TERRESTRIAL BIODIVERSITY SITE SENSITIVITY VERIFICATION REPORT FOR THE PROPOSED BATTERY ENERGY STORAGE SYSTEM PROJECT

Biodiversity, Plant & Animal Themes

Booysendal South, located in Thaba Chweu Local Municipality, Ehlanzeni District Municipality, Mpumalanga Province, South Africa

16 March 2026

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Report Name	**TERRESTRIAL BIODIVERSITY SITE SENSITIVITY VERIFICATION REPORT FOR THE PROPOSED BATTERY ENERGY STORAGE SYSTEM PROJECT**	
Specialist Theme	Terrestrial Biodiversity, Plant and Animal Theme	
Project Reference	Booysendal South BESS	
Report Version	16 March 2026	
Environmental Assessment Practitioner		
Fieldwork and Responsible Specialist	Andine de Villiers (Pr. Sci. Nat. 164894)	
Report Reviewer	Dr Candyce Areington (Pr. Sci. Nat. 167868)	
Declaration	The Biodiversity Company and its associates operate as independent consultants under the auspices of the South African Council for Natural Scientific Professions. We declare that we have no affiliation with or vested financial interests in the proponent, other than for work performed under the Environmental Impact Assessment Regulations, Amended. We have no conflicting interests in the undertaking of this activity and have no interests in secondary developments resulting from the authorisation of this project. We have no vested interest in the project, other than to provide a professional service within the constraints of the project (timing, time and budget) based on the principles of science.	

Executive Summary

This Terrestrial Biodiversity Site Sensitivity Verification Report has been prepared for the proposed Booysendal South (BS) Battery Energy Storage System (BESS) Project, located within the existing Booysendal Platinum Mine located in Thaba Chweu Local Municipality, Ehlanzeni District Municipality, Mpumalanaga Province. The proposed Project involves the construction, operation, and decommissioning of a containerised, utility-scale battery energy storage facility (up to 25 megawatts / 50 megawatt-hours) to enhance energy security and operational resilience at the Mine, while reducing reliance on the national electricity grid.

Assessment Overview

The Biodiversity Company was appointed to conduct a Site Sensitivity Verification (SSV) in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the *"Adoption of the Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity and the Exclusion of Identified Activities from the Requirement to obtain an Environmental Authorisation*" (Government Notice No. 4557, 27 March 2024) (BESS Exclusion Norm). The SSV verifies the environmental sensitivity ratings generated by the Department of Forestry, Fisheries and the Environment National Web-based Environmental Screening Tool (Screening Tool) and assesses the site's suitability for potential exclusion from environmental authorisation requirements. The assessment included a desktop review and a wet season field survey (26–30 January 2026) to evaluate flora, fauna, habitats, and the presence of Species of Conservation Concern (SCC) within the proposed Project area.

Key Findings

- The Screening Tool rated the site as 'Very High' for Terrestrial Biodiversity, 'Medium' for Animal Species, and 'Medium' for Plant Species;
- Field surveys revealed that the proposed Project area is highly disturbed, comprising Modified, Alien Stand, and Disturbed Grassland habitats, all affected by ongoing mining activities, fragmentation, and alien invasive species;
- No flora or fauna SCC were observed or are expected within the development footprint, due to the degraded and fragmented nature of the site and the absence of suitable habitat;
- The proposed Project layout was specifically designed to avoid all High Site Ecological Importance (SEI) areas, including the Rocky Grassland (Ridge) and its prescribed buffer. All infrastructure is located within areas of Low or Very Low SEI; and
- The cumulative impact of the proposed Project on terrestrial biodiversity is anticipated to be 'Low', given the already disturbed state and limited ecological value of the area.

Conclusions and Recommendations

- The Project area is largely degraded and modified, with minimal remaining natural habitat and low potential to support SCC or intact ecological processes;
- The specialist assessment disputes the Screening Tool's 'Very High' and 'High' sensitivity ratings, finding that actual site conditions warrant lower sensitivity classifications;
- No irreplaceable loss of terrestrial biodiversity is anticipated, and the proposed Project is considered ecologically viable, provided standard mitigation and restoration measures are implemented;

- It is recommended that development proceed with avoidance of High SEI areas, and that ongoing management of alien invasive species and rehabilitation of disturbed areas be prioritised; and

- The findings support the site's suitability for registration under the BESS Exclusion Norm, subject to compliance with prescribed norms and mitigation requirements.

The specialist confirms that the proposed BS BESS Project meets the requirements of the BESS Exclusion Norm, provided that the current layout is maintained. This ensures that the development footprint only overlaps with Very Low, Low and Medium SEI areas. The High SEI area, with the potential to host SCC, is avoided together with the recommended 10 metre avoidance buffer. Based on the assessment's findings of low ecological sensitivity, avoidance of High SEI areas, and no anticipated irreplaceable biodiversity loss. The site is therefore suitable for registration under the BESS Exclusion Norm, provided that all recommended mitigation and management measures are implemented. The Environmental Assessment Practitioner should ensure that these specialist recommendations are incorporated into the overall Environmental Management Programme.

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Table of Abbreviations and Units of Measure

Abbreviation / Unit	Full Meaning / Description
%	Percent
"	Second (used in GPS coordinates)
'	Minute (used in GPS coordinates)
°	Degree (used in GPS coordinates)
°C	Degree Celsius (temperature, implied in climate)
BESS	Battery Energy Storage System
BI	Biodiversity Importance
Cand. Nat. Sci.	Candidate Natural Scientist (SACNASP registration)
C1–C8	Climatic Capability Classes (Smith, 2006)
CI	Conservation Importance
CR	Critically Endangered (IUCN Red List status)
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EI	Ecological Importance
EMPr	Environmental Management Programme
EN	Endangered (IUCN Red List status)
EOO	Extent of Occurrence
FEPA	Freshwater Ecosystem Priority Area
FI	Functional Integrity
GIS	Geographic Information System
GN	Government Notice
GPS	Global Positioning System
IUCN	International Union for Conservation of Nature
ha	Hectare (unit of area)
km	Kilometre (unit of distance)
L1–L8	Land Potential Levels (Guy and Smith, 1998)
LC	Least Concern (IUCN Red List status)
LC1–LC8	Land Capability Classes
LFP	Lithium Iron Phosphate (battery chemistry)
m	Metre (unit of length)
m²	Square metre (unit of area)
MAP	Mean Annual Precipitation
MAPE	Mean Annual Potential Evaporation
mm	Millimetre (unit of length)
MW	Megawatt (unit of power)

MWh	Megawatt-hour (unit of energy)
NEMA	National Environmental Management Act
NT	Near Threatened (IUCN Red List status)
PAOI	Project area of Influence
pH	Potential of Hydrogen (soil acidity/alkalinity, implied)
Pr. Sci. Nat.	Professional Natural Scientist (SACNASP registration)
RR	Receptor Resilience
SSV	Site Sensitivity Verification
SSVR	Site Sensitivity Verification Report
SACAD	South Africa Conservation Areas Database
SACNASP	South African Council for Natural Scientific Professions
SABAP2	Southern African Bird Atlas Project 2
SAPAD	South Africa Protected Areas Database
SCC	Species of Conservation Concern
SEI	Site Ecological Importance
t	Tonne (metric ton, implied in soil/land context)
TBC	The Biodiversity Company
Vlei	Wetland (Afrikaans term, used in land potential tables)
VU	Vulnerable (IUCN Red List status)

1 Introduction

1.1 Background

Booysendal Platinum Proprietary Limited, a subsidiary of Northam Platinum Limited (Northam), proposes the development of the Booysendal South (BS) Battery Energy Storage System (BESS) Project at the existing BS mining operation in the Mpumalanga Province of South Africa. The proposed Project aligns with Northam's objectives to enhance energy resilience and improve the reliability of electricity supply at its mining operations.

The proposed BS BESS Project involves the construction, operation, and eventual decommissioning of a utility-scale, behind-the-metre battery energy storage facility with an installed capacity of up to 25 megawatts (MW) and an energy storage capacity of up to 50 megawatt-hours (MWh). The system will store electrical energy during periods of lower demand and release stored energy during peak demand periods or times of grid instability. The proposed Project will be developed entirely within the existing BS mining footprint and will connect to established electrical infrastructure associated with the Mine.

The Biodiversity Company was appointed to conduct a Site Sensitivity Verification (SSV) for the proposed BS BESS Project. The SSV was undertaken to independently verify the environmental sensitivity ratings generated by the National Web-based Environmental Screening Tool (Screening Tool) and to determine whether the site is suitable for potential registration under "*Adoption of the Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity and the Exclusion of Identified Activities from the Requirement to obtain an Environmental Authorisation" (Government Notice (GN) No. 4557, 27 March 2024) (BESS Exclusion Norm)*.

The assessment was conducted within the context of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and the BESS Exclusion Norm, which allows for the exclusion of qualifying battery energy storage developments from the requirement to obtain an environmental authorisation (EA), provided that all prescribed conditions are met.

The field survey was conducted from the 26th to the 30th of January 2026. The boundaries of the provided assessment area, which is inclusive of the proposed development footprint, were assessed and are referred to as the proposed Project area for reporting purposes. A map illustrating the regional locality of the proposed Project area is depicted in Figure 1-1.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations (EIA), 2014 (Government Notice Regulation (GNR) 982, 4 December 2014 as amended) of the NEMA. The approach has taken cognisance of the recently published GN 320 (20 March 2020) and GN 1150 (30 October 2020) in terms of NEMA, dated 20 March and 30 October 2020: *"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"*.

The Screening Tool has characterised:

- Terrestrial Biodiversity Theme Sensitivity is 'Very High' for the proposed Project area;
- Animal Species Theme Sensitivity is 'Medium' for the proposed Project area; and
- Plant Species Theme sensitivity is 'Medium' for the proposed Project area.

This report, after taking into consideration the findings and recommendations provided by the specialist stipulated herein, should inform and guide the Environmental Assessment Practitioner (EAP) and

regulatory authorities, enabling informed decision making, as to the ecological viability of the proposed Project.

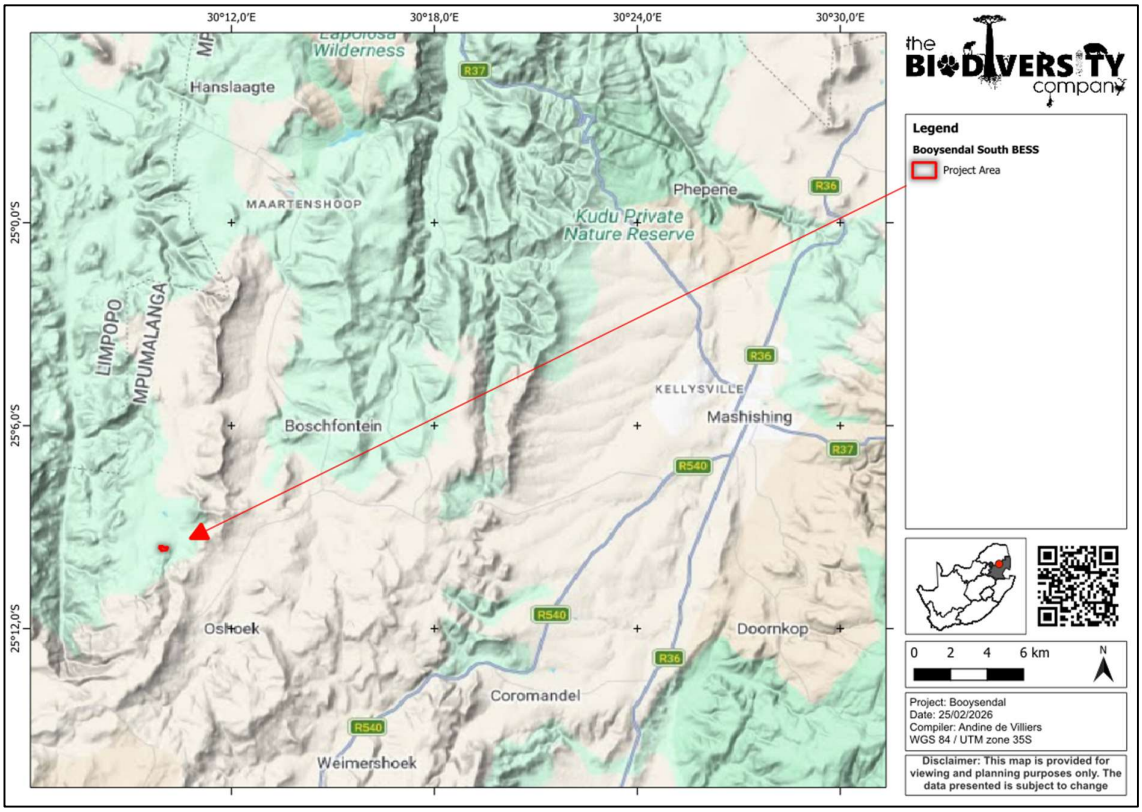


Figure 1-1 Map illustrating the regional locality of the proposed Project area

1.2 Legal Framework

1.2.1 National Environmental Management Act, 1998

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment (EIA) Regulations 2014 (Government Notice Regulation (GNR) 982, of 4 December 2014, as amended) of the NEMA. The assessment also considered the Department of Forestry, Fisheries and the Environment (DFFE) Environmental Screening Tool (2025) (Screening Tool).

The approach further took cognisance of GN 320 of 20 March 2020, published in terms of NEMA, titled *"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."* (Reporting Criteria) These procedures outline the required assessment protocols and minimum reporting criteria for environmental themes identified by the Screening Tool.

1.2.2 Battery Energy Storage Exclusion Norm, 2024

This report has been compiled with consideration of the BESS Exclusion Norm, which provides for the exclusion of identified activities associated with the development and expansion of battery storage facilities in areas of low or medium environmental sensitivity from the requirement to obtain an EA.

The Exclusion Norm establishes the rules under which activities associated with the development and expansion of battery storage facilities, identified in terms of Section 24(2)(a) and (b) of the NEMA and

listed in EIA Regulations Listing Notices 1, 2, or 3 of 2014, promulgated under Section 24(5) of NEMA, may be excluded from the requirement to obtain EA prior to commencement, while still meeting the objectives and principles of NEMA.

1.2.3 Department of Forestry, Fisheries and the Environment Screening Tool

The Screening Tool, developed by the DFFE, is prescribed in terms of the EIA Regulations, 2014, and is used to identify environmental sensitivities associated with a proposed Project area. The Screening Tool provides a spatially based sensitivity rating (Very High, High, Medium, or Low) based on the presence or absence of environmental features such as watercourses and other biodiversity attributes.

These sensitivity ratings inform the scope of specialist assessments required and the applicable regulatory pathway, including the potential applicability of exclusion norms. For projects seeking to rely on the BESS Exclusion Norm, the Screening Tool outputs form the baseline sensitivity classification, which must be independently verified through a SSV undertaken by suitably qualified specialists.

1.2.4 Government Notice 320 and 1150: Assessment and Reporting Requirements

The approach adopted for this assessment has taken cognisance of GN 320, published in terms of NEMA, titled *"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."*

In addition, this assessment has been undertaken with due regard to GN 1150 which prescribes the *"Procedures for the Assessment and Minimum Criteria for Site Sensitivity Verification for the purposes of exclusion*" in terms of Section 24(2)(d) of NEMA. [Note this only applied to the terrestrial animal and plant species themes.]

Although this assessment is undertaken in support of a potential exclusion process, the principles, methodologies, and reporting standards set out in GN 320 and GN 1150 have been applied to ensure that the assessment is robust, transparent, and defensible. This includes adherence to the prescribed requirements relating to specialist independence, methodology, impact identification, sensitivity assessment, and the provision of clear conclusions and recommendations.

1.3 Scope of Work

The scope of work for this SSV was undertaken to support the potential registration of the proposed Project under the BESS Exclusion Norm and to verify the environmental sensitivity ratings generated by the Screening Tool.

The SSV was conducted in accordance with the requirements of GN 320 and GN 1150 and was designed to independently confirm the suitability of the site for exclusion by verifying the Screening Tool outputs for the relevant environmental theme.

The scope of work included, but was not limited to, the following tasks:

- A desktop review of available spatial, environmental, and regulatory information relevant to the specialist discipline, including Screening Tool outputs, spatial datasets, previous studies (where applicable), and relevant legislative and guideline documents.
- A site visit, where required, to verify on-site conditions, current land use, and environmental features relevant to the specialist assessment.
- Assessment and verification of the environmental sensitivity of the site in relation to the relevant environmental theme, as identified by the Screening Tool.

- Identification of any environmental constraints, sensitivities, or features of importance that may influence the suitability of the site for development or the applicability of the exclusion norm.

- Preparation of maps and spatial outputs illustrating the development footprint, verified sensitivity ratings, and relevant environmental features.

- Provision of clear motivation, justification, and supporting evidence where the verified sensitivity differs from that identified by the Screening Tool.

The outcome of this SSV is to:

- Confirm or dispute the environmental sensitivity ratings identified by the Screening Tool; and

- Motivate and substantiate the verified sensitivity ratings, including any deviations from the Screening Tool outputs, in accordance with the requirements of GN 320 and GN 1150.

1.4 Project Description

The following information was provided by GCS Environment South Africa (Pty) Ltd and pertains to the proposed BS South BESS Project:

Northam proposes the development of the BS BESS Project at the existing Booysendal Platinum Mine (the Mine) in the Mpumalanga Province of South Africa. The proposed Project entails the construction, operation and eventual decommissioning of a utility-scale, behind-the-metre BESS with an installed capacity of up to 25 MW and an energy storage capacity of 50 MWh. The BS BESS Project will store electrical energy during periods of lower electricity demand and release stored energy during periods of peak demand or grid instability.

The proposed BS BESS Project is intended to enhance electricity supply reliability and operational resilience at the BS Mine, while reducing reliance on, and pressure upon, the national electricity grid. The development will be located entirely within the existing mining footprint and will connect directly to established electrical infrastructure associated with the BS Mine.

1.4.1 Project Location and Area Context

The proposed BS BESS Project is located on Portion 8 of Farm Sterkfontein No. 53, near Mashishing, within the Thaba Chweu Local Municipality, which forms part of the Ehlanzeni District Municipality in the Mpumalanga Province, South Africa. The proposed Project area lies approximately 30 kilometres (km) west of Mashishing and is accessed via the R577 regional road, followed by established Mine access roads.

1.4.2 Overview of the Facility

The proposed BS BESS Project comprises the development of a containerised battery energy storage facility located within the existing operational footprint of the Mine. The facility will occupy a total fenced development area of approximately 2900 square metres (m²) and has been designed to integrate fully with the Mine's established electrical and operational infrastructure.

The proposed BS BESS Facility will operate as a behind-the-metre energy storage installation, providing electrical storage capacity for exclusive on-Area use. Stored electrical energy will be discharged directly to Mine infrastructure through a dedicated medium-voltage electrical connection to the existing BS consumer substation.

The Project has been purposefully designed to minimise environmental disturbance through the use of modular, containerised infrastructure and by situating the development entirely within an established industrial mining area. This approach limits additional land transformation, avoids encroachment into

undeveloped or environmentally sensitive areas, and enables efficient construction, operation and eventual decommissioning of the facility.

1.4.3 Installed Capacity

The proposed Project will have an installed power capacity of up to 25 MW and an energy storage capacity of up to 50 MWh.

The BESS will supply electricity during peak demand periods to reduce the Mine's reliance on expensive Eskom peak Time-of-Use tariffs. In addition, the system will manage short-term load fluctuations and provide reliable backup capacity during periods of grid instability or electricity supply interruption.

1.4.4 Battery Technology

The proposed BS BESS Project will utilise Lithium Iron Phosphate (LFP) battery technology. This battery chemistry has been selected based on its proven performance, operational reliability and enhanced safety characteristics when compared with alternative lithium-ion technologies.

LFP batteries are characterised by high thermal stability and a significantly reduced risk of thermal runaway, which is a critical consideration for large-scale stationary energy storage applications. The chemistry exhibits strong resistance to overheating and fire propagation, thereby reducing potential safety risks to personnel, infrastructure and the surrounding environment.

In addition to its safety advantages, LFP technology offers a longer operational cycle life, high charge–discharge efficiency and stable performance under frequent cycling conditions. These attributes make LFP batteries particularly suitable for behind-the-metre industrial applications where daily load shifting, peak shaving and backup power functions are required.

LFP battery systems are widely deployed internationally in utility-scale and industrial energy storage facilities, including mining operations, due to their durability, predictable performance characteristics and reduced environmental risk profile over the Project lifecycle.

The proposed Project area is indicated in Figure 1-2 below.

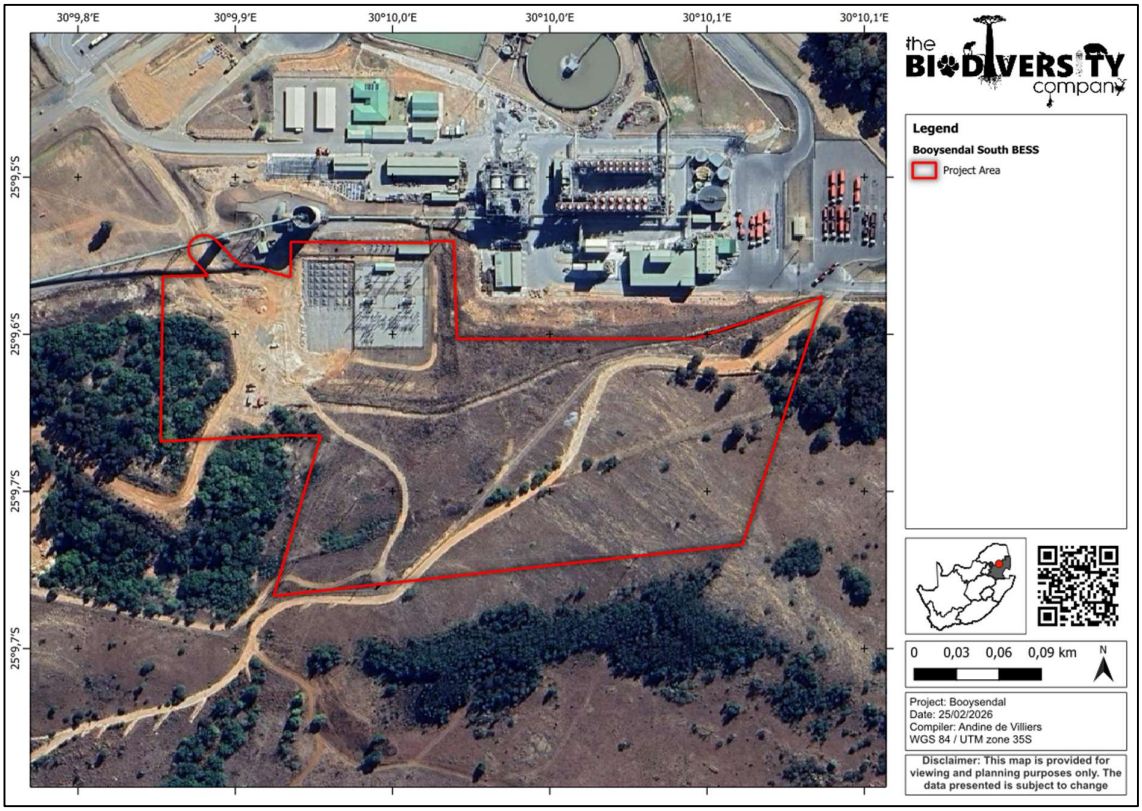


Figure 1-2 Proposed Project area of the Booysendal South Battery Energy Storage System

2 Approach

A field survey for the area was conducted from the 26th to the 30th of January 2026, which constitutes a wet season survey. This is the appropriate season for a field survey for this biome and vegetation type. The objective was to determine the presence of flora, fauna, and vegetation within the proposed Project area and assess the likelihood of Species of Conservation Concern (SCC) occurring within the surveyed area. (Figure 2-1). A verification report has been prepared in accordance with the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity.

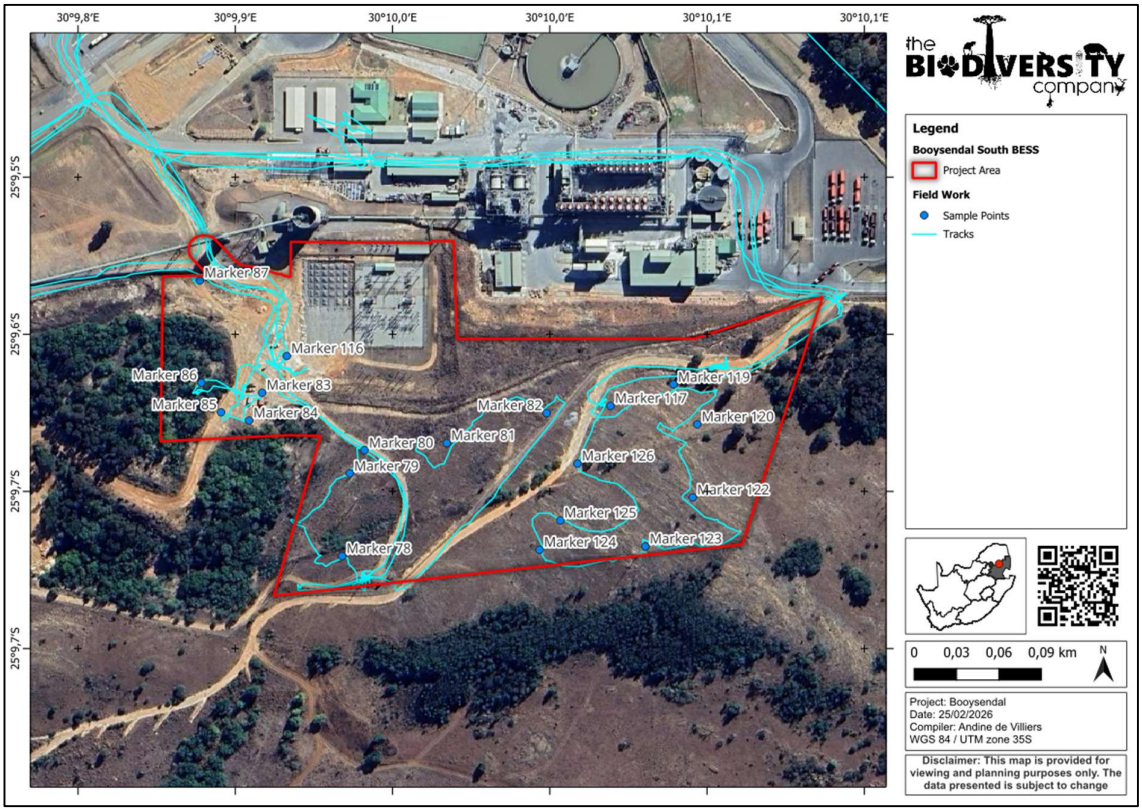


Figure 2-1 Map illustrating the field work Global Positioning System tracks of the specialist during the field survey

2.1 Assumptions and Limitations

The following assumptions and limitations are applicable for this assessment:

- It is assumed that all information received from the client and landowner is accurate;
- All datasets accessed and utilised for this assessment are considered to be representative of the most recent and suitable data for the intended purposes;
- The area was surveyed during a single site visit conducted in the wet season (specifically, January 2026). This assessment does not consider temporal trends across multiple seasons. However, the wet season represents the optimal period for this type of specialist assessment, as it is when ecological activity is at its peak and most detectable. Therefore, the data collected during this period are considered sufficient to establish a meaningful baseline for the study objectives. The seasonality of the survey does not negatively affect the study outcomes, as the wet season is the most appropriate and informative time for this assessment discipline;
- The assessment area (proposed Project area) was based on the footprint areas as provided by the client, and any alterations to the area and/or missing Geographic Information System (GIS) information pertaining to the assessment area would have affected the area surveyed and hence the results of this assessment;
- While every effort was made to cover as much of the proposed Project area as possible, representative sampling is completed, and by its nature it is possible that some plant and animal

species that are present within the proposed Project area were not recorded during the field investigations;

- This assessment only considers non-volant mammals, reptiles and amphibians. Bats and invertebrates were not assessed. Avifauna were assessed separately; and

- The Global Positioning System (GPS) used in the assessment has an accuracy of 5 m and consequently any spatial features may be offset by up to 5 m. Please note that a GPS positional accuracy of up to five metres is considered adequate for the purposes of this study, given the scale of the assessment and the objectives of the SSV.

3 Results and Discussion

3.1.1 Desktop Ecological Sensitivity

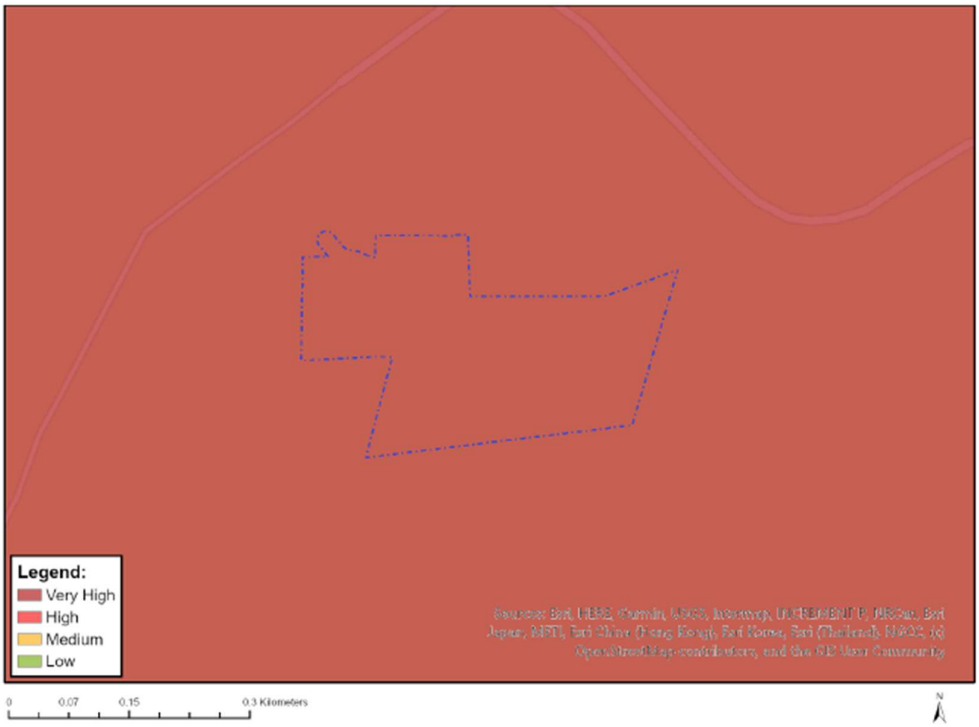
The following is deduced from the National Web-based Environmental Screening Tool Regulation 16(1)(v) of the EIA Regulations, 2014:

- Terrestrial Biodiversity Theme sensitivity is 'Very High' for the proposed Project area due to the overlap Freshwater Ecosystem Priority Area (FEPA) Subcatchment and National Protected Area Expansion Strategy (Figure 3-1);

- Animal Species Theme Sensitivity is 'Medium' for the proposed Project area due to the potential presence of six (6) medium sensitivity mammal species and one (1) medium sensitivity avifauna species (note, avifauna are assessed separately) (Figure 3-2); and

- Plant Species Theme sensitivity is 'Medium' for the proposed Project area due to the potential presence of five (5) medium sensitivity flora species (Figure 3-3).

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



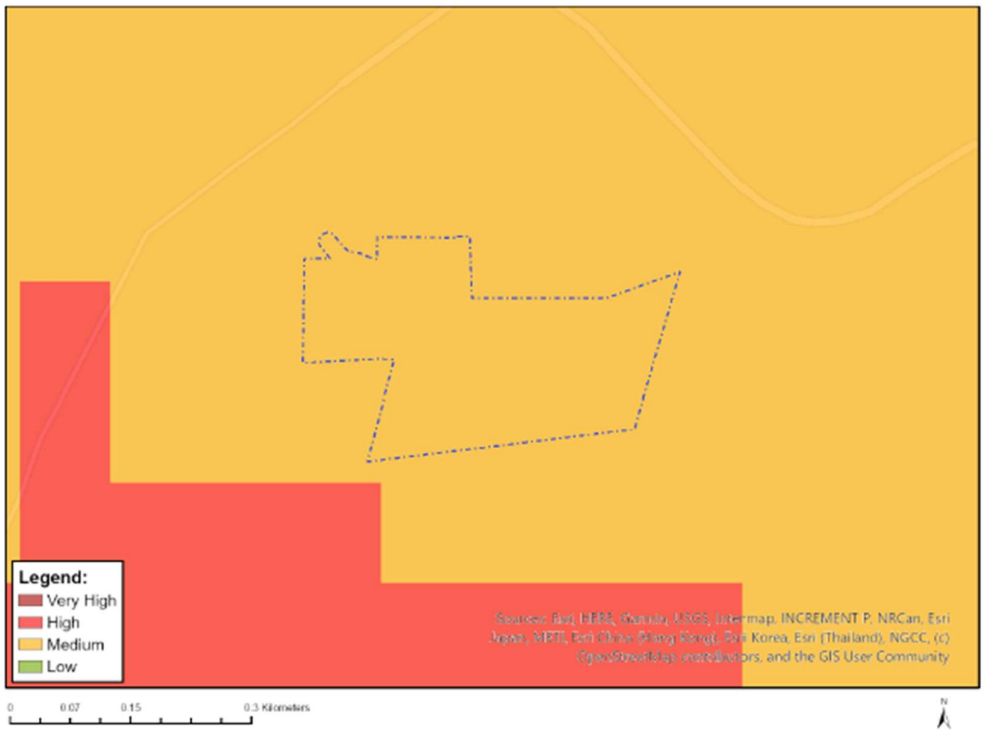
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	FEPA Subcatchment
Very High	National Protected Area Expansion Strategy (NPAES)

Figure 3-1 Terrestrial Biodiversity Theme Sensitivity for the Booysendal South Battery Energy Storage System proposed Project area

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.

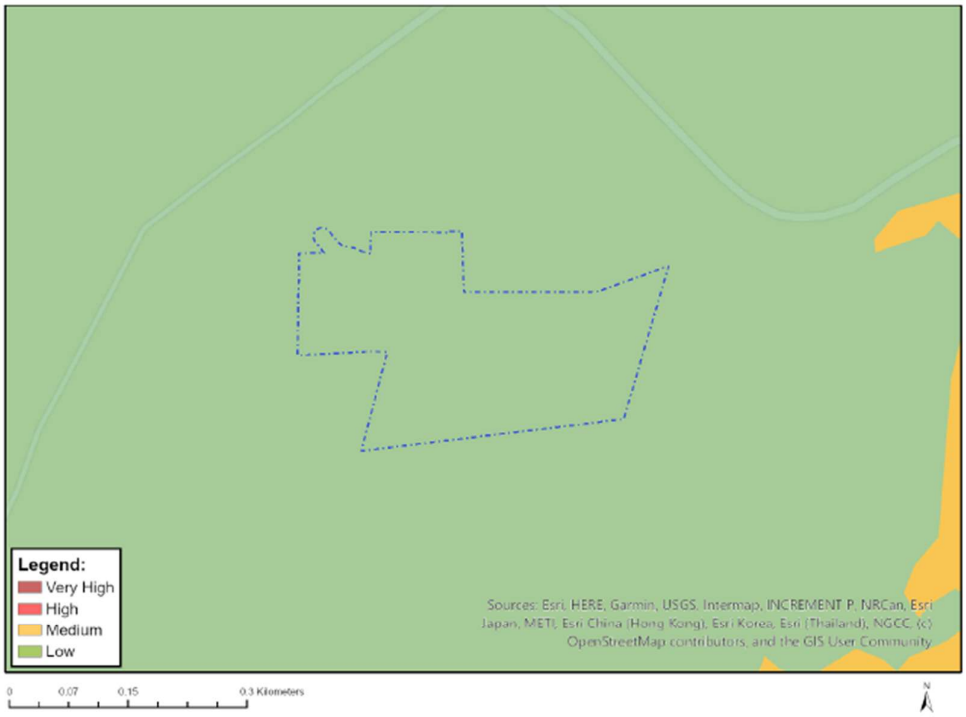
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Aves-Eupodotis senegalensis
Medium	Mammalia-Amblysomus robustus
Medium	Mammalia-Chrysospalax villosus
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Mammalia-Hydrictis maculicollis
Medium	Mammalia-Ourebia ourebi ourebi

Figure 3-2 Animal Species Theme Sensitivity for the Booysendal South Battery Energy Storage System proposed Project area

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)
Low	Low Sensitivity
Medium	Sensitive species 1167
Medium	Sensitive species 264
Medium	Sensitive species 691
Medium	Sensitive species 998
Medium	Sensitive species 1086

Figure 3-3 Plant Species Theme Sensitivity for the Booysendal South Battery Energy Storage System proposed Project area

3.1.2 Flora Species of Conservation Concern

The Screening Tool indicates that five (5) sensitive flora species is predicted to occur within the proposed Project area (Table 3-1).

Note that the Screening Tool report includes a list of plant SCC known or expected to occur within the proposed development footprint. Some of these SCCs are sensitive to illegal harvesting. **Such species have had their names obscured and are listed as sensitive plant/animal with a unique number.** As per the best practice guideline that accompanies the protocol and Screening Tool, the name of the

sensitive species may not appear in the final EIA report nor any of the specialist reports released into the public domain. It should be referred to as a *sensitive plant* or *sensitive animal,* and its threat status may be included therein (e.g., *Endangered (EN) sensitive plant*).

Table 3-1 Threatened flora species that are expected to occur within the proposed Project area

Scientific Name	Regional Conservation Status	Screening Tool Sensitivity	Likelihood of Occurrence	Reason
Sensitive Species 1086	EN	Medium	Low	No suitable habitat
Sensitive Species 1167	EN	Medium	Medium	Some limited suitable habitat
Sensitive Species 264	VU	Medium	Low	No suitable habitat
Sensitive Species 691	VU	Medium	Low	No suitable habitat
Sensitive Species 998	EN	Medium	Low	No suitable habitat

VU = Vulnerable and EN = Endangered

3.1.3 Faunal Species of Conservation Concern

The Screening Tool indicates that six (6) mammalian SCC are predicted to occur within the proposed Project area. No amphibian or reptile species are listed. Note, avifauna are assessed separately (TBC, 2026). The likelihood of the species occurring within the proposed Project area is indicated in Table 3-2.

Table 3-2 Threatened fauna species that are expected to occur within the proposed Project area

Scientific Name	Common Name	Regional Conservation Status	Global Conservation Status	Screening Tool Sensitivity	Likelihood of Occurrence	Reason
Amblysomus robustus	Robust Golden Mole	VU	VU	Medium	Low	Lack of suitable habitat
Chrysospalax villosus	Rough-haired Golden Mole	VU	VU	Medium	Low	Lack of suitable habitat
Crocidura maquassiensis	Makwassie Musk Shrew	VU	LC	Medium	Medium	Some limited suitable habitat
Dasymys robertsii	Robert's Shaggy Rat	NT	LC	Medium	Low	High levels of disturbance
Hydrictis maculicollis	Spotted-necked Otter	VU	NT	Medium	Low	Lack of suitable habitat
Ourebia ourebi ourebi	Oribi	EN	LC	Medium	Low	Lack of suitable habitat

LC = Least Concern, NT = Near Threatened, VU = Vulnerable and EN = Endangered

3.2 Field Survey Results

The following sections discuss the results from the field survey that was conducted for the proposed Project.

3.2.1 Habitats

The following sections discuss the results from the field survey that was conducted for the proposed Project. Select sample points are described in Table 3-3.

Four (4) terrestrial habitat types were identified in the proposed Project area, namely Rocky Grassland (Ridge), Alien Stand, Disturbed Grassland, and Modified.

Table 3-3 Sensitivity summary of the survey points and habitat types delineated within the proposed Project area

Survey Point	Habitat	Photographs
Site GPS Reference: **Marker 83** Date: 28/01/2026 **GPS Coordinates: 25° 9'37.34"S 30° 9'54.62"E**	**Modified** This habitat has been completely transformed from the natural state due to the ongoing disturbances related to the mining operations. It consists of cleared areas and roads. Very little to no natural vegetation remains, thus the ecological functioning is greatly reduced. No flora or fauna SCC observed, and none are expected.	 
Site GPS Reference: **Marker 86** Date: 28/01/2026 **GPS Coordinates: 25° 9'37.11"S 30° 9'53.22"E**	**Alien Stand** This habitat is dominated by alien and invasive flora species, mostly by *Acacia mearnsii.* Some ecological functioning remains and this habitat may support common fauna species. No flora or fauna SCC were observed and none are expected.	 
Site GPS Reference: **Marker 81** Date: 28/01/2026 **GPS Coordinates: 25° 9'38.49"S 30° 9'58.84"E**	**Disturbed Grassland** This habitat consists of Sekhukhune Grassland that has been degraded over time due to ongoing disturbances, including edge effects from the nearby mine, widespread alien and invasive flora species, and ingress. Ecological functioning remains and this habitat supports common indigenous fauna and flora species.	

	Some of the species observed include *Craterostigma wilmsii, Helichrysum rugulosum, Tricanthecium natalense, Wahlenbergia undulata,* and *Aristida congesta.* No fauna or flora SCC were observed, and none are expected.	
Site GPS Reference: **Marker 78** Date: 28/01/2026 **GPS Coordinates: 25° 9'41.08"S 30° 9'56.45"E**	**Disturbed Grassland** This habitat consists of Sekhukhune Grassland that has been degraded over time due to ongoing disturbances, including edge effects from the nearby mine, widespread alien and invasive flora species, and ingress. Ecological functioning remains and this habitat supports common indigenous fauna and flora species. No fauna or flora SCC were observed, and none are expected.	 
Site GPS Reference: **Marker 120** Date: 28/01/2026 **GPS Coordinates: 25° 9'38.06"S 30°10'4.58"E**	**Rocky Grassland (Ridge)** This habitat consists of rocky outcrops and rocky areas nestled in the Degraded Grassland habitat. The fine-scale variation provides microhabitats for fauna and flora species, especially geophytes, succulents, and reptile species. Some of the flora species observed include *Selaginella dregei, Myrothamnus flabellifolius, Crassula swaziensis, Pellaea calomelanos,* and *Protea welwitschii.* No flora or fauna SCC were observed. Some flora and fauna SCC could occur within this habitat.	 

	Rocky Grassland (Ridge)	
Site GPS Reference: **Marker 123** Date: 28/01/2026 **GPS Coordinates: 25° 9'40.86"S 30°10'3.39"E**	This habitat consists of rocky outcrops and rocky areas nestled in the Degraded Grassland habitat. The fine-scale variation provides microhabitats for fauna and flora species, especially geophytes, succulents, and reptile species. No flora or fauna SCC were observed. Some flora and fauna SCC could occur within this habitat.	

3.3 Site Ecological Importance

The different habitat types within the proposed Project area were delineated and identified based on observations during the field assessment, and available satellite imagery. These habitat types were assigned Ecological Importance (EI) categories based on their ecological integrity, conservation value, the likely presence of SCC and their ecosystem processes.

As per the terms of reference for the Project, GIS sensitivity maps are required to identify sensitive features in terms of the relevant specialist discipline/s within the proposed Project area. The sensitivity scores identified during the field survey for each terrestrial habitat are mapped.

All habitats within the assessment area of the proposed Project area were allocated a sensitivity [i.e., Site Ecological Importance (SEI)] category (Table 3-4). The delineated sensitivities per habitat type are illustrated in Figure 3-4.

Table 3-4 Summary of the habitat types and their associated combined sensitivities (SEI) delineated within the proposed Project area

Habitat Type	Conservation Importance	Functional Integrity	Biodiversity Importance[1]	Receptor Resilience	Site Ecological Importance[2]
Rocky Grassland	**Medium** > 50% of receptor contains natural habitat with potential to support SCC.	**Medium** Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches. Mostly minor current negative ecological impacts, with some major impacts and a few signs of minor past disturbance.	**Medium**	**Very Low** Habitat that is unable to recover from major impacts.	**High** Avoidance mitigation wherever possible. Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted, limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities.

[1] Considered as the 'sensitivity'.
[2] Considered as the sensitivity in relation to the project component. Subject to change depending on layout.

Habitat Type	Conservation Importance	Functional Integrity	Biodiversity Importance[1]	Receptor Resilience	Site Ecological Importance[2]
Disturbed Grassland	**Medium** > 50% of receptor contains natural habitat with potential to support SCC..	**Medium** Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches. Mostly minor current negative ecological impacts, with some major impacts and a few signs of minor past disturbance.	**Medium**	**Medium** Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	**Medium** Minimisation and restoration mitigation – development activities of medium impact acceptable followed by appropriate restoration activities.
Alien Stand	**Low** < 50% of receptor contains natural habitat with limited potential to support SCC	**Low** Several minor and major current negative ecological impacts.	**Low**	**Medium** Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	**Low** Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.
Modified	**Very Low** No natural habitat remaining.	**Very Low** Several major current negative ecological impacts.	**Very Low**	**Very High** Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	**Very Low** Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

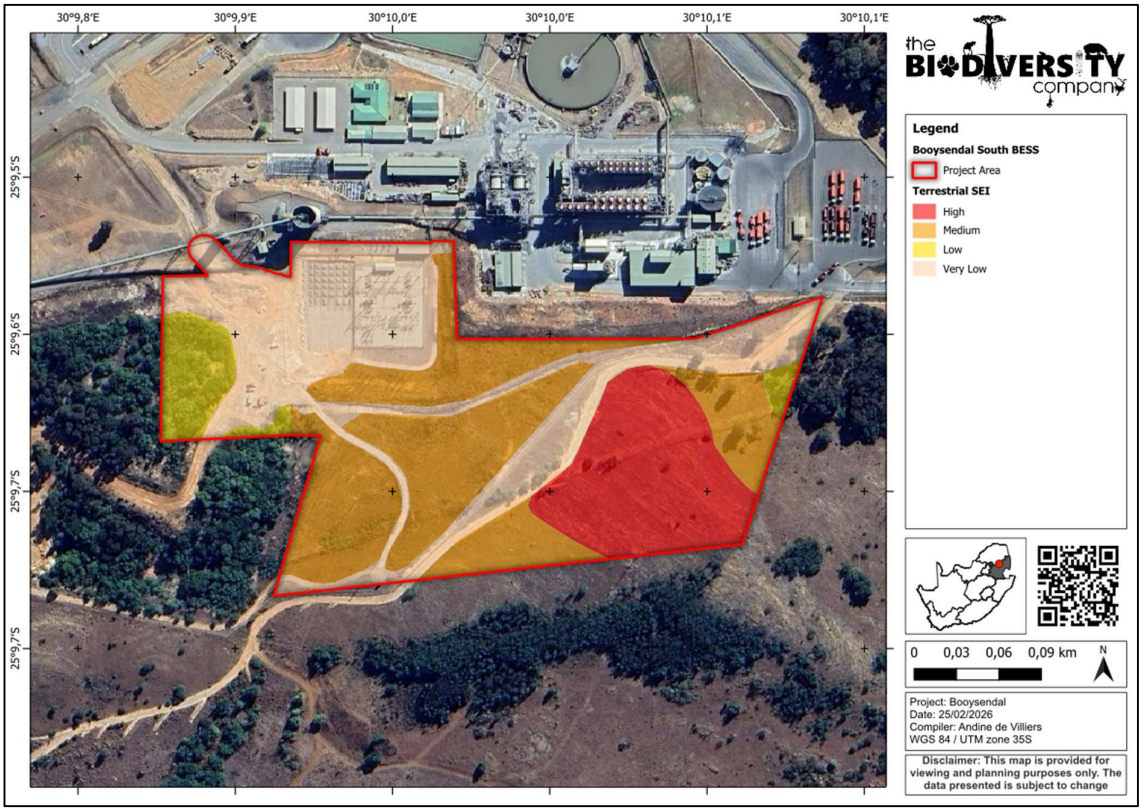


Figure 3-4 Site Ecological Importance (SEI) of habitats associated with the proposed Project area

3.4 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated for the assessed areas in Table 3-5 below. A summative explanation for each result is provided as relevant. The specialist assigned sensitivity ratings are based largely on the SEI process followed in the previous section, and consideration is given to any observed or likely presence of SCC or protected species.

Table 3-5 Summary of the Screening Tool vs Specialist Assigned sensitivities

Screening Tool Theme	Screening Tool	Habitat	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Terrestrial Biodiversity Theme	Very High	Rocky Grassland (Ridge)	High	Disputed – The nature of this habitat provides sensitive microhabitats that may support certain flora and fauna species. Some flora and fauna SCC may occur, although none were observed.
		Disturbed Grassland	Medium	Disputed – Even though disturbed, the ecological integrity, importance and functioning of these areas play a role as a habitat for various fauna and flora. This area is representative of the Sekhukhune Grassland vegetation type, although in a very degraded condition. This habitat will continue to degrade without intervention and active rehabilitation.
		Alien Stand	Low	Disputed – Limited natural vegetation remains due to dense alien infestations, however some ecological functioning, most importantly soil stabilisation and foraging opportunity for common species, remains.
		Modified	Very Low	Disputed – Highly modified habitat.

Screening Tool Theme	Screening Tool	Habitat	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Plant Theme	Medium	**Rocky Grassland (Ridge)**	**Medium**	Validated – No flora SCC were observed, but some may occur within the Rocky Grassland habitat specifically.
		All other habitats	**Low**	Disputed – No flora SCC were observed and none are expected due to the modified and degraded nature.
Animal Theme	**Medium**	**Rocky Grassland (Ridge)**	**Medium**	Validated – The habitat is largely intact and provides microhabitats and niche habitats that may be utilised by fauna SCC.
		All other habitats	**Low**	Disputed – The habitat is small, predominantly degraded, and fragmented. No fauna SCC were observed and none are expected to be resident. Sporadic occurrence during movement or foraging could occur.

4 Impact Assessment

4.1 Impact Management

The assessment of impact significance considers pre-mitigation as well as implemented post-mitigation scenarios. Two phases were considered for the impact assessment, with the infrastructure assumed to be permanent (> 20 years) and no decommissioning phase required:

- Construction Phase; and
- Operational Phase.

The purpose of the management measures is to inform on the mitigations required to lower the risk of the impacts associated with the proposed activity, provide measures for improving the conservation value of the property and to be able to be inserted into the Environmental Management Programme (EMPr). The mitigation actions required to reduce the significance of the impacts associated with the development are provided in the table below (Table 4-1 and Table 4-2).

Table 4-1 The Project management measures for the terrestrial biodiversity during the construction phase

Environmental Theme: Vegetation and Habitats (Fauna) **Impact Management Outcome: Protection of the vegetation and habitat to ensure adequate ecological functioning** **Phase: Construction**						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Areas to be developed/disturbed be specifically demarcated so that during the construction/activity phase, only the authorised areas be impacted upon. Areas of indigenous vegetation outside of the direct Project footprint, should under no circumstances be	Contractor/ Project Team	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	Avoided features

fragmented or disturbed further. The construction area must be fenced off and no ingress into other areas allowed.						
Areas that have been disturbed during construction, but will not undergo development, must be revegetated with indigenous vegetation dominant in the area.	Contractor/ Project Team	Implement a rehabilitation plan	Construction Phase	Environmental Officer	Throughout phase	Rehabilitation implemented
Make use of existing access routes before new routes are considered. Any selected "new" route must be authorised, minimising disturbances to undisturbed areas.	Contractor	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	All routes authorised
Minimise unnecessary clearing of vegetation beyond the development footprints.	Contractor/ Project Team	Visibly demarcate authorised working areas	Construction Phase	Environmental Officer	Throughout phase	Clearance is minimised
Make sure all excess consumables are removed from site and deposited at an appropriate waste facility.	Contractor/ Project Team	Restrict to designated working/storage/service areas	Construction Phase	Environmental Officer	Throughout phase	Restricted to demarcated area
Appropriately contain any generator diesel storage tanks, machinery spills (e.g. accidental spills of hydrocarbons oils, diesel etc.) or construction materials on-site (e.g. concrete) in such a way as to prevent them leaking.	Contractor/ Project Team	Restrict to designated working/storage/service areas	Construction Phase	Environmental Officer	Throughout phase	Restricted to demarcated area
Provide appropriate sanitation facilities for workers during construction and service them regularly.	Contractor	Provide service ablution for contractors/labour	Construction Phase	Environmental Officer	Throughout phase	Ablution facilities provided and serviced
The Contractor should supply sealable and properly marked domestic	Contractor	Implement waste management plan	Construction Phase	Environmental Officer	Throughout phase	Plan is implemented

waste collection bins and all solid waste collected must be disposed of at a licensed disposal facility.						
The Contractor must be in possession of an emergency spill kit that must always be complete and available on-site.	Contractor	Implement spill response plan	Construction Phase	Environmental Officer	Throughout phase	Spill kits are available
Impact Management Outcome: Avoiding Alien Invasive Plant (AIP) infestation **Phase: Construction**						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
The footprint area of the construction should be kept to a minimum. The footprint area must be clearly demarcated to avoid unnecessary disturbances to adjacent areas thereby causing further encroachment of invasive species.	Contractor/ Project Team	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	Avoided features
An AIP Management Plan must be compiled and implemented. This should regularly be updated to reflect the annual changed in AIP composition.	Contractor/ Project Team	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	Avoided features
Areas that have been disturbed during construction, but will not undergo development, must be revegetated with indigenous vegetation dominant in the area.	Contractor/ Project Team	Implement a rehabilitation plan	Construction Phase	Environmental Officer	Throughout phase	Rehabilitation implemented

Table 4-2 The Project management measures for the terrestrial biodiversity during the operational phase

Environmental Theme: Vegetation and Habitats (Fauna) **Impact Management Outcome: Protection of the vegetation and habitat to ensure adequate ecological functioning** **Phase: Operation**						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance

Make use of existing access routes as much as possible, before new routes are considered. Any selected "new" route must be authorised, minimising disturbances to undisturbed areas.	Contractor	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	All routes authorised
Minimise unnecessary clearing of vegetation beyond the development footprints.	Contractor/ Project Team	Visibly demarcate authorised working areas	Construction Phase	Environmental Officer	Throughout phase	Clearance is minimised
The use of herbicides is not recommended (opt for mechanical removal).	Contractor/ Project Team	Demarcate buffer area	Construction Phase	Environmental Officer	Throughout phase	Avoided buffer area
Impact Management Outcome: Avoiding Alien Invasive Plant (AIP) infestation Phase: Operation						
Impact Management Actions	Implementation			Monitoring		
	Responsible person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
An AIP Management Plan must be compiled and implemented. This should regularly be updated to reflect the annual changed in AIP composition.	Contractor/ Project Team	Design engineer to consider this for final layout	Construction Phase	Environmental Officer	Throughout phase	Avoided features

5 Cumulative Impacts

The quantitative impact of the proposed Project in isolation on terrestrial biodiversity is anticipated to be "low" due to the expected adherence to mitigation. The cumulative impact of the proposed Project on terrestrial biodiversity is anticipated to be "low" (Table 5-1). The proposed Project area has undergone historic and current disturbance, similar to the disturbances that the local area has undergone.

After implementation of the mitigation measures as stipulated above the integrity and functionality of the natural habitat is not expected to deteriorate further as a result of the proposed development and no irreplaceable loss of terrestrial biodiversity is anticipated.

Table 5-1 Cumulative Impacts associated with the proposed Project

Component Being Impacted On	Activity Which May Cause the Impact	Activity	Pre- Mitigation							Post Mitigation						
			Duration	Extent	Potential for impact on irreplaceable resources	Severity	Consequence	Probability	Significance	Duration	Extent	Severity	Potential for impact on irreplaceable resources	Consequence	Probability	Significance
Biodiversity	Construction of the Battery Energy Storage System and associated vegetation clearing, spread of alien species, habitat destruction and direct fauna mortalities	Impact in isolation	4	3	0	-3	-21	1	-21	4	2	-3	0	-18	1	-18
		Cumulative Impact	4	3	1	-3	-24	2	-48	4	3	-2	1	-16	2	-32

6 Conclusion

The proposed Project area exists in a largely modified and degraded state; however, some rocky areas remain natural and are sensitive. The sensitivity of the area was determined to be Low for the plant theme for the Modified, Disturbed Grassland, and Alien Stand habitats, but Medium within the Rocky Grassland (Ridge) habitat. Similarly, the animal theme was determined to be Low for the Modified, Degraded Grassland, and Alien Stand habitats, but Medium for the Rocky Grassland (Ridge) habitat. The terrestrial biodiversity theme sensitivity was assigned as Very Low (Modified), Low (Alien Stands), Medium (Disturbed Grassland), and High (Rocky Grassland/Ridge).

No flora or fauna SCC were observed. None are expected within the Modified, Alien Stands, and Disturbed Grassland habitat; however, the Rocky Grassland (Ridge) habitat can support fauna and flora SCC. The developer is urged to provide a layout or design which represents a compromise between the needs of the development and the environmental concerns at the site, especially in regard to the high sensitivity areas. The existence and importance of these habitats is regarded as crucial, due to the fauna species recorded as well as the role of this intact habitat to biodiversity, not to mention the sensitivity according to various ecological datasets. It is recommended that the Rocky Grassland (Ridge) habitat, together with a ten (10)-metre buffer, is avoided. Further guidance is provided in Table 6-1.

Table 6-1 Table presenting the habitats within the proposed Project area and their respective sensitivities

Habitat	SEI	Developability	Footprint Recommendation
Rocky Grassland (Ridge)	High	Avoidance mitigation wherever possible (High SEI areas): Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted, limited development activities of low impact acceptable. The consideration of the layout and road footprint will contribute to achieving avoidance, including the use of existing roads. Offset mitigation may be required for high impact activities.	Avoidance as far as feasible. Reduced footprint. Restoration.
Disturbed Grassland	Medium	Any development activities of medium impact acceptable followed by appropriate restoration activities.	Reduced footprint. Preferred area in comparison to the High SEI areas.
Alien Stand	Low	Development activities of medium to high impact acceptable followed by appropriate restoration activities.	BESS and roads.
Modified	Very Low	Development activities of medium to high impact acceptable and restoration activities may not be required.	BESS and roads.

Figure 6-1 indicates the proposed position of the BS BESS and the access road overlaid on the Terrestrial SEI. The BESS itself and the Operations and Maintenance building overlaps with Very Low and Low SEI areas. The access road overlaps with Very Low SEI areas.

This layout avoids the High SEI Rocky Grassland (Ridge) habitat and the prescribed 10-m buffer zone.

Based on the findings of the Terrestrial Biodiversity SSV, the specialist confirms that the proposed BS BESS Project falls within the scope of the BESS Exclusion Norm. The assessment has verified that the proposed Project layout is entirely within areas of Low and Very Low SEI and has been specifically designed to avoid all High SEI habitats, including the Rocky Grassland (Ridge) and its prescribed buffer. No SCC were observed or are expected within the development footprint.

Accordingly, the norms process as set out in the BESS Exclusion Norm can be followed for this Project, as all requirements regarding the avoidance of sensitive ecological areas have been met. The EAP should ensure that all specialist recommendations, including avoidance, minimisation, and restoration measures, are incorporated into the overall EMPr to ensure ongoing protection of remaining sensitive habitats and compliance with relevant legislation.

In summary, the BS BESS Project is suitable for registration under the BESS Exclusion Norm, provided that the current layout is maintained and all specialist recommendations are fully integrated into the EMPr.

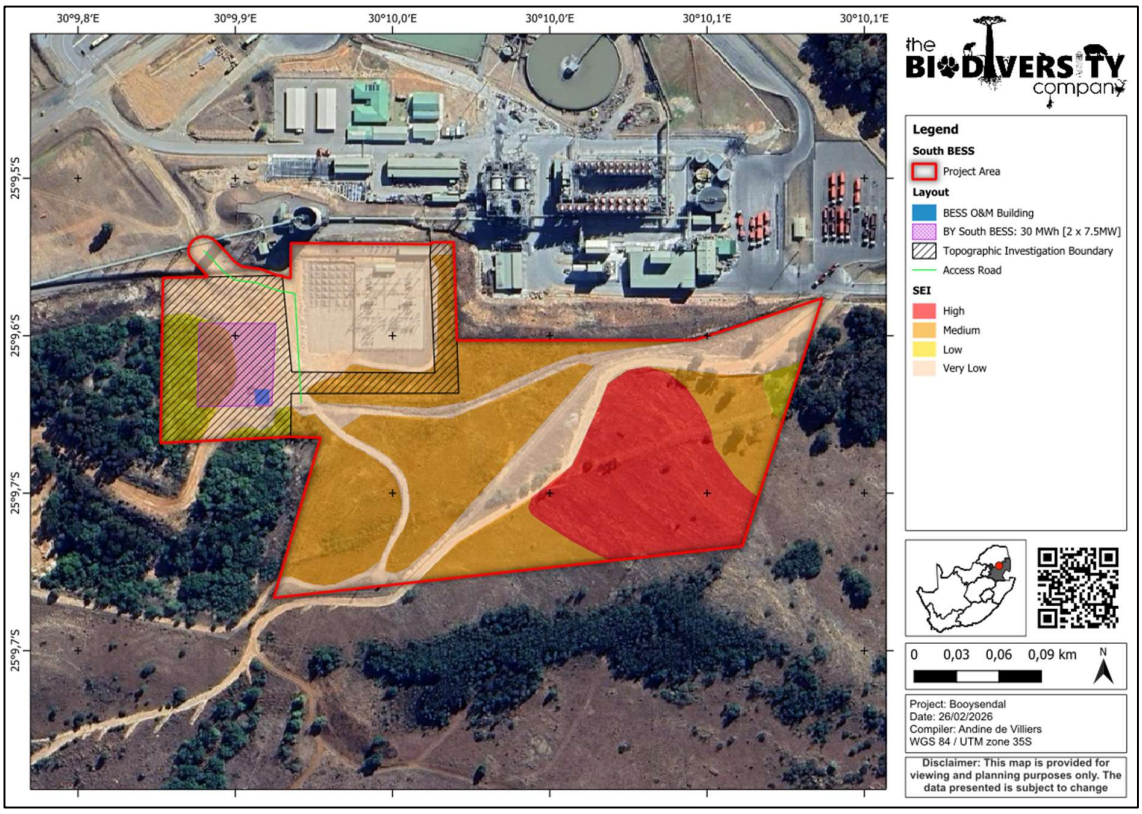


Figure 6-1 The proposed layout overlaid on the Terrestrial Site Ecological Importance

7 Appendix Items

7.1 Appendix A: Methods

7.1.1 Site Ecological Importance

The different habitat types within the study area were delineated and identified, based on observations during the field assessment, and available satellite imagery. These habitat types were assigned Ecological Importance (EI) categories, based on their ecological integrity, conservation value, the presence of SCC and their ecosystem processes.

SEI is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present on the site) and Receptor Resilience (RR) (its resilience to impacts) as follows.

BI is a function of Conservation Importance (CI) and the Functional Integrity (FI) of the receptor as follows. The criteria for the CI and FI ratings are provided in Table 7-1 and Table 7-2, respectively.

Table 7-1 Summary of Conservation Importance (CI) criteria.

Conservation Importance	Fulfilling Criteria
Very High	Confirmed or highly likely occurrence of CR, EN, VU or Extremely Rare or CR species that have a global extent of occurrence (EOO) of < 10 km^2. Any area of natural habitat of a CR ecosystem type or large area (> 0.1% of the total ecosystem type extent) of natural habitat of an EN ecosystem type. Globally significant populations of congregatory species (> 10% of global population).
High	Confirmed or highly likely occurrence of CR, EN, VU species that have a global EOO of > 10 km^2. IUCN threatened species (CR, EN, VU) must be listed under any criterion other than A. If listed as threatened only under Criterion A, include if there are less than 10 locations or < 10 000 mature individuals remaining. Small area (> 0.01% but < 0.1% of the total ecosystem type extent) of natural habitat of EN ecosystem type or large area (> 0.1%) of natural habitat of VU ecosystem type. Presence of Rare species. Globally significant populations of congregatory species (> 1% but < 10% of global population).
Medium	Confirmed or highly likely occurrence of populations of Near Threatened (NT) species, threatened species (CR, EN, VU) listed under Criterion A only and which have more than 10 locations or more than 10 000 mature individuals. Any area of natural habitat of threatened ecosystem type with status of VU. Presence of range-restricted species. > 50% of receptor contains natural habitat with potential to support SCC.
Low	No confirmed or highly likely populations of SCC. No confirmed or highly likely populations of range-restricted species. < 50% of receptor contains natural habitat with limited potential to support SCC.
Very Low	No confirmed and highly unlikely populations of SCC. No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.

Table 7-2 Summary of Functional Integrity (FI) Criteria.

Functional Integrity	Fulfilling Criteria
Very High	Very large (> 100 ha) intact area for any conservation status of ecosystem type or > 5 ha for CR ecosystem types. High habitat connectivity serving as functional ecological corridors, limited road network between intact habitat patches. No or minimal current negative ecological impacts, with no signs of major past disturbance.
High	Large (> 20 ha but < 100 ha) intact area for any conservation status of ecosystem type or > 10 ha for EN ecosystem types. Good habitat connectivity, with potentially functional ecological corridors and a regularly used road network between intact habitat patches. Only minor current negative ecological impacts, with no signs of major past disturbance and good rehabilitation potential.
Medium	Medium (> 5 ha but < 20 ha) semi-intact area for any conservation status of ecosystem type or > 20 ha for VU ecosystem types. Only narrow corridors of good habitat connectivity or larger areas of poor habitat connectivity and a busy used road network between intact habitat patches. Mostly minor current negative ecological impacts, with some major impacts and a few signs of minor past disturbance. Moderate rehabilitation potential.
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.
Very Low	Very small (< 1 ha) area. No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative ecological impacts.

BI can be derived from a simple matrix of CI and FI as provided in Table 7-3.

Table 7-3 Matrix used to derive Biodiversity Importance (BI) from Functional Integrity (FI) and Conservation Importance (CI).

Biodiversity Importance (BI)		Conservation Importance (CI)				
		Very High	**High**	**Medium**	**Low**	**Very Low**
Functional Integrity (FI)	**Very High**	Very High	Very High	High	Medium	Low
	High	Very High	High	Medium	Medium	Low
	Medium	High	Medium	Medium	Low	Very Low
	Low	Medium	Medium	Low	Low	Very Low
	Very Low	Medium	Low	Very Low	Very Low	Very Low

The fulfilling criteria to evaluate RR are based on the estimated recovery time required to restore an appreciable portion of functionality to the receptor, as summarised in Table 7-4.

Table 7-4 Summary of Receptor Resilience (RR) Criteria.

Resilience	Fulfilling Criteria
Very High	Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a very high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
High	Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Medium	Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a moderate likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Low	Habitat that is unlikely to be able to recover fully after a relatively long period: > 15 years required to restore ~ less than 50% of the original species composition and functionality of the receptor functionality, or species that have a low likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Very Low	Habitat that is unable to recover from major impacts, or species that are unlikely to: (i) remain at a site even when a disturbance or impact is occurring, or (ii) return to a site once the disturbance or impact has been removed.

Subsequent to the determination of the BI and RR, the SEI can be ascertained using the matrix as provided in Table 7-5.

Table 7-5 Matrix used to derive Site Ecological Importance from Receptor Resilience (RR) and Biodiversity Importance (BI).

Site Ecological Importance		Biodiversity Importance (BI)				
		Very high	High	Medium	Low	Very low
Receptor Resilience (RR)	Very Low	Very high	Very high	High	Medium	Low
	Low	Very high	Very high	High	Medium	Very low
	Medium	Very high	High	Medium	Low	Very low
	High	High	Medium	Low	Very low	Very low
	Very High	Medium	Low	Very low	Very low	Very low

Interpretation of the SEI in the context of the proposed project is provided in Table 7-6.

Table 7-6 Guidelines for interpreting Site Ecological Importance in the context of the proposed development activities.

Site Ecological Importance	Interpretation in relation to proposed development activities
Very High	Avoidance mitigation – no destructive development activities should be considered. Offset mitigation not acceptable/not possible (i.e., last remaining populations of species, last remaining good condition patches of ecosystems/unique species assemblages). Destructive impacts for species/ecosystems where persistence target remains.
High	Avoidance mitigation wherever possible. Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted, limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities.
Medium	Minimisation and restoration mitigation – development activities of medium impact acceptable followed by appropriate restoration activities.
Low	Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.
Very Low	Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

The SEI evaluated for each taxon can be combined into a single multi-taxon evaluation of SEI for the assessment area. Either a combination of the maximum SEI for each receptor should be applied, or the SEI may be evaluated only once per receptor but for all necessary taxa simultaneously. For the latter, justification of the SEI for each receptor is based on the criteria that conforms to the highest CI and FI, and the lowest RR across all taxa.

7.2 Appendix B: Specialist Declaration of Independence

DECLARATION

I, Andine de Villiers, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.

Andine de Villiers

Terrestrial Ecologist

The Biodiversity Company

February 2026

7.3 Appendix C: Specialist CVs

Andine DE VILLIERS

Pr Sci Nat 164894 | +27 64 417 6320 | andine@thebiodiversitycompany.com

PROFILE SUMMARY

Environmental and ecological specialist with more than two years of consulting experience within South Africa and internationally. Specialist expertise as a terrestrial ecologist and project manager in various sectors including mining, engineering, renewable energy, and private sector developments. Experienced in delivering field surveys, technical reports and specialist guidance for compliance with in-country legislative requirements and international lender standards. Registered Pr Sci Nat with the South African Council for Natural Scientific Professions.

PERSONAL INFO

Nationality: South African

Date of birth: 8 April 1995

EXPERIENCE

Environmental Impact Assessments (EIA)

Environmental Management Programmes (EMP)

Project Management

Mammal Assessments

SKILLS

- ✓ Terrestrial Biodiversity, Fauna and Flora (Ecology) Assessments
- ✓ GIS
- ✓ Golden Mole and Riverine Rabbit Assessment
- ✓ Rehabilitation
- ✓ Monitoring & Management Plans

LANGUAGES

English – Proficient

Afrikaans – Proficient

Signed: Andine de Villiers

ACADEMIC QUALIFICATIONS

University of Pretoria (2020): MAGISTER SCIENTIAE (MSc) – Zoology *with distinction*:
Thesis title: *Playing with rats: The effect of a social companion, environmental enrichment and human interactions on the plasma oxytocin and faecal corticosterone metabolite concentration of Sprague Dawley rats.*

University of Pretoria (2018): BACCALAREUS SCIENTIAE CUM HONORIBUS (BSc Hons) – Zoology:
Research project title: Research project: Locomotor activity of individual Damaraland mole-rats (*Fukomys damarensis*) in intact colonies.

University of Pretoria (2017): BACCALAREUS SCIENTIAE (BSc) – Zoology:
Majors: Zoology

PROFESSIONAL EXPERIENCE

June 2023 – Present — **The Biodiversity Company**
Terrestrial Ecologist

INTERNATIONAL EXPERIENCE

South Africa, Mauritius, Zambia