

# Section 24G Application for the Unlawful Construction of a Road and Clearance of Vegetation at Waboomskraal within the George Local Municipality, Western Cape

## Terrestrial Biodiversity & Terrestrial Animal Species Compliance Statement

Compiled for



By



**Cossypha**  
Ecological

September 2022

## REPORT PRODUCTION

Specialist	Role	Project Component	Qualifications and Professional Registration
Robyn Phillips	Terrestrial Ecologist	Ecological assessment of terrestrial biodiversity; Field work and report compilation	MSc (Zoology) UNP SACNASP: <i>Pr.Sci.Nat.</i> Reg. no.: 400401/12 Fields: Zoological and Ecological Years' Experience: 20, primary expertise in fauna and terrestrial biodiversity

Refer to **Appendix A** for an abridged CV of the specialist.

## CONTACT INFORMATION

Robyn Phillips  
16 MacDonald Road  
Woodside, Westville  
KwaZulu-Natal, 3629  
Cell: 084 695 1648  
Email: [robyn@cosypha.co.za](mailto:robyn@cosypha.co.za)

## SPECIALIST DECLARATION OF INDEPENDENCE

I, **Robyn Phillips**, in my capacity as a specialist consultant, hereby declare that I –

- Act as an independent consultant;
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- Do not have and will not have vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity;
- Undertake to disclose, to the Competent Authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the National Environmental Management Act, 1998 (Act 107 of 1998);
- Will provide the Competent Authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not;
- As a registered member of the South African Council for Natural Scientific Professions, will undertake my profession in accordance with the Code of Conduct of the Council, as well as any other societies to which I am a member;
- Based on information provided to me by the project proponent and in addition to information obtained during the course of this study, have presented the results and conclusion within the associated document to the best of my professional ability;
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through ongoing research and/or further work in this field; and
- Undertake to have my work peer reviewed on a regular basis by a competent specialist in the field of study for which I am registered.



**Robyn Phillips** *Pr.Sci.Nat.*  
Terrestrial Ecologist  
SACNASP Reg. No. 400401/12

29 September 2022

Date

## TABLE OF CONTENTS

Report Production .....	ii
Contact Information .....	ii
Specialist Declaration of Independence.....	ii
Table of Contents.....	iii
List of Figures.....	iv
Abbreviations .....	iv
<b>1. Introduction.....</b>	<b>1</b>
1.1 Project Description.....	1
<b>2. The Study Area.....</b>	<b>1</b>
2.1 Location .....	1
2.2 Land Uses of the Site and Surrounding Areas .....	1
<b>3. Reporting Requirements .....</b>	<b>4</b>
3.1 Site Sensitivity Verification .....	4
3.2 Terms of Reference .....	5
<b>4. Methodology .....</b>	<b>5</b>
4.1 Desktop Assessment .....	6
4.2 Field Survey .....	6
4.3 Assumptions and Limitations .....	6
<b>5. Desktop Assessment Results .....</b>	<b>8</b>
5.1 Terrestrial Biodiversity.....	8
5.1.1 Regional Vegetation.....	8
5.1.2 Fauna and Flora.....	8
5.1.3 Threatened Terrestrial Ecosystems .....	8
5.1.4 Western Cape Biodiversity Sector Plan .....	8
5.1.5 Protected Areas.....	8
5.1.6 National Freshwater Ecosystem Priority Areas.....	9
5.2 Historical Land Use of the Study Area .....	9
<b>6. Field Survey Results .....</b>	<b>15</b>
6.1 Site Description .....	15
6.2 Sample Point Descriptions: Cleared Footprint .....	16
6.3 Photo Descriptions: Access road .....	20
<b>7. Summary and Recommendations .....</b>	<b>21</b>
7.1 Summary .....	21

7.2	Impact Management.....	22
7.3	Conclusion .....	23
8.	References.....	23
	Appendices.....	24
	APPENDIX A: Abridged CV of the Specialist.....	24

## LIST OF FIGURES

Figure 1: Locality of the study area.....	2
Figure 2: Aerial overview of the study area and surrounds.....	3
Figure 3: Aerial view of the site with GPS track and location of sample points and photograph points.....	7

## ABBREVIATIONS

BA	Basic Assessment
CBA	Critical Biodiversity Area
DEA	Department of Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
GIS	Geographic Information System
GN	General Notice
IAP	Invasive Alien Plants
IBA	Important Bird Area
IUCN	International Union for the Conservation of Nature
NEMA	National Environmental Management Act (Act 107 of 1998)
ONA	Other Natural Area
PA	Protected Area
QDGC	Quarter Degree Grid Cell
RLE	Red List of Ecosystems
SANBI	South African National Biodiversity Institute
SCC	Species of Conservation Concern
SWSA	Strategic Water Source Area
VU	Vulnerable



## 1. INTRODUCTION

Sharples Environmental Services cc (SES) has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake a Section 24G impact assessment for a retrospective application for Environmental Authorisation (EA) for the unauthorised construction of an access road and clearance of vegetation on Portion 1 of the Farm Platte Kloof 131 and the Remainder of the of the Farm Holle Kloof 91. As part of the EIA process, the National Web-Based Environmental Screening Tool developed by the DFFE identified the need for an Animal Species Assessments (or Compliance Statements) for the proposed project. Cossypha Ecological was appointed to undertake a terrestrial biodiversity and faunal assessment for the site in question.

### 1.1 PROJECT DESCRIPTION

Octo Trading 377 bought the Farm Platte Kloof 131/1 in January 2021 from the previous owner J.W. De Villiers, and plans to develop the farm as a self-sustaining lifestyle farm (small scale farming) for personal use, remove all the alien trees (wattle and pine trees), construct the necessary infrastructure, i.e. house, shed, green houses, fruit trees and vegetables garden. J.W. De Villiers left the country more than five years ago and settled in Canada. There have been no farming activities since then and the access to farm via the Farm Holle Kloof RE/91 was not maintained or used. The road/track deteriorated over time, got overgrown and became unusable. The existing road was therefore upgraded by the applicant, who also cleared vegetation and cut a platform for the location of the house. The activities commenced on 9 July 2021 and four months later, on 11 November 2021, the civil contractor was instructed to stop works and remove all machinery within 24 hours. The activities were left incomplete and the heavy rains from the George flood event of 22 November 2021 resulted in severe erosion of the partially upgraded road.

## 2. THE STUDY AREA

### 2.1 LOCATION

The site is located in the small farming settlement of Waboomskraal about 12 km northwest of the town of George, within the George Local Municipality, Garden Route District, West Cape Province (**Figure 1**). The site falls within Quarter Degree Grid Cell (QDGC) 3322CD and lies between 33°52'57.80" and 33°53'05.51" south and 22°21'38.27" and 22°22'00.40" east. The site occurs at the base of a north-facing slope of one of the hills that forms part of the Outeniqua Mountain Range, and ranges in altitude of from 682 m to 763 m above mean sea level (a.m.s.l). The cleared area of the site is approximately 0.88 ha in extent.

### 2.2 LAND USES OF THE SITE AND SURROUNDING AREAS

The study area is rural in nature and is bordered by farmland to the north, and by the Outeniqua Mountains to the south. The nearest built-up area is the residential area of Blanco in the town of George occurring about 7 km to the southeast of the site. The national road N9/N12 is situated approximately 1.2 km to the northeast of the site extending in a north-south direction with the Outeniqua Pass leading to George in the south. Wilderness Areas and Nature Reserves associated with the Outeniqua Mountains surround the farming settlement of Waboomskraal. The Witfontein Nature Reserve occurs ~1.4 km to the east of the site, the Doringrivier Wilderness Area occurs ~4.2 km to the west, and the Ruiterbos Nature Reserve occurs ~2.5 km to the south of the site (**Figure 3**). The mountain slope to the south of the site is mostly covered with fynbos vegetation of various levels of disturbance. Alien trees such as pine and wattle infest the lower slopes to the edge of the site.



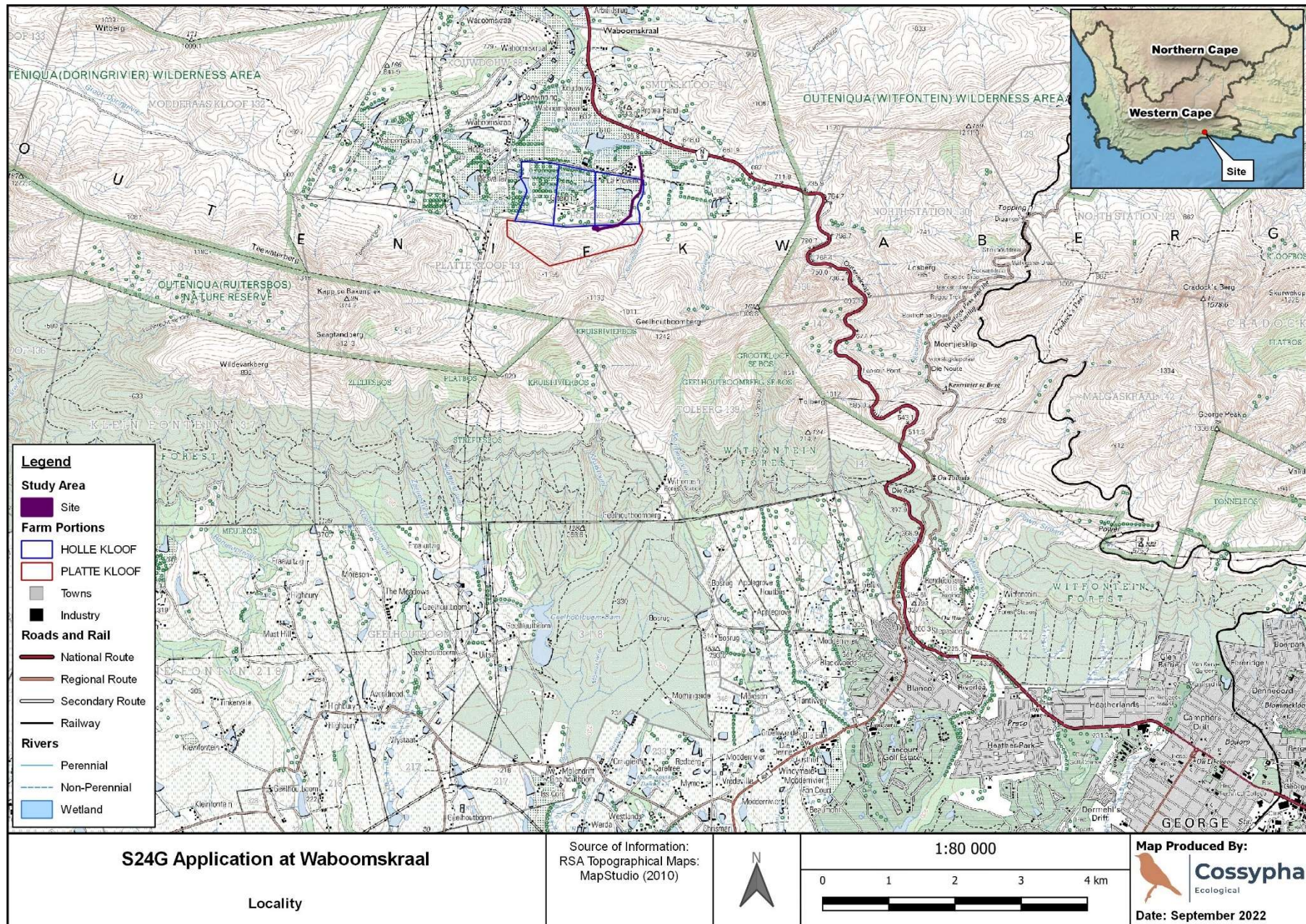


Figure 1: Locality of the study area



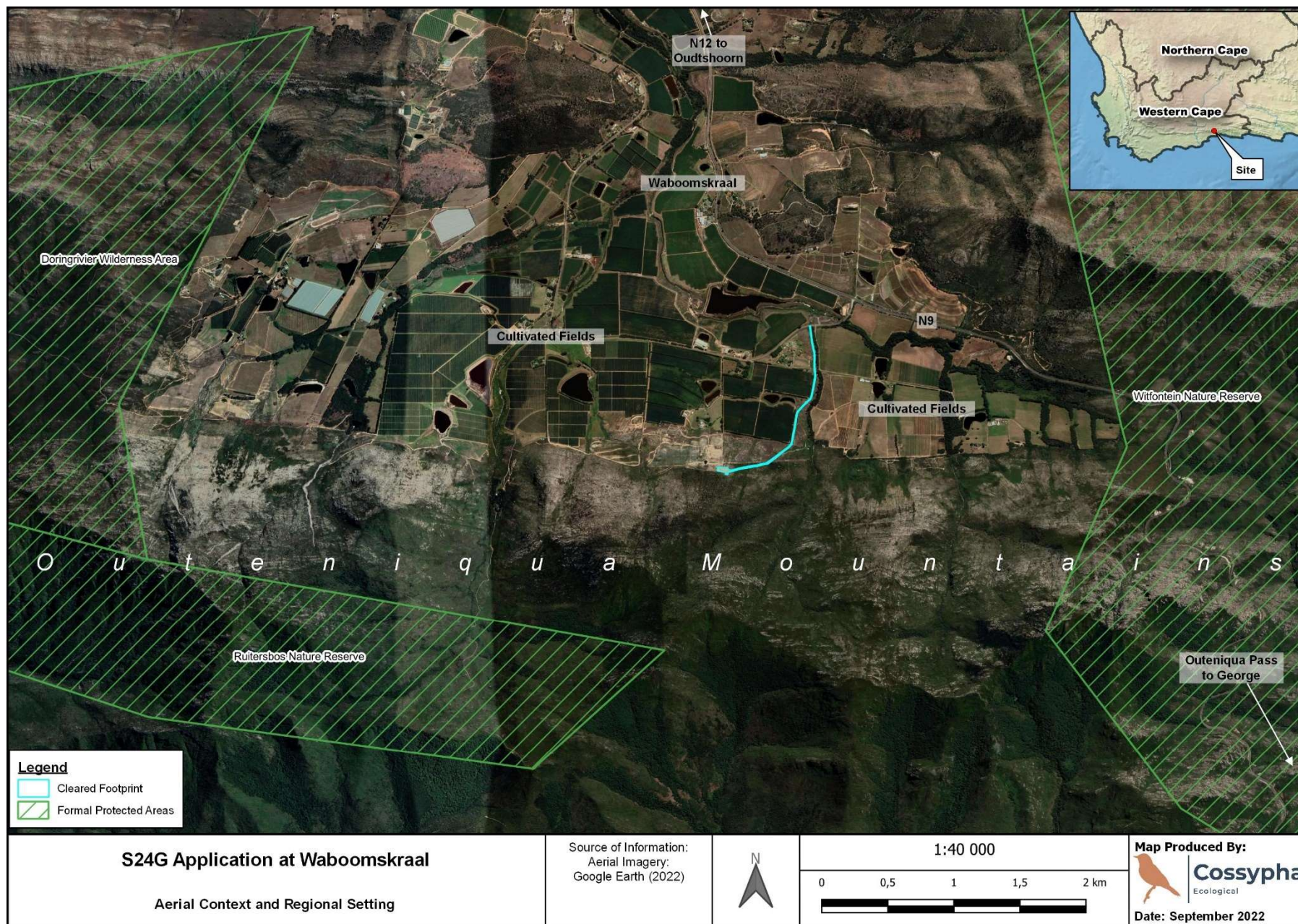


Figure 2: Aerial overview of the study area and surrounds



### 3. REPORTING REQUIREMENTS

A Screening Report for proposed site environmental sensitivity, as required by the EIA Regulations of 2014 (as amended) for an EA in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), was generated for the project using the National Web-Based Environmental Screening Tool on 12/01/2022. The report identified **High** sensitivity for the Animal Species theme due to the potential occurrence of the following species of conservation concern (SCC):

- Aves: Knysna Warbler *Bradypterus sylvaticus* (Vulnerable (VU))
- Aves: Striped Flufftail *Sarothrura affinis* (VU)

The report also identified **Medium** sensitivity for the potential occurrence of the following SCC:

- Invertebrate: Yellow-winged Agile Grasshopper *Aneuryphymus montanus* (VU)
- Insecta: Dickson's Sylph *Tsitana dicksoni* (Rare)
- Sensitive Species<sup>1</sup> 7 (VU sensitive mammal)

In addition, the report identified **Very High** sensitivity for the Terrestrial Biodiversity theme due to the study area falling within the following landscape biodiversity features:

- Ecological Support Area (ESA) 1
- Strategic Water Source Area (SWSA)

Therefore, a terrestrial biodiversity assessment and a faunal assessment are required for the project, which must be compiled in accordance with the requirements of the *Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes when Applying for EA* (GN R320 of 2020) and comply with the following gazetted protocols. These protocols replace the requirements of Appendix 6 of the EIA Regulations, 2014 (as amended) in terms of NEMA:

- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species, published in GN 1150 of 30 October 2020; and
- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity, published in GN 320 of 20 March 2020.

#### 3.1 SITE SENSITIVITY VERIFICATION

According to the above-mentioned protocols, the current use of the land and the potential environmental sensitivity identified by the screening tool, of the site under consideration, must be confirmed by undertaking a site sensitivity verification prior to commencing with the specialist assessment. This will confirm the actual use of the land on the ground versus that which has been identified by the screening tool and the validity of the sensitivity rating assigned by the screening tool. This will confirm whether a full Specialist Assessment Report (applicable for **Very High** and **High** sensitivity sites) or a Compliance Statement (applicable for **Low** sensitivity sites) is required.

In the case of species assessments, because **Medium** sensitivity data represents suspected habitat for SCC based on occurrence records for these species collected prior to 2002 or is based on habitat suitability modelling, the

---

<sup>1</sup> A SCC that is sensitive to the illegal harvesting trade. The actual name of the sensitive species may not appear in the final EIA report or in any of the specialist reports released into the public domain.

presence or likely presence of the SCC identified by the screening tool must be investigated through a site inspection. Where SCC are found on the site or have been confirmed to be likely present by the specialist, a **Terrestrial Animal Species Specialist Assessment** must be compiled in accordance with the requirements specified for **Very High** and **High** sensitivity in the protocol. Where no SCC are found on the site or the presence is confirmed to be unlikely during the site inspection, a **Terrestrial Animal Species Compliance Statement** must be submitted.

For the site in question, a field inspection took place on the 6<sup>th</sup> of April 2022 where the site was inspected on foot. The season, late summer / early autumn, was deemed the appropriate time of year for the field survey. The site inspection revealed that the site and its immediate surroundings were in a highly disturbed state and confirmed the ecological sensitivity for fauna to be low (see further explanation in **Sections 5.2** and **6**). The following Report therefore comprises an investigation of the terrestrial fauna on the site in the form of a Compliance Statement in accordance with the Protocols for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal and Terrestrial Plant Species (GN 1150 of 2020) and written following the Species Environmental Assessment Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols (SANBI, 2020).

Similarly due to the disturbed nature of the site, a Terrestrial Biodiversity Compliance Statement written in accordance with the Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (GN 320 of 2020), is included in this report.

### 3.2 TERMS OF REFERENCE

The terms of reference for the assessments were as follows:

- Undertake a desktop assessment and field survey of the site to inform the assessment;
- Verify the site sensitivity for terrestrial biodiversity and faunal species;
- Determine the presence or likely presence of animal SCC;
- If any SCC are recorded, include evidence if possible, such as location and map points of where species are identified denoting them as high sensitivity areas within the site;
- Photographic record of the site characteristics, including potential habitats and/or sensitive areas;
- Compilation of a Terrestrial Animal Species Assessment or Compliance Statement following the Species Environmental Assessment Guidelines (SANBI, 2020), including a description of the baseline terrestrial biodiversity of the area;
- Compilation of a Terrestrial Biodiversity Assessment or Compliance Statement according to the relevant protocol; and
- Recommend impact management actions or any monitoring requirements for inclusion in the EMPr.

## 4. METHODOLOGY

The approach included a desktop assessment as well as a site visit. The methodology broadly entailed the following:

#### 4.1 DESKTOP ASSESSMENT

The desktop assessment entailed the following:

- Review of available GIS layers relating to biodiversity conservation planning e.g. vegetation types, threatened ecosystems, relevant provincial spatial conservation or biodiversity plan, Important Bird Areas (IBAs), Protected Areas Database etc.;
- Review of all relevant literature including distribution data of fauna expected to occur on the site, as well as the conservation status of species; and
- Review of historical satellite imagery obtained from Google Earth © to ascertain historical land use of the study area.

#### 4.2 FIELD SURVEY

The field investigation was undertaken on the 6<sup>th</sup> of April 2022 when terrestrial biodiversity and faunal elements within the study area were assessed. A daytime survey was conducted on foot by meandering through the site (cleared footprint) for approximately 4 hours. Changes in land cover, habitat, and vegetation were observed and any fauna present on site recorded. Photographs were taken at a series of sample points to illustrate the condition of vegetation, habitat, and representative areas of the site (see **Figure 3**). A total of 12 sample points were photographed within and around the cleared footprint and are described in the results section below. Coverage of the study area was deemed to be sufficient. Additional photos were taken along the section of road that was extended to the tar road leading into Waboomskraal from the N9 on the 30<sup>th</sup> of August 2022 by the EAP and are also described in the results section below.

During the field survey the following aspects pertaining to terrestrial biodiversity and fauna were assessed:

- Current land use of the site and immediate surrounds;
- Current ecological state of habitats on site;
- Presence of terrestrial faunal SCC, protected species, or suitable habitat for such species on site; and
- Significant landscape features, ecological corridors, and landscape connectivity.

#### 4.3 ASSUMPTIONS AND LIMITATIONS

The following assumptions and limitations pertain to the current study:

- It is assumed that all third-party information used (e.g. GIS data and satellite imagery) was correct at the time of generating this report.
- The survey was restricted to a single site visit conducted during one season (late summer / early autumn), and it is not considered necessary to perform an additional survey.
- The survey covered the cleared footprint and immediate surroundings and was conducted over approximately four hours during the morning.
- The road extension was assessed by historical satellite imagery and photographs provided by the EAP.
- Findings, recommendations, and conclusions provided in this report are based on the author's best scientific and professional knowledge as well as information available at the time of compilation.





Figure 3: Aerial view of the site with GPS track and location of sample points and photograph points

## 5. DESKTOP ASSESSMENT RESULTS

### 5.1 TERRESTRIAL BIODIVERSITY

#### 5.1.1 REGIONAL VEGETATION

The study area is located within the Fynbos Biome, within the Eastern Fynbos-Renosterveld Bioregion. The site falls within the South Outeniqua Sandstone Fynbos vegetation type, which was classified as Vulnerable according to Mucina and Rutherford (2006). With a conservation target of 23%, 32.2 % of this vegetation type is conserved in statutory conservation areas and is therefore regarded as Well Protected. To date, about 33% has been transformed mainly for plantations and cropland and is now considered Least Concern by the latest ecosystem status assessment (SANBI, 2021).

#### 5.1.2 FAUNA AND FLORA

Plant species characteristic of the vegetation type include small trees such as *Protea neriifolia*, and *P. repens*, shrubs in the genus *Erica*, *Leucadendron*, *Metalasia*, *Osteospermum*, and *Penaea*, and graminoids in the genus *Cannomois*, *Ehrharta*, *Elegia*, *Hypodiscus*, *Merxmuellera*, *Pentameris*, *Platycaulos*, *Restio*, and *Tetraria* (Mucina and Rutherford, 2006). From a faunal perspective, species that are likely to inhabit the ecosystem comprise typical mountain fynbos species including birds such as francolin, korhaan, robins, pipits, sunbirds, warblers, and raptors such as falcon and sparrowhawk. Mammals may include mongoose, genet, grysbok, duiker, steenbok, bushbuck, baboon, jackal, and many small mammals. Reptiles may include tortoises, chameleons, mountain lizards and skinks, adders, and other snakes, while amphibians would include cacos, river, reed, and stream frogs associated with wet areas. In addition, many invertebrates and insect pollinators inhabit the ecosystem.

#### 5.1.3 THREATENED TERRESTRIAL ECOSYSTEMS

According to the National List of Threatened Terrestrial Ecosystems (DEA, 2011), published in terms of Section 52 of the National Environmental Management Biodiversity Act, 2004 (Act 10 of 2004) (NEMBA), South Outeniqua Sandstone Fynbos is not a listed ecosystem. According to the newly updated list, South Outeniqua Sandstone Fynbos has been assessed to be Least Concern due to the low rate of habitat loss (SANBI, 2021). While the NEMBA list currently remains the official legislated National List of Ecosystems that are Threatened and in Need of Protection, gazetted in 2011 (DEA, 2011), the new list updated with the IUCN Red List of Ecosystems (RLE) assessment approach, will be gazetted soon (SANBI, 2021).

#### 5.1.4 WESTERN CAPE BIODIVERSITY SECTOR PLAN

According to the Western Cape Biodiversity Sector Plan (WCBSP), the site falls within an area classified as ESA1: Terrestrial, with a drainage line classifies as ESA1: Aquatic occurring nearby down the slope. ESAs are not essential for meeting biodiversity targets, but they play an important role in supporting the functioning of PAs or CBAs and are often vital for delivering ecosystem services. They are to be maintained in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised (Pool-Stanvliet *et al.*, 2017).

#### 5.1.5 PROTECTED AREAS

In terms of Protected Areas (PA), the site falls within the Garden Route Biosphere Reserve and falls on the border between a Transition Zone and a Buffer Zone. The Transition Zone is usually the largest part of the biosphere reserve and is where the greatest development activity is allowed, promoting economic and human development that is socio-culturally and ecologically sustainable. The Core Zone comprises a strictly protected zone that



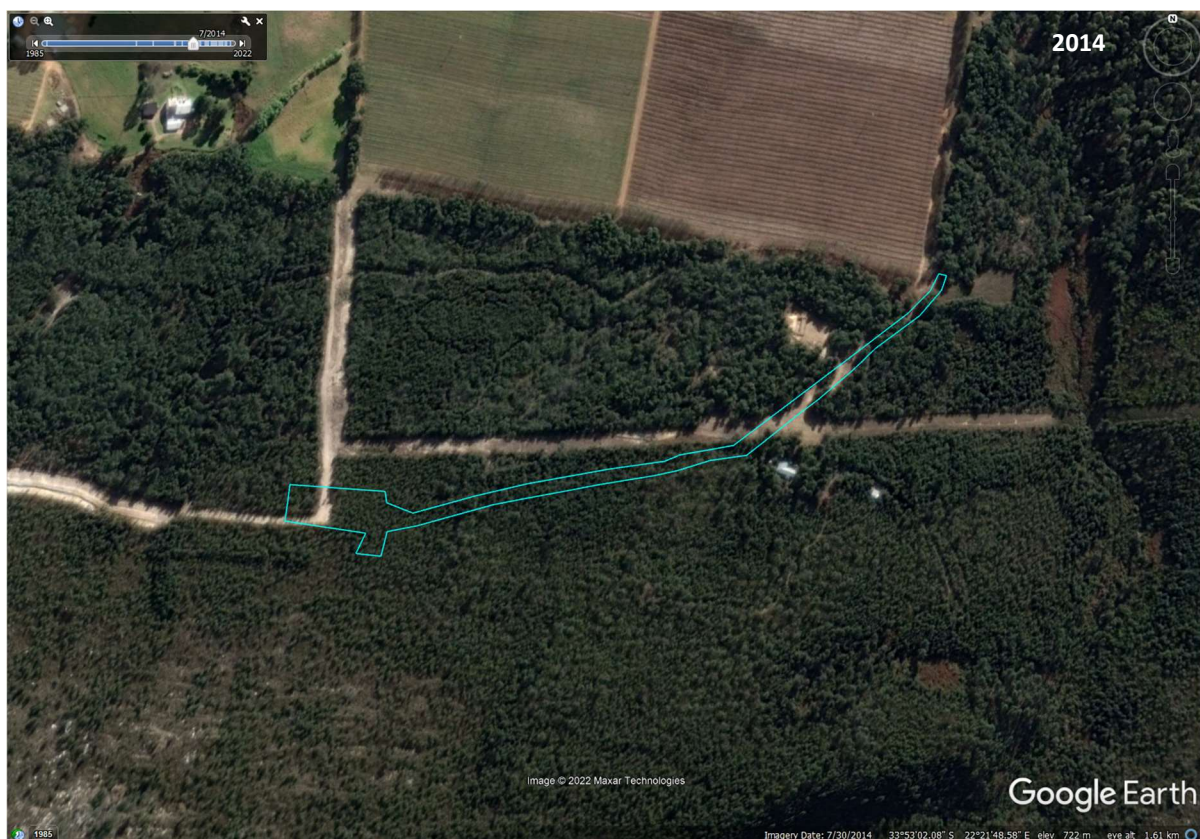
contributes to the conservation of landscapes, ecosystems, species, and genetic diversity, while the Buffer Zone (usually surrounding the Core Zone) is managed to support the conservation objectives of the Core Zone (UNESCO, 2022). Other PAs occurring in the region include the Witfontein Nature Reserve ~1.4 km to the east of the site, the Ruiterbos Nature Reserve ~2.5 km to the south, and the Doringrivier Wilderness Area ~4.2 km to the west of the site. The Outeniqua Mountains Important Bird Area (IBA) falls 1.4 km to the south of the site and incorporates the mountains surrounding Waboomskraal.

#### 5.1.6 NATIONAL FRESHWATER ECOSYSTEM PRIORITY AREAS

From a National Freshwater Ecosystem Priority Areas (NFEPA) perspective, the site falls within the Outeniqua Strategic Water Source Area (SWSA), which supplies George, Oudtshoorn, and the Garden Route area with water. The main rivers that flow from this SWSA include the Groot Brak River and Olifants River. The site falls within the Gouritz National Water Management Area (WMA) and within an Upstream Management Area of the Olifants Sub-WMA. Other NFEPA features that occur in the vicinity include two non-perennial drainage lines associated with the Bos and Kleinbos Rivers, a few natural and artificial wetlands (farm dams) occur within 500 m of the site (Nel *et al.*, 2011).

### 5.2 HISTORICAL LAND USE OF THE STUDY AREA

According to past satellite imagery (Google Earth ©), the site was covered with dense alien vegetation, most likely wattle (*Acacia mearnsii*) and pine (*Pinus sp.*), since 2014 with the infestations starting in the 2000s. The presence of alien trees impacts negatively on local biodiversity by outcompeting the indigenous species. Clearing of the alien trees was undertaken in 2017 and 2018 and the site was burnt in late 2018. The action of clearing the trees would have severely disturbed the site. Refer to the images taken from Google Earth historical imagery from 2014 to 2019 below. The light blue outline refers to the currently cleared footprint.



Site and immediate surroundings covered with alien trees





**Alien trees cleared in and around the site**



**Evidence of burning on the site and immediate surroundings**





**The site and immediate surroundings mostly devoid of vegetation in 2019**

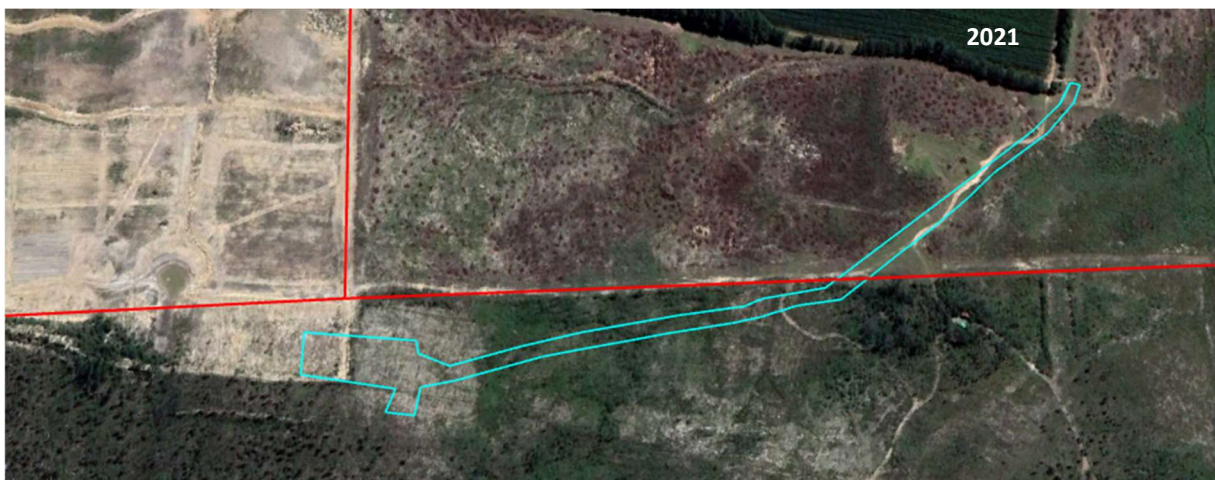
A section of the farm portion Platte Kloof 131/1 was then cleared by the neighbouring farmer for agricultural activities without the landowner's permission in 2020 (see Google Earth image below).







**Photographs taken by the landowner in 2021 of the erroneously cleared area**



**The currently cleared footprint in relation to cleared area**

The current landowner and Applicant then began earthworks for the access road and platforms for the house mostly in previously cleared areas in July 2021.



**The currently cleared footprint in 2022**



According to past satellite imagery (Google Earth ©), the section of road that was extended to the tar road was also covered with dense alien vegetation, most likely wattle (*Acacia mearnsii*) and pine (*Pinus sp.*), since the 2000s and likely since prior to 1985. The alien trees appear to have infested the Kleinbos River and immediate surroundings, leaving little indigenous vegetation remaining. There appeared to be an existing track running along the farm boundaries, which was upgraded to form the new access road. Clearing of the alien trees on the west bank of the Kleinbos River began in late 2019 and early 2020. Refer to the images taken from Google Earth historical imagery from 2003 to 2020 below. The red line refers to the route of the currently graded road.







**The currently graded road (2022)**



## 6. FIELD SURVEY RESULTS

A general description of the status quo of the site is given below, with more details of each sample point provided in a table in the next section. The table also gives the likelihood of faunal SCC occurring at each point.

### 6.1 SITE DESCRIPTION

The study area is situated on the lower, north-facing slopes of the Outeniqua Mountains and on the southern edge of the farming region of Waboomskraal. The site is surrounded by cultivated fields on the north, west and eastern sides. The slope immediately up and to the south of the cleared area comprises disturbed fynbos vegetation with relatively high levels of alien tree infestations (wattle and pine). The density of alien trees becomes less, further up the slope. The area immediately adjacent to the cleared area on the north side is highly disturbed where evidence of the large infestations of alien trees exists. Many alien saplings are re-establishing in this area. Overall, the site and immediate surrounds are considered modified, and the natural habitat disturbed. Very little faunal activity was observed during the site visit. The only activity observed included small passerine birds such as sparrows and waxbills, and evidence of steenbok in the form of droppings.









Farmlands of Waboomskraal looking north of the currently cleared footprint









Mountain slope behind the cleared area looking south









## 6.2 SAMPLE POINT DESCRIPTIONS: CLEARED FOOTPRINT

Sample Site	Habitat Description	Likelihood of SCC	Photo 1	Photo 2
<b>S1</b> 06-Apr-22 33°52'59.71"S 22°21'45.24"E	Disturbed areas immediately adjacent to the cleared area (to the north) showing evidence of past disturbance and alien tree infestations	Low		
<b>S2</b> 06-Apr-22 33°53'02.52"S 22°21'43.38"E	<i>Acacia mearnsii</i> (wattle) infestation around an old dirt track just to the north of the cleared area	Low		
<b>S3</b> 06-Apr-22 33°53'03.57"S 22°21'41.85"E	Previously cleared area just down-slope from the cleared platform, recolonised with pioneer fynbos species and alien plant species ( <i>Acacia mearnsii</i> (wattle) and <i>Pinus sp.</i> (pine))	Low		









Sample Site	Habitat Description	Likelihood of SCC	Photo 1	Photo 2
<b>S4</b> 06-Apr-22 33°53'04.35"S 22°21'41.80"E	Excavated road leading to platform surrounded by disturbed vegetation	Low		
<b>S5</b> 06-Apr-22 33°53'04.27"S 22°21'39.48"E	Excavated platform	Low		
<b>S6</b> 06-Apr-22 33°53'04.65"S 22°21'37.64"E	An existing dirt track bordered by alien <i>Pinus sp.</i> looking south (Photo 1), and previously cleared area looking northwest (Photo 2)	Low		





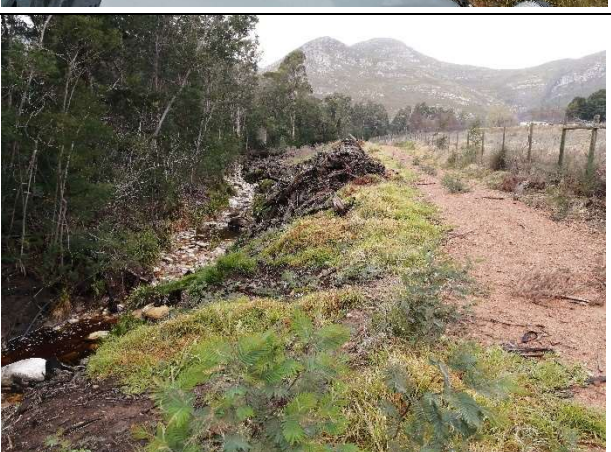
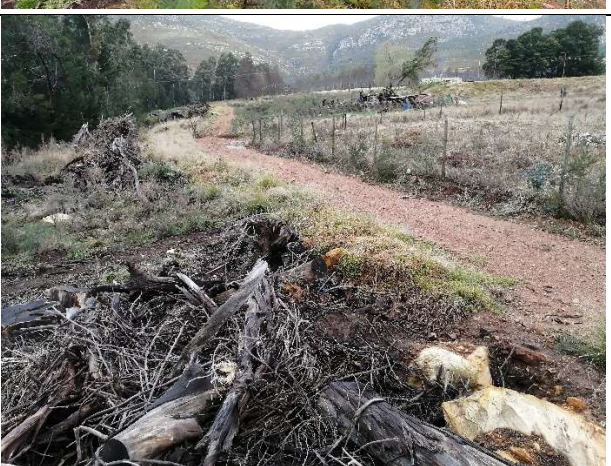
Sample Site	Habitat Description	Likelihood of SCC	Photo 1	Photo 2
<b>S7</b> 06-Apr-22 33°53'05.30"S 22°21'41.27"E	Small, excavated platform further up the slope looking south (Photo 1) and looking west (Photo 2)	Low		
<b>S8</b> 06-Apr-22 33°53'06.62"S 22°21'42.25"E	Disturbed fynbos with alien tree ( <i>Acacia mearnsii</i> and <i>Pinus sp.</i> ) infestations on the slope above the site looking south	Low		
<b>S9</b> 06-Apr-22 33°53'06.89"S 22°21'39.54"E	Dense alien tree ( <i>Acacia mearnsii</i> and <i>Pinus sp.</i> ) infestations on the slope above the site looking west (Photo1) and north (Photo 2)	Low		






Sample Site	Habitat Description	Likelihood of SCC	Photo 1	Photo 2
<b>S10</b> 06-Apr-22 33°53'03.92"S 22°21'45.66"E	Excavated access road with <i>Acacia mearnsii</i> infestations on either side, severely eroded following heavy rains in November 2021	Low		
<b>S11</b> 06-Apr-22 33°53'01.90"S 22°21'54.43"E	Excavated access road with disturbed grassy vegetation on either side; Severely eroded (Photo 2) following heavy rains in November 2021	Low		
<b>S12</b> 06-Apr-22 33°52'58.99"S 22°21'58.89"E	Lower section of the excavated access road showing highly disturbed surrounding vegetation	Low		



### 6.3 PHOTO DESCRIPTIONS: ACCESS ROAD EXTENSION

Description	Photo
<p><b>P1</b> 2016 (Google Earth Street View) Start of access road from the tar road looking south showing dense alien infestations on the left (around the Kleinbos River) and existing track following the fence line</p>	
<p><b>P1</b> 30-Aug-22 Start of access road from the tar road looking south showing cleared alien trees on the west bank of the Kleinbos River and the road following the fence line</p>	
<p><b>P2</b> 30-Aug-22 Access road following the fence line on the right looking south and cleared alien trees on the west bank of the Kleinbos River on the left</p>	
<p><b>P3</b> 30-Aug-22 Access road following the fence line looking south and cleared alien trees on the west bank of the Kleinbos River on the left</p>	



<p><b>P4</b> 30-Aug-22 Access road looking south with alien vegetation on the right and cleared alien trees on the left, with the Kleinbos River below to the left</p>	
<p><b>P5</b> 30-Aug-22 Access road looking southwest with alien vegetation on the right and cleared alien trees on the left, moving away from the Kleinbos River to the left</p>	
<p><b>P6</b> 30-Aug-22 Access road looking southwest crossing a cut drainage channel (from dam to the northwest) with alien trees on the right and cleared alien trees on the left</p>	

## 7. SUMMARY AND RECOMMENDATIONS

### 7.1 SUMMARY

Overall, the site (and immediate surrounds) displays a low sensitivity from a terrestrial biodiversity and faunal perspective. The site is largely in a modified state due to the previous alien tree infestations and clearing activities including burning. The vegetation secondary in nature and highly disturbed in places with alien tree re-establishing. The site has limited use by fauna and no animal SCC are expected to occur on the site.

In terms of regional biodiversity, the footprint of the site is relatively small, and it is evident both from the historical satellite imagery and the site visit that the site is largely in a modified state, and was so prior to the site clearing in July 2021. The site is therefore not considered a representative portion of the vegetation type or

ecosystem and is not considered important for reaching biodiversity targets due to the small size. The site is therefore considered to be of low importance from a terrestrial biodiversity perspective, especially when compared to the surrounding mountain slopes that support intact mountain fynbos vegetation and have limited alien tree infestations (see example below).



**Intact mountain fynbos on the slopes to the southeast of the site towards the Witfontein Nature Reserve**

## **7.2 IMPACT MANAGEMENT**

The main impact of the clearing of vegetation and excavation of the platforms and access road is the subsequent damage caused by the heavy rains where the exposed surfaces were severely eroded, leading to large dongas forming around the access road. This would have also led to siltation of downstream wetlands and watercourses. For the rehabilitation process and subsequent construction phase, the following recommendations are important to help keep impacts to a minimum and must be included in the Environmental Management Programme (EMPr):

1. An experienced, independent Environmental Control Officer (ECO) must be appointed to oversee the rehabilitation and construction activities and compliance with the EMPr.
2. The repair and rehabilitation of the eroded sections of the road must commence as soon as possible to avoid further erosion and siltation of downstream watercourses.
3. A formal Stormwater Management Plan should be compiled, and an appropriate stormwater management system must be incorporated into all the designs. This should be designed to at least a 1:50 year rainfall or flooding event. Considering the steep slopes in the area, the natural drainage lines on the site must be taken into consideration in the stormwater design.
4. The site must be cleared of all alien plants during the rehabilitation process. In addition, an Invasive Alien Plant (IAP) Species Management Plan must be compiled with a focus on eradicating the alien trees up the slope to the south of the site. The alien clearing process will require input from a fynbos specialist / botanist to ensure that no sensitive fynbos plant species are impacted, especially further up the slope.
5. During construction, no wild animal may under any circumstance be handled, removed, or be interfered with by construction workers. No wild animal may under any circumstance be hunted, snared, captured, injured, or killed. This includes animals perceived to be vermin.
6. The construction of the house and access road should remain within the currently cleared footprint as far as possible. While the areas down-slope from the site (to the north side) are not sensitive, no natural vegetation, especially further up the slope and in the surrounding areas to the south may be cleared.

### 7.3 CONCLUSION

It is the opinion of the specialist that the impacts on terrestrial biodiversity and fauna are relatively low considering the site was in a disturbed state prior to the clearing that took place in July 2021, and that the project may be authorised subject to the recommendations in the EMPr being adhered to.

- This compliance statement is applicable to the study area as described in the EIA documentation and shown in **Figure 3**;
- Due to the disturbed habitat, the study area is of low sensitivity for terrestrial biodiversity and terrestrial animal species;
- It is likely that the clearing activities did not have any impact on terrestrial animal SCC; and
- There are no conditions to which this compliance statement is subjected.

### 8. REFERENCES

- DEA (2011): National Environmental Management: Biodiversity Act, 2004: National list of ecosystems that are threatened and in need of protection, *Government Gazette Number 34809*, Notice 1002, 9 December 2011, Pretoria: Department of Environmental Affairs.
- Mucina, L. and Rutherford, M.C. (2006): The vegetation of South Africa, Lesotho and Swaziland, *Strelitzia 19*, Pretoria: South African National Biodiversity Institute.
- Mucina, L. and Rutherford, M.C. (2018): Vegetation Map of South Africa, Lesotho and Swaziland [*vector geospatial dataset*], Pretoria: South African National Biodiversity Institute.
- Nel, J. L., Driver, A., Strydom, W. F., Maherry, A. M., Petersen, C. P., Hill, L., Roux, D. J., Nienaber, S., van Deventer, H., Swartz, E. R. and Smith-Adao, L. B. (2011): *Atlas of Freshwater Ecosystem Priority Areas in South Africa: Maps to support sustainable development of water resources*, WRC Report No. TT 500/11, Pretoria: Water Research Commission.
- Pool-Stanvliet, R., Duffell-Canham, A., Pence, G. and Smart, R. (2017): *The Western Cape Biodiversity Spatial Plan Handbook*, Stellenbosch: CapeNature
- Rutherford, M.C. and Westfall, R.H. (1994): *Biomes of Southern Africa: an objective categorisation*, Pretoria: National Botanical Institute.
- SANBI (2021): South Africa's Terrestrial Red List of Ecosystems (RLE): Technical report on the revision of the "List of terrestrial ecosystems that are threatened and in need of protection", Report 7639, Pretoria: South African National Biodiversity Institute.
- SANBI (South African National Biodiversity Institute) (2020): *Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for environmental impact assessments in South Africa*, Pretoria: South African National Biodiversity Institute, Version 2.1 2021.
- UNESCO (2022): <https://en.unesco.org/biosphere/africa>



## APPENDICES

### APPENDIX A: ABRIDGED CV OF THE SPECIALIST

Name and Surname	:	Robyn Phillips
Date of Birth	:	28 08 1975
Company Name	:	Cossypha Ecological
Field of Expertise	:	Terrestrial Ecologist and Avifaunal Specialist
SACNASP Registration	:	<i>Pr.Sci.Nat.</i> 400401/12 (Zoological and Ecological Sciences)
Highest Qualification	:	MSc (Zoology) <i>cum laude</i>
Years of Experience	:	21
Contact Number	:	084 695 1648
Email	:	robyn@cossypha.co.za

The first half of my professional career was spent working in ecological research at the University of KwaZulu-Natal. Since starting in consulting in 2011, I have been involved in many projects requiring biodiversity surveys and ecological assessments as part of the legislated requirements for the Environmental Impact Assessment (EIA) process. These studies include field assessment of habitat, species occurrence (especially those of conservation concern), assessment of ecological importance and sensitivity of floral and faunal communities and habitat, as well as assessment of impacts. Tasks also include making recommendations and prescribing mitigation measures after applying the mitigation hierarchy, aimed at minimising impacts.

Following is a selection of linear projects undertaken:

- Faunal Assessment for the Cape Flats Wastewater Treatment Works (WWTW) new access road, False Bay Nature Reserve, Cape Town, Western Cape (City of Cape Town) – 2020 to present.
- Terrestrial Biodiversity and Faunal Assessment for the Vanrhynsdorp Mining Right Application (MRA), Klawer, Western Cape (SA Lime and Gypsum) – 2020 to 2021.
- Terrestrial Biodiversity Assessment (flora and fauna) for the KwaZulu-Natal Automotive Supplier Park (ASP) and Township Establishment, including bulk sewer pipeline and powerlines, Illovo South, Durban, KwaZulu-Natal (Dube TradePort Corporation (DTPC)) – 2018 to 2021.
- Terrestrial Biodiversity Assessment (flora and fauna) and IAP Management Plan for the Sani Pass road upgrade project, Sani Pass, KwaZulu-Natal (Royal HaskoningDHV) – 2017 to 2019.
- Terrestrial Biodiversity Assessment for the Proposed Florida Heights Portion 10 Township Establishment Project, Uitenhage, Port Elizabeth, Eastern Cape (Sakhisizwe Developers) – 2018.
- Terrestrial Biodiversity Assessment (flora and fauna) for the Aquadene Stormwater Infrastructure project, Richards Bay, (uMhlatuze Municipality) – 2017 to 2018.
- Terrestrial Biodiversity Assessment (flora and fauna) for the upgrade of the Exxaro Sublime Access Road, Kriel, Mpumalanga (Exxaro Coal) – 2017.
- Terrestrial Biodiversity Assessment (flora and fauna) for the construction of five bulk water pipelines and two reservoirs, Vanderbijlpark, Gauteng (Emfuleni Municipality) – 2017.
- Terrestrial Biodiversity Assessment (flora and fauna) for the new UKZN Sewer Line, Westville, KwaZulu-Natal (Nyeleti Consulting (Pty) Ltd) – 2016 to 2017.
- Terrestrial Biodiversity Assessment (flora and fauna) for the upgrade of the R56 between the KZN border and Matatiele, Eastern Cape (SANRAL) – 2016
- Terrestrial Biodiversity Assessment for the Proposed Vumani Rural Housing Project, Vryheid, KwaZulu-Natal (Abaqulusi Municipality) – 2014 to 2019.