PROPOSED REMOVAL AND REPLACEMENT OF VARIOUS EXISTING CULVERTS AND PIPES IN THE GARDEN ROUTE DISTRICT MUNICIPALITY, WESTERN CAPE PROVINCE

Plant Species, Animal Species and Terrestrial Biodiversity Theme Compliance Statement

November 2023

Prepared for:
Sharples Environmental Services

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1.1. Quality and revision record

10.1.1. Quality approval

	Capacity	Name	Signature	Date
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This report has been prepared in accordance with Enviroworks Quality Management System.

10.1.2. Revision record

Revision Number	Objective	Change	Date
1	Internal Reviewer	- Formatting, grammar and wording, - Referencing diagrams, - Recommendations - Site Verification	09/11/2023

1.2. Disclaimer

Even though every care is taken to ensure the accuracy of this report, environmental assessment studies are limited in scope, time, and budget. Discussions are to some extent made on reasonable and informed assumptions built on bona fide information sources, as well as deductive reasoning. Since environmental impact studies deal with dynamic natural systems additional information may come to light at a later stage during the impact assessment phase. The author does not accept responsibility for conclusions made in good faith based on own databases or on the information provided. Although the author exercised due care and diligence in rendering services and preparing documents, he accepts no liability, and the client, by receiving this document, indemnifies the author against all actions, claims, demands, losses, liabilities, costs, damages, and expenses arising from or in connection with services rendered, directly or indirectly by the authors and by the use of this document. This report should therefore be viewed and acted upon with these limitations in mind.

2. INTRODUCTION

2.1. Project Description

Sharples Environmental Services cc (SES) has been appointed as the independent Environmental Assessment Practitioner (EAP) to conduct the Environmental Impact Assessment process for the Proposed removal and replacement of various existing culverts and pipes along five roads in the Garden Route, Western Cape. SES has contracted Enviroworks to conduct a comprehensive impact assessment on Plant Species, Animal Species, and Terrestrial Biodiversity for the Proposed removal and replacement of various existing culverts and pipes along five roads in the Garden Route, Western Cape. The sites are situated in the Mossel Bay Local Municipality within the Garden Route District Municipality. Site 4 and Site 8 is located near Jonkersberg. Refer to Figure 1 for a locality map.

The work to be done is as follow:

Site 4 - DR1633 km 3.35, Varings River – Jonkershoek

- Replacement of the existing causeway with new but much bigger openings; provide
- Installation of inlet and outlet apron slab and wing walls
- Temporary deviation road constructed upstream.
- The bypass will be 4m wide and 45m long. The information suggests that the bypass extend approximately 2.5m over the road reserve, which represents an area of approximately 80m2.

Site 8 - DR1602 km 8.5, Varings River

- Removal of the existing causeway
- Realignment of the existing road and a new causeway outside the current road reserve.
- Replacement of the existing causeway with new but much bigger openings
- Installation of inlet and outlet apron slab and wing walls and
- Temporary deviation road upstream.
- The bypass will be 4m wide and 60m long. The information suggests that the bypass extend approximately 2.5m over the road reserve, which represents an area of approximately 118m2.

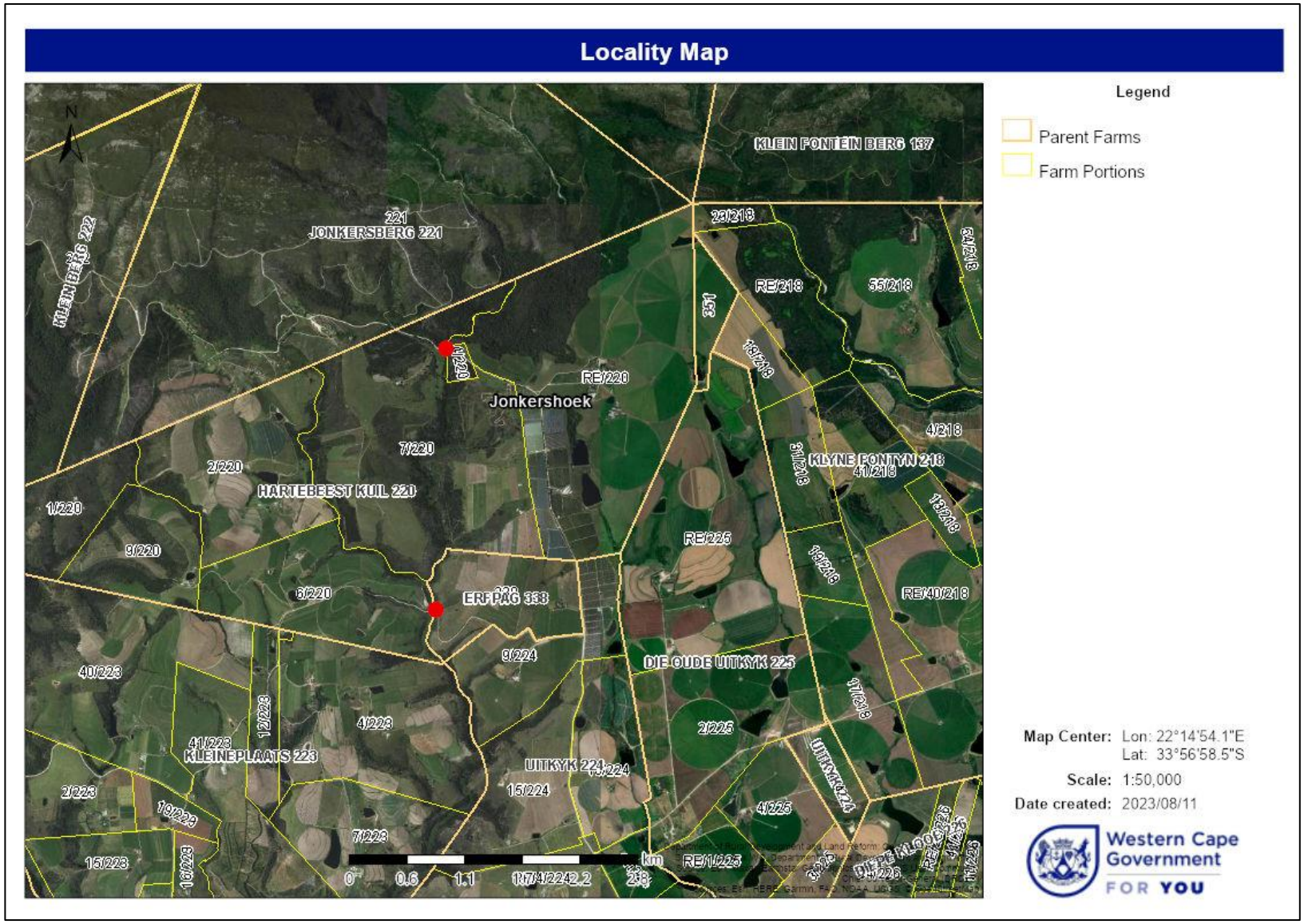


Figure 1 Locality map showing the location of the sites (demarcated in red).

2.2. Applicable legislation

With respect to the proposed development the following table summarises the potential listed activities of the NEMA , which the proposed development is likely to trigger.

Table 1: NEMA listed activities triggered by the development.

GNR 983 (as amended)Activity No(s):	**Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 of the EIA Regulations, 2014 as amended**	**Describe the portion of the proposed project to which the applicable listed activity relates.**
Activity No.12:	The development of— (i) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse;	Site 8: Remove Causeway, realign road and provide new causeway outside the current road reserve - Replace existing causeway with new but much bigger openings; provide inlet and outlet apron slab and wing walls - temporary deviation road upstream. The bypass will be 4m wide and 60m long. The information suggests that the bypass extend approximately 2.5m over the road reserve, which represents an area of approximately 118m2.
Activity No. 19.	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;	Site 4: Replace existing causeway with new but much bigger openings; provide inlet and outlet apron slab and wing walls - temporary deviation road upstream. The bypass will be 4m wide and 45m long. The information suggests that the bypass extend approximately 2.5m over the road reserve, which represents an area of approximately 80m^2. Site 8: Remove Causeway, realign road and provide new causeway outside the current road reserve - Replace existing causeway with new but much bigger openings; provide inlet and outlet apron slab and wing walls - temporary deviation road upstream. The bypass will be 4m wide and 60m long. The information suggests that the bypass extend approximately 2.5m over the road reserve, which represents an area of approximately 118m2.

3. MINIMUM REQUIREMENTS IN TERMS OF PROTOCOLS

The National Web based Environmental Screening Tool (https://screening.environment.gov.za/screeningtool/) is a geographically based web-enabled application which allows a proponent to screen their proposed site for any environmental sensitivity.

The Screening Tool also provides site specific processes and review information, for example, the Screening Tool may identify if an industrial development zone, minimum information requirement, Environmental Management Framework or bio-regional plan applies to a specific area.

Further to this, the Screening Tool identifies related exclusions and/ or specific requirements including specialist studies applicable to the proposed site and/or development, based on the national sector classification and the environmental sensitivity of the site.

Finally, the Screening Tool allows for the generating of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended whereby a Screening Report is required to accompany any application for Environmental Authorisation and as such the tool has been developed in a manner that is user friendly and no specific software or specialised GIS skills are required to operate this system. Although the proposed development does not trigger the need for Environmental Authorisation, the screening tool has been used as a bets practice method.

PROCEDURES FOR THE ASSESSMENT AND MINIMUM CRITERIA FOR REPORTING ON IDENTIFIED ENVIRONMENTAL THEMES IN TERMS OF SECTIONS 24(5)(A) AND (H) AND 44 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, WHEN APPLYING FOR ENVIRONMENTAL AUTHORISATION HAVE BEEN GAZETTED (GN. R 320 OF 20 MARCH 2020). In terms of Sections 24(5)(a), (h) and 44 of the National Environmental Management Act, 1998, these procedures prescribe general requirements for undertaking site sensitivity verification and for protocols for the assessment and minimum report content requirements of environmental impacts for environmental themes for activities requiring Environmental Authorisation, as contained in the Schedule therein. When the requirements of a protocol apply, the requirements of Appendix 6 of the Environmental Impact Assessment Regulations, as amended, (EIA Regulations), promulgated under sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), are replaced by these requirements.

According to the report generated by the National Screening Tool the following three themes and their protocols will be applicable this study:

- *Terrestrial Biodiversity Theme*

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORTING CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL BIODIVERSITY (GN 320, 2020)

- *Plant Species Theme*

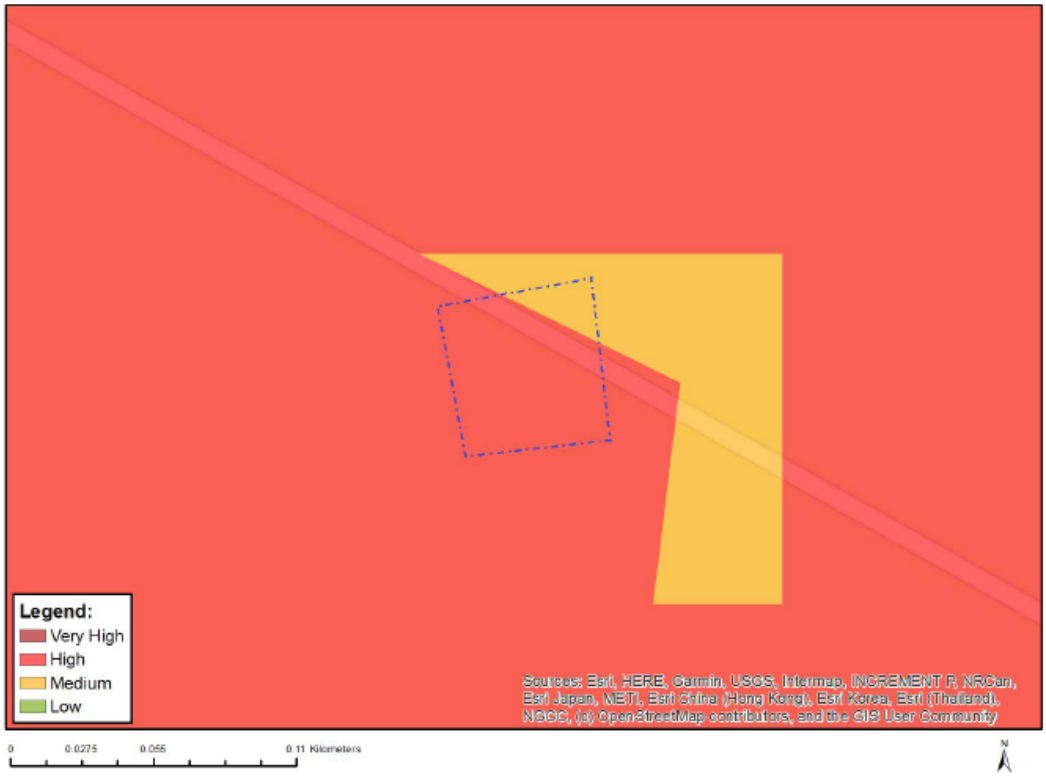
PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL PLANT SPECIES (GN 1150, 2020).

- *Animal Species Theme*

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL ANIMAL SPECIES (GN 1150, 2020)

3.1. Animal Species Theme Results

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Bradypterus sylvaticus
Medium	Aves-Circus ranivorus
Medium	Sensitive species 8
Medium	Invertebrate-Aneuryphymus montanus

Figure 2:Map of Animal Species theme sensitivity, as taken from the Screening Tool Report compiled for Site 4.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Bradypterus sylvaticus
High	Aves-Neotis denhami
Medium	Aves-Circus ranivorus
Medium	Sensitive species 8
Medium	Invertebrate-Aneuryphymus montanus

Figure 3: Map of Animal Species theme sensitivity, as taken from the Screening Tool Report compiled for Site 8.

Based on the initial Site Sensitivity Verification (Section 6.5) undertaken by the specialist on **30 October 2023,** the Animal Species Theme sensitivity was confirmed to be of "Low" sensitivity rather than "High" for both Site 4 and Site 8 as identified by the screening tool in Figure 2 and Figure 3.

The Screening Tool Report further identifies what features were triggered as sensitive for the footprint and summarises the results in a table (see Table 5 below). The presence of *Bradypterus sylvaticus*, *Circus ranivorus*

on both Site 4 and Site 8 and the presence of *Neotis denhami* on Site 8 will be further investigated and confirmed within the Avifaunal Assessment.

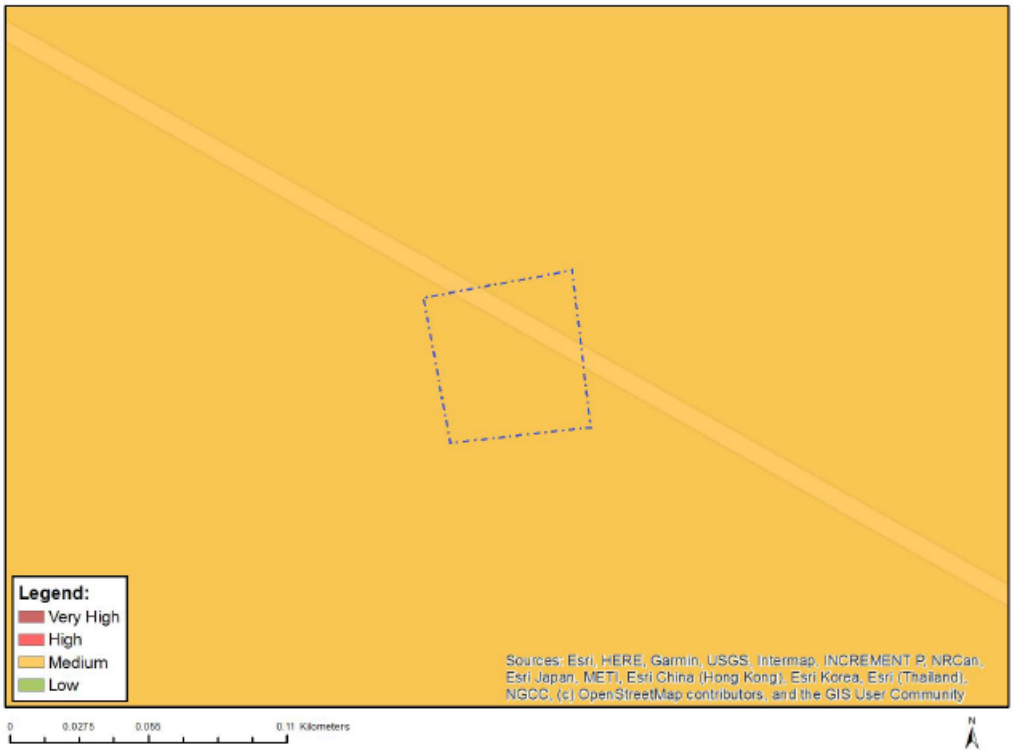
The protocols further specify that the content of minimum report content requirements on terrestrial animal species. The requirements are listed in table 2 below. The relevant section of this report is linked to each of the protocol's minimum requirements.

Table 2: Content cross-reference checklist for specialist assessment and minimum report content requirements for Animal Species Theme Compliance Statement as per GN R 1150, with corresponding section names in the report.

Requirement	**Section of this report**
contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the assessment including a curriculum vitae;	Details of the specialist and review specialist
a signed statement of independence by the specialist	Statement of independence - specialist
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;	Date and season of site visit
A description of the methodology used to undertake the site verification and impact assessment and site inspection, including equipment and modelling used, where relevant;	Methodology
A description of the assumptions made and any uncertainties or gaps in knowledge or data as well as a statement of the timing and intensity of site inspection observations	Assumptions, uncertainties, and gaps in knowledge
a description of the mean density of observations/number of samples sites per unit area of site inspection observations	Methodology
where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMP	Overall Impact Assessment
a description of the assumptions made and any uncertainties or gaps in knowledge or data; and	Assumptions, uncertainties, and gaps in knowledge
any conditions to which the compliance statement is subjected.	Risk ratings and potential impacts

3.2. Plant Species Theme Results

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

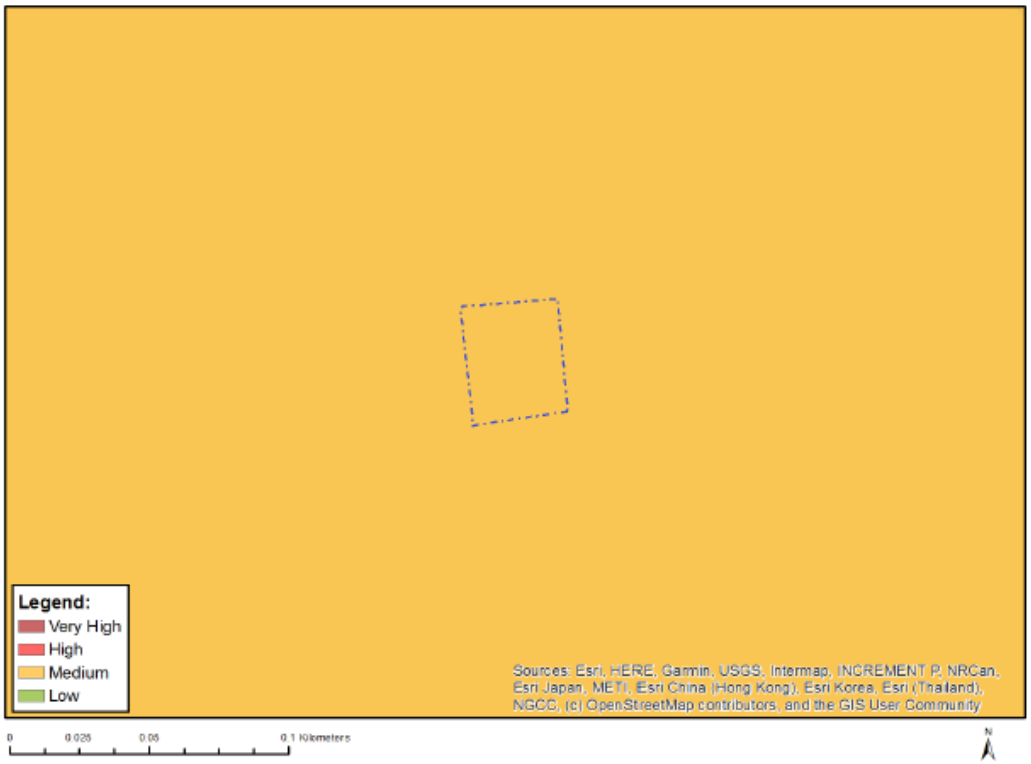
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Ocotea bullata
Medium	Selago burchellii
Medium	Psydrax capensis
Medium	Freesia fergusoniae
Medium	Erica unicolor subsp. mutica
Medium	Sensitive species 980
Medium	Sensitive species 763

Figure 4: Map of plant species theme sensitivity, as taken from the Screening Tool Report compiled for Site 4.

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Lampranthus pauciflorus
Medium	Freesia fergusoniae
Medium	Erica unicolor subsp. mutica
Medium	Sensitive species 633
Medium	Sensitive species 268
Medium	Sensitive species 1024
Medium	Sensitive species 516
Medium	Sensitive species 800
Medium	Sensitive species 500
Medium	Diosma passerinoides
Medium	Agathosma microcarpa

Figure 5:Map of plant species theme sensitivity, as taken from the Screening Tool Report compiled for Site 8.

Based on the initial Site Sensitivity Verification (Section 6.5) undertaken by the specialist on **30 October 2023**, the Plant Species Theme sensitivity was confirmed to be of "Low" sensitivity rather than "Medium" for both Site

4 and Site 8 as identified by the screening tool in Figure 4 and Figure 5. The Screening Tool Report further identifies what features were triggered as sensitive for the footprint and summarises the results in table 5 below.

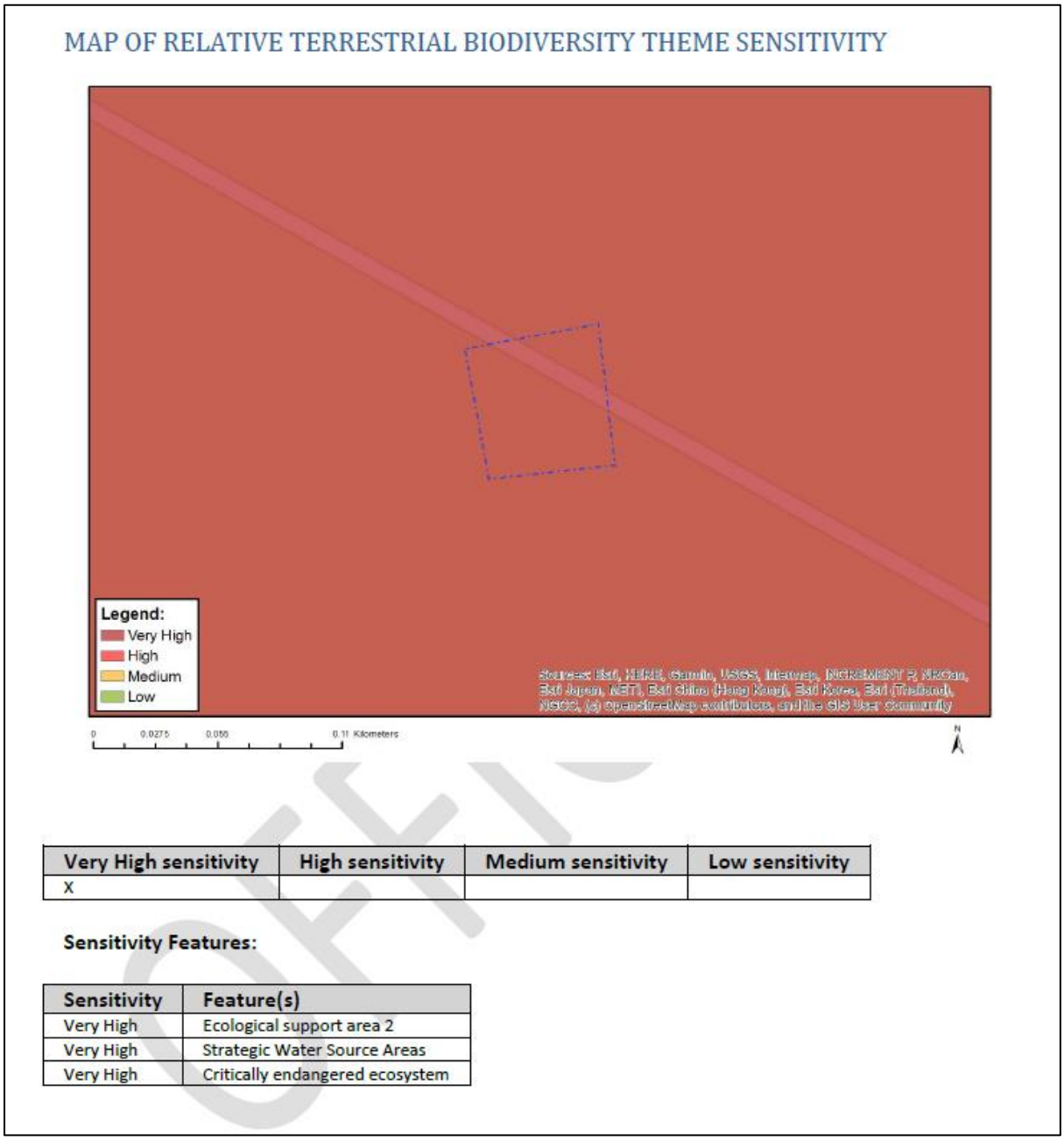
The protocols further specify that the content of the assessment and minimum report content requirements on the Plant Species Theme. The requirements are listed in table 3 below. The relevant section of this report is linked to each of the protocol's minimum requirements.

Table 3: Content cross-reference checklist for specialist assessment and minimum report content requirements for Plant Species Theme Compliance Statement Report as per GN R 1150, with corresponding section names in the report.

Requirement	Section of this report
contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the assessment including a curriculum vitae;	Details of the specialist and review specialist
a signed statement of independence by the specialist	Statement of independence - specialist
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;	Date and season of site visit
A description of the methodology used to undertake the site verification and impact assessment and site inspection, including equipment and modelling used, where relevant;	Methodology
A description of the assumptions made and any uncertainties or gaps in knowledge or data as well as a statement of the timing and intensity of site inspection observations	Assumptions, uncertainties, and gaps in knowledge
a description of the mean density of observations/number of samples sites per unit area of site inspection observations	Methodology
where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMP	Overall Impact Assessment
a description of the assumptions made and any uncertainties or gaps in knowledge or data; and	Assumptions, uncertainties, and gaps in knowledge
any conditions to which the compliance statement is subjected.	Risk ratings and potential impacts

During the site verification the proposed sites were surveyed, and all species encountered were recorded to detect any species of conservation concern.

3.3. Terrestrial Biodiversity Theme Results



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Ecological support area 2
Very High	Strategic Water Source Areas
Very High	Critically endangered ecosystem

Figure 6: Map of terrestrial biodiversity theme sensitivity, as taken from the Screening Tool Report compiled for Site 4.

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Ecological support area 2
Very High	Critically endangered ecosystem

Figure 7:Map of terrestrial biodiversity theme sensitivity, as taken from the Screening Tool Report compiled for Site 8.

Based on the initial Site Sensitivity Verification (Section 6.5) undertaken by the specialist on **30 October 2023,** the Terrestrial Biodiversity Theme sensitivity was confirmed to be of "Low" sensitivity rather than "Very High" for both Site 4 and Site 8 as identified by the screening tool in Figure 6 and Figure 7. The protocols further specify that the content of the assessment and minimum report content requirements on terrestrial biodiversity. The requirements are listed in the table below. The relevant section of this report is linked to each of the protocol's minimum requirements.

Table 4:Content cross-reference checklist for specialist assessment and minimum report content requirements for Terrestrial Biodiversity Compliance Statement Report as per GN R 320, with corresponding section names in the report.

Requirement	Section of this report
contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the assessment including a curriculum vitae;	Details of the specialist and review specialist
a signed statement of independence by the specialist	Statement of independence - specialist
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;	Date and season of site visit
a baseline profile description of biodiversity and ecosystems of the site;	General Vegetation Description; Sensitive Areas
the methodology used to verify the sensitivities of the terrestrial biodiversity features on the site, including equipment and modelling used, where relevant;	Methodology
in the case of a linear activity, confirmation from the terrestrial biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase	N/A
where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMP	Overall Impact Assessment
a description of the assumptions made and any uncertainties or gaps in knowledge or data; and	Assumptions, uncertainties, and gaps in knowledge
any conditions to which the compliance statement is subjected.	Risk ratings and potential impacts

Table 5:Sensitivity of sensitivity features, as identified by the Screening Tool Report generated for the site project. Results from the desktop study was added for each sensitivity feature in additional columns

Development Site	Sensitivity Features	Feature(s)	Red List Status	Habitat preference
Animal Species Theme				
Site 4 and Site 8	*Sensitive species 8*	Medium	Least Concern	Sensitive species 8, thrives in a wide range of forested and wooded habitats, including primary and secondary forests, gallery forests, dry forest patches, coastal scrub farmland and regenerating forest from sea level up to 3,000 m asl. They can persist in small patches of modified or degraded forest and

Development Site	Sensitivity Features	Feature(s)	Red List Status	Habitat preference
				thicket, even on the edge of urban centres.
Site 4 and Site 8	*Aneuryphymus montanus*	Medium	Least Concern	*Aneuryphymus montanus,* is associated with fynbos vegetation, where it has been collected "amongst partly burnt stands of evergreen Sclerophyll in rocky foothills" (Brown 1960). It prefers south-facing cool slopes (Kinvig 2005)
Plant Species Theme				
Site 8	*Lampranthus pauciflorus*	Medium	Endangered	Major system: Terrestrial Major habitats: Groot Brak Dune Strandveld, Blombos Strandveld, Overberg Dune Strandveld, Potberg Sandstone Fynbos, Garden Route Granite Fynbos, Albertinia Sand Fynbos, Knysna Sand Fynbos, Hartenbos Strandveld, Goukamma Dune Thicket Description: Rocky coastal slopes and clayish hills.
Site 4 and Site 8	*Freesia fergusoniae*	Medium	Vulnerable	Major system: Terrestrial Major habitats: Mossel Bay Shale Renosterveld, Eastern Ruens Shale Renosterveld, Ruens Silcrete Renosterveld, Central Ruens Shale Renosterveld, Garden Route Shale Fynbos, Swellendam Silcrete Fynbos, Montagu Shale Renosterveld, Garden Route Granite Fynbos, Potberg Ferricrete Fynbos Description: It occurs in clay soils in renosterveld.
Site 4 and Site 8	*Erica unicolor subsp. mutica*	Medium	Endangered	Major system: Terrestrial Major habitats: South Outeniqua Sandstone Fynbos, South Langeberg Sandstone Fynbos, Garden Route Shale Fynbos, Garden Route Granite Fynbos, Swellendam Silcrete Fynbos, Hartenbos Strandveld Description: Lowlands and lower south and north-facing slopes in fynbos.
Site 8	*Diosma passerinoides*	Medium	Vulnerable	Major system: Terrestrial Major habitats: Eastern Ruens Shale Renosterveld, Elim Ferricrete Fynbos, Potberg Ferricrete Fynbos, Garden Route Granite Fynbos, Breede Alluvium Renosterveld, Ruens Silcrete Renosterveld, Swellendam Silcrete Fynbos, Central Ruens Shale Renosterveld, Breede

Development Site	Sensitivity Features	Feature(s)	Red List Status	Habitat preference
				Shale Renosterveld, Mossel Bay Shale Renosterveld, Uniondale Shale Renosterveld, Langkloof Shale Renosterveld, Baviaanskloof Shale Renosterveld, Matjiesfontein Shale Renosterveld, Montagu Shale Renosterveld, Western Ruens Shale Renosterveld Description: Dry clayish soils in renosterveld, associated with patches of silcrete.
Site 8	*Agathosma microcarpa*	Medium	Vulnerable	Major system: Terrestrial Major habitats: Montagu Shale Renosterveld, Mossel Bay Shale Renosterveld, Eastern Ruens Shale Renosterveld, Kango Limestone Renosterveld, Garden Route Granite Fynbos, Hartenbos Strandveld, Gouritz Valley Thicket Description: Rocky outcrops on dolomitic soils in renosterveld.
Site 4	*Ocotea bullata*	Medium	Endangered	Major system: Terrestrial Major habitats: Northern Coastal Forest, Southern Coastal Forest, Scarp Forest, Northern Mistbelt Forest, Southern Mistbelt Forest, Northern Afrotemperate Forest, Southern Afrotemperate Forest Description: High, cool, evergreen Afromontane forests.
Site 4	Selago burchellii	Medium	Least Concern	Major system: Terrestrial
Site 4	*Psydrax capensis*	Medium	Vulnerable	Major system: Terrestrial Major habitats: Southern Afrotemperate Forest Description: Coastal and submontane forests.
Site 8	Sensitive species 633	Medium	Information classified	Information classified
Site 8	Sensitive species 268	Medium	Information classified	Information classified
Site 8	Sensitive species 1024	Medium	Information classified	Information classified
Site 8	Sensitive species 516	Medium	Information classified	Information classified
Site 8	Sensitive species 800	Medium	Information classified	Information classified
Site 8	Sensitive species 500	Medium	Information classified	Information classified
Site 4	Sensitive species 980	Medium	Information classified	Information classified
Site 4	Sensitive species 763	Medium	Information classified	Information classified
Terrestrial Biodiversity Theme				

Development Site	Sensitivity Features	Feature(s)	Red List Status	Habitat preference
Site 4 and Site 8	Ecological support area 2	Very High	N/A	N/A
Site 4 and Site 8	Critically endangered ecosystem	Very High	N/A	N/A
Site 4	Strategic Water Source Areas	Very High	N/A	N/A

4. METHODOLOGY

4.1. Land cover, climate, soils and geology

- Information related to land cover of the development was based on the available literature and the latest GIS data available from the Department of Environmental Affairs (Department of Environmental Affairs, 2018).
- Climate data was extracted from available literature and latest GIS data available.
- Information related to the classified Soils and Geology within the development site was based on available literature and the Environmental Potential Atlases (Department of Environmental Affairs and Tourism and University of Pretoria, 1995)

4.2. Site Assessment

10.1.3. Vegetation and Fauna

- Vegetation types and their conservation status were extracted from the South African National Vegetation Map (Mucina and Rutherford, 2006), the 2018 National Biodiversity Assessment Synthesis Report (South African National Biodiversity Institute (SANBI), 2019) and the National List of Ecosystems that are Threatened and in Need of Protection (GN 2747 of 18 November 2022).
- A brief discussion on the vegetation type in which the study area is situated, using available literature, in order to place the study in context.
- A broad-scale map was generated of the vegetation and habitat sensitivity of the site using available GIS data and the DFFE Screening Tool.
- A list of endemic taxon species know to occur in the area was investigated prior to the site visit (Mucina and Rutherford, 2006).
- Sightings from the area and surrounds extracted from the Global Biodiversity Information Facility and iNaturalist (“Global Biodiversity Information Facility,” n.d.; “iNaturalist,” n.d.), and the IUCN data base (“IUCN 2020,” n.d.).
- Species and their Red Data Listing and Protected Status, occurring or expected to occur within the area were obtained from:
    - The DFFE Screening Tool,
    - Red List of South African Plants (Nick and Raimondo, 2007; South African National Biodiversity Institute (SANBI), 2016),
    - Western Cape Biodiversity Act, No 6 of 2021.
    - Notice Of The List Of Protected Tree Species Under The National Forests Act, 1998 (ACT NO. 84 OF 1998)
    - IUCN (“IUCN 2020,” n.d.),

  - National Environmental Management Biodiversity Act, 2004 (Act 10 of 2004): Critically Endangered, Endangered, Vulnerable, and Protected Species List (2007, as amended),
  - Virtual databases to determine potential faunal species that may inhabit the site:
    - Atlas of African Lepidoptera
    - Southern African Bird Atlas Project 2
    - Reptile Atlas of Africa
    - Atlas of African Spiders
    - Atlas of African Scorpions
    - Frog Atlas of southern Africa
    - Virtual Museum of African Mammals,
- List of plant and faunal species recorded during the survey. Plants and animals were identified from photographs and specimens taken on site, and
- Note that avifauna have been excluded from this assessment.

10.1.4. Data and season of site visit

A site visit took place on **30 October 2023** to assess site for the proposed development. The methodology following during the site visit was based on the Species Assessment Guidelines (2020). A walk-through was done for each of the sites (4 and 8), carefully evaluating the environmental conditions. During the visit, photographs were taken to document the environment and the various plant and animal species.

The weather conditions were accommodating, where clear visibility facilitated the inspection of the facility and surrounding vegetation. Throughout the survey process, the focus was on assessing vegetation units and habitat types, taking into consideration the dominant and typical component species. Additionally, specific soil types, underlying geology, and land cover characteristics are documented. The encounters with species of conservation concern (SCC) were recorded using GPS-enabled devices, ensuring accurate geospatial data collection.

It is important to acknowledge that certain species may not have been detected due to seasonal variations, activity patterns, or life histories. Nevertheless, considering that the proposed sites are existing and that the proposed development will consist of upgrading existing infrastructure additional inspections are not required. The information collected, coupled with the ecological considerations taken into account, provides a solid foundation for evaluating the ecological aspects of the proposed development sites.

10.1.5. Ecological Importance

The Site Ecological Importance (SEI) was evaluated according to the protocol outlined in the Species Environmental Assessment Guideline (2020). This protocol produces a standardised metric for identifying site-based ecological importance for species in relation to a proposed project. The SEI is a function of the biodiversity importance of a specific receptor (e.g., vegetation unit or SCC population) and its resilience to environmental

impacts. The biodiversity importance is, in turn, a function of the conservation importance and functional integrity of the specific receptor.

10.1.6. Sensitive areas

The Western Cape Biodiversity Plan was used to identify sensitive areas such Critically Biodiverse Areas (Categories 1 and 2) and Ecological Support Areas (Categories 1 and 2) within the proposed development footprint, the proposed development property, and surrounding areas. The extent of the sensitive areas were mapped using the latest available GIS data.

5. ASSUMPTIONS AND UNCERTAINTIES

The processes of investigation which have led to the production of this report, harbours several assumptions, which include the following:

- All information provided by the applicant to the environmental specialist was correct and valid at the time that it was provided.
- Note that avifauna have been excluded from this assessment.
- The proposed project development footprint as provided by the applicant is correct and will not be significantly deviated from.
- Strategic level investigations undertaken by the applicant prior to the commencement of the EIA process, determined that the development site represents a potentially suitable and technically acceptable location.
- The public will receive a fair and reoccurring opportunity to participate and comment during the EIA application process, through the provision of adequate public participation timeframes stipulated in the EIA Regulations (2014, as amended).
- The need and desirability of the project is based on strategic national, provincial and local plans and policies which reflect the interests of both statutory and public viewpoints.
- The EIA application process is a project-level framework, and the specialists are limited to assessing the anticipated environmental impacts associated with the operational phases of the proposed project.
- Strategic level decision making is conducted through cooperative governance principles with the consideration of sustainable and responsible development principles underpinning all decision making.

Given that an EA application process involves prediction, uncertainty forms an integral part of the process. Two types of uncertainty are associated with the EA application process, namely process-related and prediction-related.

- Uncertainty of prediction is critical at the data collection phase as final certainty will only be obtained upon implementation of the proposed development. Adequate research, experience and expertise may minimise this uncertainty.
- Uncertainty of values depicts the approach assumed during the MP application process, while final certainty will be determined at the time of decision making. Enhanced communication and widespread/comprehensive coordination can lower uncertainty.
- Uncertainty of related decision relates to the interpretation and decision-making aspect of the MP application process, which shall be appeased once monitoring of the project phases is undertaken.
- The significance/importance of widespread/comprehensive consultation towards minimising the risk/possibility of omitting significant impacts is further stressed. The use of quantitative impact

significance rating formulas (as utilised in this document) can further standardise the interpretation of results and limit the occurrence and scale of uncertainty.

- The initial study was undertaken as a desktop assessment and as such, the information gathered must be considered with caution, as inaccuracies and data capturing errors are often present within these databases.
- Global Positioning System (GPS) technology is inherently inaccurate and some inaccuracies due to the use of handheld GPS instrumentation may occur. If more accurate assessments are required, the relevant areas will need to be surveyed and pegged according to surveying principles.
- The risk assessment was applied on the basis that the stipulated mitigation measures in all specialist recommendations will be implemented as recommended and therefore the results presented demonstrate the impact significance of perceived impacts on the receiving environment post mitigation.

5.1. Gaps in the knowledge

The observations and findings made during the site inspection were during a specific time frame and the condition of the proposed site may vary throughout the year. Therefore, circumstances throughout the year may differ and deliver different results.

6. . RESULTS

6.1. Land cover

The majority of Site 4 falls within the low shrubland (fynbos) land cover classification and a small section falls within the herbaceous wetland land cover classification. Site 8 falls within the low shrubland (fynbos) land cover classification. The immediate surrounding areas are mostly used for Agricultural purposes. The proposed sites are approximately 18 km west from George and approximately 11 km north east from Groot Brakrivier. A land cover map of the proposed development footprints and surrounds are presented in Figure 8.

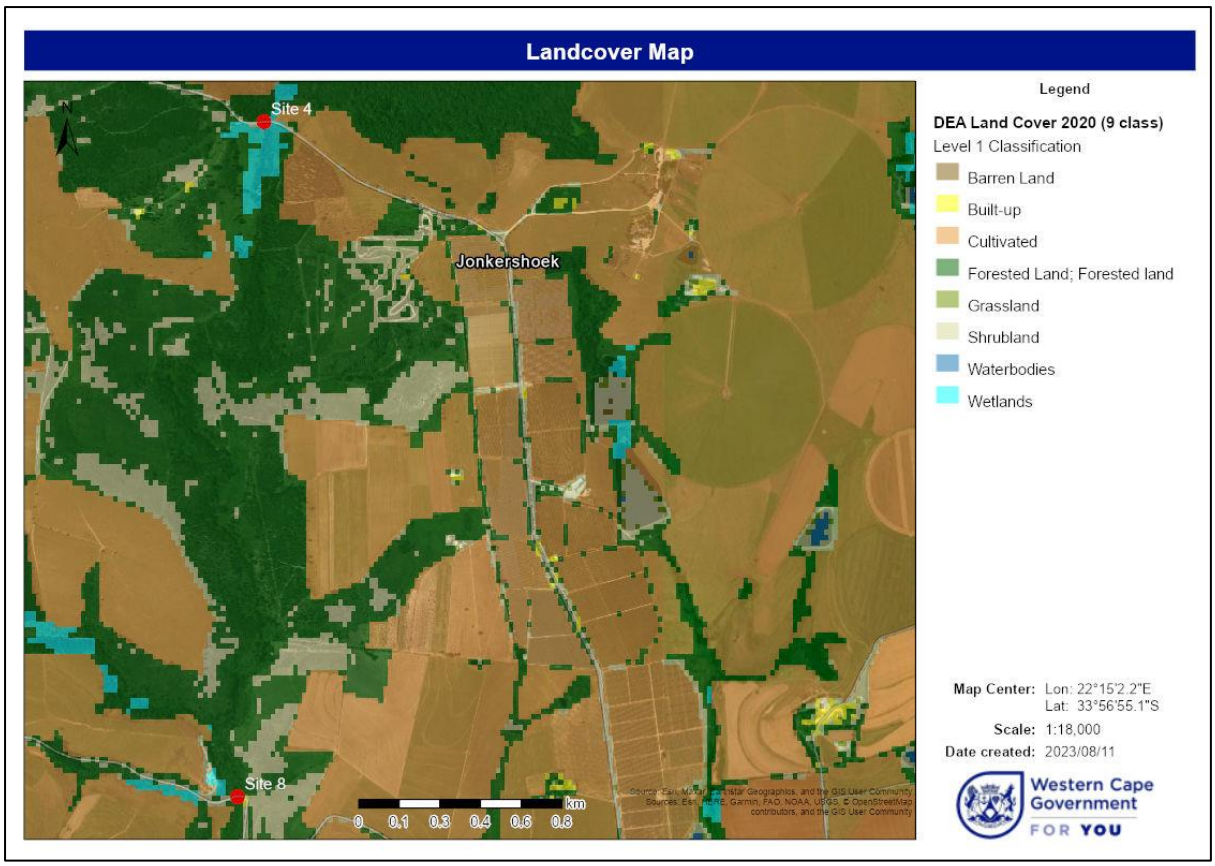


Figure 8: Landcover Map for the proposed development sites (demarcated in red)

6.2. Climate

The proposed sites are located near George on the Eastern Coast of the Western Cape province of South Africa. The area experiences a Mediterranean-like climate. Summers and spring, spanning from September to February, bring warm to hot conditions, with temperatures typically ranging from 20°C to 30°C. Rainfall is relatively scarce during this period. As autumn arrives in March through May, George experiences milder temperatures ranging between 15°C and 25°C, accompanied by the possibility of the first rains. Winter, lasting from June to August, brings mild days with temperatures around 10°C to 20°C, but the nights can be cold, and the chances of rainfall are notably higher. One distinguishing feature of George's climate is its susceptibility to the strong winds, which primarily blow from the south and southwest during the summer months, having a notable impact on the local

climate and ecosystem. Additionally, spring, from September to October, marks a return to pleasant temperatures, averaging 15°C to 25°C. (https://www.weathersa.co.za/)

6.3. Soils and Geology

The proposed sites are situated within the Cape Fold Belt, featuring diverse geology and soils. The region's soils range from fertile alluvial soils along riverbanks to sandy granitic soils, while Table Mountain Sandstone predominates in the Cape Fold Belt, forming the mountainous terrain. Additionally, granite, schist, and quartzite add to the geological variety. The geological formations, with numerous fault lines and folds, shape the area's complex landscape. (https://www.geoscience.org.za/).

Site 4 and Sites 8 soils can be described as soils with a marked clay accumulation, strongly structured and a non-reddish colour. In addition one or more of vertic, melanic and plinthic soils may be present. With a depth between 450mm and 750mm and a Clay content less than 15%. Site 4 falls within the Lithostratigraphic of the Peninsula, Pakhuis and Cedarberg Formations and Site 8 falls within the Cape Granite Suite Lithostratigraphic.

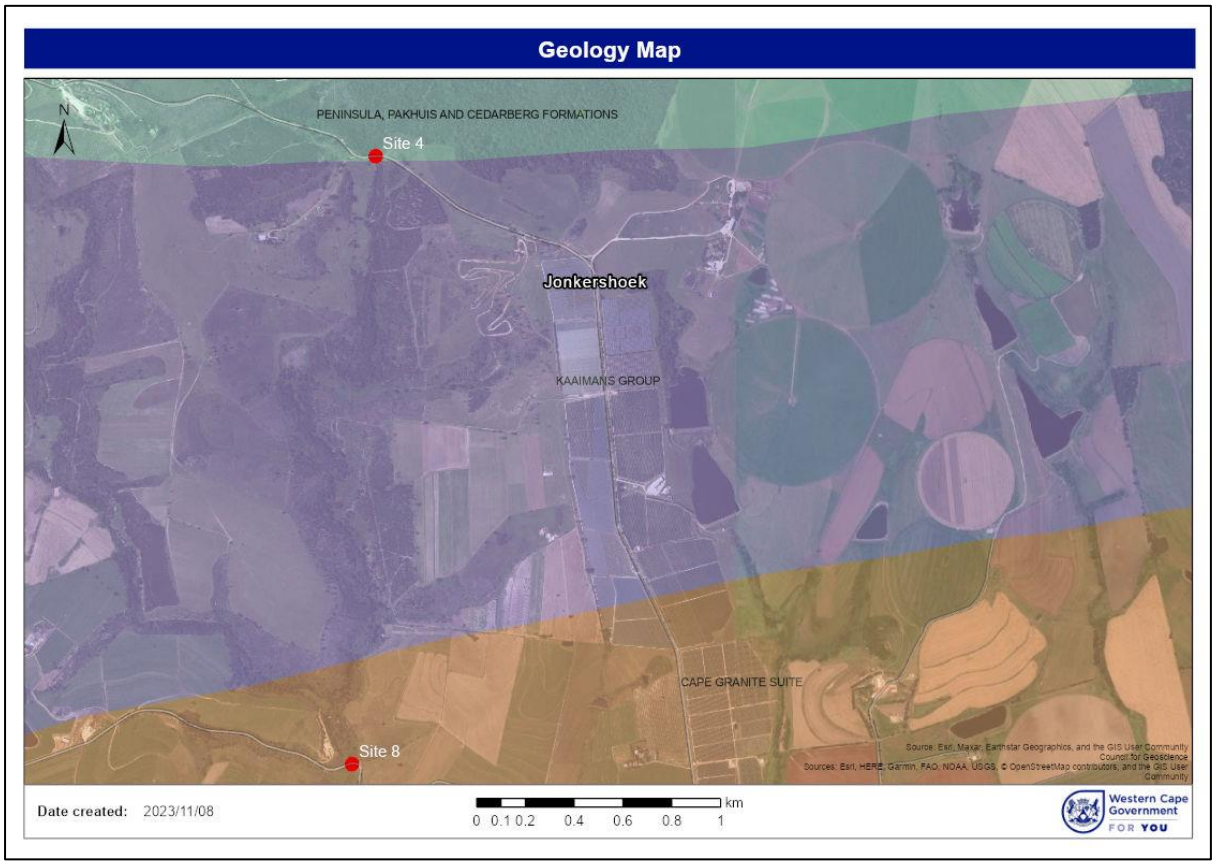


Figure 9: Geology Map where the sites are demarcated in red

6.4. Baseline profile description of biodiversity and ecosystems of the site

10.1.7. General Vegetation description

The proposed sites (demarcated in red) fall under the Fynbos biome and consists of Garden Route Shale Fynbos (Site 4) and Garden Route Granite Fynbos (Site 8) (Figure 10).

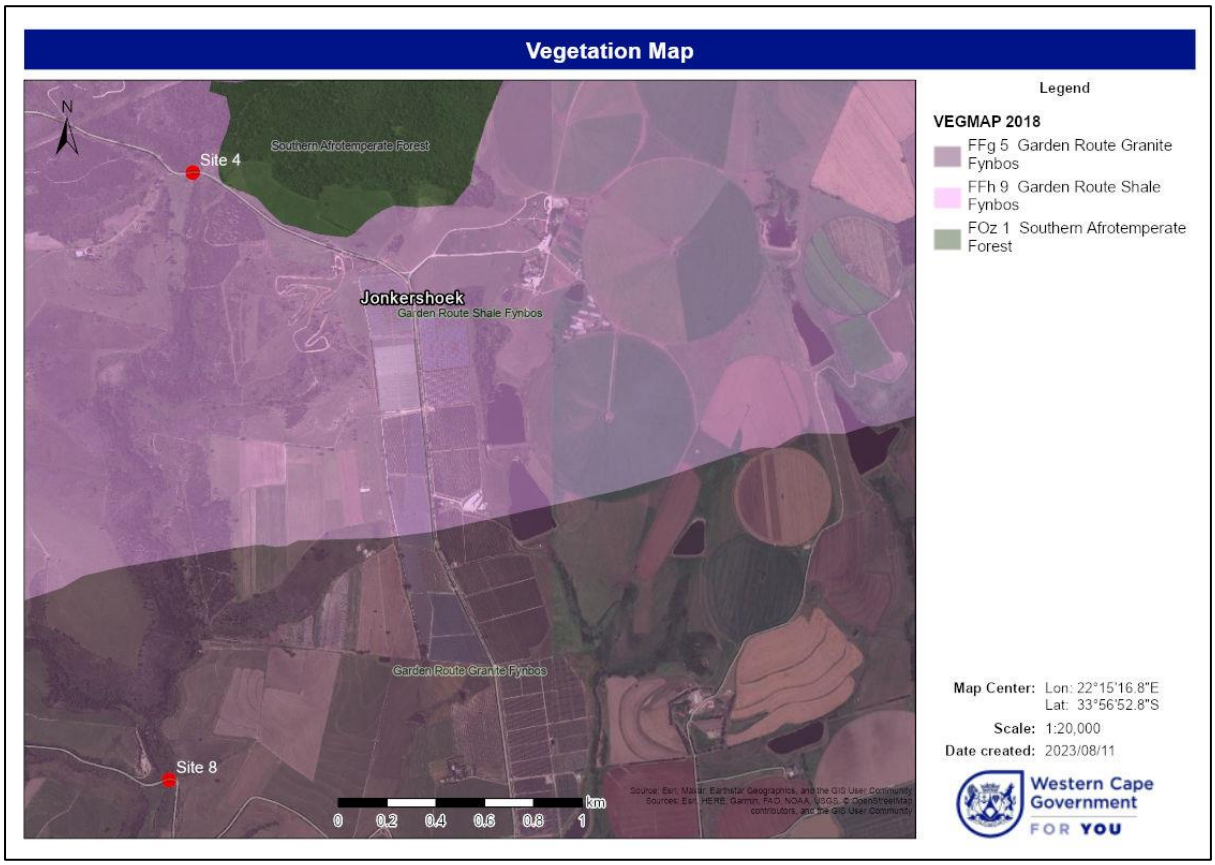


Figure 10:Vegetation types within the proposed development site (demarcated in red)

Garden Route Shale Fynbos

Distribution: Garden Route Shale Fynbos is primarily distributed along the Garden Route, a picturesque coastal region situated in the Western Cape and Eastern Cape of South Africa. This vegetation type is particularly prevalent in areas where shale-derived soils are abundant, contributing to its unique floral composition. The Garden Route is situated within the Cape Floral Kingdom, one of the world's biodiversity hotspots, renowned for its high levels of endemism and diverse plant life.

Vegetation and Landscape Features: Garden Route Shale Fynbos is characterized by its remarkable plant diversity, including a variety of shrubs, ericoids (heath-like plants), and geophytes (bulbous plants). These plants have adapted to the challenging conditions of nutrient-poor soils and frequent fires. The landscape often features rocky outcrops and rugged terrain, adding to the scenic beauty of the Garden Route. The presence of

shale-derived soils is a defining feature of the region, influencing the local vegetation patterns and contributing to its ecological uniqueness.

Geology and Soils: The geological foundation of the Garden Route is marked by shale rock formations, which give rise to the shale-derived soils in the area. These soils are notably poor in nutrients, which has led to the evolution of plant species with specific adaptations to thrive in such conditions. The geology and soils are integral to the ecosystem, shaping the plant composition and ecological dynamics of Garden Route Shale Fynbos.

Important Taxa: Garden Route Shale Fynbos hosts an array of plant species, each with its unique ecological significance. Among the important taxa are various protea species, ericoid plants such as heaths, and numerous bulbous plants. These taxa have evolved to thrive in the region's specific soil and climate conditions, making them vital components of the local ecosystem.

Endemic Taxa: One of the standout features of the Garden Route Shale Fynbos is the presence of numerous plant species that are endemic to the area. Endemic taxa are those found exclusively within the boundaries of the Garden Route and are not found anywhere else in the world. These endemic species are of particular interest to conservation efforts due to their limited geographic distribution and the need to protect their unique genetic diversity, these include: *Cyphia georgica, Disa newdigateae and Gladiolus roseovenosus*.

Conservation: Garden Route Shale Fynbos is classified as Endangered in the Western Cape Biodiversity Spatial Plan (2017) and GN 2747, 2022. The conservation of Garden Route Shale Fynbos is of paramount importance due to the ecosystem's vulnerability to various threats. Garden Route Shale Fynbos is narrowly distributed with high rates of habitat loss in the past 28 years (1990-2018), placing the ecosystem type at risk of collapse. Urban development poses a risk to the natural habitats in the region, as does the encroachment of invasive plant species. Conservation initiatives are focused on preserving the biodiversity of the area, safeguarding these unique ecosystems within the Cape Floral Kingdom, and maintaining the ecological balance that characterizes Garden Route Shale Fynbos.

Garden Route Granite Fynbos

Distribution: Garden Route Granite Fynbos is primarily found within the Garden Route region in the Western Cape of South Africa. It occurs on soils derived from granite, a prominent geological feature in the area. This vegetation type is a part of the Cape Floral Kingdom, renowned for its high plant diversity and endemism.

Vegetation and Landscape Features: Garden Route Granite Fynbos is marked by its diverse plant community, including various shrubs, geophytes, and ericoids. The rocky terrain and granite-derived soils are characteristic of the region, contributing to the unique flora and ecological dynamics. The landscape often features outcrops and rocky formations, which add to the scenic beauty of the area.

Geology and Soils: The geological foundation of the Garden Route Granite Fynbos is primarily granite rock formations, leading to the development of granite-derived soils. These soils are relatively nutrient-poor, which

has influenced the evolution of plant species that have adapted to thrive in such conditions. The geology and soils are integral to the ecosystem, shaping the plant composition and ecological dynamics of Garden Route Granite Fynbos.

Important Taxa: Garden Route Granite Fynbos hosts a wide array of plant species, each playing a unique ecological role. Among the significant taxa are various protea species, ericoids (heath-like plants), and geophytes. These taxa have evolved to thrive in the region's specific soil and climate conditions, making them vital components of the local ecosystem.

Endemic Taxa: One of the remarkable features of Garden Route Granite Fynbos is the presence of numerous plant species that are endemic to the region. These endemic taxa are found nowhere else in the world, and they contribute to the high levels of endemism in the Cape Floral Kingdom, making them a focus of conservation efforts.

Conservation: Garden Route Granite Fynbos is classified as Critically Endangered in the Western Cape Biodiversity Spatial Plan (2017) and GN 2747, 2022. The conservation of Garden Route Granite Fynbos is of paramount importance due to the ecosystem's vulnerability to various threats. Garden Route Granite Fynbos is narrowly distributed with high rates of habitat loss in the past 28 years (1990-2018), placing the ecosystem type at risk of collapse. Urban development poses a risk to the natural habitats in the region, as does the encroachment of invasive plant species. Conservation initiatives are focused on preserving the biodiversity of the area, safeguarding these unique ecosystems within the Cape Floral Kingdom, and maintaining the ecological balance that characterizes Garden Route Granite Fynbos.

10.1.8. Sensitive areas

The proposed development sites are situated within the Gouritz Cluster Biosphere Reserve based on the Western Cape Biodiversity Spatial Plan (2017). Both Sites 4 and 8 are located 5km south east of the Doring Rivier Wilderness Protected Area, however the Protected Area will not be impacted by the proposed upgrades. Both Sites 4 (Figure 11) and 8 (Figure 12) are located within Critical Biodiversity Areas (CBA) as well as an Ecological Support Area (ESA).

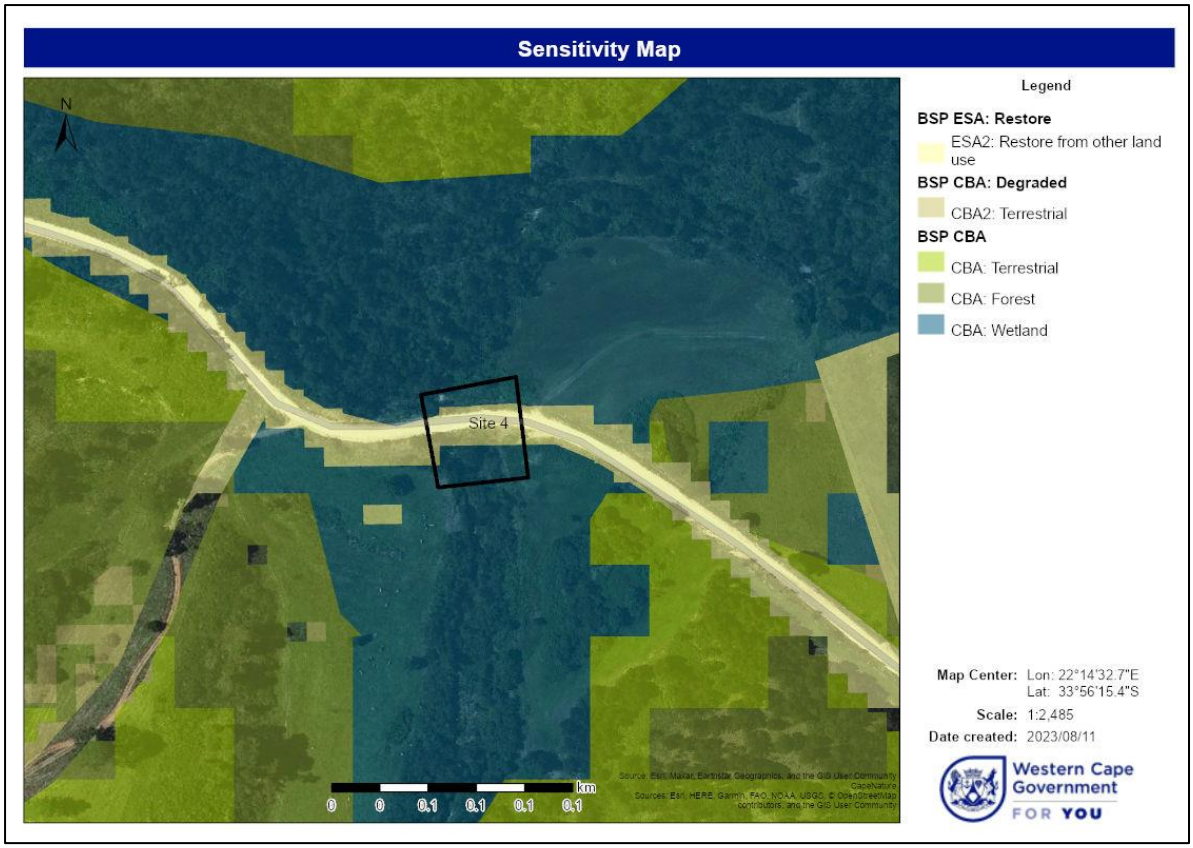


Figure 11:Sensitivity of the proposed development footprint for site 4 (demarcated in black).

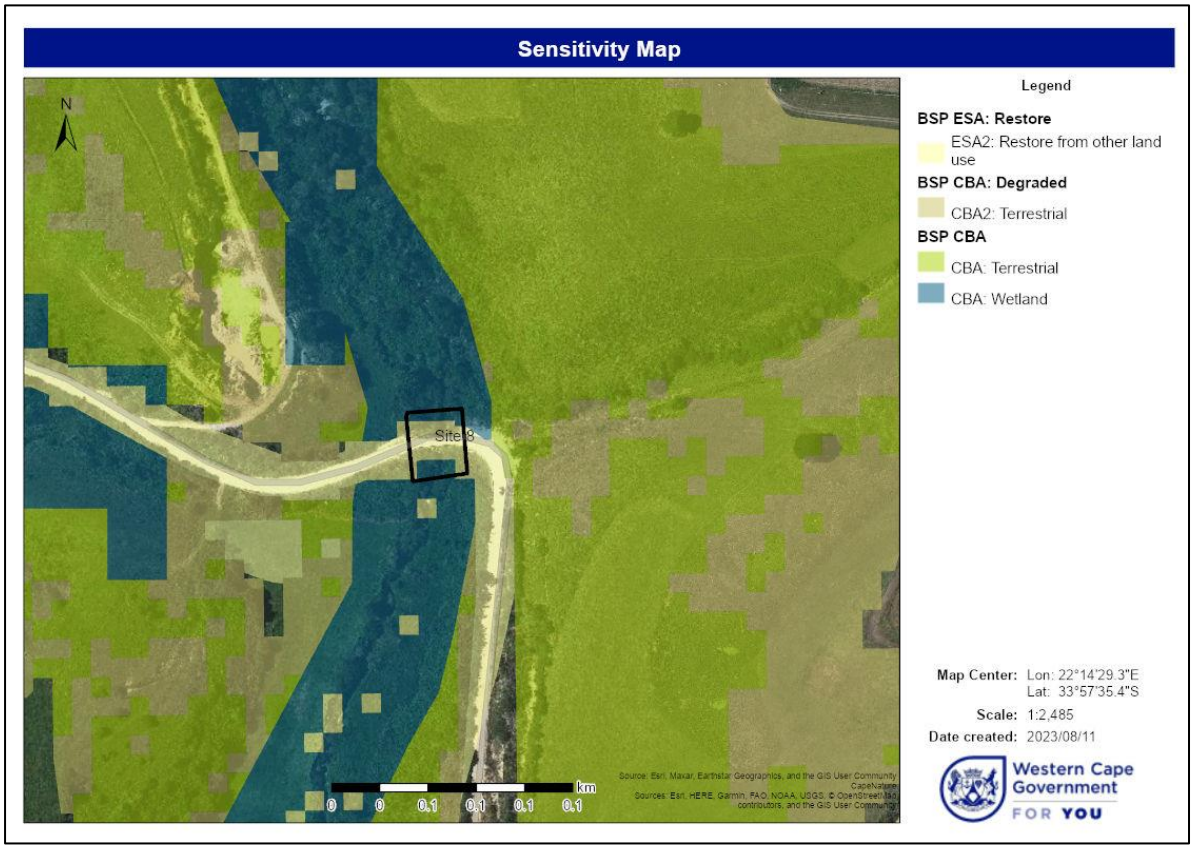


Figure 12:Sensitivity of the proposed development footprint for site 8 (demarcated in black).

CBAs are areas of high biodiversity and ecological value. These areas are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure. CBAs that are likely to be in a natural condition are classified as Category 1 CBAs and those that are potentially degraded or represent secondary vegetation are classified as Category 2 CBAs. Only low-impact, biodiversity-sensitive land uses are considered appropriate within CBAs (Pool-Stanvliet et al., 2017). These areas are also to be managed for biodiversity conservation purposes, restored where required and incorporated into the Protected Area network

ESAs are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of Critical Biodiversity Areas (CBAs) and delivering ecosystem services. ESAs are supporting zones which must be safeguarded to prevent degradation of CBAs and formal protected areas.

Since the proposed development footprint is situated in sensitive areas identified by the Western Cape Biodiversity Spatial Plan (2017), the development footprint is considered to hold conservation importance within these sensitive areas. To determine whether the proposed development footprint is verified to carry out the functions of the CBA and ESA as mapped, it must first be determined the reason for the CBA and ESA delineation.

For Site 4 and Site 8 the ESA2 has been classified due to restoration purposes, therefore stating the need for restoration from previous land uses. The overall GRDM Alien Invasive Species Management Plan should be followed to assist with the aforementioned. .

The CBAs for both Sites 4 and 8 have been classified due to the presence of and the functioning of a watercourse and wetland on either side of the road. Because the CBAs have been delineated due to the presence of a watercourse and wetland, the verification of the CBAs have been excluded from this assessment. It is expected that the verification and impact on the CBA will be included within the Aquatic Assessment.

Both Sites 4 and 8 is located within the Gouritz Cluster Biosphere Reserve which was delineated within the Western Cape Biodiversity Spatial Plan (2017). The target for the Gouritz Cluster Biosphere Reserve with regards to development is to minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. The Western Cape Biodiversity Spatial Plan does offer flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.

10.1.9. Site verification

6.4.1.1. Vegetation description

Based on the site inspection, the vegetation within the both Site 4 and Site 8, exhibits a high invasion by several alien plant species, namely *Eucalyptus globulus* (Bloekom), *Acacia mearnsii* (Black Wattle), *Acacia saligna* (Port Jackson), and *Casuarina cunninghamiana (Beefwood)*. These invasive species dominate the site and have significantly impacted the native vegetation. Indigenous species occurring on the sites mostly consists of low shrubs (*Psoralea monophyla, Helichrysum cymosum*), tall shrubs (*Searsia lucida),* geophytic herbs (*Pteridium aquilinum*) and grasses (*Cymbopogon marginatus, Eragrostis capensis)*. Comprehensive management and

restoration strategies will be necessary to control the invasion, remove the alien species, and restore the site's indigenous vegetation and ecological integrity, however removing the alien trees will disturb the banks significantly, likely causing erosion. The overall GRDM Alien Invasive Species Management Plan should be followed to assist with the aforementioned.

The Endangered vegetation type, Garden Route Shale Fynbos for Site 4 and the Critically Endangered Garden Route Granite Fynbos for Site 8, is not represented at all within the proposed sites that were surveyed. The habitats on the sites are highly disturbed due to their proximity to the road and host a large number of invasive alien species. Additionally both sites fall within the road reserve and development of these areas are likely to have minimal impacts to the in situ and surrounding terrestrial biodiversity.

The photographic record of the sites shows the current state of the proposed areas. The vegetation shows elements of Fynbos vegetation and a high density of alien invasive vegetation.

Site 4

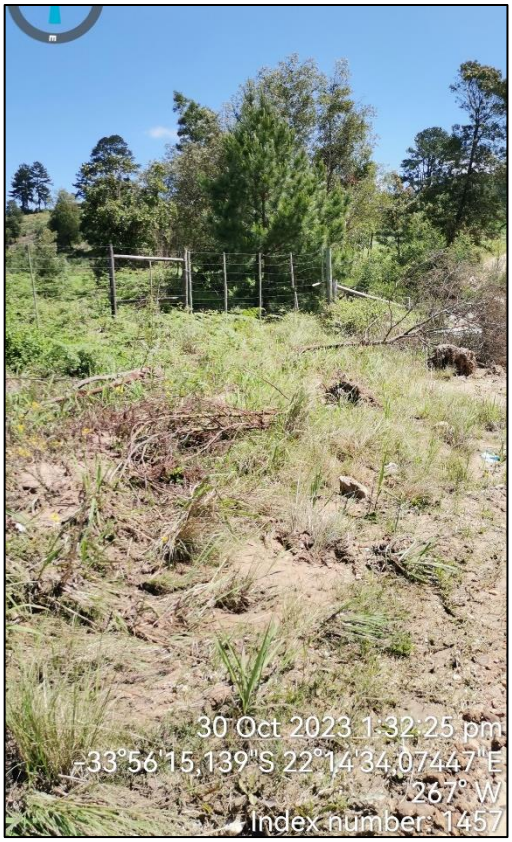


Figure 13:Visual representation of the vegetation type present at Site 4

Site 8


30 Oct 2023 1:18:57 pm
-33°57'35,54057"S 22°14'30,25378"E
332° NW
Mossel Bay
Index number: 1454


30 Oct 2023 1:13:12 pm
-33°57'35,32685"S 22°14'28,04841"E
207° SW
Mossel Bay
Index number: 1418

Figure 14:Visual representation of the vegetation type present at Site 8

10.1.10. Species of conservation concern

6.4.1.2. Plant Species

The DFFE Screening Tool identified eleven floral species of special concern for Site 8 and seven floral species of special concern for Site 4 (Table 4). During the site inspection, no species of special concern were found within the proposed footprints of both Sites 4 and 8. Various common, non-threatened, and non-protected species were recorded on the proposed sites (Table 7). Additionally, several alien species were observed throughout the site.

Considering the extremely proliferation of invasive alien species throughout the proposed sites, it is evident that both sites are highly disturbed and degraded. Thorough assessments were conducted for both sites in the surroundings of the developed sites, and no observations of special concern species were made, likely due to the lack of suitable habitats.

6.4.1.3. Animal Species

None of the expected species of special concern (according to the DFFE Screening Tool) were observed during the site visit. It is unlikely that the terrestrial faunal species (except avifauna) identified in the Screening Tool report will be found on the footprint given the habitat requirements of the species. Other common species that are likely to inhabit the area are listed in Appendix C. Given that there is potential habitat surrounding the development footprint, any faunal species that inhabits the development footprint, will likely be able to find refuge in the surrounding areas.

10.1.11. Areas of conservation concern

Sites 4 and 8 are located within an ESA2, classified due to restoration purposes, however even if the proposed sites are to be restored rather than upgrading the existing culverts and pipelines, will not contribute to the functioning of the ESA taking into consideration the small development footprint and proposed scope of works. The wider area will be restored according to the GRDM Alien Invasive Species Management Plan.

Both Sites 4 and 8 is located within the Gouritz Cluster Biosphere Reserve which was delineated within the Western Cape Biodiversity Spatial Plan (2017). The Gouritz Cluster Biosphere Reserve encompasses an area of 3 187 893 hectares, because of the very large area outside of the proposed development sites, the loss in Gouritz Cluster Biosphere Reserve for the proposed development sites are not likely to impact the functioning of the overall Gouritz Cluster Biosphere Reserve or the wider area. Ecological connectivity is also not expected to be lost given that the proposed footprint is small and the proposed developments will consist of upgrading the existing pipelines and culverts and the surrounding areas contain intact vegetation which should provide sufficient habitat and foraging opportunities for fauna.

10.1.12. Ecological Sensitivity Assessment

The terrestrial biodiversity sensitivity for both Sites 4 and 8 is confirmed to be “Low” through site verification as the sites do not support the endangered ecosystems identified as “Vey High” within the Screening Tool Report

The Site Ecological Importance (SEI) for both Sites 4 and 8 was evaluated as Low (Table 6) for each of the habitat units. The aforementioned was determined based on the low biodiversity value and ecological functioning and medium recovery rate.

Table 6: Site Ecological Importance for Site 4 and Site 8

Habitat	Conservation Importance	Functional Integrity	Receptor Resilience	Site Ecological Importance
Site 4	**Low**: No confirmed or highly likely populations of Species of Conservation Concern; No confirmed or highly likely populations of range-restricted species; < 50 % of receptor contains natural habitat with limited potential to support SCC	**Low:** Small (> 1 ha but < 5 ha) area. Almost no habitat connectivity but migrations still possible across some modified or degraded natural habitat. and a very busy used road network surrounds the area. Low rehabilitation potential. Several minor and major current negative ecological impacts	**High**. Habitat that can recover relatively quickly (~ 5-10 years) to restore > 70 % of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a high likelihood of returning to a site once the disturbance or impact has been removed	**Very Low.** Minimization mitigation - Development activities of medium to high impact acceptable and restoration activities may not be required
Site 8	**Low**: No confirmed or highly likely populations of Species of Conservation Concern; No confirmed or highly likely populations of range-restricted species; < 50 % of receptor contains natural habitat with limited potential to support SCC	**Low:** Small (> 1 ha but < 5 ha) area. Almost no habitat connectivity but migrations still possible across some modified or degraded natural habitat. and a very busy used road network surrounds the area. Low rehabilitation potential. Several minor and major current negative ecological impacts	**High**. Habitat that can recover relatively quickly (~ 5-10 years) to restore > 70 % of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of remaining at a site even when a disturbance or impact is occurring, or species that have a high likelihood of returning to a site once the disturbance or impact has been removed	**Very Low.** Minimization mitigation - Development activities of medium to high impact acceptable and restoration activities may not be required

6.5. Site Sensitivity Verification of the Environmental Themes

The DFFE National Screening Tool Classified both Site 4 and Site 8 as “Very High” sensitivity for the Terrestrial Biodiversity theme and “Medium” sensitivity for the Plant Species theme, and “High” for the Animal Species Theme.

Site 4 and Site 8 have both been classified as Critical Biodiversity areas and Ecological Support Areas as stipulated in Section 6.4.2. The CBAs and ESAs are delineated as watercourses, it is not within the scope of the Terrestrial Compliance Statement to assess these features. These will be covered in the Aquatic Assessment Report.

With reference to the vegetation classification, although the sites constitute Critically Endangered Garden Route Shale Fynbos and Endangered Garden Route Granite Fynbos, both Site 4 and Site 8 fall within road reserves and is heavily invested with alien species and does not represent the respective vegetation types. These sites are still considered to be of some ecological importance as it is expected to contribute to the overall ecosystem functioning of the wider area since acts as a buffer for the terrestrial areas further away from the road, however it is unlikely to be home to many SCC as this is a high traffic area with lots of movement and noise from the road.

The overall proposed development footprint for both Site 4 and Site 8 are within road reserves are degraded and lack key vegetation characteristics of their respective vegetation types. Based on the aforementioned site verification, both Site 4 and Site 8 has been confirmed to be classified as “Low” for the Terrestrial Biodiversity Theme and “Low” for the Plant Species Theme, and “Low” for the Animal Species Theme.

7. IMPACT MANAGEMENT OUTCOMES OR ANY MONITORING REQUIREMENTS FOR INCLUSION IN THE EMPR

The majority of Sites 4 and 8 have already been subject to disturbance. The list below highlights the key integrated mitigation measures that are applicable to the development to suitably manage and mitigate ecological impacts, on both fauna and flora that are associated with the footprint. Provided that all management and mitigation measures are implemented, as stipulated in this report, the overall risk to floral and faunal diversity, habitat and Species of Conservation Concern can be adequately mitigated and minimised.

- Fires are strictly prohibited.
- Sufficient fire management equipment must be on the site.
- Smoking must be restricted to designated smoking areas.
- No dumping of sewage or hazardous waste into an adjacent ecosystem.
- All activities must remain within the designated footprint.
- All areas outside of the footprint must be considered no-go areas.
- Vehicles use must be restricted to designated roads.
- All staff must be trained to ensure that they are aware of any potential fauna may be on the footprint or surrounds.
- Vehicles should be restricted to a clearly demarcated area and drivers must be vigilant.
- Should any faunal species need to be translocated, a faunal or avifaunal (in the case of birds) specialist will need to be consulted.
- All personnel working on site must undergo environmental inductions to ensure they are aware of the environmental sensitivities of the site.
- No fauna may be caught, trapped, or harmed in any way.
- All recommendations in the Aquatic and Avifauna assessment will be adhered to
- No feeding of any fauna is allowed.
- A soil erosion method statement is needed for the site.
- Soil erosion monitoring needs to be done monthly

8. CONCLUSION

It is anticipated that the proposed removal and replacements of existing culverts and pipelines will have negligible impact on the biodiversity, fauna and botanical features identified by the Screening Tool as most of the footprint is disturbed and degraded and does not contribute significantly to the overall ecological functioning and biodiversity of the area. Most of the species identified on the respective sites were alien species and some of the indigenous species that were identified are non-threated and non-protected. Any fauna species that utilised the area are expected to be common to the wider and non-threatened and not protected. Should any faunal species have been impacted, individuals would have likely been able to find refuge in the surrounding open space.

Taking into consideration the expected sensitivity of the sites, sensitive features identified by the Screening Tool, the results from the expected baseline biodiversity and ecosystem of the site, which was verified by a site visit, it can be concluded that both Site 4 and Site 8 are of **low sensitivity** for the Plant Species, Animal Species and Terrestrial Biodiversity Theme. Provided that all the management outcomes are adhered to, this Compliance Statement is considered sufficient to meet the requirements for authorisation under the Plant Species, Animal Species and Terrestrial Biodiversity Theme Minimum requirements

9. CONDITIONS TO WHICH THIS STATEMENT IS SUBJECTED

- This signed copy of the compliance statement must be read as an appendix to the Basic Assessment Report (BAR)/ Technical Report for this project.
- This Compliance Statement is subject to the condition that the information supplied to the specialist regarding the project scope, design, layout, location or any other project specifications will not be significantly deviated from.
- All mitigation measures and requirements as specified in this compliance statement, the EMPr will adhere to during all project phases.

11. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

- All information provided by the Applicant, EAP and design team, to the environmental specialist, was correct and valid at the time that it was provided.
- The results of the botanical and faunal survey reflect a specific time of year. The botanical and faunal survey was conducted during early summer when some of the annual plant species may not be visually present and when certain animal species will either not be present or active.
- The initial study was undertaken as a desktop assessment and as such, the information gathered must be considered with caution, as inaccuracies and data capturing errors are often present within these databases; and,

- Global Positioning System (GPS) technology is inherently inaccurate and some inaccuracies due to the use of handheld GPS instrumentation may occur.

12. APPENDIX A

12.1. DETAILS OF THE SPECIALIST

Name:	**Megan**
Surname:	Smith
Highest qualification:	MSc Biological Sciences (UCT)
South African Association of Botanists	Ordinary member since 2020
Botanical Society of southern Africa	No. 80495
IAIAsa membership	No. 6459
EAPASA Registration	2020/2855 (Candidate EAP)
SACNASP Registration	130295 (Pr.Nat.Sci) – Ecological Science
Years' experience conducting botanical/ecological related works in the Cape Floristic Region	>6 years

12.1.1. Signed declaration of interest of the specialist

I Megan Smith, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

13/11/2023

Signature of the Specialist: Date:

12.1.2. Curriculum vitae of specialist: Megan Smith

RELEVANT QUALIFICATIONS AND TRAINING

- MSc Biological Sciences (UCT): Specialising in Plant Ecology
- BSc Hons Botany (NMU)
- BSc Environmental Sciences (NMU)
- Scientific writing training led by Dr Pippin Anderson (August 2019)
- Fynbos plant identification training (July 2019)
- CDM calibration training by Renew Technologies (August 2020)
- ISO 14001:2015 Lead auditor training by SACAS (March 2021)
- Hydropedology and wetland delineation course led by WETrust and digital Soils Africa (September 2021)

WORK EXPERIENCE

- March 2015 – September 2016: Research assistant determining sustainable cultivation practices of Honeybush (*Cyclopia* spp.) at NMU
- March 2019 – April 2020: Restoration Ecology and Conservation Planning intern at SANBI
- March 2019- December 2021: Lead several Fynbos Identification courses for amateur botanists
- April 2020 – current: Ecological specialist and legal assistant at Enviroworks
- November 2022 – Current: Lead of Ecological Specialist Services at Enviroworks

PUBLISHED ARTICLES:

- Smith, M., Rebelo, A.G. 2020. The Amazing Nature Race. Veld and Flora 106: 16-21.
- Smith, M., Rebelo, A., Rebelo, A.G. 2020. Passive restoration of Critically Endangered Cape Flats Sand Fynbos at lower Tokai Park section of Table Mountain National Park, Cape Town. ReStory
- Smith, M., Rebelo, A., Rebelo, A.G. 2020. Saving Critically Endangered Peninsula Granite Fynbos from extinction at Tokai Park, Cape Town. ReStory.
- Smith, M., Rebelo, A.G. 2020. iNaturalist: your portal into nature and becoming a citizen scientist. African Wildlife and Environment 75.

BASIC ASSESSMENT/ FULL SCOPING AND EIA PROCESS

- The proposed development of a thirty-five metre (35m) telecommunication base station and associated infrastructure on Portion 42 of Farm 428, Plettenberg Bay, Western Cape Province, SBA Towers South Africa.
- The proposed development of a twenty-five metre (25m) telecommunication base station and associated infrastructure on Lorraine Farm, the Remainder of Farm 790, Phillipi Western Cape Province, SBA Towers South Africa.
- The proposed development of a desalination or reverse osmosis plant, Tormin Mine, Western Cape Province, Mineral Sands Resources
- Proposed expansion of chicken houses from approximately 30 000 to 60 000 chickens, Bulhoek Farm, near Swartruggens, Northwest Province, Quantum Foods.
- Proposed expansion of the Samrand Data Centre, African Data Centres.
- Proposed development of the Lendlovu Lodge, Addo Elephant Park, Eastern Cape Province, SANParks (in progress).
- Proposed Development of One Hundred and Fifty Metres (150m) Fence And Associated Four Hundred Metres (400m) Access Road, Saldanha Port, Western Cape Province, Transnet Ports Authority.

WATER USE LICENSE APPLICATION

- Proposed expansion of chicken houses from approximately 30 000 to 60 000 chickens, Bulhoek Farm, near Swartruggens, Northwest Province, Quantum Foods (in progress).
- Proposed development of a community hall and associated parking lot on erven 4978 & erven 4979 on a portion of Portion 6 of the Remaining Extent (Re) of the Farm Selosesha Townlands No. 900, Thaba 'Nchu, Free State Province, Mission Point (in progress).

ENVIRONMENTAL MANAGEMENT PLANS

- The proposed development of a thirty-five metre (35m) telecommunication base station and associated infrastructure on Portion 42 of Farm 428, Plettenberg Bay, Western Cape Province, SBA Towers South Africa.
- The proposed development of a twenty-five metre (25m) telecommunication base station and associated infrastructure on Lorraine Farm, the Remainder of Farm 790, Phillipi Western Cape Province, SBA Towers South Africa.
- The proposed development of a desalination or reverse osmosis plant, Tormin Mine, Western Cape Province, Mineral Sands Resources
- Proposed expansion of chicken houses from approximately 30 000 to 60 000 chickens, Bulhoek Farm, near Swartruggens, Northwest Province, Quantum Foods.
- Proposed development of the Lendlovu Lodge, Addo Elephant Park, Eastern Cape Province, SANParks (in progress).
- Proposed Development of One Hundred and Fifty Metres (150m) Fence and Associated Four Hundred Metres (400m) Access Road, Saldanha Port, Western Cape Province, Transnet Ports Authority
- Proposed expansion of the Samrand Data Centre, African Data Centres.

BOTANICAL, FAUNAL, AND TERRESTRIAL IMPACT STUDIES

- Botanical Impact Assessment: Rezoning and the development of fifteen (15) resort units on Portion 12 of the Farm Riet Valley no. 452, Hessequa Local Municipality, Western Cape Province (Faunal Compliance Statement and Botanical Impact Assessment), Hessequa Municipality.
- Botanical survey and delineation of sensitive areas for the proposed development of a six-point three kilometre (6.3km) long pipeline along Macassar Road, Macassar, Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape.
- Botanical, Faunal and Terrestrial Biodiversity Compliance Statement; Proposed expansion of chicken houses from approximately 30 000 to 60 000 chickens, Bulhoek Farm, near Swartruggens, Northwest Province, Quantum Foods.
- Protected Tree and Animal Species Survey: Ramatlabama Poultry Farm, Mahikeng, Northwest Province, Supreme Poultry (in progress).
- Botanical, Terrestrial and Faunal Compliance Statement: Proposed development of a Battery Energy Storage Facility, Ashton, Western Cape Province.
- Botanical and Faunal Site Sensitivity: Proposed housing development on Erven 2244 & 2245; Private Landowner.
- Botanical, Faunal, and Terrestrial Impact Assessment: Proposed sand mining permit on Erf 656, Schaap Kraal, located in the Wynberg Magisterial District, Atlantic Sands.
- Plant Species, Terrestrial Biodiversity Theme and Faunal Species Site Verification: Proposed Photovoltaic Solar Energy Facilities (PEFS) And Grid Connections Near Welkom, Free State Province: Khauta Solar PV Cluster, WKN Windcurrent SA

- Plant Species, Terrestrial Biodiversity Theme and Faunal Species Impact Assessment (Including a Dune Impact Assessment): Proposed Development of One Hundred and Fifty Metres (150m) Fence and Associated Four Hundred Metres (400m) Access Road, Saldanha Port, Western Cape Province, Transnet Ports Authority.
- Plant Species, Terrestrial Biodiversity Theme and Faunal Species Scoping Report, Proposed Mixed-Use Development on Farm 820, Bot River, Western Cape Province, Wildekrans Estate
- Plant Species, Terrestrial Biodiversity Theme and Faunal Species Theme Compliance Statement: S24g Environmental Rectification for The Operation of Facilities For The Treatment Of Wastewater With A Daily Throughput Of 4200 Cubic Meters, Moedi Engineers.
- Plant Species, Terrestrial Biodiversity Theme and Faunal Species Theme Compliance Statement: Proposed Upgrades To The Geelbek Restaurant, West Coast National Park, Langebaan, SANParks.
- Plant Species, Animal Species and Terrestrial Biodiversity Theme Compliance Statement: Proposed Prospecting Right Application for Four Drill Holes, Vorstershoop, North West.
- Threatened Species Survey and Plant Removal Permit Application: Proposed Development of One Hundred and Fifty Metres (150m) Fence And Associated Four Hundred Metres (400m) Access Road, Saldanha Port, Western Cape Province, Transnet Ports Authority.

REHABILITATION IMPLEMENTATION PLANS

- Protocols for restoring Critically Endangered Cape Flats Sand Fynbos within lower Tokai Park, Cape Town, South African National Biodiversity Institute.
- Proposed development of a six-point three kilometre (6.3km) long pipeline along Macassar Road, Macassar, Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape.
- Rehabilitation implementation plan for Tormin Mine, Western Cape Province, Mineral Sands Resources
- Overseeing rehabilitation works and compilation of quarterly monitoring reports and annual updates of the rehabilitation plan: Tormin Mine, Western Cape Province, Mineral Sands Resources (in progress)
- Rehabilitation Method Statement for 132 kV and 33 kV transmission lines, transmission substation, cabling line trenches, and access roads on Roggeveld Wind Farm, Western Cape, Raubex Infra.
- Reseeding Method Statement: 132 kV and 33 kV tranmission lines, transmission substation, cabling line trenches, and access roads on Roggeveld Wind Farm, Western Cape, Raubex Infra.
- Reseeding training: Roggeveld Wind Farm, Western Cape, Raubex Infra.
- Rehabilitation Method Statement for Areas Disturbed by The Buffer Yard And Lay Down Area on Roggeveld Wind Farm, Raubex Infra.
- Overseeing rehabilitation works and compilation of quarterly monitoring reports: Roggeveld Wind Farm, Western Cape Province, Raubex Infra (in progress).
- Environmental Rehabilitation Plan for All the Areas Affected by The Continuous Spillage of Raw Sewage In and Around Upington, Dawid Kruiper Municipality, Northern Cape Province, Stabilis Environmental On Behalf Of Dawid Kruiper Municipality.
- Rehabilitation Plan Proposed Upgrade of The Bayside Stormwater Canal, Tableview, Cape Town, Western Cape Province, BVi Consulting Engineers
- Rehabilitation Plan and Aquatic Impact Assessment for All the Areas Affected by The Spillage of Raw Sewage, Caledon, Theewaterskloof Municipality (In progress).
- Rehabilitation Plan: Illegal Clearance of More Than 1 Hectare/300 m^2 Of Indigenous Vegetation at Farmall Agricultural Holding, Fourways, City of Johannesburg Metropolitan Municipality, Life Co.
- Rehabilitation Plan: Residential development on portion 205 of Farm 559, Hangklip, Western Cape Province, private landowner (in progress)

WETLAND DELINEATION AND SECTION 21 (C) &(I) RISK MATRIXES

- Wetland Delineation and Section 21 (c) and (i) risk matrix: Residential development on portion 205 of Farm 559, Hangklip, Western Cape Province, private landowner.
- Freshwater Impact Assessment: Proposed development of a community hall and associated parking lot on erven 4978 & erven 4979 on a portion of Portion 6 of the Remaining Extent (Re) of the Farm Selosesha Townlands No. 900, Thaba 'Nchu, Free State Province, Mission Point.
- Wetland Delineation and Section 21 (c) and (i) risk matrix: Proposed Residential Development on Remainder of Erf 4413, Betty's Bay Western Cape Province, private landowner.
- Freshwater Impact Assessment: Proposed Development of The R300/Bottlery Road Cabling Route, City Of Cape Town, Western Cape Province, Element Consulting on behalf of City of Cape Town.
- Watercourse verification and Section 21 (c) and (i) risk matrix: Proposed housing development on Erven 2244 & 2245; Private Landowner.
- Aquatic Biodiversity Theme Compliance Statement and Section (c) and (i) Risk Matrix: The Proposed Development of a Twenty-Five Metre (25m) Monopole Telecommunications Mast on Portion 1 Of The Farm No. 1248, Sonop Primary School, Western Cape, SBA Towers.
- Aquatic Biodiversity Theme Compliance Statements and Section 21 (c) and (i) risk matrix: S24g Environmental Rectification for The Operation Of Facilities For The Treatment Of Wastewater With A Daily Throughput Of 4200 Cubic Meters, Moedi Engineers (Itsoseng, Itekeng, Coligny, and Lichtenburg) (in progress).
- Aquatic Biodiversity Theme Compliance Statement: Proposed Prospecting Right Application for Four Drill Holes, Vorstershoop, North West.
- Aquatic Biodiversity Compliance Statement and Section 21 (c) and (i) risk matrix: Proposed Development of gravity outflow pipelines and oxidation ponds, Schweizer Reneke, North West Province.
- Aquatic Biodiversity Theme Impact Assessment and Section 21 (c) and (i) risk matrix: The Proposed Cultivation Of 19,8 Ha Pomegranate Farming on The Remainder Portion of The Farm Jagfontein No. 85 Near Calitzdorp, Western Cape Province
- Wetland Verification and Section 21 (c) and (i) Risk Matrix: Proposed Housing Development on Erf 1341, Greyton.

ENVIRONMENTAL CONTROL OFFICER (ECO) AND AUDITING

- Environmental Control Officer: The proposed development of a backup energy centre including diesel storage and generators, on Erf 142504, Diep River, Cape Town, Western Cape Province, African Data Centres.
- The proposed construction of new and rehabilitation of existing non-motorised transport facilities in the Cape Town CBD, Western Cape Province, BVi Consulting Engineers Western Cape.
- Environmental Compliance Audit for Franki Africa Stock Yard, Durban, KwaZulu Natal Province, Franki Africa.
- The proposed development of a twenty-five metre (25m) telecommunication base station and associated infrastructure on Lorraine Farm, the Remainder of Farm 790, Phillipi Western Cape Province, SBA Towers South Africa
- The proposed maintenance of the Blue Stone Quarry Wall, Robben Island, Robben Island Museum.

MAINTENANCE MANAGEMENT PLANS

- The proposed maintenance of the Blue Stone Quarry Wall, Robben Island, Robben Island Museum.
- Proposed erosion control measures for road OP06914 on Swartvlei Lake, Sedgefield, Garden Route District Municipality.

ENVIRONMENTAL SCREENING

- Proposed upgrading of the Durbanville Public Transport Interchange, Western Cape, BVi Consulting Engineers Western Cape.
- Proposed the upgrade on national road R40 section from Hazyview (km 0.0) to Maviljan (km 32.1), BVi Consulting Engineers Western Cape.
- Proposed development of a data centre in Tatu City, Kenya, Africa Data Centre.
- Proposed construction of a back-up data energy centre on Erf 33, Atlantic Hills Business Park, Durbanville, Africa Data Centre
- Proposed development of a data centre in Grand Bassam, Côte D'ivoire, Africa Data Centre
- Proposed Development of a Data Centre In Accra, Ghana, Africa Data Centre
- Proposed Development of a Data Centre In Casablanca, Morocco, Africa Data Centre

ALIEN INVASIVE SPECIES MANAGEMENT PLANS

- Invasive species monitoring, control and eradication plan, Garden Route District Municipality, Western Cape Province, Garden Route District Municipality.
- Alien Invasive Species Management Plan and consultation services for Tormin Mine, Western Cape Province, Mineral Sands Resources.
- Alien Invasion Management Plan for Ramatlabama Poultry Farm, Mahikeng, Northwest Province, Supreme Poultry.

CLEAN DEVELOPMENT MECHANISM

- Calibration and advisory services for the CDM Methane Burning Plant at the Coastal Park and Bellville South Landfill Sites, Promethium Carbon (in progress)

12.2. DETAILS OF THE SPECIALIST

Name:	**Edmari**
Surname:	Lewis
Highest qualification:	B.Sc. Honours Environmental Science with Geography and Environmental Management (NWU)
IAIAsa membership	No. 7464
EAPASA Registration	2021/3452 (Candidate EAP)
SACNASP Registration	147171 (Cand.Nat.Sci)
Years' experience conducting botanical/ecological related works in the Cape Floristic Region	<1 years

12.2.1. Signed declaration of interest of the specialist

I **Edmari Lewis**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

13/11/2023

Signature of the Specialist: Date:

12.2.2. Curriculum vitae of specialist: Edmari Lewis

RELEVANT QUALIFICATIONS

Baccalaureus Scientiae (B.Sc.) in Environmental and Biological Sciences: North-West University (2018)

Baccalaureus Scientiae (B.Sc.) Honours in Geography and Environmental Management: North-West University (2019)

WORK EXPERIENCE

June 2019 - July 2022: Environmental Consultant at Core Environmental Services (Mbombela)

August 2022 – current: Environmental Consultant at Enviroworks (George)

ENVIRONMENTAL MANAGEMENT PLANS

- Manufacturing of precast concrete hollow core slabs, Mbombela, Mpumalanga Province, NORSE Projects (Pty) Ltd
- The proposed citrus plantation on portion 5 of the farm Duma 201-JU, Mbombela, Mpumalanga Province, AEONIK FARMS SEQUOIA (Pty) Ltd
- The expansion and operation of poultry facilities, Mbombela, Mpumalanga Province, Matumaini Farming
- The proposed Middelburg Dam Precinct Plan, Middelburg, Mpumalanga Province,
- Proposed Sebaka Cellular Mast, Mpumalanga Province, Thabure Towerco
- Proposed Rooibektiptol Cellular Mast, Mpumalanga Province, Thabure Towerco
- Proposed Doornkop Cellular Mast, Mpumalanga Province, Thabure Towerco
- The proposed increase in slaughtering capacity for the Barberton Abattoir, Barberton, Mpumalanga Province,
- The proposed clearance of 19 hectares of indigenous vegetation for agricultural purposes on portion 74 of the farm Abek 6-JU, Hazyview, Mpumalanga Province, Shekinah Glory Boerdery
- Proposed clearance of 18.5 hectares of indigenous vegetation for agricultural purposes on portion 1 and 5 of the farm Mooifontein 292-JU, Schoemanskloof, Mpumalanga Province, Poplar Creek
- Proposed clearance of 13 hectares of indigenous vegetation on portion 15 of the farm Sandford 291-JU, Hazyview, Mpumalanga Province, Sandford Agri (Pty) Ltd.
- Desilting of two dams on portion 1 of the farm Hull 92-KU, Klaserie Private Nature Reserve, Hoedspruit, Limpopo Province, Gladys Group
- Section 24G application for the unlawful clearing of indigenous vegetation, Mbombela, Mpumalanga Province, Wolmac Boerdery
- Section 24G application for the unlawful clearing of indigenous vegetation, Hazyview, Mpumalanga Province, Sandford Agri (Pty) Ltd

- Section 24G application for the unlawful clearing of indigenous vegetation, Mbombela, Mpumalanga Province, Ibhubesi Macs (Pty) Ltd

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT

- Scoping and Environmental Impact Assessment for the proposed Malalane Bypass Ring Road, Malalane, Mpumalanga Province, SANRAL
- Scoping and Environmental Impact Assessment for the clearance of 2000 hectares of indigenous vegetation for agricultural purposes, Nkomazi Game Reserve

BASIC ASSESSMENT EXPERIENCE

- The proposed citrus plantation on portion 5 of the farm Duma 201-JU, Mbombela, Mpumalanga Province, AEONIK FARMS SEQUOIA (Pty) Ltd
- The expansion and operation of poultry facilities, Mbombela, Mpumalanga Province, Matumaini Farming
- The proposed Middelburg Dam Precinct Plan, Middelburg, Mpumalanga Province,
- Proposed Sebaka Cellular Mast, Mpumalanga Province, Thabure Towerco
- Proposed Rooibektiptol Cellular Mast, Mpumalanga Province, Thabure Towerco
- Proposed Doornkop Cellular Mast, Mpumalanga Province, Thabure Towerco
- The proposed increase in slaughtering capacity for the Barberton Abattoir, Barberton, Mpumalanga Province,
- The proposed clearance of 19 hectares of indigenous vegetation for agricultural purposes on portion 74 of the farm Abek 6-JU, Hazyview, Mpumalanga Province, Shekinah Glory Boerdery
- Proposed clearance of 18.5 hectares of indigenous vegetation for agricultural purposes on portion 1 and 5 of the farm Mooifontein 292-JU, Schoemanskloof, Mpumalanga Province, Poplar Creek
- Proposed clearance of 13 hectares of indigenous vegetation on portion 15 of the farm Sandford 291-JU, Hazyview, Mpumalanga Province, Sandford Agri (Pty) Ltd.
- Desilting of two dams on portion 1 of the farm Hull 92-KU, Klaserie Private Nature Reserve, Hoedspruit, Limpopo Province, Gladys Group

WATER USE APPLICATION

- General Authorisation for the abstraction of surface and ground water for the purpose of bottling, Malalane, Mpumalanga Province, Vorn Water (Pty) Ltd.
- General Authorisation for the Crossings Channel Modification, Mbombela, Mpumalanga Province

- General Authorisation for the abstraction of groundwater for domestic use and CCA wood treatment
- General Authorisation for the proposed desilting of two dams located within Klaserie Private Nature Reserve, Hoedspruit, Limpopo Province

SECTION 24G RECTIFICATION APPLICATION

- Section 24G application for the unlawful clearing of indigenous vegetation, Mbombela, Mpumalanga Province, Wolmac Boerdery
- Section 24G application for the unlawful clearing of indigenous vegetation, Hazyview, Mpumalanga Province, Sandford Agri (Pty) Ltd
- Section 24G application for the unlawful clearing of indigenous vegetation, Mbombela, Mpumalanga Province, Ibhubesi Macs (Pty) Ltd

13. APPENDIX B

Plant species recorded on reference sites and immediate surrounds are listed in Table 7.

Table 7 Plant species recorded on the reference sites

Species name	Common name	Family	Red list status	Protected Status
Berzelia intermedia	Kolkol	BRUNIACEAE	Least Concern	Not Protected
Megathyrsus maximus	Guinea Grass	POACEAE	Least Concern	Not Protected
Polypogon monspeliensis	Rabbitfoot Grass	POACEAE	Not Evaluated	Not Protected
Gomphocarpus fruticosus	Narrow-leaf Cotton Bush	APOCYNACEAE	Least Concern	Not Protected
Osteospermum moniliferum	Bietou	ASTERACEAE	Least Concern	Not Protected
Psoralea monophylla	Fountainbush	FABACEAE	Least Concern	Not Protected
Eucalyptus globulus	Bloekom	MYRTACEAE	Least Concern	Category 1b Invasive Species
Psoralea pinnata	True Fountainbushes	FABACEAE	Least Concern	Not Protected
Senecio ilicifolius	Kowanna Ragwort	ASTERACEAE	Least Concern	Not Protected
Helichrysum cymosum	Impepho	ASTERACEAE	Least Concern	Not Protected
Nidorella ivifolia	Ovenbush	ASTERACEAE	Least Concern	Not Protected
Pteridium aquilinum	Common Bracken	DENNSTAEDTIACEAE	Not Evaluated	Not Protected
Acacia mearnsii	Black Wattle	FABACEAE	Not Evaluated	Not Protected
Acacia saligna	Port Jackson Wattle	FABACEAE	Least Concern	Not Protected
Hibiscus trionum	Flower-of-An-Hour	MALVACEAE	Not Evaluated	Not Protected
Wachendorfia thyrsiflora	Rocket Butterflylily	HAEMODORACEAE	Least Concern	Not Protected
Vachellia karroo	Sweetthorn	FABACEAE	Least Concern	Not Protected
Nephrolepis cordifolia	Fishbone Fern	NEPHROLEPIDACEAE	Not Evaluated	Not Protected
Cliffortia odorata	No-odour Caperose	ROSACEAE	Least Concern	Not Protected
Arctotheca prostrata	Prostrate Capeweed	ASTERACEAE	Least Concern	Not Protected
Pinus radiata	Monterey Pine	PINACEAE	Not Evaluated	Not Protected
Bobartia aphylla	Garden Route Rushiris	IRIDACEAE	Least Concern	Not Protected
Casuarina cunninghamiana	Beefwoods	CASUARINACEAE	Not Evaluated	Category 2 Invasive Species
Arctotheca prostrata	Prostrate Capeweed	ASTERACEAE	Least Concern	Not Protected
Pteridium aquilinum	Common Bracken	DENNSTAEDTIACEAE	Least Concern	Not Protected
Searsia lucida	Blinktaaibos	ANACARDIACEAE	Least Concern	Not Protected
Cymbopogon marginatus	Lemon Grass	POACEAE	Least Concern	Not Protected
Eragrostis capensis	Cape Love Grass	POACEAE	Least Concern	Not Protected

14. APPENDIX C

Potential animal species that can be found on the reference site and immediate surrounds are listed in Table 8

Table 8 Potential animal species that can be found on the reference site and immediate surrounds

Species name	Common name	Family	IUCN threat status	Protected Status
Amphibians				
Hyperolius marmoratus	Painted Reed Frog	HYPEROLIIDAE	Least concern	Not Protected
Sclerophrys capensis	*Raucous Toad*	BUFONIDAE	Least concern	Not Protected
Hyperolius horstockii	*Horstock's Reed Frog*	HYPEROLIIDAE	Least concern	Not Protected
Afrixalus knysnae	*Knysna Leaf-folding Frog*	HYPEROLIIDAE	Endangered	Not-Protected
Reptiles				
Dispholidus typus	Boomslang	COLUBRIDAE	Least concern	Not Protected
Agama atra	Southern Rock Agama	AGAMIDAE	Least concern	Not Protected
Lygodactylus capensis	Common Dwarf Gecko	GEKKONIDAE	Least concern	Not Protected
Afrogecko porphyreus	Marbled Leaf-toed Gecko	GEKKONIDAE	Least concern	Not Protected
Boaedon capensis	Cape House Snake	LAMPROPHIIDAE	Least concern	Not Protected
Lycodonomorphus rufulus	Common Brown Water Snake	LAMPROPHIIDAE	Least concern	Not Protected
Trachylepis capensis	Cape Skink	SCINCIDAE	Least Concern	Not protected
Philothamnus occidentalis	Western Natal Green Snake	COLUBRIDAE	Least Concern	Not protected
Mammals				
Equus quagga	Plains Zebra	EQUIDAE	Least concern	Not Protected
Papio ursinus	Chacma Baboon	CERCOPITHECIDAE	Least Concern	Not protected
Tragelaphus sylvaticus	Southern Bushbuck	BOVIDAE	Least Concern	Not protected
Elephantulus myurus	Eastern Rock Sengi	MACROSCLEDIDEA	Least Concern	Not Protected
Insects				
Apis mellifera	Western Honey Bee	APIDAE	Data Deficient	N/A
Phymateus leprosus	Leprous Milkweed Locust	PYRGOMORPHIDAE	Least concern	Not Protected
Cyrtacanthacris aeruginosa	Green Tree Locust	ACRIDIDAE	Least concern	Not Protected
Xylocopa flavorufa	Giant Carpenter Bee	APIDAE	Data Deficient	N/A
Vanessa cardui	Painted Lady	NYMPHALIDAE	Least concern	Not Protected
Cutworm Moths and Allies sp.	Cutworm Moths and Allies	NOCTUIDAE	Least concern	Not Protected
True Crickets and Allies sp.	True Crickets and Allies	GRYLLIDAE	Least concern	Not Protected
Polistes badius	N/A	POLISTINAE	Least concern	Not Protected
Eicochrysops messapus	Cupreous Blue	POLYOMMATINAE	Least concern	Not Protected
Coranopsis vittata	N/A	REDUVIIDAE	Least concern	Not Protected
Camponotus postoculatus	Bristleback Sugar Ant	FORMICIDAE	Least concern	Not Protected
Lycus palliatus	N/A	LYCIDAE	Least concern	Not Protected
Leucocelis amethystina	Amethyst Small Fruit Chafer	SCARABAEIDAE	Least concern	Not Protected
Dira clytus	Cape Autumn Widow	NYMPHALIDAE	Least concern	Not Protected

Species name	Common name	Family	IUCN threat status	Protected Status
Dasineura rubiformis	Black Wattle Gall Midge	CECIDOMYIIDAE	Least concern	Not Protected
Anoplolepis steingroeveri	Small Pugnacious Ant	FORMICIDAE	Least concern	Not Protected
Genus Eyprepocnemis sp.	N/A	ACRIDIDAE	Least concern	Not Protected
Subfamily Tiphiinae sp.	N/A	TIPHIIDAE	Least concern	Not Protected
Infraorder Fulgoromorpha	Planthoppers	N/A	Least concern	Not Protected
Polyspilota aeruginosa	Flag Mantis	MANTIDAE	Least concern	Not Protected
Genus Lepisiota sp.	N/A	FORMICIDAE	Least concern	Not Protected
Zoosubsection Calyptratae	Calyptrate Flies	N/A	Least concern	Not Protected
Euborellia annulipes	Ring-legged Earwig	ANISOLABIDOIDAE	Least concern	Not Protected
Family Termitidae sp.	Higher Termites	TERMITIDAE	Least concern	Not Protected
Trithemis stictica	Jaunty Dropwing	LIBELLULIDAE	Least concern	Not Protected
Tetrathemis polleni	Black-splashed Elf	LIBELLULIDAE	Least Concern	Not protected
Crocothemis erythraea	Broad Scarlet	LIBELLULIDAE	Least Concern	Not protected
Trithemis arteriosa	Red-veined Dropwing	LIBELLULIDAE	Least concern	Not Protected
Orthetrum julia	Julia Skimmer	LIBELLULIDAE	Least concern	Not Protected
Zonocerus elegans	Elegant Grasshopper	PYRGOMORPHIDAE	Least Concern	Not protected
Danaus chrysippus	Plain Tiger Butterfly	NYMPHALIDAE	Least concern	Not Protected
Family Pompilidae sp.	Spider Wasps	POMPILIDAE	Least Concern	Not protected
Family Culicidae sp.	Mosquitoes	CULICIDAE	Least Concern	Not protected
Subfamily Cassidinae sp.	Tortoise and Hispine Beetles	CHRYSOMELIDAE	Least Concern	Not protected
Hypolimnas misippus	Danaid Eggfly	NYMPHALIDAE	Least concern	Not Protected
Icerya purchasi	Cottony Cushion Scale	MONOPHLEBIDAE	Least Concern	Not protected
Pontia helice	Southern Meadow White	PIERIDAE	Least Concern	Not protected
Papilio dardanus	Mocker Swallowtail	PAPILIONIDAE	Least Concern	Not protected
Chlorolestes tessellatus	Forest Malachite	SYNLESTIDAE	Least Concern	Not protected
Cheilomenes lunata	Lunate Lady Beetle	COCCINELLIDAE	Least Concern	Not protected
Cassionympha cassius	Rainforest Brown	NYMPHALIDAE	Least Concern	Not protected
Zizeeria knysna	Sooty Blue	LYCAENIDAE	Least Concern	Not protected
Metisella metis	Goldspotted Sylph	HESPERIIDAE	Least Concern	Not protected
Arachnids				
Badumna longinqua	Grey House Spider	DESIDAE	Least Concern	Not protected
Trichonephila fenestrata	Hairy Golden Orb-weaving Spider	NEPHILIDAE	Least Concern	Not protected
Palystes castaneus	Cape Rainspider	SPARASSOIDAE	Least Concern	Not protected
Palystes superciliosus	Common Rain Spider	SPARASSOIDAE	Least Concern	Not protected
Euprosthenopsis pulchella	Dark Sheetwebber	PISAURIDAE	Least Concern	Not protected
Opisthacanthus capensis	Cape Docile Scorpion	HORMURIDAE	Least Concern	Not protected
Mollusks				
Cornu aspersum	Garden Snail	HELICIDAE	Least Concern	Not protected
Laevicaulis natalensis	Brown Leatherback Slug	VERONICELLIDAE	Least Concern	Not protected
Biomphalaria pfeifferi	N/A	PLANORBIDAE	Least Concern	Not protected
Assiminea hidalgoi	N/A	ASSIMINEIDAE	Data Deficient	Not protected