential Concern. Reduce Wildfires due to Human Negligence and implement an ecological burn programme (if applicable).
Invasive vegetation management	Enhance biodiversity protection and conservation. Ensure conservation of species and processes by maintaining and improving ecosystem functioning.	Eradicate Alien and Invasive Species. Implement Biological Control. Prevent Further Introduction of Aliens.
Wildlife management	Ensure effective conservation of species and processes by maintaining and improving ecosystem functioning. Enhance biodiversity protection and conservation.	Prevent the introduction of alien fauna species. Control invasive alien fauna. Manage the introduction of fauna on the Reserve. Evaluate and monitor impact of fauna on the Reserve.
Erosion prevention and control	Ensure implementation of effective conservation management interventions. Enhance biodiversity protection and conservation.	Prevent and mitigate soil erosion.
Monitoring and Baseline data collection	Manage biodiversity knowledge to ensure effective conservation management. Implement measures to ensure resilience and persistence of biodiversity in light of climate change. Ensure the implementation of effective conservation management interventions. Ensure conservation of species and processes by maintaining and improving ecosystem functioning.	Create a Biodiversity Resource Inventory. Implement Monitoring Programme. Implement Research Programme. Protection of Flora of Conservation Concern. Conservation of Threatened and Endemic Fauna.

		Manage consumptive utilisation of biological resources.
Biodiversity security	Enhance biodiversity protection and conservation. Ensure conservation of species and processes by maintaining and improving ecosystem functioning.	Improved security and safety of the biodiversity assets on the Nature Reserve.
Development		
Development of tourism opportunities	Evaluate potential tourism opportunities. Implement effective management systems. Ensure legal compliance and implementation of authorised development plans.	Development of tourism opportunities that generate revenue for the Nature Reserve.
Operational Management		
Legal compliance	Ensure legal compliance to all relevant legislation and policies.	Ensure that all legal requirements are met.
Management effectiveness	Implement effective management systems.	Conduct annual audits. Auditing systems inform management and management plan revision.
Infrastructure	Ensure the implementation of effective conservation management interventions. Enhance biodiversity protection and conservation. Ensure conservation of species and processes by maintaining and improving ecosystem functioning.	Ensure that all infrastructure on the Reserve is adequately maintained.

3) DESCRIPTION OF ELANDSBERG NATURE RESERVE AND ITS CONTEXT

3.1 The legislative basis for the management of Elandsberg Nature Reserve

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

The 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.

In the Western Cape, CapeNature is the Provincial Conservation Authority, and its Biodiversity Stewardship Programme facilitates the establishment and management of protected areas on private land.

A detailed list of relevant legislation is provided in Appendix A. Landowners should familiarise themselves with the purpose and contents of the statutes and their subsequent amendments and regulations.

3.1.1 Proclamation status of Elandsberg Nature Reserve

Elandsberg Nature Reserve is proclaimed under Section 23(1) of the National Environmental Management: Protected Areas Act (Act 57 of 2003).

3.1.2 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 for the protected area.

3.2 The regional and local planning context of Elandsberg Nature Reserve

3.2.1 The Protected Area Expansion Strategy and Implementation Plan

The Protected Area Expansion Strategy and Implementation Plan is a response to the National Protected Area Expansion Strategy (NPAES) (SANBI & DEAT, 2010) which calls on provinces to develop implementation plans in support of the NPAES and in support of provincial conservation efforts and priorities. The NPAES, which provides a broad national framework for Protected Area expansion in South Africa, also identifies areas of importance to be targeted for Protected Area expansion in the country, and mechanisms to achieve this.

The CapeNature Protected Area Expansion Strategy addresses the formal proclamation of priority natural habitats as protected areas to secure biodiversity and ecosystem services for future generations. This strategy is aligned to the concepts and goals of the 2008 NPAES but does identify some different spatial priorities.

3.3 The history of Elandsberg Nature Reserve

Early records show that a piece of freehold land (Bartholomeus Klip) was granted to a Dutch immigrant, Franz Jooste in 1705 after which successive transfers brought the property into the Parker

family in 1937, when the three farms Bartholomeus Klip, Bosplaats and Eilandskloof were bought by R.H. Parker as a hunting farm. In 1969 Eskom placed a power line over the area of natural veld. Shortly afterwards the endemic *Protea mucronifolia* was discovered as well as a population of the endangered Geometric Tortoise. In order to protect the natural veld from further development, in 1973 the area of natural vegetation on the farm was proclaimed as a nature reserve (Elandsberg Private Nature Reserve). This was followed by the discovery of two other endemic plant species namely *Morea villosa* ssp. e*landsmontana* and *Brunsvigia elandsmontana.* Despite this protection in 1981 500 ha of land was forcibly expropriated. In 1988 as recognition of its importance the reserve was proclaimed a Natural Heritage Site (No 81) bringing further protection to the natural veld.

Additional agricultural land was purchased by Elandsberg Farms over the years. With the growth of the farming area, marginal agricultural lands were able to be abandoned and incorporated into the reserve as a buffer zone along the western boundary. An additional area of natural veld was also acquired in 1978. Thus, the original 2600 ha reserve steadily increased to the current status of 4000ha.

3.4 Ecological context of Elandsberg Nature Reserve

This section reflects the ecological conditions of Elandsberg Nature Reserve.

The climate is hinterland (further from oceanic influences) Mediterranean, with cool, rainy winters and warm, dry summers. In the area where Elandsberg Nature Reserve is situated, the temperatures range from –1.3ºC to 45.6ºC with a year average of 18.4ºC. The coldest month in winter, July, averages 12.2ºC while the hottest month in summer, January, has an average of 24.2ºC.

Elandsberg falls in a predominantly winter rainfall zone. Most rain falls in June with an average of 98.8 mm and the least in January, which has an average of 14.5 mm. The annual precipitation on Elandsberg is approximately 600 mm.

There has not been a recorded snowfall on Elandsberg itself but the mountains immediately to the east receive snow on their peaks in the winter months. Hail is uncommon but heavy fog is a frequent occurrence in the winter months.

During autumn, summer and spring winds predominantly blow from the southwest. In winter northwesterly winds predominate. The winds in summer (January) and winter (July) are stronger than those in during spring (April) and autumn (October).

3.4.3 Geology and soils

Elandsberg is situated along the edge of an erosion resistant ridge of sandstone, which forms the Elandskloof Mountains. This cape granite suite overlies the Malmesbury geology group, consisting mainly of sedimentary rocks. Together with granites they form a base rich substrate.

The soils in the reserve reflect the nature of the parent materials as well as the topography of the site. The soils on the eastern part of the reserve where the slope is steep are nutrient poor with low levels of nitrogen and phosphorous. They are shallow and poorly developed. The soils are infertile as the quarzitic sandstone rocks from which they are derived are deficient in nutrients and because the percolating action of water on these steep slopes leaches nutrients from the soil. The soil is whitish and acidic with many rocks and stones. The amount and size of the rocks decreases further from the mountain and the lower slopes and flat areas have sandy clay soils which are more fertile than the

steeper slopes. The most western part of the reserve has deeper loamy soils and much fewer rocks as they are derived from Malmesbury shales, this area is more fertile and was consequently used for the planting of crops in the past.

3.4.1 Topography

The Fynbos Biome is topographically diverse, and this heterogeneity of habitats has been a major driving force in the creation of arguably the most diverse and unique of the temperate floras.

Elandsberg ranges from 68m to 400m above sea level and has a west facing aspect. The mountains bordering the eastern side of the reserve reach heights up to 1378m a.s.l. Most of the reserve has a slight slope, which increases to the steep slope at the eastern border.

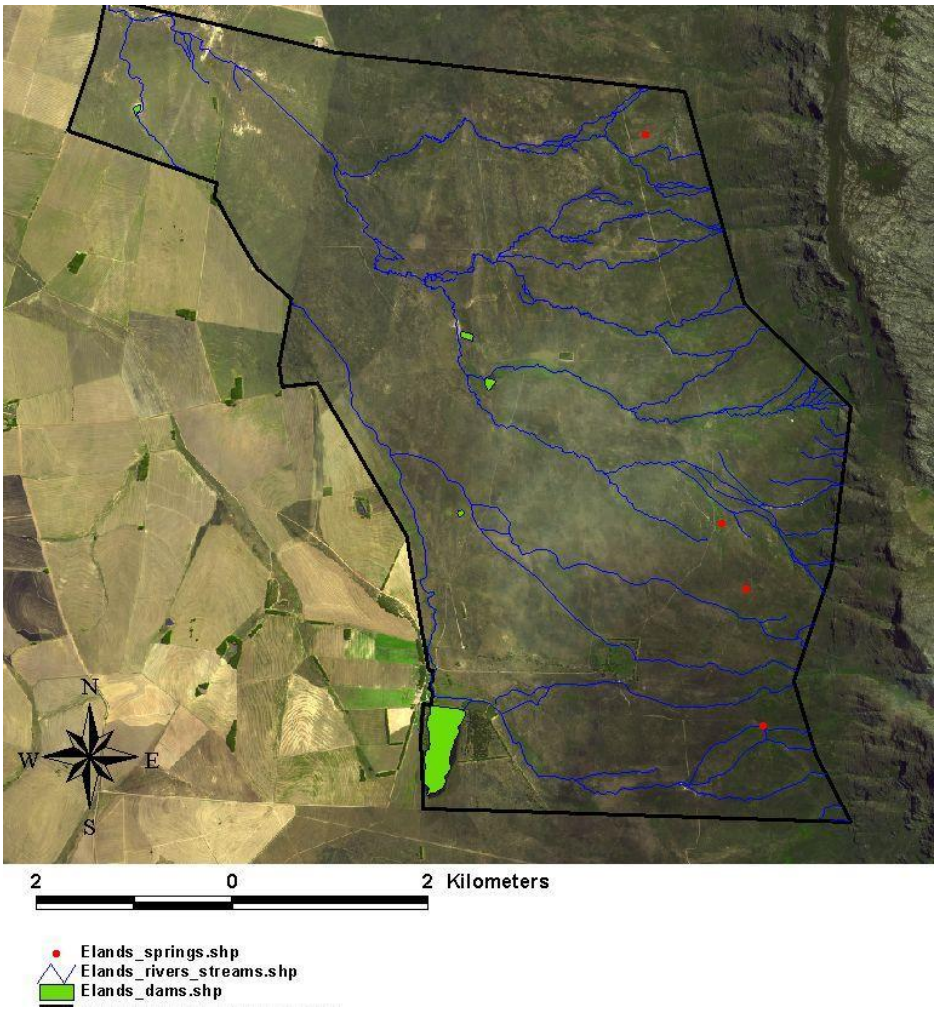


Figure 3 Topography and hydrology on Elandsberg Nature Reserve

3.4.2 Hydrology

Most of Elandsberg is well drained except for the low-lying northwestern corner, which forms a floodplain for the Berg River in the winter months. Various mountain streams flow from the mountain slopes during the winter months but only the Elandskloof River flows all year round up to Voeltjiedam Dam in the center of the reserve. The streams all merge and flow into the Berg River from the northwest corner of the reserve. This can be seen in figure 3 above.

Several small dams are found on the reserve as well as a large irrigation dam in the southwest corner of the reserve. All carry water throughout the year. There is a more than adequate water supply available for all the game species in the existing streams and dams already existing on the reserve.

3.4.4 Vegetation

The Cape Floristic Kingdom, one of six world floral kingdoms, is internationally renowned for its special rich flora containing an estimated 9 000 species of vascular plants of which almost 69% are endemic (restricted to the region). This makes it one of the richest regions in the world in terms of botanical diversity. It is characterized by five endemic families and by the conspicuous presence of, amongst others, species belonging to the families Aizoaceae, Ericaceae, Fabaceae, Iridaceae, Orchidaceae, Proteaceae, Restionaceae, Rutaceae and Scrophulariaceae (Goldblatt & Manning, 2000).

There are three identifiable vegetation types on Elandsberg, namely Swartland Shale Renosterveld, Swartland Alluvium Fynbos and Hawequas Sandstone Fynbos. Old agricultural lands form a buffer strip along the western edge of the reserve and a wetland or vlei can be found in the center of the reserve. These can be seen in Figure 4 below.

Swartland Alluvium Fynbos

Critically endangered vegetation unit with more than 75% already transformed.

This veld type consists of a matrix of low, evergreen shrubland with emergent sparse moderately tall shrubs and a conspicuous graminoid layer. Protea, restios and asteracous fynbos types are dominant with close scrub fynbos along the river courses. Ericaceous and restiod fynbos are found in seeps.

There are approximately 2522 ha of Swartland Alluvium Fynbos in the reserve.

Swartland Shale Renosterveld

Critically endangered vegetation unit with more than 90% already transformed.

This veld type is characterized by a low to moderately tall leptophyllous shrubland of varying canopy cover as well as low open shrubland dominated by renosterbos. Heuweltjies are prominent with associated stunted trees and thickets. Patches of grazing lawns are abundant.

There are approximately 453 ha of Swartland Shale Renosterveld in the reserve.

Hawequas Sandstone Fynbos

This veld type comprises of plant communities occurring on sandstone of the Cape Fold Belt and is distinguished by a low closed shrubland dotted with emergent tall proteiod, ericoid and restoid shrubs.

The Cape thickets along the cliffs, ravines and rocky scree slopes are dominated by trees such as milkwoods, wild almond and willow. Short restio veld is concentrated along the foothills and lower mountain slopes.

There are approximately 171 ha of Hawequas Sandstone Fynbos along the eastern edge of the reserve.

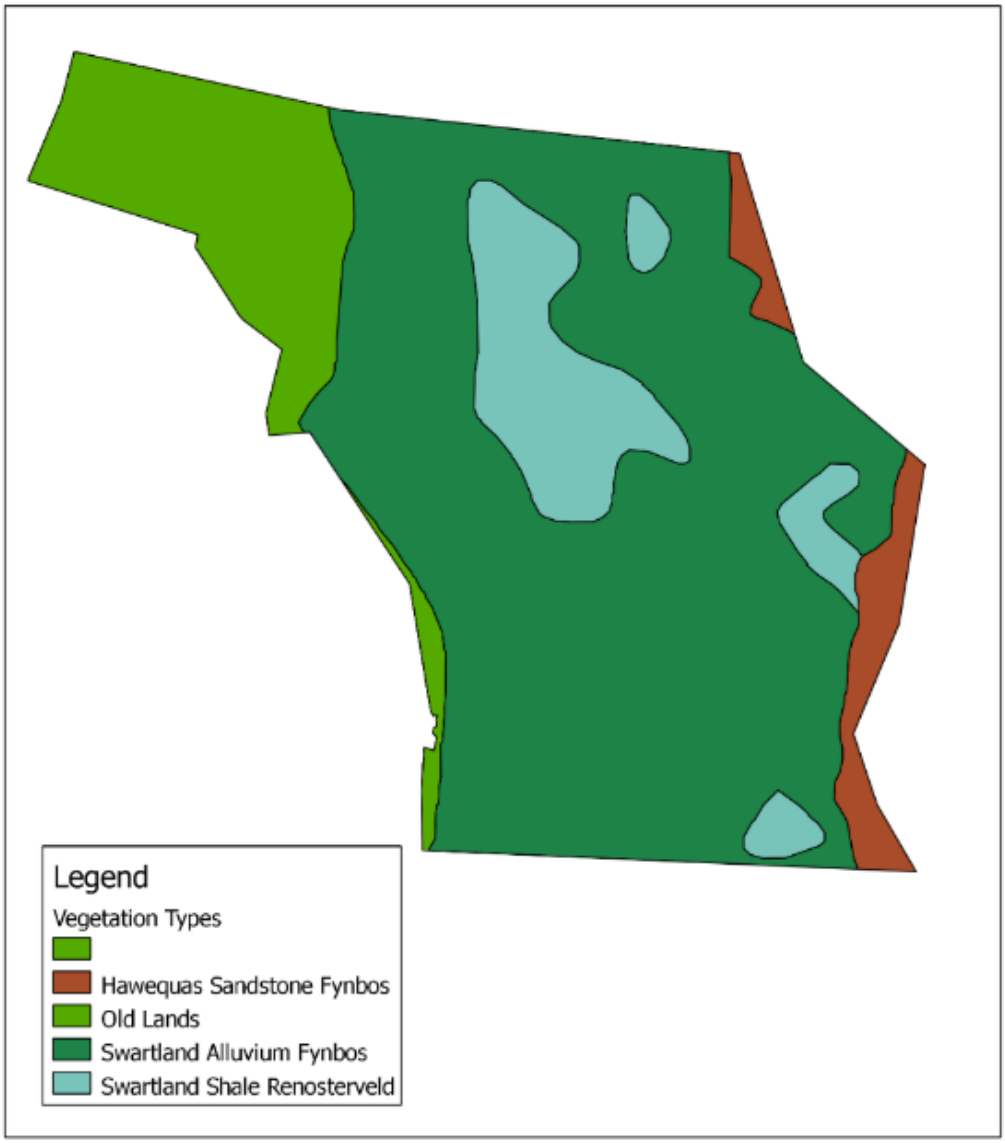


Figure 4. Vegetation types found on Elandsberg Nature Reserve

3.4.5 Plant Species

Extensive plant surveys have been held at Elandsberg and to date (November 2023), 841 species have been identified by botanical experts. Of these 101 are species of Conservation Concern and 6 are endemic to Elandsberg namely **Adenogramma natans**, **Brunsvigia elandsmontana**, **Massonia elandsmontana**, **Morea villosa elandsmontana**, **Pelargonium elandsmontanum and Thereianthus elandsmontanus.**

3.4.7 Mammalian fauna

Large mammals have largely been absent from fynbos for almost two centuries and we can only speculate as to their effects on the vegetation. Fynbos and renosterveld, however, has evolved with animals and is reliant on them for its fundamental processes such as pollination and dispersal.

Since 1705 Elandsberg farm was used as grazing land for cattle and in the 1900's merino sheep. Only the smaller mammals, small antelope and predators, were able to co-exist with the domestic stock.

However, with the establishment of Elandsberg Private Nature Reserve in 1973, the domestic animals were removed, and indigenous antelope were introduced.

For more detailed game information and numbers please refer to the Elandsberg Game Management Plan.

Four mammal species on Elandsberg are Species of Conservation Concern, namely the **Cape Mountain Zebra**, the **African Wild Cat**, the **Honey Badger** and the **Aardvark**.

3.4.8 Herpetofauna (reptiles and amphibians)

There are ten species of frogs known to occur on Elandsberg. Two of the species are listed as Species of Conservation Concern (de Villiers 2000).

Breviceps gibbosus, the **Cape Rain Frog,** is considered to be endangered and is found where it has burrowed in sandy areas, usually close to bushes, logs or rocks.

Cacosternum capense, the **Cape Caco**, is considered to be vulnerable. Occurring only in the Western Cape and Peninsula it breeds in winter in seasonal pans.

Psammobates geometricus, the **Geometric Tortoise,** is listed as one of the world's 25 most endangered tortoises and freshwater turtles and is considered among the 100 most threatened animal, plant and fungi species in the world. This Critically Endangered species has a limited distribution in southwestern South Africa, where it occurs in isolated habitat fragments that are surrounded by agricultural and urban developments. Most habitat fragments are too small to support viable populations. Population size at Elandsberg decreased from several thousand to several hundred over the past 25 years, mainly due to the increasing frequency of wild fires and predation, concurrent with episodes of drought. The situation was compromised further by a wild fire in January 2012 that killed 63% of the geometric tortoises and destroyed their entire optimal habitat (ca. 1000 ha).

3.4.9 Avian flora

The have been extensive bird surveys held at Elandsberg and to date (November 2023) 146 species have been identified by experts. Of these three are species of Conservation Concern namely the **Black harrier**, **Lesser Kestrel** and the **Blue Crane**.

3.4.5 Fire regime

Fire is an integral part of the fynbos and renosterveld systems. The vegetation on Elandsberg needs to burn approximately every 8-14 years depending on veld type to prevent it from becoming old and senescent. A system of block burning has been implemented as part of an attempt to control wildfires in the reserve. Areas of old vegetation are burned if necessary and areas of young vegetation preserved. In the case of wildfires, the areas of younger vegetation are used to prevent the further spread of the fire and prevented from burning. See figure 5 below for the veld ages on Elandsberg.

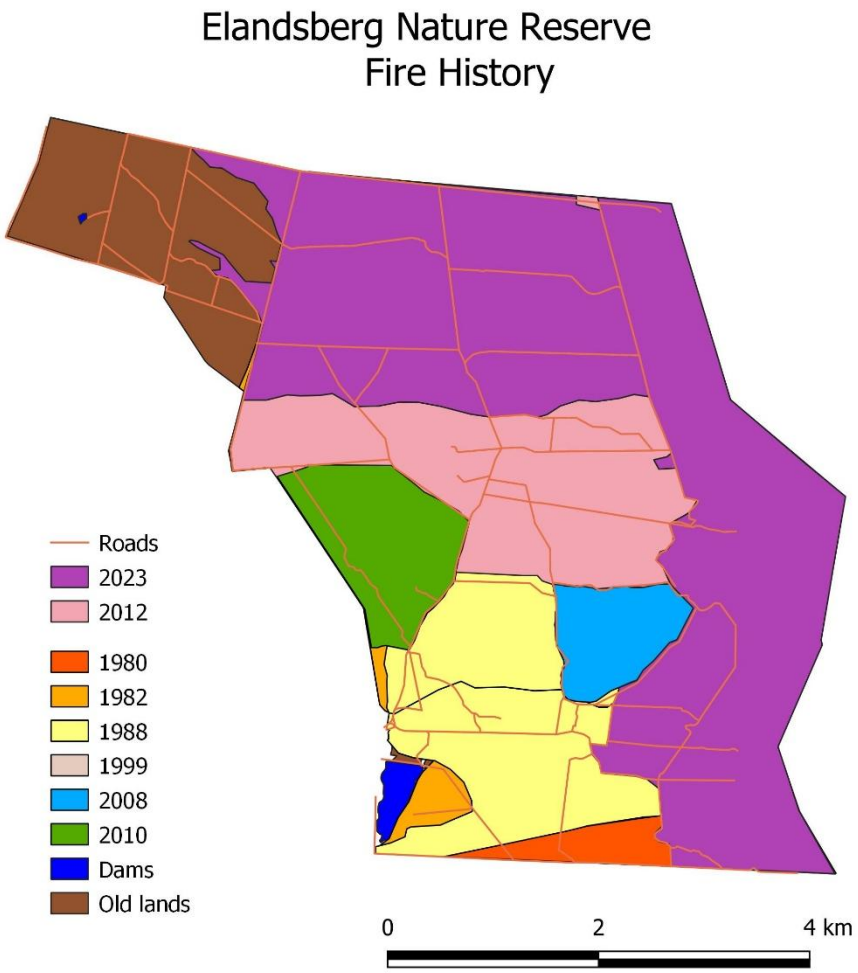


Figure 5. Veld age map for Elandsberg Nature Reserve

3.4.6 Invasive species

The Nature Reserve is relatively free from alien plants and is swept regularly for hakea, black wattle and eucalyptus seedlings and any other alien plant species according to an alien clearing schedule. Stands of mature Eucalyptus trees and Stone Pines have been left in some areas for visual barriers and for historical reasons.

A population of feral pigs occurs within the Nature Reserve. A trapping and removal program is run to keep these under control.

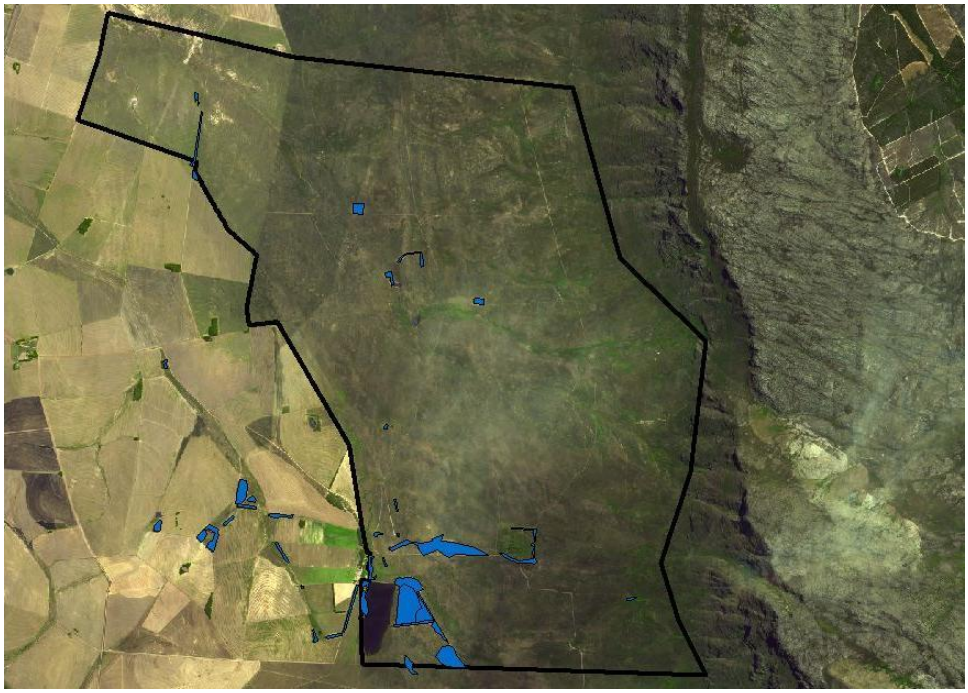


Figure 6. Invasive vegetation on Elandsberg Nature Reserve

3.6 Cultural Heritage context of Elandsberg Nature Reserve

Elandsberg Nature Reserve (Portion 1 of Farm 1749) was declared a Provincial Heritage Site in 2015 in recognition of its scarce fauna and flora, farmhouse architecture and historical significance from the early colonial period. The nature reserve, archaeological and paleontological sites, landscape, natural features of cultural significance, structures and burial sites including Bosplaas Werf and Bartholomeus Klip Werf have been given formal protection in terms of section 27(2) of the NHRA by Heritage Western Cape.

4) ZONATION

The purpose of the zonation is to control the intensity and type of use within it, in efforts to ensure the main goal of biodiversity conservation is met. On this basis, within some zones, the permissible intensity of use will be relatively higher than in others and goes beyond natural resource protection and also provides for commercial activities, visitor experience and access control.

The nature reserve and neighbouring farmland has been mapped and zoned. The zonation map can be seen in Figure 8 and the zonation descriptions can be found in Table 2.

These zonation descriptions provide management guidelines for each area/zone.

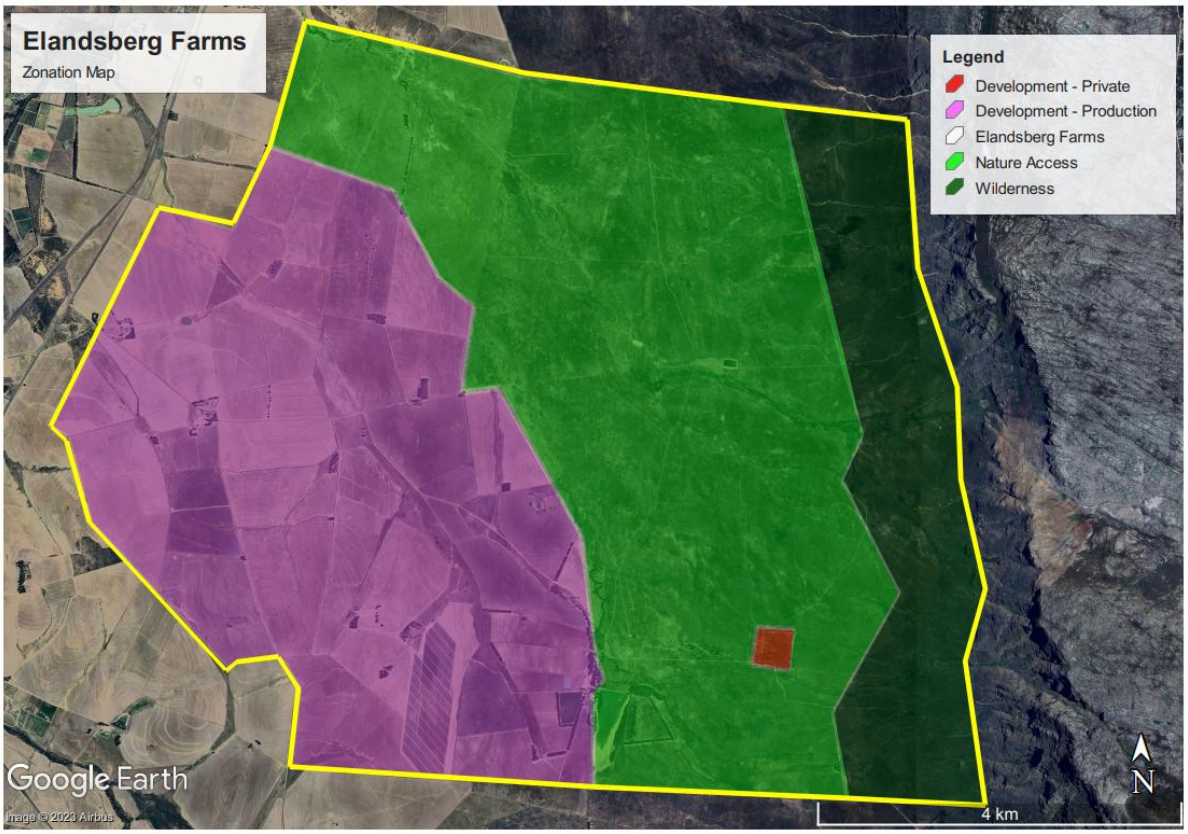


Figure 7 Zonation on Elandsberg Farms

Table 2 Zonation Guidelines

Zone	Zone Objective	Characteristics	Visitor Activities	Facilities / Infrastructure	Visitor Access	Management Guidelines
Wilderness / Wilderness (declared)	***Conservation:*** To limit visitor numbers and use to minimise impact. Minimal management intervention for visitor or biodiversity management. Include sensitive or threatened habitats & species in this low use zone when contiguous sites meet the criteria for wilderness ***Users:*** To provide an experience of solitude in pristine landscapes with minimal evidence of human presence or use.	Completely wild and rugged landscapes (or being restored to this). Areas where users have little chance of encountering any other human presence or group. Sight or sound of human activities outside zone barely discernible and at far distance; Preferably no human impact or infrastructure inside the zone other than trails. Natural burning regimes, with no active fire management and road/firebreak infrastructure. Areas with minimal Invasive Alien Plant infestations, where IAP control can be done without vehicle access. Area must meet the definition and requirements of the National Environmental Management: Protected Areas Act 57 of 2003. If formally declared in terms of the act, zone = "Wilderness (declared)"; if not = "Wilderness".	"Leave-no-trace" activities: Overnight hiking, without any sleeping facilities, formal campsites, or with only basic, unserviced shelters. "Carry in, Carry out" principle for all food and waste. Guided or unguided nature observation. --- No fires	No infrastructure of any type if possible. No roads or vehicle tracks. No structures except small existing buildings of cultural, historic or aesthetic value. These can be used as unserviced sleeping shelters for hikers & provided with composting toilets. Narrow permanent walking trails. No signage except small, unobtrusive markers for closed routes, or at trail junctions. **NB** – in the mountainous, slow-growing fynbos of the Western Cape, the traditional wilderness concept of access without defined trails is unsafe and rapidly results in undesirable user-created trails and erosion.	Unguided visitor access only on foot. Visitors have freedom to use various trails. Use of donkeys, horses or other animals with an official guide only on designated historical routes and trails, or existing roads, and only where this will not cause trampling, erosion or any degradation. Limits on visitor numbers and/or control of routes and access so that zone objectives are met. Use of non-motorised canoe or flotation device on rivers can be acceptable where entry is by foot or by river from outside the zone. --- No fires No vehicle access No access without zone permit	***Visitor Management:*** Manage to conserve natural and cultural resources, ecological processes and wilderness integrity. Leave no trace ethic Restrict numbers of visitors and allow for no-use rest periods if required. Limited management interventions. Management measures may be carried out in extreme conditions, but tread lightly principles must apply. Since visitor use cannot be intensively managed, re-route trails away from any areas with sensitive local habitats or plant and animal species. Trail layout, design and construction must reduce maintenance requirements. ***Conservation Management:*** Habitats with minimal management requirements, typically natural burning zones. Prevent or restore visible trampling or any other impact. Rehabilitate non-essential roads to natural vegetation. Re-zone essential roads out of Wilderness Zoning. ***Consumptive Use:*** Not compatible

Zone	Zone Objective	Characteristics	Visitor Activities	Facilities / Infrastructure	Visitor Access	Management Guidelines
Nature Access	***Conservation:*** To manage and direct visitor use, and plan infrastructure to minimise impact on sensitive environments. To actively manage users and visitor impacts. Allows for minimal or more intensive biodiversity management intervention. *Provide additional protection to sensitive or threatened habitats, species or other features by Special Management Overlays* ***Users:*** To provide easy access to natural landscapes with low expectation of solitude at all times. Can buffer wilderness or Primitive Zone.	Areas with extensive lower sensitivity habitats: Areas able to accommodate higher numbers of visitors regularly, with no identified sensitive or regionally rare biodiversity. Extensive areas able to accommodate roads, trails and tracks without high risk of erosion and degradation. Areas accessible for regular management of roads and trails Areas where roads and trail infrastructure can be located with low visibility from the surrounding landscape, particularly from adjacent Primitive or Wilderness Zones. Usually areas that require active fire management with firebreaks to stay within thresholds of concern, but may also include natural burning regimes.	Guided or unguided nature observation. Day hiking trails and/or short trails. Bird hides, canoeing, mountain biking & rock-climbing where appropriate. Other activities if specifically considered and approved as part of specific reserve zoning scheme. Motorised 2x4 self-drive access on designated routes. No accommodation or camping. Frequent interaction with other users.	Some deviation from natural/pristine state allowed particularly on less sensitive or already disturbed/transformed sites. No accommodation; but ablution facilities may be provided. May have defined or beaconed hiking routes, tourism and management access roads, and management tracks and firebreaks. Infrastructure should be designed to reduce impacts of higher visitor numbers. Roads open to the public should be accessible by 2x4 sedan. Full width tarred or surfaced roads or roads and tracks to accommodate two vehicles are appropriate. Unsurfaced roads may be surfaced if a road planning exercise has confirmed that the location is suitable.	No special access control or permits required for this zone. Will cater for larger number of visitors than primitive zone Vehicle access on dedicated routes, with pedestrian access from parking areas or adjacent Development Zones. On water – only non-motorised crafts allowed	***Visitor Management:*** More frequent monitoring of these areas are necessary to prevent damage or degradation. More frequent footpath maintenance must be scheduled for busy routes, with particular attention paid to use of railings or other access control to prevent damage to sensitive areas. Unless visitor access can definitely be intensively guided and managed, re-route trails away from any sensitive local habitats or plant and animal species. Trail layout, design and construction must be specified to reduce maintenance requirements under higher use. Visible & audible human impacts to adjacent Primitive or Wilderness Zones should be mitigated ***Conservation Management:*** Habitats with lower or higher management requirements. May be natural burning zones. Prevent or restore visible trampling or any other visitor impact. Rehabilitate non-useful roads to natural vegetation. ***Consumptive Use:*** Sustainable use may be appropriate subject to a formal assessment and application in accordance with CapeNature policies.

Zone	Zone Objective	Characteristics	Visitor Activities	Facilities / Infrastructure	Visitor Access	Management Guidelines
Development - Production	Commercial or subsistence farming (only applicable to privately owned & managed Contract Nature Reserves)	Areas identified for production farming Areas with extensive degraded or transformed footprints. Natural or semi-natural habitats only when use of these areas is supported by a bioregional plan and specialist site assessment.	May allow Agri-tourism	Any agricultural infrastructure.	May allow Agri-tourism	Agricultural best practise to support surrounding natural areas, particularly with regard to river and wetland buffer areas.
Development – Private Areas	Private dwelling and surrounds (only applicable to privately owned & managed Contract Nature Reserves)	Private homestead Areas with existing degraded or transformed footprints. Natural or semi-natural habitats only when use of these areas is supported by a bioregional plan and specialist site assessment.	n/a	Dwellings and private accommodation areas. Roads to access these.	No access to the public without permission from landowner	Should have no negative impacts on the surrounding conservation area

5) ADMINISTRATIVE STRUCTURE

The landowner is appointed as the management authority for the Nature Reserve as agreed to in the Management Agreement concluded between CapeNature and the landowner.

Where applicable, Management decisions are made collaboratively between the Management Authority and CapeNature.

The role of the conservation agency – CapeNature - is to provide support, advice and assist with the implementation of the management plan of the Nature Reserve as agreed upon.

CapeNature is also responsible for conducting an annual audit of the Nature Reserve and updating the Management Plan accordingly.

6) OPERATIONAL MANAGEMENT FRAMEWORK

This section translates the strategic framework described in Section 2 above into Key Deliverables and Management Activities, 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 measurable.

6.1 Biodiversity management

6.1.1 Fire management

Fire plays an important role in southern African ecology, and has important effects on vegetation composition, primary productivity and nutrient cycling. In developing a fire management strategy for the site, the following guiding principles should be adhered to:

- Burning should be undertaken in such a way that it maintains spatial and temporal heterogeneity within the landscape.
- A patch mosaic of burnt and un-burnt areas should be maintained.
- The burning of areas should be undertaken in such a way that promotes patchy burns (i.e. within the block being burnt, some patches will remain un-burnt rather than aiming for a complete burn).
- Burning must be undertaken with consideration of the biodiversity conservation requirements of the site and the need to protect rare and endangered species.
- Burning and fire management must be undertaken in a safe manner that is legally compliant with the National Veld and Forest Fire Act (No.101 of 1998).

Table 3. FIRE MANAGEMENT			
Objectives	· To ensure conservation of species and processes by maintaining and improving ecosystem functioning. · To implement effective Integrated Catchment Management. · To allow for natural fire processes to occur without impacting on safety and infrastructure.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Reduce/Prevent the Spread of Fires.	Construct Priority Firebreaks according to Schedule. Negotiate Firebreak Agreement with Neighbours. Fuel Reduction around Infrastructure to Minimise Risk. Conduct Pre-Fire Season Fire Audit. Mapping of all Fires and Capture on GIS.	Management Authority	Annually
Maintain Partnerships to Improve Fire Management.	Attend Local FPA Meetings. Maintain Firebreak Agreements with Neighbours.	Management Authority	Annually

	Attend Pre-Fire Season meetings with local Fire & Rescue Service.		
Determine and Implement Thresholds of Potential Concern.	Establish a series of Fixed Point Photography Monitoring Plots. Conduct Permanent *Protea spp.* Plot Monitoring. Conduct Post-Fire Regeneration Monitoring. Set and Monitor Thresholds of Potential Concern.	Management Authority CapeNature	Annually
Reduce Wildfires due to Human Negligence.	Create Fire Awareness Programme for Members and Staff	Management Authority	Annually

6.1.2 Invasive vegetation management

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

- Invasive plant control will require an ongoing programme that prioritises key infestations along water courses, 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.
- Strategic partnerships and poverty relief programmes such as the Working for Water and LandCare programmes should be utilised.

Table 4. INVASIVE VEGETATION MANAGEMENT			
Objectives	· To enhance biodiversity protection and conservation. · To ensure conservation of species and processes by maintaining and improving ecosystem functioning. · To implement effective Integrated Catchment Management.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Eradicate Alien and Invasive Species	Identify and Map all Alien Invasive Fauna and Flora Within or Threatening the Reserve. Compile a Management Unit Clearing Plan. Identify Areas in Maintenance Phase.	Management Authority CapeNature	Annually
Implement Biological Control	Identify Potential Biological Control Sites and Prioritise Accordingly. Map and Update Biological Control Sites. Implement New and Supplement Existing Biological Control. Monitor Success of Biological Control. Ensure Accurate Record keeping of Biological Control Data. Ensure Biological Control Site Security.	Management Authority CapeNature	Ongoing
Prevent Further Introduction of Aliens	Ensure Surrounding Landowners are aware of Relevant Legislation.	CapeNature	Ongoing

6.1.3 Wildlife Management

To promote the conservation of indigenous fauna as an important component contributing to and maintaining ecosystem functioning. Herbivores are essential for biodiversity and the maintenance of ecosystem processes.

Small antelope (Cape Grysbok, Common (Grey) Duiker, Steenbok and Vaal (Grey) Rhebok) occur naturally and move freely between farms and the mountainous area. There is currently no need to manage these populations.

6.1.3.1 Reintroduction of Game

No further reintroduction of game species is planned but should there be, the following points would need to be considered:

- Was the existing species naturally resident in the area?
- Why did the species become extinct in the area?
- Is that causal factor still a threat?
- Is the habitat still suitable for the species?
- What are the potential negative effects of the reintroduction?
- Where is the nearest existing population?

The careful reintroduction of species can enhance the conservation value of the area. All reintroductions must be based on sound ecological principles. CapeNature must be consulted on the translocation and reintroduction of all fauna.

Table 5. WILDLIFE MANAGEMENT			
Objectives	· To enhance biodiversity protection and conservation. · To ensure conservation of species and processes by maintaining and improving ecosystem functioning. · To implement effective Integrated Catchment Management.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Prevent the Introduction of Alien Species	Formulate Policy regarding Domestic Animals in the Reserve. No Introduction of Alien Fish Species into River Systems.	Management Authority	Ongoing
Control Alien and Invasive Species	Identify the Occurrence of Alien Fauna on Nature Reserve. Monitor Populations of Alien Fauna on the Reserve. Implement Control Measures where appropriate. Measure Success of Control Methods utilised.	Management Authority CapeNature	Ongoing
Manage the introduction of fauna on the Reserve	All possible introductions of game needs to be in accordance with all the necessary permits and permissions of CapeNature. This includes the construction of and maintenance of a fence according to the CapeNature policy.	Management Authority	Ongoing
Evaluate and monitor the impact of fauna on the Reserve	Impact in the Reserve by large herbivores needs to be closely monitored. Monitoring is to be carried out using indicators of change to determine when management interventions will be necessary. Hunting of game is permitted under the hunting proclamation and rights obtained from the CoAE in the Contract Reserve provided it is to manage the game population and remove surplus game	Management Authority	Ongoing

6.1.4 Erosion Prevention and Control

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

- Areas impacted by soil erosion should be stabilised and re-vegetated with indigenous plant species to prevent the spread of listed invasive plant species.
- 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.

Table 6 EROSION PREVENTION AND CONTROL			
Objectives	· To ensure the sustainable use of Wild Fynbos Resources. · To ensure the conservation of biodiversity where harvesting operations occur. · To monitor the impact of harvesting on selected Fynbos species.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Prevent and Mitigate Soil Erosion	Conduct a Soil Erosion Assessment Map Erosion Sites and Ensure Photographs are available. Compile an Erosion Maintenance Plan. Monitor the effectivity of the Erosion Control Mitigation. Monitor Cost Effectiveness of Maintenance. Monitor Site Recovery Conduct a Roads and Footpath Assessment.	Management Authority	Annually

6.1.5 Monitoring and Baseline Data Collection

Information on the locality of Rare, Endangered and Endemic species is necessary to ensure effective management and monitoring of populations. This objective aims to improve the biological knowledge base through the implementation and promotion of effective baseline data collection and research opportunities.

Table 7 MONITORING AND BASELINE DATA COLLECTION			
Objectives	· To manage biodiversity knowledge to ensure effective conservation management. · To implement measures to ensure resilience and persistence of biodiversity in light of climate change. · To ensure the implementation of effective conservation management interventions. · To ensure conservation of species and processes by maintaining and improving ecosystem functioning.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Compile Ecological Plan of Operations (in APO) and insert into CapeNature Off Reserve Team Ecological Matrix	Collate all relevant Monitoring and Research Protocols and Data Sheets. Insert Elandsberg Nature Reserve into the CapeNature Conservation Services Ecological Matrix for the Area.	Management Authority CapeNature	Annually
Create a Biodiversity Resource Inventory	Prioritise Species for inclusion in the CapeNature Off Reserve Team Ecological Matrix. Collect Specimens and Submit to CapeNature Landscape Conservation Intelligence.	Management Authority CapeNature	Annually
Implement Monitoring Programme	Review Monitoring Protocols. Identify Monitoring Needs of Nature Reserve in consultation with CapeNature. Establish Indicators for Monitoring. Implement Monitoring Activities as per Ecological Matrix (see above). Report on Monitoring Activities as per Ecological Matrix (see above). Analyse data, re-assess and implement Adaptive Management Strategies.	Management Authority CapeNature	Annually

6.1.6 Biodiversity security

Develop an integrated security strategy for the Nature Reserve. Access to the Nature Reserve needs to be controlled and conditions of entry for visitors into the Nature Reserve should be clearly stipulated on signboards at access points.

Table 8. BIODIVERSITY SECURITY			
Objectives	· To enhance biodiversity protection and conservation. · To ensure conservation of species and processes by maintaining and improving ecosystem functioning.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Improved security and safety of the biodiversity assets on the Nature Reserve	Ensure Notarial Deed with surveyor diagram and title deed restrictions are registered with the Notary and Surveyor General against the property	Management Authority	Once off
	Ensure Conservation Area is rezoned to appropriate conservation zoning, e.g. Open Space III	CapeNature	Once off
	Ensure appropriate signage at access points.	Management Authority	Once off

6.2 Tourism development

In developing tourism within the biodiversity stewardship site, the following guiding principles should be adhered to:

- Tourism products must be appropriate to the site's values and must not threaten its biodiversity or ecological function.
- In developing tourism products, requirements for environmental authorisation must be considered and adhered to.
- Tourism products should be designed to capitalise on the unique beauty and biodiversity features of the site.
- Tourism products should be developed in response to tourism market demands and opportunities within the site and should be carefully assessed to determine their viability.

Table 9. DEVELOPMENT OF TOURISM OPPORTUNITIES			
Objectives	· To evaluate potential tourism opportunities. · To implement effective management systems. · To ensure legal compliance and implementation of authorised development plans.		
Key Deliverables	**Management Activities**	**Responsibility**	**Timeframe**
Development of tourism opportunities that generate revenue for the Nature Reserve	Planning and development of hiking routes, mountain bike trails, and basic facilities to cater for visitors to the nature reserve	Management Authority	As required

6.3 Operational Management

6.3.1 Legal Compliance

Through the landowners of the biodiversity stewardship site, the management authority has been mandated to enforce laws related to the conservation of the site, which prohibit particular activities. In fulfilling this role, the managers of Elandsberg Nature Reserve will adhere to the following guiding principles:

- Law enforcement efforts should be coordinated with the relevant authorities including CapeNature and the South African Police Service in addressing offences and breaches of the law.
- Law enforcement at the site will be undertaken through surveillance, monitoring and appropriate reaction in the event of an offence.

Table 10. LEGAL COMPLIANCE			
Objectives	· To ensure legal compliance to all relevant legislation and policies.		
Key Deliverable	**Management Activities**	**Responsibility**	**Timeframe**
Ensure that all legal requirements are met.	All development needs to be done according to the NEMA principles and follow the applicable legislation and procedures of all relevant stakeholders. All water management within the Reserve must comply with the National Water Act (No 36 of 1998). Abstraction of water from water sources originating in the Reserve must not affect the biodiversity of the Reserve	Management Authority	Ongoing

6.3.2 Management Effectiveness

Table 11. MANAGEMENT EFFECTIVENESS			
Objectives	· To implement effective management systems.		
Key Deliverable	**Management Activities**	**Responsibility**	**Timeframe**
Annual audit completed. Auditing systems inform management	Conduct annual audits. Implementation , annual review and update of management plan Compile detailed work plan identifying specific targets for achieving management	Management Authority/ CapeNature	Annually

6.3.3 Infrastructure development and management

In order for Elandsberg Nature Reserve to operate appropriately, adequate infrastructure needs to be developed and maintained both for management and tourism purposes. In addressing infrastructure needs at the site, the following guiding principles will be adhered to:

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

Table 12. INFRASTRUCTURE			
Objectives	· To ensure the implementation of effective conservation management interventions. · To enhance biodiversity protection and conservation. · To ensure conservation of species and processes by maintaining and improving ecosystem functioning.		
Key Deliverable	**Management Activities**	**Responsibility**	**Timeframe**
Ensure all infrastructures on the Reserve is adequately maintained.	Develop and implement a scheduled maintenance programme to maintain facilities and infrastructure in a condition that meet relevant environmental, health and safety requirements.	Management Authority	Ongoing

7) ANNUAL PLAN OF OPERATION AND REVIEW

Monitoring and reporting enables the effective assessment of management interventions. If necessary it can be used to direct modifications of management in an effort to achieve the outcomes required.

7.1 **Annual Plan of Operation**

The Annual Plan of Operation (APO) gives life to the Operational Management Framework on an annual basis and allows for progress to be tracked.

Table 13. Annual Plan of Operations

Management Intervention	Management Action	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alien Clearing	Maintenance Sweep												
	Gums/Port jackson												
	Bloublommetjies												
	Hakea												
Fire Management	Fire Carts												
	Bosplaas												
	Burn Stacks												
	Scheduled Block Burns												
	Firebreak Maintenance												
Fencing	Patrol Fence												
	Repair												
Roads	Repairs												
	Hiking trails												
Game Management	Pig Trapping												
	Camera traps												
	Annual Census												
	Capture												
	Hunting & Culling/Sales												
	QP foals												
Monitoring & Evaluation	Fixed Point Photography												
	Transect & Permanent Plot												
	Fixed protea plots												
	Rare & Endangered Plants												
Tortoise	Geometric Tortoise Survey												
	Move tortoises												

7.2 Management Plan 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 and budgets.
- Enable effective adaptive management by identifying changes and modifying management interventions.

The annual audit will form the basis of the management plan review. This should include records of recommendations for update/changes to the annual revision of the management schedules as well as the five-year plan. See Appendix N for the annual audit.

REFERENCES

Acocks, J.P.H. (1975) Veld Types of South Africa. Memoir of the Botanical Survey of South Africa No.40. Department of Agricultural Technical Services, Pretoria.

Carbutt, C. and Goodman, P.S. (2010) Assessing the Management Effectiveness of State owned, Land-based Protected Areas in Western Cape. CapeNature unpublished report, Pietermaritzburg. pp. 1-67.

Camp, K.G.T. (1998) The bioresource units of Western Cape. Cedara report N/A95/32. KZN Department of Agriculture.

Cowan, G.I. (2006) Guidance for the development of management plans in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003). Department of Environmental Affairs and Tourism, Pretoria.

Department of Environmental Affairs and Tourism (2008) The National Protected Area Expansion Strategy 2008-2012. Pretoria.

De Villiers, A.; 2000; pers. comm.; Western Cape Nature Conservation Board, Scientific Services, Private Bag 5014, Stellenbosch, 7599

CapeNature. (2010) KZN Protected Area Expansion Strategy and Action Plan (2009-2028). CapeNature unpublished report, Pietermaritzburg. pp. 1-63.

Goodman P.S. (2011) CapeNature Norms and Standards: Surveillance and Monitoring Plans for Biodiversity. CapeNature unpublished report, Pietermaritzburg.

Hardy, M.B., Barnes, D.L., Moore, A. and Kirkman, K.P. (1999) The management of different types of veld. In Tainton, N.M. (ed) Veld Management in South Africa. University of Natal Press, Pietermaritzburg.

Mucina, L. and Rutherford, M.C. (eds.) (2006). The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19, South African National Biodiversity Institute, Pretoria.

O'Connor, T.G. and Bredenkamp, G.J. (1997) Grassland. In Cowling, R.M., Richardson, D.M. and Pierce, S.M. (eds) Vegetation of Southern Africa. Cambridge University Press, United Kingdom.

O'Connor, T.G. (2005) Influence of land use on plant community composition and diversity in Highland Sourveld grassland in the southern
Drakensberg, South Africa. Journal of Applied Ecology, 42, 975-988.

South African National Biodiversity Institute and the Department of Environmental Affairs. 2010. National Protected Areas Expansion
Strategy for South Africa; Priorities for expanding the protected area network for ecological sustainability and climate change adaptation. Published by the Government of South Africa, Pretoria, 2010. ISBN 978-1-919976-55-6

Scott-Shaw, C.R. (1999) Rare and threatened plants of Western Cape and neighbouring regions. Western Cape Nature Conservation Services, Pietermaritzburg.

Stolton, S., Hockings, M., Dudley, N., MacKinnon, K., Whitten, T. and Leverington, F. (2007) Management Effectiveness Tracking Tool: reporting progress at protected area sites (2nd edition). World Bank and WWF Forest Alliance.

Trollope, W.S.W. (1999) Veld Burning. In Tainton, N.M. (ed) Veld Management in South Africa. University of Natal Press, Pietermaritzburg.

Turner, A. A. (ed.) 2012. Western Cape Province State of Biodiversity 2013. CapeNature Scientific Services, Stellenbosch

Appendix A

ABBREVIATIONS

a.s.l.	Above Sea Level
APO	Annual Plan of Operation
CARA	Conservation of Agricultural Resources Act
CBA	Critical Biodiversity Area
CBD	Convention on Biological Diversity
CEO	Chief Executive Officer
CoAE	Certificate of Adequate Enclosure
CFR	Cape Floristic Region
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMA	Catchment Management Authority
CNC	Cape Nature Conservation
CR	Critically Endangered
DEA&DP	Department of Environmental Affairs and Development Planning
DEA	National Department of Environmental Affairs
DAFF	Department of Agriculture, Forestry and Fisheries
DoA	Department of Agriculture Western Cape
DWA	National Department of Water Affairs
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EN	Endangered
ENR	Elandsberg Nature Reserve
ESA	Ecological Support Area
EWT	Endangered Wildlife Trust
FEPA	Freshwater Ecosystem Priority Area
FPA	Fire Protection Association
GIS	Geographical Information System
IDP	Integrated Development Plan (Municipal)
IUCN	International Union for the Conservation of Nature
LC	Least Concern
LT	Least Threatened
LUPA	Western Cape Land Use Planning Act
MA	Management Authority
MAB	Man and the Biosphere Programme
MCA	Mountain Catchment Area
MCM	National Department of Marine and Coastal Management
MEC	Member of the Executive Council
METT	Management Effectiveness Tracking Tool
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NBA	National Biodiversity Assessment
NEM:BA	National Environmental Management: Biodiversity Act
NEM:PAA	National Environmental Management: Protected Areas Act
NEMA	National Environmental Management Act
NFEPA	National Freshwater Ecosystem Priority Area
NGO	Non-governmental Organisation
NN	No Natural

NPAES	National Protected Area Expansion Strategy
NR	Nature Reserve
NSBA	National Spatial Biodiversity Assessment
NWA	National Water Act
ONA	Other Natural Area
PA	Protected Area
PAMP	Protected Area Management Plan
PBSAP	Western Cape Provincial Biodiversity Strategy and Action Plan
SACNASP	South African Council for Natural Scientific Professions
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SDF	Spatial Development Framework
SMP	Strategic Management Plan
SOB	State of Biodiversity Report
SPLUMA	Spatial Planning and Land Use Management Act
SDF	Municipal Spatial Development Framework
SEA	Strategic Environmental Assessment
SMME	Small, Micro and Medium Enterprises
SMP	Strategic Management Plan
SWOT	Strengths, weaknesses, opportunities and threats analysis
TMF	Table Mountain Fund
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCC	United Nations Framework Convention on Climate Change
VU	Vulnerable
WCBB	Western Cape Biodiversity Bill
WCBF	Western Cape Biodiversity Framework
WCBSP	Western Cape Biodiversity Spatial Plan
WCPAES	Western Cape Protected Area Expansion Strategy
WWF-SA	Word Wildlife Fund for Nature South Africa

LIST OF STATUTES APPLICABLE TO ELANDSBERG NATURE RESERVE

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]
- Forest Act [No. 122 of 1984]
- Hazardous Substances Act [No. 15 of 1973]
- Western Cape Heritage Management Act [No. 10 of 1997]
- Western Cape 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]
- Occupational Health and Safety Act [No. 85 of 1993]
- Western Cape 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]

A brief summary of the most applicable legislation:

Protected Areas are proclaimed under section 23(1) of the National Environmental Protected Areas Act, 57 of 2003, ("the Protected Areas Act").

- **Protected Areas Act (Act No. 57 of 2003)**

The *[Minister/MEC]* is empowered, under section 23(1) of the National Environmental Protected Areas Act, 57 of 2003, ("the Protected Areas Act") to declare an area as a Conservation Area if:

1 It has significant natural features or biodiversity;

2 Is in need of long-term protection for the maintenance of its biodiversity or for the provision of environmental goods and services.

Both of the above criteria pertain to the De Rust Nature Reserve and are discussed in detail under "Conservation Significance".

Biodiversity management agreements

The Minister may enter into a biodiversity management agreement with the person, organization or organ of state identified in terms of section 43(2), or any other suitable person, organization or organ of state, regarding the implementation of a biodiversity management plan, or any aspect of it.

- **Biodiversity Act (Act No. 10 0f 2004)**

Objectives of Act

(a) within the framework of the National Environmental Management Act, to

provide for—

(i) the management and conservation of biological diversity within the Republic and of the components of such biological diversity;
(ii) the use of indigenous biological resources in a sustainable manner; and
(iii) the fair and equitable sharing among stakeholders of benefits arising from bio-prospecting involving indigenous biological resources;
(b) to give effect to ratified international agreements relating to biodiversity which are binding on the Republic;
(c) to provide for co-operative governance in biodiversity management and conservation; and
(d) to provide for a South African National Biodiversity Institute to assist in achieving the objectives of this Act.

- **National Veld and Forest Fire Act (Act No. 101 of 1998)**

Purpose

'The purpose of the Act is to prevent and combat veld, forest and mountain fires throughout the Republic.''

Firebreaks

In terms of section 12 and 14 every landowner must prepare and maintain a firebreak as determined in section 13. Failure to do so is an offence in terms of section 25(3), unless he has been exempted by the Minister in terms of section 15.

Fighting Preparedness

There is also a further duty on landowners to have equipment, protective clothing and trained personnel available in the eventuality that there may be fire on their property (section 17). Failure to meet this requirement is an offence in terms of section 25(4).

- **Conservation of Agricultural Resources Act, 1983 (No 43 of 1983)**

Purpose

CARA is an act of the National Department of Agriculture and makes provision for the conservation of the natural agricultural resources of South Africa through:

1. Maintaining the production potential of land;
2. Combating and preventing erosion;
3. Preventing the weakening or destruction of water sources;
4. Protecting the vegetation; and
5. Combating weeds and invader plants.

Applicable CapeNature policies

- Nature Conservation Ordinance (19/1974)
- Western Cape Nature Conservation Board Act No 15 of 1998
- The Western Cape Biodiversity Act (Act 6 of 2021)
- Nature and Environmental Conservation Regulations (Provincial Notice 955/1975)
- Cape Nature Conservation WC Fire Management Plan and Guidelines
- Cape Nature Conservation Guidelines for the management of leopard management areas
- Cape Nature Conservation Baseline and monitoring manual
- Cape Nature Conservation guideline for river maintenance
- Policy on the re-establishment of Cape Mountain Zebra Populations
- Policy on the certificates of adequate enclosure
- Hunting Proclamation
- National Water Act, 1998 (No 36 of 1998)

Other Relevant Legislation:

- Municipal Systems Act
- National Water Act, 1998 (No 36 of 1998)
- Constitution of the Republic of South Africa Act, 1996 (No 108 of 1996)
- Environment Conservation Act No 73 of 1989
- Forest Act No 122 of 1984
- National Environmental Management Act, 1998 (No 107 of 1998)
- National Heritage Resources Act, 1999 (No 25 of 1999)
- World Heritage Convention Act, 1999 (No 109 of 1999)
- Western Cape Tourism Act, No. 3 of 1997
- Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970)
- The administration of the Act has been assigned to the Board by virtue of Act 3 of 2000 as published in Provincial Gazette Extraordinary No. 5442 dated 24 March 2000
- Land Use Planning Ordinance 15/1985 (section 29)

THERE MIGHT BE OTHER LEGISLATION APPLICABLE TO THE CONTRACT NATURE RESERVE AND IT IS THE LANDOWNER'S RESPONSIBILITY TO DETERMINE THIS IF NECESSARY.

INTENTION TO DECLARE ELANDSBERG NATURE RESERVE

WESTERN CAPE NATURE CONSERVATION BOARD

NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT, 2003 (ACT NO. 57 OF 2003):

INTENTION TO DECLARE THE ELANDSBERG NATURE RESERVE

Notice is hereby given by the Provincial Minister of Environment, Planning & Economic Development in terms of section 33(1) of the National Environmental Management Act: Protected Areas Act, 2003 (Act No. 57 of 2003) of the intention to declare the Elandsberg Nature Reserve in terms of section 23 of the National Environmental Management: Protected Areas Act, 2003 on the properties being, Remainder of the Farm No. 1315, Portion 2 of the Farm Lange Hoogte No. 14, The Farm Langhoogte No. 1245, The Farm Elandskloof No. 15, The Farm Bartholomeus Klip No. 17, Remaining Extent of the Farm Bartholomeus Klip No. 18, Portion 1 of the Farm Bartholomeus Klip No. 18, The Farm Drooge Pan No.6, Portion 3 of the Farm Lange Hoogte No. 14, Wellington, the boundaries of which are as indicated on a map filled in the office of the Acting Chief Executive Officer: Western Cape Nature Conservation Board, CapeNature House, Belmont Office Park, 14 Belmont Road, Rondebosch.

Written representations or objections to the proposed declaration of the Elandsberg Nature Reserve must be lodged with the Chief Executive Officer: Western Cape Nature Conservation Board, Private Bag X29, Rondebosch, 7701, on or before 7 November 2007.

7 September 2007 44436

WES-KAAPSE NATUURBEWARINGSRAAD

NASIONALE OMGEWINGSBESTUUR: WET OP BESKERMDE GEBIEDE, 2003 (WET NR. 57 VAN 2003):

VOORNEME OM DIE ELANDSBERG NATUURRESERVAAT TE VERKLAAR

Kennisgewing word hiermee gegee dat die Provinsiale Minister van Omgewing, Beplanning en Ekonomiese Ontwikkeling in terme van artikel 33(1) van die Nasionale Omgewings Bewarings Wet: Beskermde Areas Wet, 2003 (Wet No. 57 van 2003) van voorneme is om die Elandsberg Natuurreservaat te verklaar kragtens artikel 23 van die Nasionale Omgewingsbestuur: Wet op Beskermde Gebiede, 2003 op die eiendomme synde, Restant van die Plaas 1315, Gedeelte 2 van die Plaas Lange Hoogte, No. 14, Die Plaas Langhoogte No. 1245, Die Plaas Elandskloof No. 15, Die Plaas Bartholomeus Klip No. 17, Restant van die Plaas Bartholomeus Klip No. 18, Gedeelte 1 van die Plaas Bartholomeus Klip No. 18, Die Plaas Drooge Pan No. 6, Gedeelte 3 van die Plaas Lange Hoogte No. 14, Wellington, waarvan die grense is soos aangedui op 'n kaart geliasseer in die kantoor van die Waarnemende Hoof Uitvoerende Beampte: Wes-Kaapse Natuurbewaringsraad, CapeNaturehuis, Belmont Park, Belmontweg 14, Rondebosch.

Skriftelike voorstelle of besware teen die voorgestelde verklaring van die Elandsberg Natuurreservaat moet by die Waarnemende Hoof Uitvoerende Beampte: Wes-Kaapse Natuurbewaringsraad, Privaatsak X29, Rondebosch, 7701, ingedien word voor of op 7 November 2007.

7 September 2007 44436

IBHODI YOLONDOLOZO LWENDALO YASENTSHONA KOLONI

UKULAWULWA KOKUSINGQONGILEYO KWESIZWE: UMTHETHO WOKUKHUSELWA KWEENDAWO, 2003 (UMTHETHO 57 KA 2003):

INJONGO KUKWAZISA ISIKO LOKULONDOLOZA INDALO I-ELANDSBERG

Isaziso sikhutshwe nguMphathiswa wokusiNgqongileyo, uCwangciso noPhuhliso lwezoQoqosho wePhondo ngokwemiqathango yecandelo 33 (1) woMthetho woLawulo lokusiNgqongileyo weSizwe: uMthetho wokuKhuselwa kweeNdawo, 2003 (uMthetho 57 ka 2003): injongo kukwazisa iziko lokulondoloza indalo i-Elandsberg ngokwemiqathango yecandelo 23 woMthetho woLawulo lokusiNgqongileyo weSizwe: uMthetho wokuKhuselwa kweeNdawo, 2003, kwimihlaba eshiyekileyo yeFama enguNombolo 1315, isahlulo 2 seFama iLange Hoogte esinguNombolo 14, Ifama iLangehoogte enguNombolo 1245, ifama i-Elandskloof engunombolo 15, ifama i-Bartholomeus Klip engunombolo 17, Inxalenye eshiyekileyo yefama iBartholomeus Klip enguNombolo 18, iSahlulo 1 sefama iBartholomeus Klip, Ifama iDrooge Pan engunombol0 6, isahlulo 3 sefama iLange Hoogte esingunombolo 14, eWellington, imida ebonakalisiweyo emephini igcinwe kwi-ofisi yeGosa eliLawulayo eliBambeleyo, iBhodi yoLondolozo lweNdalo yaseNtshona Koloni, CapeNature House, Belmont Office Park, 14 Belmont Road, Rondebosch.

Izindululo ezibhaliweyo okanye iinjongo kwezi zindululo zichaziweyo zeZiko lokulondoloza iNdalo i-Elandsberg kufuneka zingeniswe kwiGosa eliPhezulu eliLawulayo: Western Cape Nature Conservation Board, Private Bag X29, Rondebosch, 7701, ngomhla okanye phambi komhla we-7 November 2007.

7 September 2007 44436

PROVINCE OF WESTERN CAPE

PROVINSIE WES-KAAP

Provincial Gazette

6563

Friday, 26 September 2008

Provinsiale Koerant

6563

Vrydag, 26 September 2008

Registered at the Post Office as a Newspaper

As 'n Nuusblad by die Poskantoor Geregistreer

CONTENTS

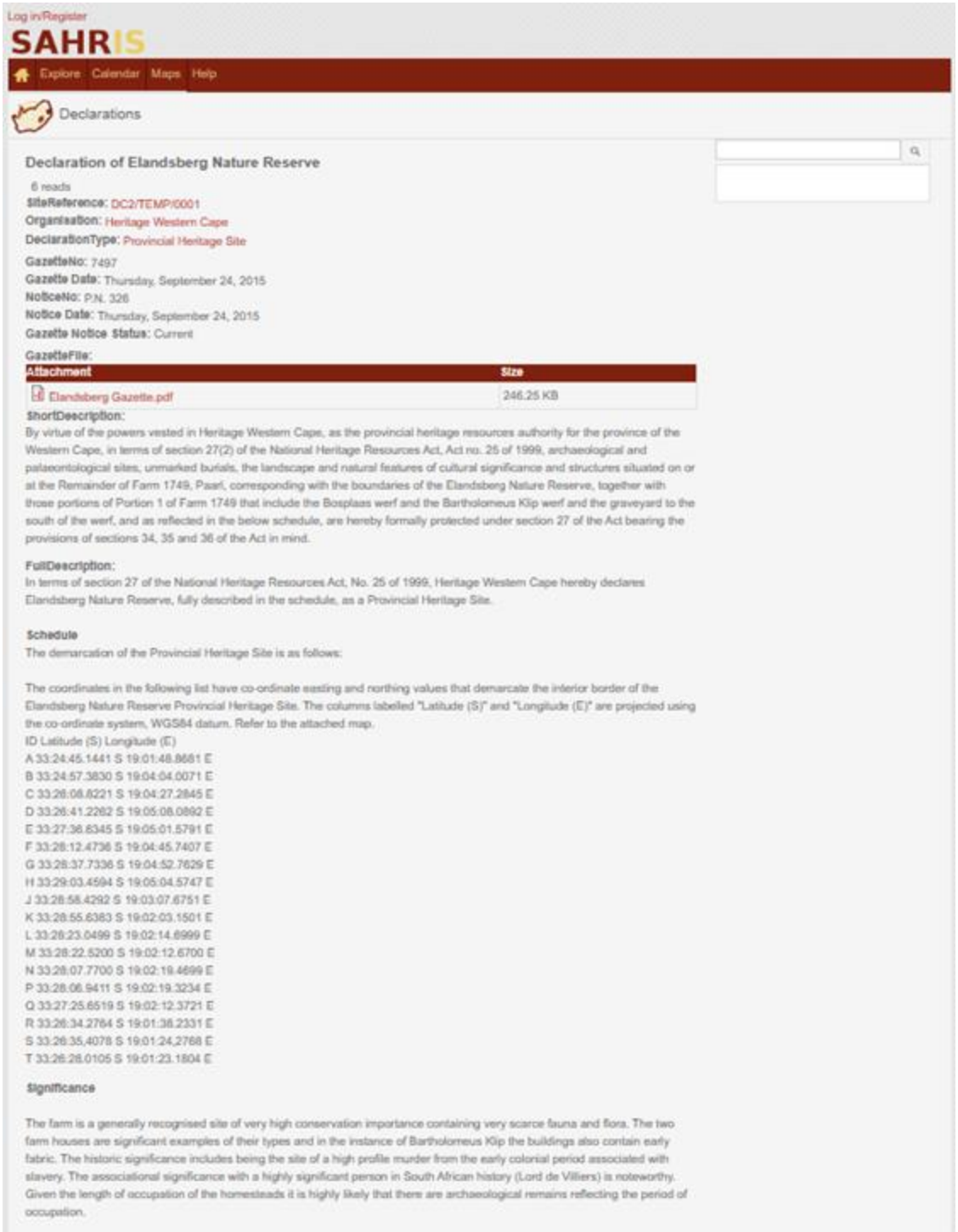
*(*Reprints are obtainable at Room 9-06, Provincial Building, 4 Dorp Street, Cape Town 8001.)*

INHOUD

*(*Herdrukke is verkrygbaar by Kamer 9-06, Provinsiale-gebou, Dorpstraat 4, Kaapstad 8001.)*

(Continued on page 1624)

(Vervolg op bladsy 1624)



Log in/Register

SAHRIS

Explore Calendar Maps Help

Declarations

Declaration of Elandsberg Nature Reserve

6 reads

SiteReference: DC2/TEMP/0001
Organisation: Heritage Western Cape
DeclarationType: Provincial Heritage Site
GazetteNo: 7497
Gazette Date: Thursday, September 24, 2015
NoticeNo: P.N. 326
Notice Date: Thursday, September 24, 2015
Gazette Notice Status: Current
GazetteFile:

Attachment	Size
Elandsberg Gazette.pdf	246.25 KB

ShortDescription:
By virtue of the powers vested in Heritage Western Cape, as the provincial heritage resources authority for the province of the Western Cape, in terms of section 27(2) of the National Heritage Resources Act, Act no. 25 of 1999, archaeological and palaeontological sites, unmarked burials, the landscape and natural features of cultural significance and structures situated on or at the Remainder of Farm 1749, Paarl, corresponding with the boundaries of the Elandsberg Nature Reserve, together with those portions of Portion 1 of Farm 1749 that include the Bosplaas werf and the Bartholomeus Klip werf and the graveyard to the south of the werf, and as reflected in the below schedule, are hereby formally protected under section 27 of the Act bearing the provisions of sections 34, 35 and 36 of the Act in mind.

FullDescription:
In terms of section 27 of the National Heritage Resources Act, No. 25 of 1999, Heritage Western Cape hereby declares Elandsberg Nature Reserve, fully described in the schedule, as a Provincial Heritage Site.

Schedule
The demarcation of the Provincial Heritage Site is as follows:

The coordinates in the following list have co-ordinate easting and northing values that demarcate the interior border of the Elandsberg Nature Reserve Provincial Heritage Site. The columns labelled "Latitude (S)" and "Longitude (E)" are projected using the co-ordinate system, WGS84 datum. Refer to the attached map.
ID Latitude (S) Longitude (E)
A 33:24.45.1441 S 19:01:48.8681 E
B 33:24.57.3830 S 19:04:04.0071 E
C 33:26.08.8221 S 19:04:27.2845 E
D 33:26:41.2282 S 19:05:08.0892 E
E 33:27.36.8345 S 19:05:01.5791 E
F 33:28:12.4736 S 19:04:45.7407 E
G 33:28:37.7336 S 19:04:52.7629 E
H 33:29:03.4594 S 19:05:04.5747 E
J 33:28:58.4292 S 19:03:07.6751 E
K 33:28:55.6383 S 19:02:03.1501 E
L 33:28:23.0499 S 19:02:14.8999 E
M 33:28:22.5200 S 19:02:12.6700 E
N 33:28:07.7700 S 19:02:19.4699 E
P 33:28.06.9411 S 19:02:19.3234 E
Q 33:27:25.6519 S 19:02:12.3721 E
R 33:26:34.2764 S 19:01:38.2331 E
S 33:26:35.4078 S 19:01:24.2768 E
T 33:26:28.0105 S 19:01:23.1804 E

Significance

The farm is a generally recognised site of very high conservation importance containing very scarce fauna and flora. The two farm houses are significant examples of their types and in the instance of Bartholomeus Klip the buildings also contain early fabric. The historic significance includes being the site of a high profile murder from the early colonial period associated with slavery. The associational significance with a highly significant person in South African history (Lord de Villiers) is noteworthy. Given the length of occupation of the homesteads it is highly likely that there are archaeological remains reflecting the period of occupation.

Plant Species List	841 species		
Family	**Species**	**Locality**	**Date seen**
AIZOACEAE	Acrosanthes teretifolia	Varkfontein river, Bosplaas road	Oct - Nov
AIZOACEAE	Aethephyllum pinnatifidum	mountain, by river	Aug
AIZOACEAE	Aizoon cf paniculatum	Vlak road	
AIZOACEAE	Aizoon sarmentosum	Secretarybos	Jul - Sep
AIZOACEAE	Antimima pulchella	Blomreservaat	Aug
AIZOACEAE	Apatesia sp	Blourug	Oct
AIZOACEAE	Carpanthea pomeridiana	Middle road	Sep
AIZOACEAE	Dorotheanthus bellidiformis	orals	Jul - Aug
AIZOACEAE	Erepsia anceps	Voelvlei line, vlak	Feb - Apr
AIZOACEAE	Erepsia patula	Vangkraal road	Feb - Mar
AIZOACEAE	Erepsia ramosa	Blourug, Vervlak	Oct, Feb
AIZOACEAE	Galenia ecklonis	Slangkop road	Oct
AIZOACEAE	Lampranthus aduncus	Vangkraal, Windbos	May - Jun
AIZOACEAE	Lampranthus dilutus	Bosplaas trek	Sep
AIZOACEAE	Lampranthus dregeanus	edge of Bosplaas kloof, above Stone	Oct
AIZOACEAE	Lampranthus elegans	Bosplaas trek	Sep
AIZOACEAE	Lampranthus falcatus	Vlak road	Oct
AIZOACEAE	Lampranthus filicaulis	Vangkraal	May - Jul
AIZOACEAE	Lampranthus glaucus	Elandskloof road	Sep
AIZOACEAE	Lampranthus leptaleon	Tortoise road	Oct
AIZOACEAE	Lampranthus peacockiae	Vliegveld, Bloegombos	Sep
AIZOACEAE	Lampranthus reptans		
AIZOACEAE	Lampranthus scaber	Vlak, off Vlei road	Aug
AIZOACEAE	Lampranthus spiniformis	Vlak, off Vlei road	Aug
AIZOACEAE	Lampranthus tegens		
AIZOACEAE	Limeum africanum	Slangkop road, nr Middel road	Jul - Aug

Family	Species	Locality	Date seen
AIZOACEAE	Oscularia deltoides	mountain	
AIZOACEAE	Ruschia geminiflora	Voelvlei line	Aug
AIZOACEAE	Tetragonia fruticosa		Sep
AIZOACEAE	Tetragonia herbacea	De Rust	Jul
AIZOACEAE	Tetragonia portulacoides	Blourug	Aug
ALLIACEAE	Tulbaghia alliacea	lower slopes	Apr - May
AMARYLLIDACEAE	Amaryllis belladonna	Bosplaas river	Mar
AMARYLLIDACEAE	Brunsvigia bosmaniae	Voelvlei line, at far corner of plains	Mar - Apr
AMARYLLIDACEAE	Brunsvigia elandsmontana	upper Secretarybos	Mar
AMARYLLIDACEAE	Crossyne guttata	Windbos, Vlei road, upper Secretarybos	Apr
AMARYLLIDACEAE	Cybistetes longifolia	plains	Mar
AMARYLLIDACEAE	Cyrtanthus angustifolius	Droekloof, seep above streambed	Apr
AMARYLLIDACEAE	Gethyllis afra	Tortoise road	Dec - Jan
AMARYLLIDACEAE	Haemanthus coccineus	Droekloof, Bartholomeus Klip	Apr
AMARYLLIDACEAE	Haemanthus pubescens	plains, at far corner	Apr
AMARYLLIDACEAE	Haemanthus pumilio	Vlei road	Apr
AMARYLLIDACEAE	Haemanthus sanguineus	lower mountain slopes	Apr
AMARYLLIDACEAE	Haemanthus sanguineus	middle of Bosplaas Road, after Windbos	Apr
AMARYLLIDACEAE	Nerine humilis	above Bergpad, Pyplyn	May - Jun
AMARYLLIDACEAE	Nerine sarniensis	mountain kloofs	Apr
AMARYLLIDACEAE	Strumaria tenella	Elandskloof cnr Klipfontein road, Vlei road	Jul
ANACARDIACEAE	Ozoroa argentea (=Heeria argentea)	mountain	Feb
ANACARDIACEAE	Searsia angustifolia	Outuinrivier	Jan
ANACARDIACEAE	Searsia dissecta	Blourug	Sep
ANACARDIACEAE	Searsia laevigata	Klipfontein	Jan
ANACARDIACEAE	Searsia lucida	Outuinrivier	May
ANACARDIACEAE	Searsia rosmarinifolia	Lamsieklaagte, mountain	Apr - Oct

Family	Species	Locality	Date seen
ANACARDIACEAE	Searsia tomentosa	Blourug	Jan
ANEMIACEAE	Mohria caffrorum	Lamsieklaagte	
ANTHERICACEAE	Chlorophytum rangei	Bosplaas trek, Elandskloof road	Jan - Feb
ANTHERICACEAE	Chlorophytum rigidum	Moraea road	Feb
ANTHERICACEAE	Chlorophytum triflorum	Welbedagt	Oct
ANTHERICACEAE	Chlorophytum undulatum	Slangkop	Aug
APIACEAE	Anessorhiza nuda	Langrug	Feb
APIACEAE	Anginon difforme	Populierbos	Feb
APIACEAE	Arctopus echinatus	Vangkraal	Aug - Sep
APIACEAE	Arctopus monacanthus		Aug
APIACEAE	Centella glabra/effusa	Varkfontein river	Oct
APIACEAE	Centella sp	vlak, off Vlei road	Sep
APIACEAE	Itasina filifolia	Bosplaas trek	
APIACEAE	Lichtensteinia obscura	Vangkraal road	Feb
APIACEAE	Lichtensteinia trifida	Welbedagt, Langrug	Jan
APIACEAE	Peucedanum galbanum	Elandskloof river in mountain	
APOCYNACEAE	Asclepias crispa	Vlak road	Oct
APOCYNACEAE	Eustegia minuta	Welbedagt	Oct
APOCYNACEAE	Gomphocarpus cancellatus	lower mountain slopes	Apr - May
APOCYNACEAE	Gomphocarpus fruticosus	Outuinrivier, plains	Feb
APOCYNACEAE	Microloma sagittatum	Slangkop road	Jul - Sep
APOCYNACEAE	Microloma tenuifolium	Secretarybos	
APOCYNACEAE	Secamone alpini	mountain above Stone	
APONOGETONACEAE	Aponogeton angustifolius	Slangkop road	Jun - Jul
APONOGETONACEAE	Aponogeton distachyos	Outuinrivier	Jul - Sep
ARACEAE	Zantedeschia aethiopica	Bosplaas	Aug - Sep
ASPARAGACEAE	Asparagus aethiopicus	kloof in mountain above Droekloof	Feb

Family	Species	Locality	Date seen
ASPARAGACEAE	Asparagus asparagoides		
ASPARAGACEAE	Asparagus capensis	Blourug, Droekloof	Apr - Jul
ASPARAGACEAE	Asparagus declinatus		
ASPARAGACEAE	Asparagus fasciculatus		
ASPARAGACEAE	Asparagus retrofractus	Rondedam	
ASPARAGACEAE	Asparagus rubicundus	upper Secretarybos	
ASPARAGACEAE	Asparagus undulatus	Rondedam	
ASPHODELACEAE	Aloe perfoliata	mountain above Elandskloof	Feb
ASPHODELACEAE	Bulbine cepacea	Bosplaas	May
ASPHODELACEAE	Bulbine favosa	Varkfontein Road	Apr - May
ASPHODELACEAE	Bulbine flexuosa	upper Windbos, Vlei road	Jun
ASPHODELACEAE	Bulbine longifolia	mountain, near Stone	Jul - Oct
ASPHODELACEAE	Bulbine praemorsa	Droekloof	Jul - Aug
ASPHODELACEAE	Bulbinella nutans	mountain side of Adoonsekop	Sep
ASPHODELACEAE	Bulbinella trinervis	grassy seep on Bosplaas road towards Secretarybos	Apr - May
ASPHODELACEAE	Bulbinella triquetra	Lamsieklaagte, Bosplaas road	Sep - Oct
ASPHODELACEAE	Kniphofia uvaria	Varkfontein	Jul - Aug
ASPHODELACEAE	Trachyandra chlamydophylla	Vlak road, Adoonsekop vlei	Sep
ASPHODELACEAE	Trachyandra filiformis	Middle road, Adoonsekop vlei	Sep
ASPHODELACEAE	Trachyandra flexifolia	Slangkop road, Elandskloof road	Aug - Oct
ASPHODELACEAE	Trachyandra gracilenta	Elandskloof road	Oct
ASPHODELACEAE	Trachyandra hirsuta	upper Secretarybos	Sep
ASPHODELACEAE	Trachyandra hirsutiflora	Windbos	Jul - Sep
ASPHODELACEAE	Trachyandra hispida	Pyplyn	Jul - Sep
ASPHODELACEAE	Trachyandra oligotricha	Elandskloof road	Sep
ASPHODELACEAE	Trachyandra paniculata	Elandskloof road	Aug - Sep
ASPHODELACEAE	Trachyandra revoluta	Middle road	Aug - Sep

Family	Species	Locality	Date seen
ASPLENIACEAE	Ceterach cordatum	mountain kloofs	Feb
ASTERACEAE	Arctotheca calendula	orals	Aug
ASTERACEAE	Arctotis acaulis	orals	Sep
ASTERACEAE	Arctotis angustifolia		
ASTERACEAE	Arctotis bellidifolia	Windbos	Aug - Oct
ASTERACEAE	Arctotis flaccida	fountain above Stone, voor (intake)	Oct
ASTERACEAE	Arctotis hirsuta	orals	Jul - Sep
ASTERACEAE	Arctotis incisa	Vlei road	Aug - Sep
ASTERACEAE	Arctotis undulata	Elandskloof	Sep
ASTERACEAE	Athanasia crenata	Bosplaas trek	Nov
ASTERACEAE	Athanasia crithmifolia	Windbos	Sep
ASTERACEAE	Athanasia trifurcata	Windbos, Bosplaas trek	Nov
ASTERACEAE	Berkheya armata	Middle road	Sep
ASTERACEAE	Berkheya barbata	Poplierbos	
ASTERACEAE	Berkheya cf herbacea	Lamsieklaagte	Nov
ASTERACEAE	Brachylaena neriifolia	stream at Welbedagt boundary	
ASTERACEAE	Chrysocoma ciliata	Windbos	Sep - Oct
ASTERACEAE	Corymbium africanum	Welbedagt	Sep - Oct
ASTERACEAE	Corymbium africanum subsp scabridum var scabridum	Bergpad, near top of Adoonsepad	Sep
ASTERACEAE	Corymbium cf glabrum	Populierbos	Oct
ASTERACEAE	Corymbium villosum	Welbedagt	Aug - Oct
ASTERACEAE	Cotula coronopifolia	Vangkraal	Aug - Sep
ASTERACEAE	Cotula turbinata	Vlei road	May - Sep
ASTERACEAE	Cullumia ciliaris subsp ciliaris	Bosplaas trek	Jun - Sep
ASTERACEAE	Cullumia ciliaris subsp angustifolia	Bosplaas trek	Jun - Sep
ASTERACEAE	Dicoma spinosa	mountain above Droekloof	Apr

Family	Species	Locality	Date seen
ASTERACEAE	Dimorphotheca nudicaulis	Outuinrivier, Windbos	Jul - Aug
ASTERACEAE	Dimorphotheca pluvialis	orals	Aug - Sep
ASTERACEAE	Edmondia sesamoides	Klipfontein	Nov
ASTERACEAE	Elytropappus gnaphaloides	Slangkop	Mar - Apr
ASTERACEAE	Elytropappus rhinocerotis	Blourug	Jan
ASTERACEAE	Eriocephalus africanus	Vlak road	Jun - Sep
ASTERACEAE	Euryops abrotanifolius	Windbos	Jul - Oct
ASTERACEAE	Euryops linifolius	Slangkop	Jul
ASTERACEAE	Euryops pectinatus	Elandskloof river in mountain	
ASTERACEAE	Euryops tenuissimus	Lamsieklaagte	Jun - Jul
ASTERACEAE	Felicia bergeriana	Windbos	Jul - Oct
ASTERACEAE	Felicia filifolia	mountain (Driefontein)	Oct
ASTERACEAE	Felicia tenella	Tortoise road	Oct
ASTERACEAE	Gazania serrata	Vangkraal	Sep
ASTERACEAE	Gerbera crocea	Pyplyn	Oct
ASTERACEAE	Gorteria personata	orals	Sep
ASTERACEAE	Haplocarpha lanata	mountain, above Droekloof	Apr
ASTERACEAE	Helichrysum indicum	Welbedagt	Nov
ASTERACEAE	Helichrysum litorale	Welbedagt	Nov
ASTERACEAE	Helichrysum pandurifolium	mountain, at intake	Sep
ASTERACEAE	Helichrysum patulum	Welbedagt	Oct - Dec
ASTERACEAE	Helichrysum sp	Klipfontein	Mar
ASTERACEAE	Helichrysum teretifolium	Welbedagt	Oct - Nov
ASTERACEAE	Heterolepis aliena	mountain, near Stone	Oct - Jan
ASTERACEAE	Hymenolepis crithmoides	Bosplaas	Oct - Nov
ASTERACEAE	Lachnospermum fasciculatum	Lamsieklaagte	
ASTERACEAE	Leysera gnaphalodes	Windbos	Sep

Family	Species	Locality	Date seen
ASTERACEAE	Marasmodes spinosa	Klipfontein, Vlak, Vlei roads	Apr - Jun
ASTERACEAE	Metalasia brevifolia	Welbedagt	Nov
ASTERACEAE	Metalasia cephalotes		
ASTERACEAE	Metalasia cf fastigiata	Blourug	Oct
ASTERACEAE	Metalasia densa	Bosplaas	Jan
ASTERACEAE	Metalasia dregeana	Poplierbos	Feb
ASTERACEAE	Metalasia octoflora	Blourug	Mar - Apr
ASTERACEAE	Oedera imbricata (=Eroeda imbricata)	Pyplyn	Jun - Aug
ASTERACEAE	Oedera prolifera (=Eroeda capensis)		
ASTERACEAE	Osteospermum dentatum	Bosplaas trek	Sep
ASTERACEAE	Osteospermum ilicifolium	Bosplaas trek	Sep - Oct
ASTERACEAE	Osteospermum moniliferum	orals	Aug - Sep
ASTERACEAE	Osteospermum monstrosum	orals	
ASTERACEAE	Osteospermum spinosum	mountain kloof above Droekloof	Feb
ASTERACEAE	Osteospermum tomentosum	Vlei road	Sep
ASTERACEAE	Othonna amplexifolia	mountain above Stone	Oct
ASTERACEAE	Othonna ciliata	Bosplaas upper, Moraea cnr Bosplaas road	Jun - Sep
ASTERACEAE	Othonna digitata	below Bergpad	Jun - Jul
ASTERACEAE	Othonna filicaulis	mountain above Stone	Sep
ASTERACEAE	Othonna gymnodiscus	Secretarybos	Jul
ASTERACEAE	Othonna heterophylla	below Bergpad,orals	Jun - Jul
ASTERACEAE	Othonna parviflora	Populierbos, Elandskloof mountain stream	
ASTERACEAE	Othonna pinnata	Blourug, Slangkop road, Middel road	Jun - Jul
ASTERACEAE	Othonna quinquedentata		
ASTERACEAE	Othonna stenophylla	Lamsieklaagte, upper Windbos	Jun - Jul
ASTERACEAE	Pentzia spinescens	Vlak road	Jan
ASTERACEAE	Perdicium capense	Windbos road	Aug

Family	Species	Locality	Date seen
ASTERACEAE	Phaenocoma prolifera		
ASTERACEAE	Printzia polifolia	mountain, near Stone	Oct
ASTERACEAE	Pteronia hirsuta	upper Bosplaas	Nov
ASTERACEAE	Relhania fruticosa	orals in renosterveld	Oct
ASTERACEAE	Senecio arenarius	Windbos	Aug - Sep
ASTERACEAE	Senecio cf hastatus	Platdam	Jul
ASTERACEAE	Senecio crassulaefolius	mountain kloof above Droekloof	
ASTERACEAE	Senecio erosus	Poplierbos	Sep
ASTERACEAE	Senecio paniculatus	Welbedagt	Nov
ASTERACEAE	Senecio pubigerus	Bosplaas trek	Jul
ASTERACEAE	Senecio purpureus	above Droekloof	Jun - Jul
ASTERACEAE	Senecio tuberosus	Poplierbos	Sep
ASTERACEAE	Steirodiscus gamolepis	Windbos road	Aug
ASTERACEAE	Steirodiscus tagetes	Voelvlei line	Jul - Oct
ASTERACEAE	Stoebe capitata	Pyplyn	Apr
ASTERACEAE	Stoebe cinerea	Bosplaas	May
ASTERACEAE	Stoebe fusca	Grasrug, mountain above Droekloof	Mar - Apr
ASTERACEAE	Stoebe incana	Populierbos	Apr
ASTERACEAE	Stoebe plumosa	Bosplaas	Jan - Jun
ASTERACEAE	Syncarpha canescens	Welbedagt	Jun - Aug
ASTERACEAE	Syncarpha variegata	Bergpad	Oct
ASTERACEAE	Syncarpha vestita	Klipfontein	Mar
ASTERACEAE	Ursinia anthemoides	Bosplaas	Jul - Oct
ASTERACEAE	Ursinia chrysanthemoides	Moraea cnr Elandskloof road	Aug
BLECHNACEAE	Blechnum punctulatum	mountain, at head of voor	
BORAGINACEAE	Echiostachys incanus	Windbos Adoonsekop	Aug - Sep
BORAGINACEAE	Lobostemon argenteus	Blourug	Oct

Family	Species	Locality	Date seen
BORAGINACEAE	Lobostemon capitatus	Vliegveld	Sep
BORAGINACEAE	Lobostemon fruticosus	Vangkraal	Jul - Sep
BORAGINACEAE	Lobostemon glaber (=hispidus)	Blourug	Aug - Oct
BORAGINACEAE	Lobostemon glaucophyllus		Jul - Sep
BRASSICACEAE	Heliophila cf deserticola	Adoonsekop	Sep
BRASSICACEAE	Heliophila coronopifolia	Bosplaas	Sep
BRASSICACEAE	Heliophila digitata	Adoonsekop	Sep
BRASSICACEAE	Heliophila juncea	Klipfontein, Bosplaas upper	Jul - Oct
BRASSICACEAE	Heliophila pinnata	Bosplaas road	Jul
BRASSICACEAE	Heliophila pusilla	Tortoise and Slangkop roads	Aug - Oct
BRUNIACEAE	Berzelia lanuginosa	Populierbos	Aug - Sep
CAMPANULACEAE	Cyphia bulbosa	Windbos, Pyplyn road	Jul - Aug
CAMPANULACEAE	Cyphia digitata	orals	Aug - Sep
CAMPANULACEAE	Cyphia incisa	Middle and Slangkop roads	Sep - Oct
CAMPANULACEAE	Cyphia phyteuma	Secretarybos	Sep - Oct
CAMPANULACEAE	Cyphia volubilis	Tortoise road	Jun - Aug
CAMPANULACEAE	Cyphia zeyheriana	Tortoise road	Sep
CAMPANULACEAE	Lobelia capillifolia	Above Bosplaas near pylons	Nov
CAMPANULACEAE	Lobelia cf nugax	Bosplaas	
CAMPANULACEAE	Lobelia coronopifolia		
CAMPANULACEAE	Lobelia erinus	Bosplaas trek	Nov
CAMPANULACEAE	Lobelia linearis	Bosplaas trek	Nov
CAMPANULACEAE	Lobelia setacea		
CAMPANULACEAE	Merciera tenuifolia		Nov
CAMPANULACEAE	Merciera tetraloba	Vlak road	
CAMPANULACEAE	Microcodon glomeratum	orals	Oct
CAMPANULACEAE	Microcodon hispidulum		Sep

Family	Species	Locality	Date seen
CAMPANULACEAE	Monopsis debilis	Slangkop road, Bosplaas road	Oct
CAMPANULACEAE	Monopsis lutea	Pyplyn	Nov - Apr
CAMPANULACEAE	Monopsis variifolia	Bosplaas trek, vlei above Elandskloof road	Nov - Jan
CAMPANULACEAE	Prismatocarpus fruticosus	Berg pad	Dec - Apr
CAMPANULACEAE	Roella ciliata	Windbos	Oct
CAMPANULACEAE	Wahlenbergia annularis		Oct
CAMPANULACEAE	Wahlenbergia annularis subsp bicolor	Bosplaas	Sep
CAMPANULACEAE	Wahlenbergia capensis	orals	Sep
CAMPANULACEAE	Wahlenbergia exilis	Slangkop Road, below Ronde Dam	Oct
CAMPANULACEAE	Wahlenbergia subulata	Bosplaas trek	Nov
CARYOPHYLLACEAE	Dianthus albens	Bosplaas trek, Lamsieklaagte	Nov -Jan
CARYOPHYLLACEAE	Petrorhagia prolifera	orals	Oct
CARYOPHYLLACEAE	Silene clandestina (exotic)	orals	
CARYOPHYLLACEAE	Silene gallica (exotic)	Outuinrivier	Sep
CARYOPHYLLACEAE	Spergula arvensis (exotic)	Vlei road	Jun
CELASTRACEAE	Maytenus oleoides	Welbedagt	
CELASTRACEAE	Pterocelastrus tricuspidatus	Outuinrivier	Mar
COLCHICACEAE	Baeometra uniflora	Blourug	Sep
COLCHICACEAE	Colchicum capense	Secretarybos, Vlak road	Aug
COLCHICACEAE	Colchicum eucomoides	Bosplaas road	Aug
COLCHICACEAE	Ornithoglossum viride	Bergpad	July
COLCHICACEAE	Wurmbea inusta	Slangkop road	Sep
COLCHICACEAE	Wurmbea punctata	Middle road	Aug - Sep
COLCHICACEAE	Wurmbea recurva	Vlak road	Sep
COLCHICACEAE	Wurmbea spicata	Vlei road	Sep
COLCHICACEAE	Wurmbea stricta	Vlak road	Jul - Sep
CONVOLVULACEAE	Convolvulus capensis	Tortoise road	Sep

Family	Species	Locality	Date seen
CONVOLVULACEAE	Cuscuta nitida	orals	Sep, Apr
CRASSULACEAE	Adromischus hemisphaericus	mountain kloofs	Feb
CRASSULACEAE	Crassula capensis	Blourug	Jul
CRASSULACEAE	Crassula ciliata		
CRASSULACEAE	Crassula dejecta	Waterkloof, mountain above Stone	Jan
CRASSULACEAE	Crassula dichotoma	Pyplyn	Sep
CRASSULACEAE	Crassula fascicularis	Klipfontein	Sep - Nov
CRASSULACEAE	Crassula flava	Windbos	Sep
CRASSULACEAE	Crassula glomerata	Windbos road	Oct, Nov
CRASSULACEAE	Crassula natans	Tortoise road	Sep
CRASSULACEAE	Crassula nudicaulis	mountain slopes	
CRASSULACEAE	Crassula rupestris subsp rupestris	mountain kloofs	Feb
CRASSULACEAE	Crassula saxifraga	mountain above Droekloof	Apr
CRASSULACEAE	Crassula scabra	Lamsieklaagte	Nov
CRASSULACEAE	Crassula subulata	Bosplaas trek	Nov
CRASSULACEAE	Crassula umbellata	Bosplaas road	Oct
CYPERACEAE	Carpha glomerata	Welbedagt	Aug
CYPERACEAE	Eleocharis limosa	Vlei road	Jun
CYPERACEAE	Ficinia bulbosa	Elandskloof river	Oct
CYPERACEAE	Ficinia indica	Welbedagt	Jul
CYPERACEAE	Ficinia oligantha	Welbedagt	Jul
CYPERACEAE	Isolepis prob verrucosula	Vangkraal vlei	
CYPERACEAE	Mariscus thunbergii	Vangkraal vlei	Sep
CYPERACEAE	Pycreus nitidus	Vangkraal vlei	Sep
CYPERACEAE	Schoenoxiphum ecklonii	Bosplaas trek	
CYPERACEAE	Tetraria bromoides	Welbedagt	Jul
CYPERACEAE	Tetraria ustulata		

Family	Species	Locality	Date seen
DENNSTAEDTIACEAE	Pteridium aquilinum	orals	
DIPSACACEAE	Scabiosa columbaria	Secretarybos, Welbedagt	Oct - Nov
DROSERACEAE	Drosera alba	Vliegveld	Sep
DROSERACEAE	Drosera cistiflora	Windbos, Poplierbos	Aug - Sep
DROSERACEAE	Drosera hilaris	Middle road	Aug
DROSERACEAE	Drosera pauciflora	Bosplaas	Aug - Sep
DROSERACEAE	Drosera trinervia	Windbos	Sep
EBENACEAE	Diospyros glabra	Outuinrivier	Feb
EBENACEAE	Euclea acutifolia	Varkfontein river	Oct
EBENACEAE	Euclea tomentosa	mountain, at head of voor	Sep
ERICACEAE	Erica arcuata	Welbedagt	Aug - Sep
ERICACEAE	Erica articularis	lower mountain slopes above Droekloof, Elandskloof	Jan - Apr
ERICACEAE	Erica bergiana	mountain - fonteine	Jan
ERICACEAE	Erica bicolor	Populierbos	Sep - Oct
ERICACEAE	Erica bruniades	Bosplaas, Welbedagt	May - Oct
ERICACEAE	Erica calycina		Sep
ERICACEAE	Erica coarctata	Vangkraal	Jul - Aug
ERICACEAE	Erica distorta	Elandskloof	Jan
ERICACEAE	Erica eriocephala (=Acrostemon hirsutus)	Welbedagt	Aug - Sep
ERICACEAE	Erica glabra (=Simocheilus puberulus)	Elandskloof road	Jul
ERICACEAE	Erica grandiflora	mountain, near Stone	Jan - Feb, Oct
ERICACEAE	Erica hirtiflora	Pyplyn	Nov
ERICACEAE	Erica hispidula	Welbedagt	Jul
ERICACEAE	Erica imbricata	Elandskloof, Welbedagt	Jul - Aug
ERICACEAE	Erica leucanthera	Welbedagt	Oct
ERICACEAE	Erica paniculata	Grasrug, Blourug	Aug - Sep

Family	Species	Locality	Date seen
ERICACEAE	Erica parilis	lower mountain slopes above Droekloof	Feb
ERICACEAE	Erica parviflora	Elandskloof	Jul - Aug
ERICACEAE	Erica plukenetii	Welbedagt, mountain near Stone	Jan - Sep
ERICACEAE	Erica spumosa		
ERICACEAE	Erica totta (= Eremia totta)	Klipfontein, Welbedagt	Jul - Aug
EUPHORBIACEAE	Clutia alaternoides	Voelvlei line	Aug
EUPHORBIACEAE	Euphorbia arceuthobioides	Bloegombos road	Oct
EUPHORBIACEAE	Euphorbia mauritanica	mountain above Stone	Sep
EUPHORBIACEAE	Euphorbia silenifolia	Blourug	
EUPHORBIACEAE	Euphorbia tuberosa	Lamsieklaagte (along new road), above Droekloof	Apr - Sep
FABACEAE	Aspalathus aculeata	Secretarybos, cnr Moraea road	Nov
FABACEAE	Aspalathus arida	Pyplyn	Mar
FABACEAE	Aspalathus aspalathoides	Middle road	Sep
FABACEAE	Aspalathus attenuata	Moraea road	Nov
FABACEAE	Aspalathus cephalotes subsp violacea	Blourug	Oct
FABACEAE	Aspalathus cephalotes subsp obscuriflora	Blourug,Lamsieklaagte (past olives, towards fence)	Aug - Oct
FABACEAE	Aspalathus ciliaris	Blourug	Oct
FABACEAE	Aspalathus cordata	Welbedagt	Sep - Oct
FABACEAE	Aspalathus crenata	Welbedagt	Oct
FABACEAE	Aspalathus ericifolia		Sep
FABACEAE	Aspalathus heterophylla	Elandskloof (Berg pad)	Oct
FABACEAE	Aspalathus juniperina	Blourug	Mar, Oct
FABACEAE	Aspalathus laricifolia subsp canescens		
FABACEAE	Aspalathus linearifolia	Adoonsekop	Dec
FABACEAE	Aspalathus nilandtia	Windbos	
FABACEAE	Aspalathus parviflora	Secretarybos	Sep
FABACEAE	Aspalathus perforata	Lamsieklaagte	Nov

Family	Species	Locality	Date seen
FABACEAE	Aspalathus rugosa	Slangkop	Dec
FABACEAE	Aspalathus spinosa	Blourug	Oct - Feb
FABACEAE	Aspalathus spinosa subsp flavispina	Middle road	Feb
FABACEAE	Aspalathus tridentata	Bosplaas trek	Nov
FABACEAE	Dolichos decumbens	Slangkop	Aug
FABACEAE	Hypocalyptus sophoroides	Populierbos, Stone	Oct
FABACEAE	Indigofera cf humifusa		
FABACEAE	Indigofera complanata	Middle road	Aug - Sep
FABACEAE	Indigofera heterophylla	Blourug	Oct
FABACEAE	Indigofera sp	Slangkop	Jul
FABACEAE	Lebeckia plukenetiana	Welbedagt	Jul - Aug
FABACEAE	Lessertia capensis	Secretarybos road	Sep
FABACEAE	Lotononis complanata	Vlei road, Bosplaas road	Jun
FABACEAE	Lotononis involucrata	Windbos	Jul
FABACEAE	Lotononis prostrata	Elandskloof, Lamsieklaagte	Jun - Jul
FABACEAE	Lotononis umbellata	Populierbos	Jul
FABACEAE	Otholobium uncinatum	upper Bosplaas	Nov
FABACEAE	Podalyria calyptrata	Welbedagt, at streamside	Sep
FABACEAE	Podalyria microphylla	Blourug	Sep - Oct
FABACEAE	Podalyria myrtillifolia	Blourug	Nov
FABACEAE	Psoralea alata	Bergpad, near top of Adoonsepad	
FABACEAE	Psoralea aphylla	Populierbos	
FABACEAE	Psoralea imbricata	Bosplaas upper/trek, next to stream	Nov
FABACEAE	Psoralea laxa		May
FABACEAE	Rafnia angulata	Bergpad	Sep
FABACEAE	Virgilia oroboides	Bosplaas	
GENTIANACEAE	Chironia linoides	Vangkraal	Oct

Family	Species	Locality	Date seen
GENTIANACEAE	Sebaea aurea		Sep - Oct
GENTIANACEAE	Sebaea exacoides	Bosplaas	Sep
GERANIACEAE	Erodium chium	Slangkop road, on banks near crossing	Sep
GERANIACEAE	Erodium moschatum (exotic)	orals	
GERANIACEAE	Monsonia speciosa	Tortoise road	Sep
GERANIACEAE	Pelargonium anethifolium	Slangkop Road, below Ronde Dam	Oct
GERANIACEAE	Pelargonium auritum	Elandskloof, below road	Oct
GERANIACEAE	Pelargonium chamaedryfolium	Bosplaas trek	Sep
GERANIACEAE	Pelargonium chelidonium	Windbos	October
GERANIACEAE	Pelargonium elandsmontanum	Lower Secretarybos, on Middle road	Apr - May
GERANIACEAE	Pelargonium elongatum	Bloegombos road	Oct
GERANIACEAE	Pelargonium hispidum	Bosplaas river	Mar
GERANIACEAE	Pelargonium longiflorum	Slangkop Road	Dec
GERANIACEAE	Pelargonium longifolium	Vangkraal, Bosplaas trek, Slangkop road	Sep - Nov
GERANIACEAE	Pelargonium multicaule	Grasrug	Sep
GERANIACEAE	Pelargonium myrrhifolium	upper Secretarybos	Oct
GERANIACEAE	Pelargonium proliferum	Windbos	Apr
GERANIACEAE	Pelargonium rapaceum	Welbedagt	Nov
GERANIACEAE	Pelargonium ternifolium	Vlak road	May
GERANIACEAE	Pelargonium triste	Bosplaas	Sep
GUNNERACEAE	Gunnera perpensa	Elandskloof river in mountain	
HAEMODORACEAE	Lanaria lanata	Pyplyn	Oct - Nov
HAEMODORACEAE	Wachendorfia brachyandra	Varkfontein river	Sep - Oct
HAEMODORACEAE	Wachendorfia multiflora	Slangkop	Aug
HAEMODORACEAE	Wachendorfia paniculata	Vliegveld	Sep
HEMEROCALLIDACEAE	Caesia contorta	Bosplaas trek	Jan
HYACINTHACEAE	Albuca albucoides	Bosplaas road	May

Family	Species	Locality	Date seen
HYACINTHACEAE	Albuca cooperi	Bosplaas trek	Nov
HYACINTHACEAE	Albuca flaccida	Bosplaas road	Sep
HYACINTHACEAE	Albuca juncifolia	Windbos	Sep
HYACINTHACEAE	Albuca longipes	Windbos	Sep - Oct
HYACINTHACEAE	Albuca namaquensis	Elandskloof road	Oct
HYACINTHACEAE	Albuca spiralis	Slangkop	Sep
HYACINTHACEAE	Albuca suaveolens	Blourug	Sep - Oct
HYACINTHACEAE	Dipcadi brevifolium	Elandskloof road, Lamsieklaagte	Oct - Nov
HYACINTHACEAE	Drimia capensis	Elandskloof road	Nov
HYACINTHACEAE	Drimia convallarioides	upper Secretarybos	Mar
HYACINTHACEAE	Drimia dregei	Vlei road	Mar
HYACINTHACEAE	Drimia exuviata	Secretarybos	Sep
HYACINTHACEAE	Drimia filifolia	Slangkop road, Middle road	Sep
HYACINTHACEAE	Drimia pusilla	upper Secretarybos, Vangkraal road	Mar
HYACINTHACEAE	Lachenalia bachmannii	Tortoise road	Sep
HYACINTHACEAE	Lachenalia contaminata	Middle road	Sep
HYACINTHACEAE	Lachenalia corymbosa	Windbos, Vlei road, lower slopes	Apr - May
HYACINTHACEAE	Lachenalia elegans var flava		Jul
HYACINTHACEAE	Lachenalia longibracteata	blomreservaat	Aug - Sep
HYACINTHACEAE	Lachenalia mutabilis		Sep
HYACINTHACEAE	Lachenalia orchioides	Vlei road	Sep
HYACINTHACEAE	Lachenalia pallida	Vliegveld	Sep
HYACINTHACEAE	Lachenalia polyphylla	Vliegveld	Sep
HYACINTHACEAE	Lachenalia pustulata		Sep
HYACINTHACEAE	Lachenalia trichophylla	Lamsieklaagte, Welbedagt	Sep
HYACINTHACEAE	Lachenalia unifolia	Vlak road	Aug - Sep
HYACINTHACEAE	Lachenalia zeyheri	Vlei road	Sep

Family	Species	Locality	Date seen
HYACINTHACEAE	Massonia echinata	Secretarybos	Sep
HYACINTHACEAE	Ornithogalum albucoides	Elandskloof	May
HYACINTHACEAE	Ornithogalum auratum	Windbos, Middle road	Oct
HYACINTHACEAE	Ornithogalum dubium	Blourug	Sep - Oct
HYACINTHACEAE	Ornithogalum graminifolium	Adoonsekop	Nov - Dec
HYACINTHACEAE	Ornithogalum hispidum	Trek, over bridge past office	Nov - Dec
HYACINTHACEAE	Ornithogalum juncifolium	road above Vangkraal	Mar
HYACINTHACEAE	Ornithogalum thyrsoides	orals	Sep
HYPOXIDACEAE	Empodium plicatum	orals	Mar - Apr
HYPOXIDACEAE	Spiloxene ? aquatica x schlechteri	Vlei road	Jun - Jul
HYPOXIDACEAE	Spiloxene aquatica	Vlei road	Jul - Sep
HYPOXIDACEAE	Spiloxene capensis	Vlak road	Aug - Sep
HYPOXIDACEAE	Spiloxene curculigoides	Lamsieklaagte, lower mountain slopes	Apr - Jun
HYPOXIDACEAE	Spiloxene flaccida	Bosplaas trek	Jun - Jul
HYPOXIDACEAE	Spiloxene minuta	above Bosplaas road in seep; Vlei road	May - Jun
HYPOXIDACEAE	Spiloxene schlechteri	in seeps along Bosplaas road	May - Jun
HYPOXIDACEAE	Spiloxene serrata	Blomreservaat	Sep
IRIDACEAE	Aristea africana	Blourug	Aug - Sep
IRIDACEAE	Aristea bakeri	Welbedagt	
IRIDACEAE	Aristea capitata	Populierbos, intake	Oct
IRIDACEAE	Aristea dichotoma		Dec
IRIDACEAE	Aristea lugens	Blourug	Aug - Sep
IRIDACEAE	Aristea spiralis	Lamsieklaaagte (past olive orchard)	Jul
IRIDACEAE	Babiana ambigua	Windbos	Aug - Sep
IRIDACEAE	Babiana angustifolia	Slangkop road	Aug - Sep
IRIDACEAE	Babiana odorata	Windbos	Jul - Sep
IRIDACEAE	Babiana secunda	Vlak road, Blourug	Sep

Family	Species	Locality	Date seen
IRIDACEAE	Babiana villosula		
IRIDACEAE	Bobartia fasciculata	Vangkraal, Platdam	Aug - Nov
IRIDACEAE	Bobartia indica	Blourug	Sep - Feb
IRIDACEAE	Chasmanthe aethiopica	Outuinrivier, Droekloof	Jun - Jul
IRIDACEAE	Chasmanthe floribunda	Langrug	Jul
IRIDACEAE	Ferraria crispa	Bartholomeus Klip	Sep
IRIDACEAE	Ferraria uncinata	Slangkop road	Sep
IRIDACEAE	Geissorhiza aspera	Windbos	Sep
IRIDACEAE	Geissorhiza brehmii	Bloegombos	Aug - Sep
IRIDACEAE	Geissorhiza confusa	Elandskloof, cnr Vervlak	Oct - Nov
IRIDACEAE	Geissorhiza furva	Slangkop road	Sep - Oct
IRIDACEAE	Geissorhiza heterostyla	Blourug	Sep
IRIDACEAE	Geissorhiza imbricata	Vlei road	Sep
IRIDACEAE	Geissorhiza inflexa	Lamsieklaagte (past olives, towards fence)	Aug
IRIDACEAE	Geissorhiza juncea	Varkfontein road	Oct - Nov
IRIDACEAE	Geissorhiza longifolia	Bosplaas trek	Sep - Oct
IRIDACEAE	Geissorhiza ovata	Olyfboord	Aug - Sep
IRIDACEAE	Geissorhiza purpureolutea Baker	Vervlak	Sep
IRIDACEAE	Geissorhiza setacea	Blourug - road down to Windbos	Sep
IRIDACEAE	Geissorhiza tulbaghensis	Windbos Road, Middle road end	Sep
IRIDACEAE	Gladiolus alatus	Bosplaas	Jul - Aug
IRIDACEAE	Gladiolus brevifolius	off Bloegombos road near Elandskloof road	Apr - May
IRIDACEAE	Gladiolus carinatus	Middle road, Bosplaas	Jul - Aug
IRIDACEAE	Gladiolus carneus	Pyplyn	Sep - Oct
IRIDACEAE	Gladiolus floribundus	above Bosplaas under pylons, Welbedagt fence	
IRIDACEAE	Gladiolus gracilis	Populierbos, Slangkop road, Langrug	Apr - Jul
IRIDACEAE	Gladiolus hirsutus	Bosplaas road	Jun - Aug

Family	Species	Locality	Date seen
IRIDACEAE	Gladiolus hyalinus	Bergpad, above Bosplaas	Jul - Aug
IRIDACEAE	Gladiolus maculatus	Bosplaas	Jun - Jul
IRIDACEAE	Gladiolus priorii	Voeltjiedam	Jul
IRIDACEAE	Gladiolus trichonemifolius	Windbos, Vlei road, Vervlak	Aug
IRIDACEAE	Gladiolus undulatus	Bosplaas	Dec
IRIDACEAE	Gladiolus watsonius	Voeltjiedam	Jul - Aug
IRIDACEAE	Hesperantha falcata	Windbos	Sep
IRIDACEAE	Hesperantha pilosa	Windbos, Bosplaas road	Aug
IRIDACEAE	Hesperantha radiata	Secretarybos	Jul - Aug
IRIDACEAE	Hesperantha spicata	Pyplyn	Jul
IRIDACEAE	Ixia capillaris	Klipfontein	Sep
IRIDACEAE	Ixia dubia	Windbos	Oct - Nov
IRIDACEAE	Ixia erubescens	Middle road	Sep
IRIDACEAE	Ixia lutea (=conferta var ochroleuca)	Middle road	Sep
IRIDACEAE	Ixia odorata	Slangkop road	Oct
IRIDACEAE	Lapeirousia anceps	Windbos	Sep - Nov
IRIDACEAE	Lapeirousia elandsmontana	Windbos, Olyfboord, Secretarybos	Sep - Oct
IRIDACEAE	Lapeirousia jacquinii	Middle road	Aug
IRIDACEAE	Melasphaerula ramosa	Bosplaas	Sep
IRIDACEAE	Micranthus alopecuroides	Tortoise road	Oct - Nov
IRIDACEAE	Micranthus fistulosus (=tubulosus)	Tortoise road	Oct - Nov
IRIDACEAE	Micranthus junceus	Bosplaas trek	Nov
IRIDACEAE	Moraea angulata	Adoonsekop	Aug
IRIDACEAE	Moraea angusta	Windbos, Bosplaas road	Aug
IRIDACEAE	Moraea anomala	orals	Sep
IRIDACEAE	Moraea bellendenii	Slangkop road	Oct - Nov
IRIDACEAE	Moraea bituminosa	Tortoise road, Vervlak	Oct

Family	Species	Locality	Date seen
IRIDACEAE	Moraea ciliata	Vlak	Aug
IRIDACEAE	Moraea collina	mountain	Sep
IRIDACEAE	Moraea cooperi	orals	Sep
IRIDACEAE	Moraea flaccida	orals	Aug
IRIDACEAE	Moraea fugacissima	Windbos	Jun - Aug
IRIDACEAE	Moraea fugax	orals	Oct
IRIDACEAE	Moraea galaxia	Moraea cnr Bosplaas road	Jul
IRIDACEAE	Moraea gawleri	orals	Sep
IRIDACEAE	Moraea inconspicua	Elandskloof road	Sep
IRIDACEAE	Moraea lewisiae	orals	Oct
IRIDACEAE	Moraea lugubris	Middle road	Aug - Sep
IRIDACEAE	Moraea miniata	Windbos	Aug - Sep
IRIDACEAE	Moraea minor	mountain	Sep
IRIDACEAE	Moraea neglecta	Bosplaas	Aug - Sep
IRIDACEAE	Moraea ochroleuca	Bergpad	Oct
IRIDACEAE	Moraea papilionacea	Windbos	Aug - Sep
IRIDACEAE	Moraea ramosissima	Bosplaas	Oct
IRIDACEAE	Moraea setifolia	Bosplaas	Oct
IRIDACEAE	Moraea tricolor	Vlak, Elandskloof	Jul - Aug
IRIDACEAE	Moraea tripetala	Middle road	Aug - Sep
IRIDACEAE	Moraea tulbaghensis	corner Vlei and Tortoise roads	Sep
IRIDACEAE	Moraea umbellata (=Rheome umbellata)	Bosplaas trek, Elandskloof road, Middle road	Oct - Nov
IRIDACEAE	Moraea vegeta	Bosplaas	Aug
IRIDACEAE	Moraea versicolor	Adoonsekop	Jul
IRIDACEAE	Moraea villosa	Windbos	Sep
IRIDACEAE	Moraea villosa subsp elandsmontana	Bosplaas	Sep
IRIDACEAE	Moraea virgata	Vlei road	Nov

Family	Species	Locality	Date seen
IRIDACEAE	Moraea viscaria	Lamsieklaagte road	Nov
IRIDACEAE	Romulea cruciata	Vlei road	Jul
IRIDACEAE	Romulea flava	Vliegveld, Bosplaas, Adoonsekop (blue form)	Jul - Aug
IRIDACEAE	Romulea hirsuta	Slangkop road	Aug
IRIDACEAE	Romulea rosea	Windbos, Bosplaas trek	Jul - Aug
IRIDACEAE	Sparaxis bulbifera	Tuin	Sept
IRIDACEAE	Sparaxis grandiflora subsp. fimbriata	Droepan, Middle road	Sep - Oct
IRIDACEAE	Sparaxis villosa	Bosplaas	Aug
IRIDACEAE	Thereianthus bulbiferus	Slangkop road	Nov
IRIDACEAE	Thereianthus elandsmontanus	Slangkop	Nov
IRIDACEAE	Thereianthus longicollis	Welbedagt, boundary at head of road	Nov
IRIDACEAE	Thereianthus spicatus	Bosplaas trek, Vervlak	Nov
IRIDACEAE	Tritonia crispa	Bosplaas trek	Nov
IRIDACEAE	Tritoniopsis antholyza	Blourug, upper Secretarybos	Nov
IRIDACEAE	Tritoniopsis elongata	Varkfontein road, Vangkraal road	Feb - Apr
IRIDACEAE	Tritoniopsis parviflora	Bosplaas trek	Nov
IRIDACEAE	Tritoniopsis ramosa	Welbedagt boundary	Dec
IRIDACEAE	Tritoniopsis triticea	Klipfontein	Jan
IRIDACEAE	Tritoniopsis unguicularis	Bosplaas road	Nov
IRIDACEAE	Watsonia borbonica subsp borbonica	Slangkop road	Oct
IRIDACEAE	Watsonia coccinea	Vlak (off Vlei road)	Aug
IRIDACEAE	Watsonia dubia	Blourug	Sep - Oct
IRIDACEAE	Watsonia marginata	Vlak road	Oct
IRIDACEAE	Watsonia meriana var bulbillifera	Vlak road	Aug - Sep
IRIDACEAE	Watsonia spectabilis	Bosplaas	
ISOETACEAE	Isoetes capensis var stephansenii	vlak	
JUNCACEAE	Juncus cephalotes	Varkfontein river	Oct

Family - Latin	Species	Locality	Date seen
JUNCAGINACEAE	Triglochin bulbosa	Vlei road	Sep
LAMIACEAE	Leonotis leonurus	Driefontein	Nov
LAMIACEAE	Mentha sp	Elandskloof river	
LAMIACEAE	Salvia africana-caerulea		
LAMIACEAE	Salvia africana-lutea (=S. aurea)		
LAMIACEAE	Salvia albicaulis	above Bosplaas	Nov
LAMIACEAE	Salvia chamelaeagnea	orals	Jan
LAMIACEAE	Salvia lanceolata		
LAMIACEAE	Stachys aethiopica	mountain, near Stone	Oct
LENTIBULARIACEAE	Utricularia bisquamata (=U. capensis)	Tortoise road	
LINACEAE	Linum acuticarpum	Welbedagt	Sep - Nov
MALVACEAE	Anisodontea scabrosa	mountain, above intake	Oct
MALVACEAE	Anisodontea triloba	Grasrug	
MALVACEAE	Hermannia cf ciliaris	Middle road	Sep
MALVACEAE	Hermannia decumbens	Bosplaas	Aug
MALVACEAE	Hermannia hyssopifolia	Welbedagt (at crossing)	Sep - Oct
MALVACEAE	Hermannia muricata		
MALVACEAE	Hermannia scabra	Blourug, Bosplaas trek	Oct - Nov
MALVACEAE	Hermannia ternifolia	Bosplaas	May - Jul
MALVACEAE	Hibiscus aethiopicus	Elandskloof, upper Secretarybos	May - Jun
MELIANTHACEAE	Melianthus major	Bosplaas	Sep
MENISPERMACEAE	Cissampelos capensis	Slangkop	
MOLLUGINACEAE	Adenogramma glomerata	Slangkop road	Sep - Oct
MOLLUGINACEAE	Adenogramma lichtensteiniana	Tortoise road	Sep
MOLLUGINACEAE	Adenogramma natans	Stream with Oxalis natans in vlak	Jul - Aug
MOLLUGINACEAE	Pharnaceum lineare	Middle road	Sep
MOLLUGINACEAE	Polpoda stipulacea	Vervlak road	Sep

Family - Latin	Species	Locality	Date seen
MOLLUGINACEAE	Psammotropha spicata	Varkfontein river	Oct
MONTINIACEAE	Montinia caryophyllacea	Blourug	Jul - Aug
MYRICACEAE	Morella serrata	Varkfontein river	
MYRTACEAE	Metrosideros angustifolia	Waterkloof	May
OLEACEAE	Olea europaea subsp africana	Outuinrivier	Jan
ORCHIDACEAE	Bartholina burmanniana	Voelvlei line	
ORCHIDACEAE	Ceratandra atrata	Lamsieklaagte	Nov
ORCHIDACEAE	Disa bracteata	Bosplaas	Sep
ORCHIDACEAE	Disa flexuosa	Vervlak	Sep
ORCHIDACEAE	Disa obliqua	Welbedagt, Klipfontein road	Jul - Aug
ORCHIDACEAE	Disa physodes	Blourug near kraal and along Bosplaas road	Sep
ORCHIDACEAE	Disperis bolusiana	Blourug	Sep
ORCHIDACEAE	Disperis capensis	Welbedagt	Aug
ORCHIDACEAE	Disperis circumflexa	Slangkop road	Aug
ORCHIDACEAE	Disperis cucullata	Blourug	Aug
ORCHIDACEAE	Disperis villosa	Secretarybos	Sep
ORCHIDACEAE	Holothrix cernua	Lamsieklaagte	Oct
ORCHIDACEAE	Holothrix villosa	Windbos	Sep
ORCHIDACEAE	Pterygodium alatum	Blourug, vlak	Aug - Sep
ORCHIDACEAE	Pterygodium caffrum	Vervlak	Aug - Sep
ORCHIDACEAE	Pterygodium catholicum	Blourug	Sep
ORCHIDACEAE	Pterygodium orobanchoides	Bosplaas	
ORCHIDACEAE	Pterygodium sp	Blourug	Oct
ORCHIDACEAE	Pterygodium volucris	Middle road	Sep
ORCHIDACEAE	Satyrium bracteatum	Vervlak	Sep - Oct
ORCHIDACEAE	Satyrium coriifolium	Slangkop road	Sep - Oct
ORCHIDACEAE	Satyrium erectum	Secretarybos	Sep

Family - Latin	Species	Locality	Date seen
ORCHIDACEAE	Satyrium odorum	Vervlak	Sep
ORCHIDACEAE	Satyrium retusum	Vervlak	Sep
OROBANCHACEAE	Alectra sessiliflora	Bosplaas upper/trek, next to stream	Nov
OROBANCHACEAE	Harveya capensis	mountain above Droekloof	Nov
OROBANCHACEAE	Harveya purpurea	Lamsieklaagte	Oct
OSMUNDACEAE	Todea barbara	mountain, at head of voor	
OXALIDACEAE	Oxalis (capillacea) pardalis	Vlei road	Aug
OXALIDACEAE	Oxalis cf pulchella	Bosplaas trek	Jul
OXALIDACEAE	Oxalis commutata	Bosplaas trek, Vlei road	Jun - Jul
OXALIDACEAE	Oxalis compressa	Boplaas	Aug
OXALIDACEAE	Oxalis droseroides		
OXALIDACEAE	Oxalis flava		
OXALIDACEAE	Oxalis glabra	Bosplaas trek	Jun - Jul
OXALIDACEAE	Oxalis goniorrhiza		April
OXALIDACEAE	Oxalis hirta		
OXALIDACEAE	Oxalis lanata	Bloegombos	Jul
OXALIDACEAE	Oxalis lateriflora	fynbos ecotone	April - May
OXALIDACEAE	Oxalis livida	upper Secretarybos, Blomreservaat	Apr - Jun
OXALIDACEAE	Oxalis luteola	orals	Jul - Aug
OXALIDACEAE	Oxalis monophylla	Bosplaas road	Apr - May
OXALIDACEAE	Oxalis multicaulis	orals in renosterveld	Apr - May
OXALIDACEAE	Oxalis natans	Tortoise road	Jul - Sep
OXALIDACEAE	Oxalis obtusa	orals	Jul - Aug
OXALIDACEAE	Oxalis pardalis	upper Secretarybos	May, Jul
OXALIDACEAE	Oxalis pes-caprae	Bosplaas	Jul - Sep
OXALIDACEAE	Oxalis pes-caprae var sericea	Blourug	Jul
OXALIDACEAE	Oxalis polyphylla	Bosplaas trek	Jul - Aug

Family - Latin	Species	Locality	Date seen
OXALIDACEAE	Oxalis pulchella	Secretarybos	April - May
OXALIDACEAE	Oxalis punctata	Outuinrivier at office	Aug
OXALIDACEAE	Oxalis purpurea	orals	Jun - Sep
OXALIDACEAE	Oxalis tenuifolia	mountain above Droekloof	Jul
OXALIDACEAE	Oxalis tomentosa		
OXALIDACEAE	Oxalis urbaniana	Adoonsekop	Jul
OXALIDACEAE	Oxalis versicolor	orals	Jun - Sep
POACEAE	Aristida diffusa	orals	
POACEAE	Aristida junciformis	orals	
POACEAE	Briza maxima	Bosplaas werf	
POACEAE	Cymbopogon marginatus	Bosplaas werf	
POACEAE	Cynodon dactylon		
POACEAE	Ehrharta calycina		
POACEAE	Ehrharta longifolia	Bosplaas trek	Nov
POACEAE	Eragrostis curvula	Bosplaas trek	Jun
POACEAE	Festuca scabra	Welbedagt line	
POACEAE	Merxmuellera lupulina	Windbos	
POACEAE	Merxmuellera stricta	Vlei road	
POACEAE	Paspalum sp	Bosplaas werf	
POACEAE	Pennisetum macrourum		
POACEAE	Pentaschistis curvifolia	Bosplaas werf	
POACEAE	Pentaschistis densifolia	Welbedagt	Nov
POACEAE	Pentaschistis ecklonii	Voelvlei line, Welbedagt line	Feb
POACEAE	Pentaschistis pallida	orals	
POACEAE	Prionanthium pholiuroides	mother-in-law's dam	
POACEAE	Stenotaphrum secundatum	Bosplaas werf	
POACEAE	Stipagrostis zeyheri	Windbos	Dec

Family - Latin	Species	Locality	Date seen
POACEAE	Themeda triandra	orals	
POACEAE	Tribolium echinatum	orals	
POACEAE	Tribolium hispidum	Welbedagt line	
POACEAE	Tribolium obtusifolium	Adoonsekop (east)	
POACEAE	Tribolium uniolae	Welbedagt line	Dec
POLYGALACEAE	Muraltia divaricata	Welbedagt	Oct - Nov
POLYGALACEAE	Muraltia ericoides	Varkfontein river	Oct
POLYGALACEAE	Muraltia heisteria	orals	Mar - Sep
POLYGALACEAE	Muraltia macropetala		Jul
POLYGALACEAE	Muraltia trinervia	Blourug	Oct
POLYGALACEAE	Polygala lehmanniana	Windbos	Jul
POLYGONACEAE	Rumex cordatus	orals	Aug - Oct
PRIONIACEAE	Prionium serratum	Welbedagt - in river	
PROTEACEAE	Brabejum stellatifolium	Outuinrivier, mountain near Poplierbos	Jan
PROTEACEAE	Leucadendron corymbosum	Vlak road	Jan
PROTEACEAE	Leucadendron lanigerum	Bosplaas	Jan
PROTEACEAE	Leucadendron rubrum	Bosplaas	Jan
PROTEACEAE	Leucadendron salicifolium	mountain	
PROTEACEAE	Leucadendron salignum	Welbedagt	Jan - Mar
PROTEACEAE	Leucadendron spissifolium	mountain	
PROTEACEAE	Leucadendron stellare	Middle road	Oct
PROTEACEAE	Leucospermum calligerum	Bosplaas	Jan
PROTEACEAE	Leucospermum tottum	mountain	
PROTEACEAE	Mimetes cucullatus	Pyplyn	
PROTEACEAE	Protea acaulos	Populierbos	Aug - Sep
PROTEACEAE	Protea burchellii	Welbedagt	Jul - Aug
PROTEACEAE	Protea cynaroides	mountain	

Family - Latin	Species	Locality	Date seen
PROTEACEAE	Protea laurifolia	mountain	
PROTEACEAE	Protea magnifica	mountain	
PROTEACEAE	Protea mucronifolia	Tortoise road	Nov
PROTEACEAE	Protea nana	mountain	
PROTEACEAE	Protea nitida (=P. arborea)	Populierbos	
PROTEACEAE	Protea repens	Bosplaas	Mar - Jul
PROTEACEAE	Protea scolopendriifolia	mountain	
PROTEACEAE	Protea scorzonerifolia	mountain	
PROTEACEAE	Serruria acrocarpa	Bosplaas, Pyplyn	Aug - Jan
PROTEACEAE	Serruria candicans	Bosplaas	Jul - Jan
PROTEACEAE	Serruria cygnea	mountain	
PROTEACEAE	Serruria dodii	mountain	
PROTEACEAE	Serruria pedunculata	Bergpad	Oct
PTERIDACEAE	Cheilanthes contracta	mountain kloofs	Feb
PTERIDACEAE	Pellea pteroides	mountain kloofs	Feb
RESTIONACEAE	Calopsis paniculata	rivers and streams	
RESTIONACEAE	Calopsis viminea	Bosplaas upper	
RESTIONACEAE	Cannomois parviflora	Bosplaas upper	
RESTIONACEAE	Chondropetalum nudum	Vlak	
RESTIONACEAE	Elegia asperiflora	Bosplaas upper	
RESTIONACEAE	Elegia capensis	Welbedagt	
RESTIONACEAE	Elegia filacea	Bosplaas road	
RESTIONACEAE	Elegia vaginulata		
RESTIONACEAE	Elegia verreauxii	vlak	
RESTIONACEAE	Hypodiscus aristatus	orals	
RESTIONACEAE	Hypodiscus rugosus	Welbedagt	
RESTIONACEAE	Hypodiscus willdenowia	road to Welbedagt	

Family - Latin	Species	Locality	Date seen
RESTIONACEAE	Ischyrolepis capensis	Blourug	
RESTIONACEAE	Ischyrolepis curviramis	vlak, Bosplaas upper	
RESTIONACEAE	Ischyrolepis duthieae	Varkfontein river	
RESTIONACEAE	Ischyrolepis gaudichaudiana	Slangkop, Welbedagt	
RESTIONACEAE	Ischyrolepis monanthos	Bosplaas upper	
RESTIONACEAE	Ischyrolepis paludosa	Adoonsekop (east)	
RESTIONACEAE	Ischyrolepis pratensis	Bosplaas trek	Sep
RESTIONACEAE	Restio distichus	Welbedagt	
RESTIONACEAE	Restio filiformis	road to Welbedagt	
RESTIONACEAE	Restio quadratus	Adoonsekop	
RESTIONACEAE	Staberoha distachya	Bosplaas upper	
RESTIONACEAE	Thamnochortus bachmannii	west of Rondedam	
RESTIONACEAE	Thamnochortus erectus		Oct
RESTIONACEAE	Thamnochortus insignis	Bosplaas werf	
RESTIONACEAE	Thamnochortus sporadicus	Bosplaas upper	
RESTIONACEAE	Willdenowia arescens	Bosplaas trek	
RESTIONACEAE	Willdenowia glomerata	Bosplaas trek	
RESTIONACEAE	Willdenowia incurvata	Adoonsekop	
RESTIONACEAE	Willdenowia teres		
RHAMNACEAE	Phylica cephalantha	Langrug, mountain slopes	Jul
RHAMNACEAE	Phylica ericoides	Elandskloof	Apr
RHAMNACEAE	Phylica imberbis	Lamsieklaagte, Bergpad (above Droekloof)	Mar - Jun
RHAMNACEAE	Phylica plumosa var horisontalis	Bosplaas trek	Jul
RHAMNACEAE	Phylica pubescens	Populierbos	Apr
RHAMNACEAE	Phylica strigosa	Vlak road	May
RHAMNACEAE	Phylica strigulosa	Elandskloof	Jul
RHAMNACEAE	Trichocephalus stipularis	Vangkraal	Jun

Family - Latin	Species	Locality	Date seen
ROSACEAE	Cliffortia juniperina	Bosplaas	Dec - Mar
ROSACEAE	Cliffortia ruscifolia	Bosplaas	Jul - Jan
ROSACEAE	Cliffortia strobilifera		
RUBIACEAE	Anthospermum bicorne	Blourug	Oct
RUBIACEAE	Anthospermum ciliare	Elandskloof	Oct
RUBIACEAE	Anthospermum spathulatum	Blourug	Oct
RUSCACEAE	Eriospermum capense	Vliegveld	
RUSCACEAE	Eriospermum cernuum	Welbedagt	
RUSCACEAE	Eriospermum flavum	Vlei road	Jun
RUSCACEAE	Eriospermum lanceifolium	Welbedagt	
RUSCACEAE	Eriospermum nanum	upper Secretarybos	Apr - May
RUSCACEAE	Eriospermum paradoxum	Vlak road	May
RUSCACEAE	Eriospermum proliferum	Bloegombos road	
RUSCACEAE	Eriospermum villosum	Vliegveld	
RUTACEAE	Adenandra marginata subsp serpyllacea	mountain, at intake	Sep
RUTACEAE	Adenandra uniflora	Bosplaas, Lamsieklaagte, near fence	Aug - Oct
RUTACEAE	Adenandra villosa	Pyplyn	Jul - Sep
RUTACEAE	Agathosma cerefolium	Welbedagt	Nov
RUTACEAE	Agathosma imbricata	Blourug	Oct
RUTACEAE	Agathosma serpyllacea	Windbos	Jun - Oct
RUTACEAE	Diosma hirsuta		
RUTACEAE	Diosma pedicellata	Vangkraal road	Oct
SALICACEAE	Salix mucronata subsp woodii	Elandskloof	May, Oct
SANTALACEAE	Osyris compressa	mountain	Aug
SANTALACEAE	Thesium carinatum	mountain	Feb
SANTALACEAE	Thesium sp	Windbos	May
SANTALACEAE	Thesium strictum	Berg pad	Dec

Family - Latin	Species	Locality	Date seen
SAPINDACEAE	Dodonaea angustifolia	Outuinrivier	
SCROPHULARIACEAE	Chaenostoma uncinata	Pyplyn, Grasrug	Aug - Sep
SCROPHULARIACEAE	Chenopodiopsis hirta	Bergpad, near top of Adoonsepad	Sep
SCROPHULARIACEAE	Diascia elongata	Voelvlei line, Bosplaas trek	Aug - Sep
SCROPHULARIACEAE	Dischisma arenarium		Oct
SCROPHULARIACEAE	Dischisma capitatum	Bosplaas road	Oct
SCROPHULARIACEAE	Dischisma ciliatum	Bosplaas trek	Oct
SCROPHULARIACEAE	Freylinia lanceolata	Outuinrivier, stream below intake to dam	May - Jul
SCROPHULARIACEAE	Hebenstreitia dentata	orals	Oct
SCROPHULARIACEAE	Hemimeris racemosa	Bosplaas, Vliegveld	Aug - Sep
SCROPHULARIACEAE	Limosella capensis	Langrug	
SCROPHULARIACEAE	Lyperia triste	Klipfontein road	Aug
SCROPHULARIACEAE	Manulea cheiranthus	Windbos	Aug
SCROPHULARIACEAE	Manulea tomentosa		
SCROPHULARIACEAE	Nemesia barbata	Bergpad	Aug - Sep
SCROPHULARIACEAE	Nemesia cf affinis	Bergpad, near top of Adoonsepad	Sep
SCROPHULARIACEAE	Nemesia gracilis	Platdam	Sep
SCROPHULARIACEAE	Nemesia versicolor	Bergpad	Sep
SCROPHULARIACEAE	Oftia africana	Klipfontein	Sep - Oct
SCROPHULARIACEAE	Phyllopodium cordatum	Vlei road	Sep
SCROPHULARIACEAE	Phyllopodium heterophyllum	upper Secretarybos	Jul
SCROPHULARIACEAE	Polycarena gilioides	Slangkop road, Birdie dam	Jul - Sep
SCROPHULARIACEAE	Pseudoselago spuria	Welbedagt	Nov
SCROPHULARIACEAE	Pseudoselago spuria (L.) Hilliard (=Selago spuria)	Slangkop road	Sep
SCROPHULARIACEAE	Pseudoselago verbenacea	mountain above Droekloof	Feb
SCROPHULARIACEAE	Selago corymbosa	Driefontein	Jan

Family - Latin	Species	Locality	Date seen
SCROPHULARIACEAE	Selago fruticosa	Pyplyn	Sep
SCROPHULARIACEAE	Selago mundii	Vangkraal road	Mar
SCROPHULARIACEAE	Selago sp	Welbedagt	Nov
SCROPHULARIACEAE	Zaluzianskya divaricata	Bosplaas trek	Oct
SOLANACEAE	Lycium afrum	office	Aug
STILBACEAE	Halleria lucida	mountain, in kloof behind stone	Oct
TECOPHILAECEAE	Cyanella hyacinthoides	Bosplaas	Oct
TECOPHILAECEAE	Cyanella lutea	Windbos	Sep - Oct
THYMELAEACEAE	Gnidia oppositifolia	fountain above Stone	Feb
THYMELAEACEAE	Lachnaea eriocephala	Klipfontein	Aug - Sep
THYMELAEACEAE	Lachnaea grandiflora	Vlak road	Sep
THYMELAEACEAE	Lachnaea pusilla	Bosplaas trek	May - Sep
THYMELAEACEAE	Passerina vulgaris	Bosplaas	Oct
THYMELAEACEAE	Struthiola ciliata	Bosplaas trek	Jun - Nov
THYMELAEACEAE	Struthiola dodecandra	Klipfontein	Mar - Aug
THYMELAEACEAE	Struthiola leptantha	Langrug, Blomreservaat	Jul
THYMELAEACEAE	Struthiola myrsinites	Middle road	Jul - Aug
TYPHACEAE	Typha capensis	Elandskloof	
VISCACEAE	Viscum capense		
VISCACEAE	Viscum rotundifolium	mountain kloofs	Mar
ZYGOPHYLLACEAE	Roepera flexuosum	Klipfontein	Sep
ZYGOPHYLLACEAE	Roepera fulva	Poplierbos	Sep
ZYGOPHYLLACEAE	Roepera sessilifolia	Middle road	Aug - Sep

Bird Species List - 125 species	
Common Name	**Species**
Ostrich	*Struthio camelus*
Little Grebe	*Tachybaptus ruficollis*
Greater Crested Grebe	*Podiceps cristatus*
Great White Pelican	*Pelecanus onocrotalus*
Reed Cormorant	*Phalacrocorax africanus*
African darter	*Anhinga rufa*
Whitebreasted Cormorant	*Phalacrocorax lucidus*
Cattle Egret	*Bubulcus ibis*
Intermediate Egret	*Egretta intermedia*
Great Egret	*Egretta alba*
Grey Heron	*Ardea cinerea*
Blackheaded Heron	*Ardea melanocephala*
Hamerkop	*Scopus umbretta*
White Stork	*Ciconia ciconia*
Hadeda Ibis	*Bostrychia hagedash*
Sacred Ibis	*Threskiornis aethiopicus*
African Spoonbill	*Platalea alba*
Lesser Flamingo	*Phoeniconaias minor*
Egyptian Goose	*Alopochen aegyptiacus*
South African Shelduck	*Tadorna cana*
Spurwinged Goose	*Plectropterus gambensis*
Yellow-billed Duck	*Anas undulata*
Redbilled Duck	*Anas erythrorhyncha*

Common Name	Species
Southern Pochard	*Netta erythrophthalma*
Black-shouldered Kite	*Elanus caeruleus*
Black Kite	*Milvus migrans parasitus*
African Fish Eagle	*Haliaeetus vocifer*
Black Harrier	*Circus maurus*
African Marsh Harrier	*Circus ranivorus*
Common Buzzard	*Buteo buteo*
Jackal Buzzard	*Buteo rufofuscus*
Verreaux's Eagle	*Aquila verreauxii*
Booted Eagle	*Hieraaetus pennatus*
Martial Eagle	*Polemaetus bellicosus*
Secretary Bird	*Sagittarius serpentarius*
Lesser Kestrel	*Falco naumanni*
Common Kestrel	*Falco tinnunculus*
Lanner Falcon	*Falco biarmicus*
Helmeted Guineafowl	*Numida meleagris*
Common Quail	*Coturnix coturnix*
Cape Francolin	*Francolinus capensis*
Greywing Francolin	*Francolinus africanus*
Blackrumped Buttonquail	*Turnix hottentotta*
Black Crake	*Amaurornis flavirostris*
Common Moorhen	*Gallinula chloropus*
Redknobbed Coot	*Fulica cristata*
Blue Crane	*Anthropoides paradiseus*
Stanley's Bustard	*Neotis denhami*
Southern Black Korhaan	*Afrotis afra*
Water Thick-knee	*Burhinus vermiculatus*
Spotted Thick-knee	*Burhinus capensis*
Kittlitz's Plover	*Charadrius pecuarius*

Common Name	Species
Three-banded plover	*Charadrius tricollaris*
Blacksmith Plover	*Vanellus armatus*
Crowned Lapwing	*Vanellus coronatus*
African Snipe	*Gallinago nigripennis*
Kelp Gull	*Larus dominicanus*
Namaqua Dove	*Oena capensis*
Speckled Pigeon	*Columba guinea*
Rock Dove / Feral Pigeon	*Columba livia*
Red-eyed Dove	*Streptopelia semitorquata*
Ring-necked Dove	*Streptopelia capicola*
Laughing Dove	*Streptopelia senegalensis*
Barn Owl	*Tyto alba*
Cape Eagle Owl	*Bubo capensis*
Spotted Eagle Owl	*Bubo africanus*
Fierynecked Nightjar	*Caprimulgus pectoralis*
African Black Swift	*Apus barbatus*
Little Swift	*Apus affinis*
Alpine Swift	*Tachymarptis melba*
Red-faced Mousebird	*Urocolius indicus*
Malachite Kingfisher	*Alcedo cristata*
Giant Kingfisher	*Megaceryle maxima*
Pied Kingfisher	*Ceryle rudis*
European Bee-eater	*Merops apiaster*
European Roller	*Coracias garrulus*
African Hoopoe	*Upupa epops*
Greater Honeyguide	*Indicator indicator*
Ground Woodpecker	*Geocolaptes olivaceus*
Cape Clapper Lark	*Mirafra apiata*
Karoo Lark	*Calendulauda albescens*
Red-capped Lark	*Callandrella cinerea*

Common Name	Species
Large-billed lark	*Galerida magnirostris*
Banded Martin	*Riparia cincta*
Greater Striped Swallow	*Cecropis cucullata*
Rock Martin	*Ptyonoprogne fuligula*
Whitethroated Swallow	*Hirundo albigularis*
Cape Wagtail	*Motacilla capensis*
African Pipit	*Anthus cinnamomeus*
Plain-backed Pipit	*Anthus leucophrys*
Cape Longclaw	*Macronyx capensis*
Cape Bulbul	*Pycnonotus capensis*
Cape Robin Chat	*Cossypha caffra*
karoo Scrub Robin	*Cercotrichas coryphaeus*
Common Stonechat	*Saxicola torquatus*
Capped Wheatear	*Oenanthe pileata*
Cape Rock Thrush	*Monticola rupestris*
Little Rush Warbler	*Bradypterus baboecala*
Cape Grassbird	*Sphenoeacus afer*
Grey-backed Cisticola	*Cisticola subruficapilla*
Levaillant's Cisticola	*Cisticola tinniens*
Piping Cisticola	*Cisticola fulvicapilla*
Cloud Cisticola	*Cisticola textrix*
Karoo Prinia	*Prinia maculosa*
Fiscal Flycatcher	*Sigelus silens*
Orangebreasted Sunbird	*Anthobaphes violacea*
Malachite Sunbird	*Nectarinia famosa*
cape White-eye	*Zosterops pallidus*
Cape Sugarbird	*Promerops cafer*
Common Fiscal Shrike	*Lanius collaris*
Bokmakierie	*Telophorus zeylonus*
Pied Crow	*Corvus albus*

Common Name	Species
White-necked Raven	*Corvus albicollis*
Red-winged Starling	*Onychognathus morio*
African Pied Starling	*Spreo bicolor*
Common Starling	*Sturnus vulgaris*
Cape Sparrow	*Passer melanurus*
House Sparrow	*Passer domesticus*
Cape Weaver	*Ploceus capensis*
Southern Masked Weaver	*Ploceus velatus*
Southern Red Bishop	*Euplectes orix*
Yellow bishop	*Euplectes capensis*
Yellow Canary	*Serinus flaviventris*
Bully Canary	*Serinus canicollis*
Cape Bunting	*Emberiza capensis*

Mammal Species List - 37 Species	
Common name	**Species**
Leopard	*Panthera pardus*
Caracal	*Felis caracal*
African wildcat	*Felis lybica*
Domestic cat	*Felis catus*
Bat-eared fox	*Otocyon megalotis*
Cape fox	*Vulpes chama*
Cape clawless otter	*Aonyx capensis*
Honey badger	*Mellivora capensis*
Striped polecat	*Ictonyx striatus*
Small-spotted genet	*Genetta genetta*
Yellow Mongoose	*Cynictis penicillata*
Small grey mongoose	*Gallerella pulverulenta*
Water mongoose	*Atilax paludinosus*
Aardvark	*Orycteropus afer*
Rock dassie	*Procavia capensis*
Chacma baboon	*Papio ursinus*
Scrub hare	*Lepus saxatilis*
Cape Porcupine	*Hystrix africaeaustralis*
Forest shrew	*Myosorex varius*
Reddish-grey musk shrew	*Crocidura cyanea*
Striped mouse	*Rhabdomys pumilio*

Common Name	Species
House rat	*Rattus rattus*
Cape mountain zebra	*Equus zebra*
Burchell's zebra	*Equus burchelli*
Feral pig	*Sus scrofa*
Black wildebeest	*Connochaetes gnou*
Red hartebeest	*Alcelaphus buselaphus*
Bontebok	*Damaliscus dorcas dorcas*
Common duiker	*Sylvicapra grimmia*
Springbok	*Antidorcas marsupialis*
Klipspringer	*Oreotragus oreotragus*
Steenbok	*Raphicerus campestris*
Grey rhebok	*Pelea capreolus*
Gemsbok	*Oryx gazella*
Eland	*Taurotragus oryx*

Appendix J

Reptile Species List - 21 Species	
Common Name	**Species**
Geometric tortoise	*Psammobates geometricus*
Angulate tortoise	*Chersina angulata*
Parrotbeaked tortoise	*Homopus areolatus*
Marsh Terrapin	*Pelomedusa subrufa*
Berg Adder	*Bitis atropos*
Boomslang	*Dispholidus typus typus*
Brown house snake	*Lamprophis fuliginosus*
Cape Cobra	*Naja nivea*
Common Slug Eater	*Duberria lutrix lutrix*
Common Egg Eater	*Dasypeltis scabra*
Mole snake	*Pseudaspis cana*
Night Adder	*Causus rhombeatus*
Puff Adder	*Bitis arietans arietans*
Red-lipped Herald	*Crotaphopeltis hotamboeia*
Rhombic skaapsteker	*Psammophylax rhombeatus*
Rinkhals	*Hemachatus haemachatus*
Cape Legless Skink	*Acontias meleagris*
Cape Skink	*Mabuya capensis*
Common Mountain lizard	*Tropidosaura montana*
Southern Rock agama	*Agama atra*

Butterfly Species List - 16 Species		
Latin family	**Species**	**Common name**
Danainae	*Danaus chrysippus aegyptius*	African Monarch
Nymphalinae	*Vanessa cardui*	
	Hypolimnas misippus	
Lycaenidae	*Leptomyrina lara*	
	Cacyreus dicksoni	
	Syntarucus pirithous pirithous	Common Blue
	Lampides boeticus	
	Tarucus thespis	
	Eicochrysops messapus messapus	Cupreous Blue
	Zizeeria knysna	
	Aloeides pierus	
Papilioinidae	*Papilio demodocus demodocus*	Citrus Swallowtail
Pieridae	*Pontia helice helice*	
Hesperiidae	*Spialia nanus*	
	Gegenes niso niso	

Amphibian Species List - 7 Species	
Common Name	**Species**
Common Platanna	*Xenopus laevis*
Cape Rain Frog	*Breviceps gibbosus*
Common Caco	*Cacosternum boettgeri*
Cape Caco	*Cacosternum capense*
Raucous Toad	*Bufo rangeri*
The Common River Frog	*Afrana fuscigula*
Clicking Stream Frog	*Strongylopus gravii*
Fish Species List - 2 Species	
Common Name	**Species**
Cape Galaxis	*Galaxias zebratus*
Cape Kurper	*Sandelia capensis*
Scorpion Species List - 4 Species	
Common name	**Species**
Cape Thick tailed Scorpion	*Opistophthalius fuscipis*
Burrowing Scorpion	*Parabuthus capensis*
Common Lesser-Thicktail Scorpion	*Uroplectis carinatus*
Thick tailed Scorpion	*Uroplectis marlothi*

Annual Audit Schedule for Elandsberg Nature Reserve

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
FIRE MANAGEMENT						
Reduce/Prevent the Spread of Fires:						
Construct Priority Firebreaks according to Schedule.	*Comment:*					
Negotiate Firebreak Agreement with Neighbours.	*Comment:*					
Fuel Reduction around Infrastructure to Minimise Risk.	*Comment:*					
Conduct Pre-Fire Season Fire Audit.	*Comment:*					
Mapping of all Fires and Capture on GIS.	*Comment:*					
Maintain Partnership to Improve Fire Management:						
Attend Local FPA Meetings.	*Comment:*					
Maintain Firebreak Agreements with Neighbours.	*Comment:*					
Attend Pre-Fire Season meetings with local Fire & Rescue Service.	*Comment:*					
Determine and Implement Thresholds of Potential Concern:						
Establish a series of Fixed Point Photography Monitoring Plots.	*Comment:*					
Conduct Permanent Protea spp. Plot Monitoring.	*Comment:*					
Conduct Post-Fire Regeneration Monitoring.	*Comment:*					
Set and Monitor Thresholds of Potential Concern.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
INVASIVE ALIEN MANAGEMENT						
Eradicate Alien and Invasive Species:						
Identify and Map all Alien Invasive Flora Within or Threatening the Reserve.	*Comment:*					
Compile a Management Unit Clearing Plan.	*Comment:*					
Identify Areas in Maintenance Phase.	*Comment:*					
Implement Biological Control:						
Identify Potential Biological Control Sites and Prioritise Accordingly.	*Comment:*					
Map and Update Biological Control Sites.	*Comment:*					
Implement New and Supplement Existing Biological Control.	*Comment:*					
Monitor Success of Biological Control.	*Comment:*					
Ensure Accurate Record keeping of Biological Control Data.	*Comment:*					
Ensure Biological Control Site Security.	*Comment:*					
Prevent Further Introduction of Aliens:						
Ensure Surrounding Landowners are aware of Relevant Legislation.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
WILDLIFE MANAGEMENT						
Prevent the Introduction of Alien Species:						
Formulate Policy regarding Domestic Animals in the Reserve.	*Comment:*					
No Introduction of Alien Fish Species into River Systems.	*Comment:*					
Control Alien and Invasive Species:						
Identify the Occurrence of Alien Fauna on VNR.	*Comment:*					
Monitor Populations of Alien Fauna on the Reserve.	*Comment:*					
Implement Control Measures where appropriate.	*Comment:*					
Measure Success of Control Methods utilised.	*Comment:*					
Manage the introduction of fauna on the Reserve:						
All possible introductions of game needs to be in accordance with all the necessary permits and permissions of CapeNature. This includes the construction of and maintenance of a fence according to the CapeNature policy, after which a Certificate of Adequate Enclosure (CoAE) certificate will be issued	*Comment:*					
Evaluate and monitor the impact of fauna on the Reserve:						
Monitoring is to be carried out to determine when management interventions will be necessary.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
EROSION PREVENTION AND CONTROL						
Prevent and Mitigate Soil Erosion:						
Conduct a Soil Erosion Assessment	*Comment:*					
Map Erosion Sites and Ensure Photographs are available.	*Comment:*					
Compile an Erosion Maintenance Plan.	*Comment:*					
Monitor the affectivity of the Erosion Control Mitigation.	*Comment:*					
Monitor Cost Effectiveness of Maintenance.	*Comment:*					
Monitor Site Recovery	*Comment:*					
Conduct a Roads and Footpath Assessment.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
MONITORING AND BASELINE DATA COLLECTION						
Compile Ecological Plan of Operations and Ecological Matrix::						
Compile and Ecological Plan of Operations.	*Comment:*					
Collate all relevant Monitoring and Research Protocols and Data Sheets.	*Comment:*					
Develop and Implement an Approved Ecological Matrix.	*Comment:*					
Create a Biodiversity Resource Inventory:						
Prioritise Species for inclusion on the Ecological Matrix.	*Comment:*					
Compile and Implement the Ecological Matrix.	*Comment:*					
Analyse data, re-assess and implement Adaptive Management Strategies.	*Comment:*					
Implement Monitoring Programme:						
Review Monitoring Protocols.	*Comment:*					
Identify Monitoring Needs of VNR in consultation with CapeNature.	*Comment:*					
Establish Indicators for Monitoring.	*Comment:*					
Implement Monitoring Activities as per Ecological Matrix.	*Comment:*					
Report on Monitoring Activities as per Ecological Matrix.	*Comment:*					
Analyse data, re-assess and implement Adaptive Management Strategies.	*Comment:*					
Implement Monitoring Programmes as per Ecological matrix.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
BIODIVERSITY SECURITY						
Improved security and safety of the biodiversity assets on the Nature Reserve:						
Ensure Notarial Deed with surveyor diagram and title deed restrictions are registered with the Notary and Surveyor General against the property	*Comment:*					
Ensure Conservation Area is rezoned to appropriate conservation zoning, e.g. Open Space III	*Comment:*					
Ensure appropriate signage at access points.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
DEVELOPMENT OF TOURISM OPPORTUNTIES						
Development of tourism opportunities that generate revenue for the Nature Reserve:	*Comment:*					
Planning and development of hiking routes, mountain bike trails, and basic facilities to cater for visitors to the Nature Reserve	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
LEGAL COMPLIANCE						
Ensure that all legal requirements are met:						
All development needs to be done according to the NEMA principles and follow the applicable legislation and procedures of all relevant stakeholders.	*Comment:*					
All water management within the Reserve must comply with the National Water Act (No 36 of 1998).	*Comment:*					
Abstraction of water from water sources originating in the Reserve must not affect the biodiversity of the Reserve	*Comment:*					
Creation of cooperative structures with law enforcement officials.	*Comment:*					
Regular patrols covering the full extent of the nature reserve.	*Comment:*					
Prosecution of any offender caught committing an offence.	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
MANAGEMENT EFFECTIVENESS						
Annual audit completed:						
Conduct annual audits.	*Comment:*					
Auditing systems inform management:						
Implementation , annual review and update of management plan	*Comment:*					
Compile detailed work plan identifying specific targets for achieving management	*Comment:*					

Management target	Actions & Comments Past Year	Yes No NA	Quality H/M/L	Actions Coming Year	Completion date	Responsibility
INFRASTRUCTURE						
All infrastructures on the Reserve is adequately maintained:	*Comment:*					
Develop and implement a scheduled maintenance programme to maintain facilities and infrastructure in a condition that meet relevant environmental, health and safety requirements.	*Comment:*					