

**Terrestrial- and Aquatic
Biodiversity- as well as Plant-
and Animal Species Themes
Site Sensitivity Verification and
Compliance Statement**

**Prieska Power Reserve Doringberg PV
Solar Energy Facility Development,
Prieska, Northern Cape Province**

January 2026

Compiled for:



GREEN-BOX
CONSULTING

INTEGRATED ENVIRONMENTAL MANAGEMENT

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Leave a future behind

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Plant- and Animal Species Themes Protocol Requirements (click on links for quick access)

1. General Information

1.7. The [Animal/Plant] Species Compliance Statement must be undertaken within the study area **(see section 4)**

1.9. Where the nature of the activity is expected to have an impact on SCC beyond the boundary of the preferred site, the project areas of influence (PAOI) must be determined by the specialist in accordance with Species Environmental Assessment Guideline, and the study area must include the PAOI, as determined **(see section 4)**

5. [Animal/Plant] Species Compliance Statement

5.1 The compliance statement must be prepared by a SACNASP registered specialist under one of the two fields of practice (Zoological/Botanical Science or Ecological Science) **(see section 11)**

5.2 The compliance statement must:

5.2.1 be applicable to the study area **(see section 4)**

5.2.2 confirm that the study area, is of “low” sensitivity for animal/plant species **(see section 6.4) (see section 6.3)**

5.2.3 indicate whether or not the proposed development will have any impact on SCC **(see section 6.4) (see section 6.3) (see section 7.2) (see section 7.3)**

5.3 The compliance statement must contain, as a minimum, the following information:

5.3.1 contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the compliance statement including a curriculum vitae **(see section 11)**

5.3.2 a signed statement of independence by the specialist **(see page ix)**

5.3.3 a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment **(see section 2)**

5.3.4 a description of the methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant **(see section 3)**

5.3.5 the mean density of observations/ number of samples sites per unit area **(see section 3)**

5.3.6 where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMPr **(see section 8.3)**

5.3.7 a description of the assumptions made and any uncertainties or gaps in knowledge or data **(see section 5)**

5.3.8 any conditions to which the compliance statement is subjected **(see section 9)**

Terrestrial Biodiversity Theme Protocol Additional Requirements (click on links for quick access)

4.2. The compliance statement must:

4.2.2. confirm that the site is of “low” sensitivity for terrestrial biodiversity ([see section 6.2](#))

4.2.3. indicate whether or not the proposed development will have any impact on the biodiversity feature ([see section 7.2](#))

4.3. The compliance statement must contain, as a minimum, the following information:

4.3.4. a baseline profile description of biodiversity and ecosystems of the site ([see section 7.2](#))

Aquatic Biodiversity Theme Protocol Additional Requirements (click on links for quick access)

3.2. The compliance statement must:

3.2.2. confirm that the site is of “low” sensitivity for aquatic biodiversity ([see section 6.1](#))

3.2.3. indicate whether or not the proposed development will have an impact on the aquatic features ([see section 7.1](#))

3.3. The compliance statement must contain, as a minimum, the following information:

3.3.4. a baseline profile description of biodiversity and ecosystems of the site ([see section 7.1](#))

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Abbreviations

BA	Basic Assessment
CARA	Conservation of Agricultural Resources Act (Act 43 of 1983)
CBA	Critical Biodiversity Area
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIS	Ecological Importance and Sensitivity
ESA	Ecological Support Area
HGM	Hydrogeomorphic Unit
MAP	Mean Annual Precipitation
NEMBA	National Environmental Management: Biodiversity Act (Act 10 of 2004)
NEMA	National Environmental Management Act (Act 107 of 1998)
NFA	National Forests Act (Act 84 of 1998)
NWA	National Water Act (Act 36 of 1998)
ONA	Other Natural Area
PAOI	Project Area of Influence
PES	Present Ecological State
REC	Recommended Ecological Category
SACNASP	South African Council for Natural Scientific Professions
SANBI	South African National Biodiversity Institute
SCC	Species of Conservation Concern
SEI	Site Ecological Importance
WULA	Water Use License Application

Declaration of Independence

I, Adriaan Johannes Hendrikus Lamprecht, declare that I:

- am the Director and Ecological Specialist of EcoFocus Consulting (Pty) Ltd
- act as an independent specialist consultant in the field of botany and ecology
- am assigned as the Ecological Specialist consultant by the Environmental Assessment Practitioner (EAP), Green Box Consulting, for the proposed development
- do not have or will not have any financial interest in the undertaking of the proposed project activity other than remuneration for work as stipulated in the terms of reference/scope of work as per the quotation provided
- confirm that remuneration for my services relating to the proposed development is not linked to approval or rejection of the project by the competent authority
- have no interest in secondary or subsequent developments as a result of the authorisation of the proposed project
- have no and will not engage in any conflicting interests in the undertaking of the activity
- undertake to disclose to the applicant and the competent authority any information that has or may have the potential to influence the decision of the competent authority
- will provide the applicant and competent authority with access to all relevant project information in my possession whether favourable or not

AJH Lamprecht



Signature

1. Introduction

The project applicant, Prieska Power Reserve (Pty) Ltd, proposes to formally develop a vacant portion of land into a Photovoltaic (PV) Solar Energy Facility (SEF) with associated infrastructure and grid connection. The proposed development footprint is located approximately 15 km south-east of the town of Prieska, Northern Cape Province. In accordance with the information received from the EAP, the proposed SEF will consist of the following main infrastructure and design parameters:

- **Panel and System Specs:** Standard monocrystalline panels (2 m × 1 m, ~400 W DC each, bifacial for enhanced yield in open terrain). Fixed tilt at 30° (optimal for latitude ~29.8°S), 100% north-facing across all blocks and sections. Double-storeyed racking (2-high portrait configuration, e.g., similar to Ready Rack systems) to double density while maintaining shading-free operation. Ground coverage ratio (GCR) ~0.45, with inter-row spacing of ~3.5 m (calculated for <2% annual shading loss on winter solstice at ~36.5° noon elevation; formula: $\text{spacing} = (\text{module height} \times \sin(30^\circ)) / \tan(36.5^\circ) + \text{buffer}$, yielding ~1 m rise / 0.74 ≈ 1.35 m minimum, expanded for access).
- **Density and Yield:** 1 MW DC/ha achievable with 2-high racking (based on typical fixed-tilt benchmarks of 0.3–0.7 MW/ha single-high, doubled here; validated against South African projects like 0.7 MW/ha in Grootfontein PV). Usable area ~95% of block (5% for internal buffers/roads). Total: ~77.7 ha solar land → ~77.7 MW DC (135–155 GWh AC annual yield at 18–20% capacity factor for Northern Cape irradiance ~2,200 kWh/m²/year).
- **Access and Operations:** 6 m wide gravel service roads (minimum industry standard for maintenance vehicles, e.g., pickups/tractors; single-lane with turnouts) between every 4–6 array rows and along block perimeters. Perimeter fencing with gates at admin access points.
- **Structural Design:** Sturdy hot-dip galvanized steel frames (e.g., Unirac GFT or equivalent, rated for 60 m/s ultimate wind load per ASCE 7-16). Robust concrete foundations: 0.6 m × 0.6 m × 1.2 m deep footings per post (spaced 3 m), suitable for even soil; helical piles as alternative if minor undulations found. No additional windbreaking structures required—25 m/s gusts are well below standard PV design thresholds (e.g., 50 m/s mean), with aerodynamic row orientation reducing uplift by ~20%.
- **Substation Integration:** Located adjacent north of admin building, with MV cabling routed along western block boundaries to minimize losses (<1% DC run).
- **Other:** 10% buffer around admin/parking. All arrays E-W oriented for uniform shading/access. DC:AC ratio ~1.3 (inverters centralized per block).
- **Expected Number of Solar Panels:** With each panel at 400 W DC and a total DC capacity: 77.7 MW = 77,700,000 W, the total number of solar panels required is 194,250.

In accordance with the information received from the project management team, construction- and subsequent operational water requirements will not be sourced from any on-site borehole/s but will rather be manually conveyed to the site from an off-site source yet to be determined.

Green Box Consulting was appointed by the applicant as the independent Environmental Assessment Practitioner (EAP), to conduct the legally required Environmental Impact Assessment (EIA) process.

A site sensitivity verification must be undertaken to determine and confirm the current land use and environmental sensitivity of the proposed development footprint as identified by the DFFE National Web-Based Environmental Screening Tool. Due to the nature of potential ecological impacts posed by the proposed development to the local ecosystem and ecology, an Ecological assessment is required. This is required in order to determine the potential presence of ecologically sensitive/conservationally significant habitats, plant- and/or faunal species, which may be adversely affected by the proposed development.

Potential ecological receptor impacts posed by the proposed development to the local ecosystem and ecology (specific impact receptors), must be identified and evaluated. Impact receptor mitigation and management measures in accordance with the requirements of the National Environmental Management Act (Act 107 of 1998) Mitigation Hierarchy, must subsequently be recommended. This must be done in order to attempt to reduce/alleviate the adverse effects of identified potential ecological receptor impacts associated with the proposed development.

EcoFocus Consulting was consequently appointed by the EAP as the independent ecological specialist, to conduct the required Ecological assessment for the proposed development and to confirm/refute the environmental sensitivity of the proposed development footprint according to the relevant Biodiversity Theme Protocols. This report constitutes the Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes Site Sensitivity Verification and Compliance Statement.

2. Date and Season of Ecological Site Assessment

Date: 1 & 13 December 2025

Duration: 6 hours

Season: These dates form part of the summer/growing season and the area had received adequate initial rainfall during the course of the season, prior to the site visit. Most plant species could therefore be successfully identified. The seasonal timing of the assessment also coincided with the general flowering times of potential floral Species of Conservation Concern (SCC) and was therefore reasonably favourable for successful identification of such species, if present. More underground bulb-plant species (geophytes) could however potentially be present throughout the karroid shrubland habitat, which were not necessarily visible aboveground due to the timing of the site assessment.

The seasonal timing of the assessment was favourable for successful identification of potential faunal Species of Conservation Concern (SCC), if present.

3. Methodology

The methodology is implemented for the Project Area of Influence (PAOI) as per the minimum requirements of the relevant Biodiversity Theme Protocols.

Preliminary preparations conducted prior to the ecological site assessment, were as follows:

- Georeferenced spatial information was obtained of the proposed development footprint, in order to determine the potential direct and indirect impact footprint area (study area/PAOI).
- A desktop study was conducted of the most up-to-date information/data available on the relevant vegetation types, national/provincial biodiversity conservation status/significance and the potential/likely presence of watercourses/wetlands associated with the study area/PAOI.
- A desktop assessment was conducted of conservationally significant faunal and floral species which can potentially be encountered within the study area/PAOI.

Terrestrial Biodiversity- and Plant Species Themes

- The study area/PAOI was assessed on foot in a transect/Timed-meander Search (TMS) formation and with the use of a vehicle.
- Ecological sample sites were assessed in accordance with the Species Environmental Assessment Guideline (SANBI, 2020).
 - Twenty-two sample sites were assessed within the study area/PAOI.
 - This equates to an observation density of approximately 0.21 sample sites/ha.
 - Approximately 10-15 minutes were spent within each sample site.
 - See specialist GPS track and sample sites mapping under section 4.6.
- Visual observations/identifications were made of general terrestrial botanical/vegetation habitats and their conditions as well as any ecologically sensitive/conservationally significant areas/habitats within the study area/PAOI.
- Visual observations/identifications were made of general and conservationally significant plant species encountered within the study area/PAOI.
 - Identified plant species were listed and categorised as per the Red Data Species List; Nationally Protected Tree Species List of the National Forests Act (Act 84 of 1998), Threatened or Protected Species (ToPS) List of the National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEMBA ToPS, 2023), Provincially Protected species of the Northern Cape Nature Conservation Act (Act No. 9 of 2009) as well as the Invasive Species List of the National Environmental Management: Biodiversity Act (Act 10 of 2004), Alien and Invasive Species Regulations, 2014.
- The identified habitats/areas were then given an overall ecological importance rating of either very low, low, medium, high or very high based on the following qualitative criteria: present vegetation condition, ecological connectivity, -functionality and -integrity, presence of conservationally significant plant species.

Animal Species Theme

- This assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.
- A desktop assessment was conducted of conservationally significant faunal species which can potentially be encountered within the study area/PAOI.
 - The platform iNaturalist was used for the desktop assessment.
 - The likelihood was discussed of such faunal species utilising the identified botanical/vegetation habitats within the study area/PAOI as refuge or for breeding, foraging and/or persistence purposes.
- The study area/PAOI was assessed on foot in a transect/Timed-meander Search (TMS) formation and with the use of a vehicle.
 - See specialist GPS track and sample sites mapping under section 4.6.
- Visual observations/identifications were made of general and conservationally significant faunal species, burrows, spoor, scat/droppings or any other evidence of presence encountered within the study area/PAOI, with the use of binoculars.
- Low-level invasive assessments were conducted of potentially active burrows encountered within the study area/PAOI, with the use of an endoscope camera as well as rock-turning.
- Baited Bushnell SpotOn low glow trail cameras/camera traps were set up for a thirteen-day period (1 - 13 December 2025) in visible mammal walkways/areas of frequent use within taller shrubby areas providing faunal refuge and highest likelihood for Species of Conservation Concern (SCC) sightings.
- No actual on-site trapping or specifically focused assessments of any faunal species was conducted.

- The **Site Ecological Importance (SEI)** of the study area/PAOI was determined and discussed as per the tables below.
 - The SEI of an area is considered to be a function of the Biodiversity Importance (BI) of the receptor (e.g. species of conservation concern, the vegetation/fauna community or habitat type present on the site) and its resilience to impacts, expressed as Receptor Resilience (RR).
 - $SEI = BI + RR$
 - BI in turn, is a function of Conservation Importance (CI) and the Functional Integrity (FI) of the receptor
 - $BI = CI + FI$

Table 1: Criteria for CI calculations

Conservation Importance	Fulfilling Criteria
Very High	Confirmed or highly likely occurrence of CR, EN, VU or Extremely Rare or Critically Rare species that have a global EOO of < 10 km². 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 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 km². 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 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 2: Criteria for FI calculations

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 (e.g. ploughing).
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 (e.g. few livestock utilising area) with no signs of major past disturbance (e.g. ploughing) 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 (e.g. established population of alien and invasive flora) 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.

Table 3: Criteria for BI calculations

Biodiversity Importance		Conservation Importance				
		Very High	High	Medium	Low	Very Low
Functional Integrity	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

Table 4: Criteria for RR calculations

Receptor 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 remaining at a site even when a disturbance or impact is occurring, or species that have a very high likelihood of 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 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.
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 remaining at a site even when a disturbance or impact is occurring, or species that have a moderate likelihood of 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 remaining at a site even when a disturbance or impact is occurring, or species that have a low likelihood of 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 remain at a site even when a disturbance or impact is occurring, or species that are unlikely to return to a site once the disturbance or impact has been removed.

Table 5: Criteria for SEI calculations

Site Ecological Importance		Biodiversity Importance				
		Very High	High	Medium	Low	Very Low
Receptor Resilience	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

Table 6: Interpretation of SEI calculation results

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.

Aquatic Biodiversity Theme

The aquatic scope of work is completed in accordance with the following requirements and exemptions of Appendix D1 of the No. 4167 General Authorisations in Terms of Section 39 of the National Water Act 36 of 1998 for Water Uses as Defined in Section 21(c) or Section 21(i), Gazette No. 49833:

Entities are exempted from requiring an aquatic assessment and WULA Risk Assessment Matrix for the construction of renewable energy projects solar and associated infrastructure like access road, battery storage area and grid infrastructure (excluding substations) provided that: It will not result in any direct impact/destruction on any watercourse and where the sewerage infrastructure is located more than 100 m from any watercourse.

- Significant watercourses and/or wetlands and/or other aquatic ecological features/habitats were identified, delineated and discussed as per the accepted methodology described below, if potentially found to be present within the study area/PAOI or surrounding aquatic regulated areas (100 m for watercourses and 500 m for wetlands).
 - For the purposes of this investigation a wetland was defined according to the definition in the National Water Act (Act 36 of 1998) as: “land which is transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface, or the land is periodically covered with shallow water and which in normal circumstances, supports or would support vegetation typically adapted to life in saturated soil.”
 - In 2005 Department of Water Affairs and Forestry (DWAF) published a wetland delineation procedure in a guideline document titled “A Practical Field Procedure for the Identification and Delineation of Wetlands and Riparian Areas”. These guidelines contain a number of stipulations relating to the protection of wetlands and the undertaking of wetland assessments.
 - To delineate any wetland, the following criteria is used in accordance with the Department of Water Affairs (DWA): Updated manual for identification and delineation of wetlands and riparian areas, Edition 2 September 2008.
 - The wetland delineation procedure identifies the outer edge of the temporary zone of the wetland, which marks the boundary between the wetland and adjacent terrestrial areas. This constitutes the part of the wetland that might remain flooded or saturated close to the soil surface for only a few weeks in the year, but long enough to develop anaerobic conditions and determine the nature of the plants growing in the soil.

- The guidelines also state that the locating of the outer edge of the temporary zone must make use of four specific indicators namely:
 - terrain unit indicator
 - soil form indicator
 - soil wetness indicator
 - vegetation indicator
- In addition, the watercourse/wetland and a protective buffer zone beginning from the outer edge of any potential wetland temporary zone, will be designated as sensitive in a sensitivity map, if found to be necessary and applicable to a specific site. The guidelines stipulate buffers to be delineated around the boundary of a wetland. An adequate protective buffer zone, beginning from the outer edge of any potential wetland temporary zone, will be implemented and designated as sensitive within which no development must be allowed to occur, if found to be necessary and applicable to a specific site.
- Georeferenced photographs were taken of any Red Data Species Listed-, nationally- or provincially protected plant species, ecologically sensitive/conservationally significant areas as well as significant watercourses and/or wetlands and/or other aquatic ecological features/habitats, if encountered within the study area/PAOI. This was done in order to indicate their specific locations in a Geographic Information System (GIS) mapping format.

The **Present Ecological State (PES)** of all significant aquatic features/habitats identified within the study area/PAOI, was determined and discussed as per the table below, by conducting a WET-Health Level 1b assessment for wetlands or the Index of Habitat Integrity assessment (IHI, 1999) for watercourses.

- The Present Ecological State (PES) refers to the current state or condition of an area in terms of all its characteristics and reflects the change to the area from its reference condition. The value gives an indication of the alterations that have occurred in the ecosystem.

Table 7: Criteria for PES calculations

PES Category	Score	Description
A	0 – 0.9 > 90 - 100%	Unmodified , natural and pristine.
B	1 – 1.9 > 80 - 90%	Largely natural . A small change in natural habitats and biota may have taken place but the ecosystem functionality has remained essentially unchanged.
C	2 – 3.9 > 60 - 80%	Moderately modified . Moderate loss and transformation of natural habitat and biota have occurred, but the basic ecosystem functionality has still remained predominantly unchanged.
D	4 – 5.9 > 40 - 60%	Largely modified . A significant loss of natural habitat, biota and subsequent basic ecosystem functionality has occurred.
E	6 – 7.9 > 20 - 40%	Seriously modified . The loss of natural habitat, biota and basic ecosystem functionality is extensive.
F	8 – 10 0 - 20%	Critically/Extremely modified . Transformation has reached a critical level and the ecosystem has been modified completely with a virtually complete loss of natural habitat and biota. The basic ecosystem functionality has virtually been destroyed and the transformation is irreversible.

The **Ecological Importance and Sensitivity (EIS)** of all significant aquatic features/habitats identified within the study area/PAOI, was determined and discussed as per the table below, by conducting a WET-EcoServices assessment for wetlands or rapid EIS for watercourses.

- The Ecological Importance and Sensitivity (EIS) of an area is an expression of its importance to the maintenance of ecological diversity and functioning on local and wider scales. Both abiotic and biotic components of the system are taken into consideration. Sensitivity refers to the system's ability to resist disturbance and its capability to recover from disturbance, once it has occurred.

Table 8: Criteria for EIS calculations

EIS Category	Score	Description
D	≤ 1.0	Low/Marginal. Not ecologically important and/or sensitive on any scale. Biodiversity is ubiquitous and not unique or sensitive to habitat modifications.
C	1.1 - 2	Moderate. Ecologically important and sensitive on local or possibly provincial scale. Biodiversity is still relatively ubiquitous and not usually sensitive to habitat modifications.
B	2.1 - 3	High. Ecologically important and sensitive on provincial or possibly national scale. Biodiversity is relatively unique and may be sensitive to habitat modifications.
A	3.1 - 4	Very High. Ecologically important and sensitive on national and possibly international scale. Biodiversity is very unique and sensitive to habitat modifications.

The **Recommended Ecological Category (REC)** of all significant aquatic features/habitats identified within the study area/PAOI, was determined and discussed as per the table below.

- The Recommended Ecological Category (REC) of an area is an expression of the ecological category, within which it is recommended for a water resource to be managed. In the event of a high EIS value, the management objective should constitute improvement of the water resource condition. In the event of a medium or low EIS value, the management objective should constitute maintenance of the current water resource condition. The PES value however also bears relevance in determining a feasible REC value.

Table 9: Criteria for REC calculations

PES Category	EIS Category			
	Very High	High	Moderate	Low
A	A - Maintain	A - Maintain	A - Maintain	A - Maintain
B	A - Improve	A/B - Improve	B - Maintain	B - Maintain
C	B - Improve	B/C - Improve	C - Maintain	C - Maintain
D	C - Improve	C/A - Improve	D - Maintain	D - Maintain
E	D - Improve	D - Improve	D - Improve	D - Improve
F	D - Improve	D - Improve	D - Improve	D - Improve

Potential ecological receptor impacts posed by the proposed development to the local ecosystem and ecology (specific impact receptors), were identified and evaluated. Impact receptor mitigation and management measures in accordance with the requirements of the National Environmental Management Act (Act 107 of 1998) Mitigation Hierarchy, are subsequently recommended, in order to attempt to reduce/alleviate the adverse effects of identified potential ecological receptor impacts.

4. Study Area/Project Area of Influence (PAOI)

4.1. Study Area/PAOI Determination

The significant direct potential ecological receptor impacts posed by the proposed development to the local ecosystem and ecology (specific impact receptors), will mostly be restricted to the proposed solar energy facility development footprint. The nature of the development activities is therefore not expected to have a direct impact on potential Species of Conservation Concern (SCC) or habitats significantly beyond the boundaries of the proposed development footprint.

Indirect low-level potential ecological receptor impacts posed by the proposed development, will mainly consist of moderate fugitive dust and noise generation, emissions and fallout along with potential limited erosion and associated dirty surface water runoff into the areas directly surrounding the footprint. Alteration/impeding and contamination of the sources/drivers and flow regimes of identified watercourses (volumes and peak flow) could also pose a low to moderate long-term direct potential ecological receptor impact for the local surrounding landscape, which will increase the study area/PAOI. Contamination of soil and groundwater resources by hydrocarbons and other chemicals in the event of potential leakages/seepages, ruptures, overflows or operational spillages at the proposed solar energy facility, could also pose significant long-term direct potential ecological receptor impacts for the local surrounding landscape, which will increase the study area/PAOI. Fragmentation of local and broader ecological connectivity, -functionality and -integrity could furthermore also pose a significant long-term direct potential ecological receptor impact for the local surrounding landscape during the operational phase, which will increase the study area/PAOI.

If unmitigated, the significant potential long-term ecological receptor impacts identified for the proposed development, could potentially add low to moderate impact. It is however the opinion of the specialist, by application of the NEMA Mitigation Hierarchy, that all the identified potential ecological receptor impacts associated with the proposed development, can be suitably reduced and mitigated to within acceptable residual levels, by implementation of the recommended mitigation measures (see section 8.3). It is therefore not anticipated that the proposed development will add any significant residual ecological receptor impacts to the surrounding environment, if all recommended mitigation measures as per this ecological report (see section 8.3) are adequately implemented and managed, for both the construction- and subsequent operational phases of the proposed development.

The study area/PAOI will therefore constitute a maximum 50 m area surrounding the proposed development footprint.

4.2. Study Area/PAOI Description

The proposed development footprint constitutes a single footprint area of approximately 80 ha in size, while the study area/PAOI constitutes a slightly increased surrounding single footprint area of approximately 107 ha in size. The proposed development footprint is situated on Portion 3 of the Farm Karabee No. 50 (SG 21 Digit Code: C06000000000005000003), although the northern portion of the study area/PAOI also falls within the directly adjacent surrounding land portions. The study area/PAOI is situated approximately 15 km south-east of the town of Prieska, Northern Cape Province. The study area/PAOI forms part of the Siyathemba Local Municipality which in turn, forms part of the Pixley Ka Seme District Municipality. According to the information received from the EAP, the proposed development footprint falls outside the municipal urban edge. Access to the study area/PAOI is obtained by way of the R386 provincial road and subsequent dirt roads.

See locality map below (see A3 sized map in the Appendices).

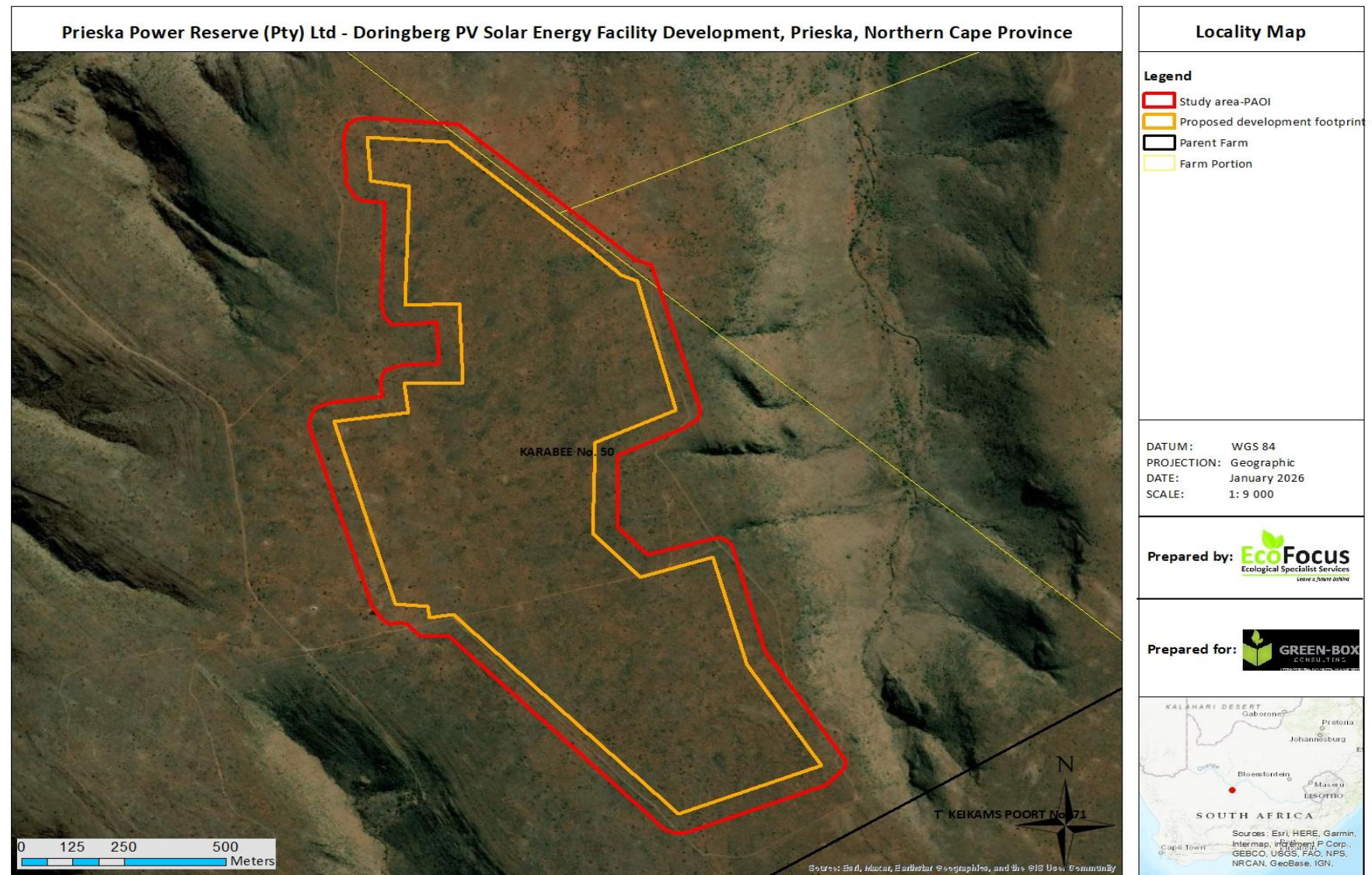


Figure 1: Locality map illustrating the proposed development footprint and study area/PAOI

4.3. Climate

The rainfall of the region peaks during the summer months and the Mean Annual Precipitation (MAP) of the area is approximately 244 mm (www.climate-data.org). The maximum average monthly temperature is approximately 26.9°C in the summer months while the minimum average monthly temperature is approximately 9.8°C during the winter (www.climate-data.org). Maximum daily temperatures can reach up to 34.6°C in the summer months and dip to as low as 1°C during the winter (www.climate-data.org).

4.4. Geology and Soils

According to Mucina & Rutherford (2006) the geology of the landscape and associated vegetation type can be described as the following:

The mountaintop plateaus have a complicated geology: banded iron formation and amphibolites of the Asbestos Hills Subgroup. Metamorphic rocks of the Mokolian Erathrem include quartzites and gneisses of the Korannaland Supergroup. Soils are shallow and skeletal (Mispah and Glenrosa are dominant), mainly of Ib and Ic land types.

4.5. Vegetation Type and Provincial Biodiversity Status

4.5.1. Vegetation Type

According to SANBI (2006-2024), the entire study area falls within the Lower Gariep Broken Veld vegetation type (Nkb 1), which mainly consists of hills and low mountains, slightly irregular plains with some rugged terrain. The sparse vegetation is mainly dominated by shrubs and dwarf shrubs with perennial grasses and herbs (SANBI, 2006-2024). Groups of scattered low trees such as *Aloidendron dichotomum* and *Senegalia mellifera* occur on slopes of koppies and on sandy soils of foot slopes (SANBI, 2006-2024). This vegetation type is classified as Least Concerned (Monyeki & Skowno, 2025).

4.5.2. Provincial Biodiversity Status

The majority central- and southern portions of the study area are categorised as Other Natural Area (ONA), according to the Northern Cape Biodiversity Spatial Plan 2024 (Oosthuysen *et al.*, 2024), which sets out biodiversity priority areas in the province. The northern- and eastern portions of the study area are however categorised as Ecological Support Area (ESA), according to the Northern Cape Biodiversity Spatial Plan 2024 (Oosthuysen *et al.*, 2024).

The function of an ESA is to support Critical Biodiversity Areas (CBA) and connect core areas through corridors (Oosthuysen *et al.*, 2024).

According to the Biodiversity Spatial Plan Technical Report, the specific ESA categorisation within the study area is mainly associated with the connectivity corridors provided by the extensive mountain ridges throughout the local and broader surrounding landscape.

See vegetation type- and provincial biodiversity status maps below (see A3 sized maps in the Appendices).



Figure 2: Vegetation type map illustrating the vegetation type associated with the study area

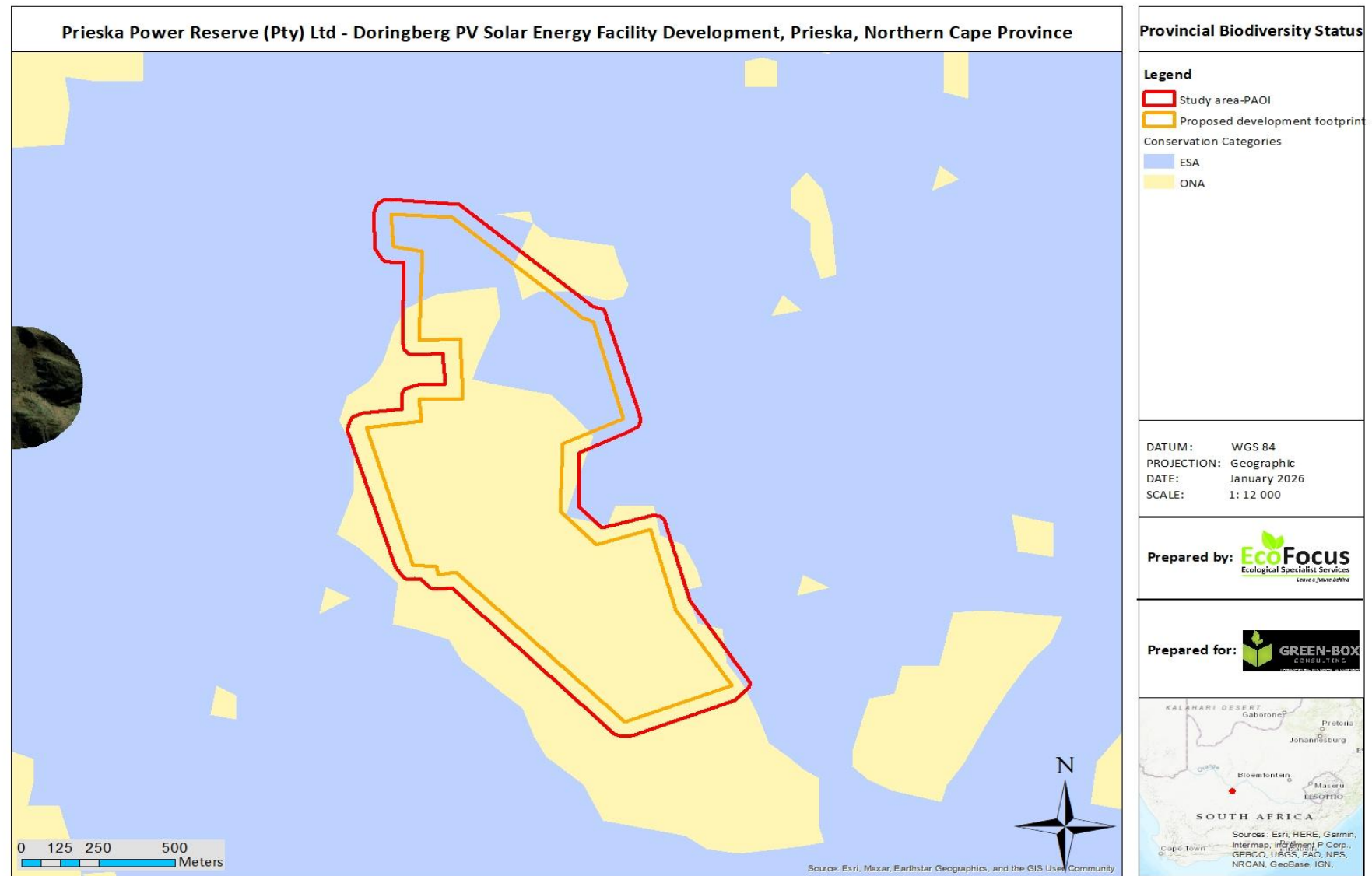


Figure 3: Provincial biodiversity status map illustrating the provincial biodiversity statuses/categories associated with the study area

4.6. Specialist GPS Track and Ecological Sample Sites Map

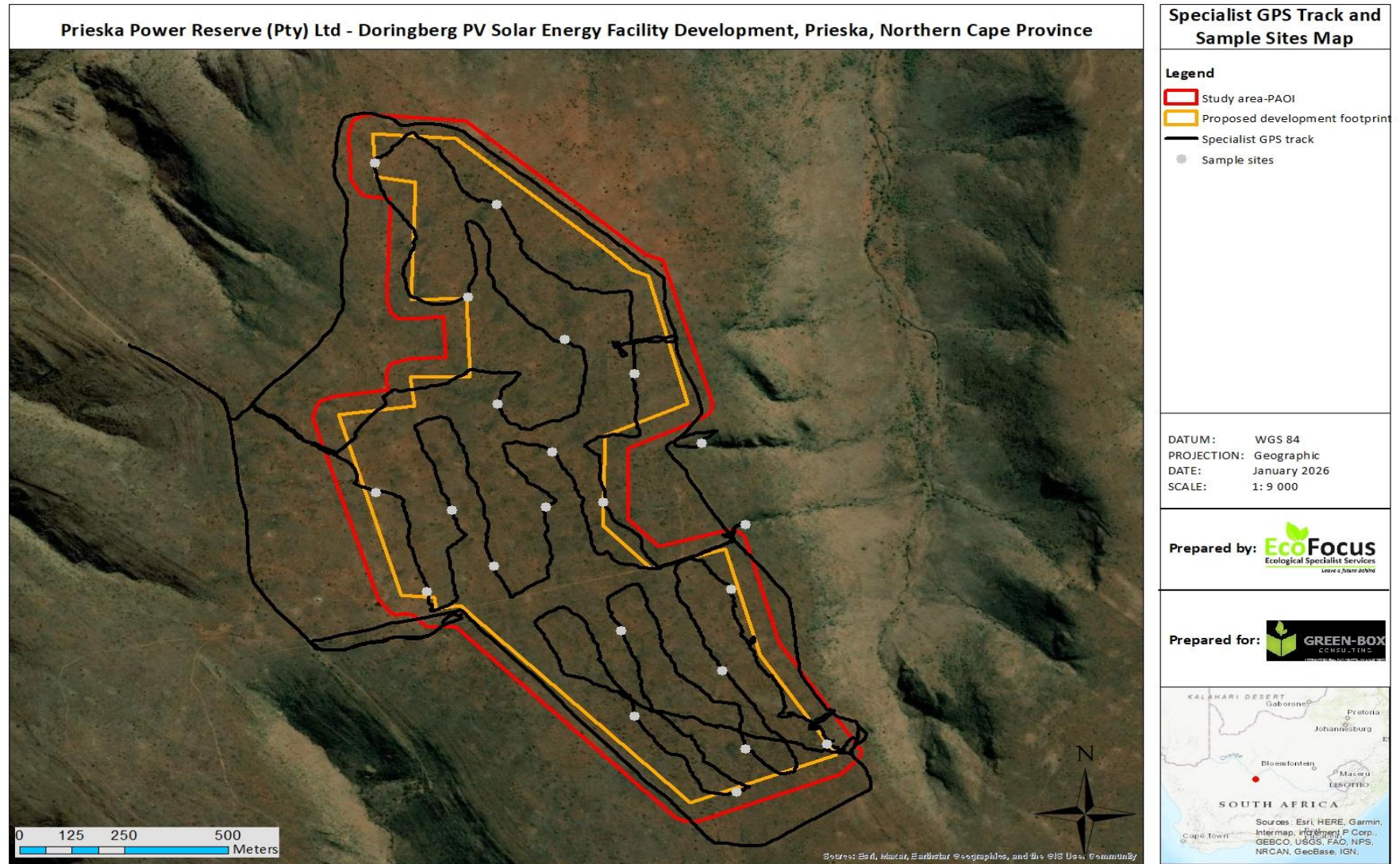


Figure 4: Specialist GPS track and ecological sample sites map illustrating the assessment route used by the specialist

5. Assumptions, Uncertainties and Gaps in Knowledge

Various assumptions need to be made during the assessment process, at the hand of the relevant specialist. It is assumed that:

- all relevant project information provided to the ecological specialist by the EAP, was correct and valid at the time that it was provided.
- the study area as provided by the EAP, is correct and will not be significantly deviated from, as this was the only area assessed.
- strategic level investigations undertaken by the applicant prior to the commencement of the Environmental Impact Assessment/Basic Assessment process, determined that the study area represents a potentially suitable and technically acceptable location.
- the public, local communities, relevant organs of state and surrounding landowners will receive a sufficient reoccurring opportunity to participate and comment on the proposed development during the Environmental Impact Assessment/Basic Assessment process, through the provision of adequately facilitated public participation interventions and timeframes as stipulated in the NEMA: EIA Regulations, 2014.
- the need and desirability of the proposed development is based on strategic national, provincial and local plans and policies, which reflect the interests of both statutory and public viewpoints.
- it is assumed that strategic level decision making by the relevant authorities will be conducted through cooperative governance principles, with the consideration of environmentally sustainable and responsible development principles underpinning all decision making.

Given that an EIA/BA involves prediction, the uncertainty factor forms part of the assessment process. Two types of uncertainty are associated with the EIA/BA process, namely process-related and prediction-related.

- uncertainty of prediction is critical at the data collection phase as observations, recommendations and conclusions are made, solely based on professional specialist opinion. Final certainty will only be obtained upon actual implementation of the proposed development. Adequate research, specialist experience and expertise should however minimise this uncertainty.
- the EIA/BA process is a project-level framework and the specialists are limited to assessing the anticipated environmental impacts, associated with the construction- and subsequent operational phases of the proposed development.
- uncertainty of relevant decision making relates to the interpretation of provided information by relevant authorities during the EIA/BA process. Continual two-way communication and coordination between EAP's and relevant authorities should however decrease the uncertainty of subjective interpretation. The importance of widespread/comprehensive consultation towards minimising the risk/possibility of omitting significant information and impacts is further stressed. The use of quantitative impact significance rating formulas (as utilised in this document) can further standardise the objective interpretation of results and limit the occurrence and scale of uncertainty and subjectivity.
- the principle of human nature provides for uncertainties and unpredictability with regards to the socio-economic impacts of the proposed developments and the subsequent public reaction/opinion, which will be received during the Public Participation Process (PPP).

Gaps in knowledge as well as assessment qualifications and restrictions can be attributed to:

- This assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.
- The aquatic scope of work is completed in accordance with the following requirements and exemptions of Appendix D1 of the No. 4167 General Authorisations in Terms of Section 39 of the National Water Act 36 of 1998 for Water Uses as Defined in Section 21(c) or Section 21(i), Gazette No. 49833:
 - Entities are exempted from requiring an aquatic assessment and WULA Risk Assessment Matrix for the construction of renewable energy projects solar and associated infrastructure like access road, battery storage area and grid infrastructure (excluding substations) provided that: It will not result in any direct impact/destruction on any watercourse and where the sewerage infrastructure is located more than 100 m from any watercourse.
- The ecological assessment process was undertaken prior to the availing of certain information, which would only be derived from the final development design and layout. The design layout for the proposed development, had not been finalised yet at the time of the site assessment.
- The seasonal timing of the assessment also coincided with the general flowering times of potential floral Species of Conservation Concern (SCC) and was therefore reasonably favourable for successful identification of such species, if present. More underground bulb-plant species (geophytes) could however potentially be present throughout the karroid shrubland habitat, which were not necessarily visible aboveground due to the timing of the site assessment.
- The seasonal timing of the assessment was favourable for successful identification of potential faunal Species of Conservation Concern (SCC), if present.
- The assessment was restricted to the summer/growing season, and it is not considered necessary to perform an additional winter survey.
- The trail cameras/camera traps were set up for a thirteen-day period (1 - 13 December 2025) in visible mammal walkways/areas of frequent use within taller shrubby areas providing faunal refuge and highest likelihood for Species of Conservation Concern (SCC) sightings. A longer period could however potentially yield more different species sightings.

- Limited faunal species which are expected to occur throughout the local and broader landscape, are inconspicuous and have very low detection probabilities.
- The extensive local and broader landscape surrounding the study area mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape.
- According to the Department of Forestry, Fisheries and the Environment's South African Renewable Energy EIA Application Database Official Release for Quarter 3 published on 28 November 2025, the following 4 moderate- to significantly sized Solar Energy Facilities (SEF) have been approved within a 30 km radius surrounding the proposed development footprint.
 - The Proposed Construction Of A 75mw Photovoltaic Power Plant And Its Associated Infrastructure On A Portion Of The Remaining Extent Of Erf 1 Prieska Within The Siyathemba Local Municipality, Northern Cape Province (Ref No: 14/12/16/3/3/2/345/AM1)
 - 115 MW Camel Thorn Photovoltaic Solar Energy Facility on the Remaining Extent of Portion 2 of the Farm Karabee 50 east of Prieska within the Siyathemba Local Municipality (Ref No: 14/12/16/3/3/2/937)
 - The proposed 2MW Mahoebe solar energy facility and associated infrastructure on portion 19 of the farm De Hoek 32, Northern Cape Province (Ref No: 14/12/16/3/3/1/1475)
 - The construction of the 75MW Bosjesmansberg PV centre solar energy facility situated on portion 1 of the farm Bosjesmansberg 67 near Copperton within the Siyathemba local municipality in the Northern Cape Province (Ref No: 14/12/16/3/3/2/579/AM3)
- The following 5 provincially approved facilities are furthermore under the ownership of the project applicant:
 - Prieska Power Reserve (Pty) Ltd PV Plant & Associated Infrastructure Phase 1 (Ref No: NC/EIA/15/PIX/SIY/PRI4/2021)
 - Prieska Power Reserve (Pty) Ltd Wonderpan and Camelthorn Developments (both on hold for the foreseeable future)
 - Prieska Power Reserve (Pty) Ltd Wind Energy Facility & Associated Infrastructure Phase 3 (Ref No: NC/EIA/11/PIX/SIY/PR14/2022)
- These approved facilities have been taken into account in order to assess cumulative impacts throughout the local and broader surrounding landscape. It is likely that further similar SEF development and subsequent transformation could take place throughout the local area, over time.

Disclaimer: EcoFocus Consulting is an independent ecological specialist company. All information and recommendations as per this report are therefore provided in a fair and unbiased/objective manner and are solely based on qualitative data gathered as well as professional specialist observation and opinion.

6. Site Sensitivity Verification

6.1. Aquatic Biodiversity Theme

According to the DFFE National Web-Based Environmental Screening Tool Report, the Aquatic Biodiversity Theme of the study area is rated as being of 'low' sensitivity.



Figure 5: Aquatic Biodiversity Theme Sensitivity as per the DFFE National Web-Based Environmental Screening Tool Report

'Ground truthing' conducted during the site assessment, determined that a single first-order non-perennial watercourse (very small ephemeral preferential water flow path/drainage line) commences- and flows past the proposed development footprint within 100 m. It is evident from a hydrological- and aquatic biodiversity perspective, that the flow path/drainage line does not constitute an important component of the local watershed and broader quaternary surface water catchment and drainage area or the aquatic faunal/floral ecology of the area. The flow path/drainage line therefore possesses very low, if any overall long-term aquatic ecological/conservational value/significance.

According to the National Freshwater Ecosystem Priority Areas Database (NFEPA, 2011), the portions of the D72A - 4402 and 4499 Sub Quaternary Reaches (SQR) associated with the study area, do not fall within any Freshwater Ecosystem Priority Area (FEPA), Fish Support Area, -Sanctuary, -Corridor or -Rehabilitation Area. No populations of conservationally significant threatened fish species have been recorded throughout the study area or local downstream region or are expected to specifically/exclusively rely on the study area as refuge or for breeding, foraging and/or persistence purposes. These factors significantly reduce the aquatic conservational significance/value of the area.

Based on the outcomes and results of the site assessment, the specialist is therefore in agreement with the DFFE National Web-Based Environmental Screening Tool Report's classification of a 'low' Aquatic Biodiversity Theme sensitivity rating for the study area. Merely a Compliance Statement is therefore required for the Aquatic Biodiversity Theme in order to inform the Environmental Impact Assessment (EIA) process associated with the proposed development.

6.2. Terrestrial Biodiversity Theme

According to the DFFE National Web-Based Environmental Screening Tool Report, the Terrestrial Biodiversity Theme of the majority of the study area is rated as being of 'low' sensitivity, while the northern- and eastern portions of the study area are rated as being of 'very high' sensitivity for the presence of the Ecological Support Area (ESA) (see section 4.5.2).

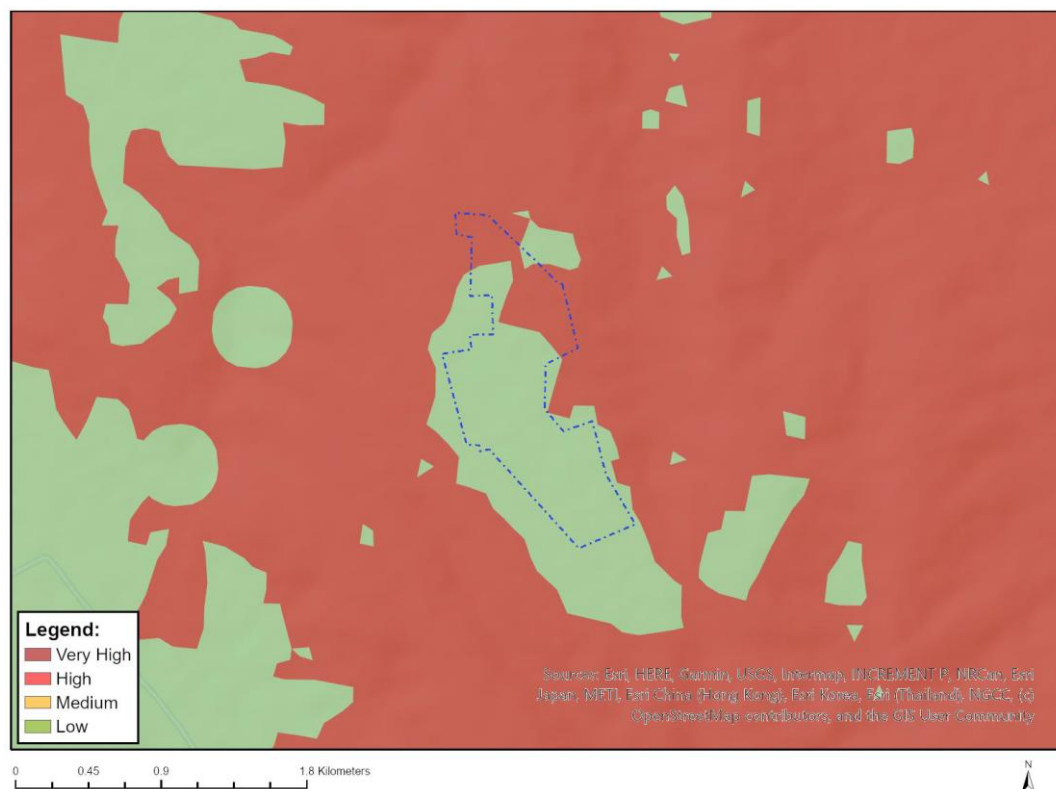


Figure 6: Terrestrial Biodiversity Theme Sensitivity as per the DFFE National Web-Based Environmental Screening Tool Report

The function of an ESA is to support Critical Biodiversity Areas (CBA) and connect core areas through corridors (Oosthuysen *et al.*, 2024).

According to the Biodiversity Spatial Plan Technical Report, the specific ESA categorisation within the study area is mainly associated with the connectivity corridors provided by the extensive mountain ridges throughout the local and broader surrounding landscape.

The extensive local and broader landscape surrounding the study area mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. The size of the Ecological Support area (ESA) portion within the study area is therefore negligible relative to the surrounding natural landscape associated with the broader Ecological Support area (ESA).

Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

If unmitigated, it is consequently anticipated that the proposed development could potentially merely pose a very slight risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area by impacting on the continued ecological connectivity, -functionality and -integrity of the Ecological Support Area (ESA).

If adequate mitigation measures (see section 8.3) are however implemented for the construction- and subsequent operational phases in order to ensure continued faunal/floral species community movement/migration/dispersal through the landscape and Ecological Support Area (ESA), it is not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area or significantly impact on faunal/floral communities or the continued ecological connectivity, -functionality and -integrity of the local and broader surrounding landscape. These factors significantly reduce the terrestrial biodiversity conservational significance/value of the area.

Based on the outcomes and results of the site assessment, the specialist is therefore not in agreement with the DFFE National Web-Based Environmental Screening Tool Report's classification of a 'very high' Terrestrial Biodiversity Theme sensitivity rating for portions of the study area but rather concludes that the entire study area is rated as being of 'low' sensitivity. Merely a Compliance Statement is therefore required for the Terrestrial Biodiversity Theme in order to inform the Environmental Impact Assessment (EIA) process associated with the proposed development.

6.3. Plant Species Theme

According to the DFFE National Web-Based Environmental Screening Tool Report, the Plant Species Theme of the study area is rated as being of 'low' sensitivity.



Figure 7: Plant Species Theme Sensitivity as per the DFFE National Web-Based Environmental Screening Tool Report

The provincially protected species *Ruschia spinosa* is well-represented throughout the karroid shrubland habitat, while the provincially protected species *Ruschia hamata* was also found to be present but to a lesser extent. The provincially protected species *Aloe claviflora* (only burnt, dead clusters), *Anacampseros filamentosa*, *Bulbine abyssinica* and *Hereroa sp.* (low-confidence ID) were merely found to be sparsely present throughout the karroid shrubland habitat. Single individuals of the respective provincially specially protected species *Aloidendron dichotomum* (ToPS Vulnerable) and *Hoodia gordonii* were furthermore also found to be present within the proposed development footprint.

Individuals of the nationally protected tree species *Boscia albitrunca* were furthermore also found to be sparsely to moderately present throughout the study area. The average densities of this species throughout the study area, were respectively calculated to be approximately ≤ 6 individuals/ha (southern portion) and ≤ 4 individuals/ha (northern portion). This equates to a maximum estimate of approximately 400 individuals, which are projected to be present throughout the proposed development footprint. Virtually all of these individuals however constitute very small, low-growing, coppicing shrubs (≤ 1 m in height). Merely 10 individuals of ≥ 2 m in height and a further 3 significantly sized individuals (≥ 3 m in height with thick stem diameters) were found to be present throughout the study area.

Apart from these species, no Red Data Listed-, other nationally protected tree- or other provincially protected plant species or any other floral Species of Conservation Concern (SCC), were found to be present throughout the study area, during the site assessment. An extensive search yielded no findings. The seasonal timing of the assessment also coincided with the general flowering times of potential floral Species of Conservation Concern (SCC) and was therefore reasonably favourable for successful identification of such species, if present. Due to the undeveloped natural ecological state of the study area, the presence of individuals of such species is therefore possible. It is however anticipated that the majority of SCC would rather be associated with the outer perimeters and cliff edges of the mountaintop plateaus. More underground bulb-plant species (geophytes) could however potentially be present throughout the karroid shrubland habitat, which were not necessarily visible aboveground due to the timing of the site assessment.

Due to the undeveloped natural ecological state of the study area, the area is reasonably representative/reminiscent of the natural climax state of the relevant Least Concerned Lower Gariep Broken Veld vegetation type (NKB 1). The area however does not house any locally distinct or conservationally important habitat features or plant species communities or -populations associated with this vegetation type. The extensive local and broader landscape surrounding the study area also mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape. These factors significantly reduce the plant species conservational significance/value of the area.

Based on the outcomes and results of the site assessment, the specialist is therefore in agreement with the DFFE National Web-Based Environmental Screening Tool Report's classification of a 'low' Plant Species Theme sensitivity rating for the study area. Merely a Compliance Statement is therefore required for the Plant Species Theme in order to inform the Environmental Impact Assessment (EIA) process associated with the proposed development.

6.4. Animal Species Theme

According to the DFFE National Web-Based Environmental Screening Tool Report, the Animal Species Theme of the study area is rated as being of 'medium' sensitivity.



Figure 8: Animal Species Theme Sensitivity as per the DFFE National Web-Based Environmental Screening Tool Report

The sensitivity rating is for the potential presence of the following specific faunal Species of Conservation Concern (SCC):

Table 10: List of faunal Species of Conservation Concern (SCC) for the study area as per the DFFE National Web-Based Environmental Screening Tool Report (species are listed based on decreasing threatened status)

Taxonomic Family	Scientific Name	Common Name	Red List Categories	Habitat Requirements	Probability of Occurrence
Otididae	<i>Neotis ludwigii</i>	Ludwig's bustard	Globally/Nationally Endangered	Inhabits open lowland and upland plains with grass and light thornbush, sandy open shrub veld and semi-desert. The eggs are laid directly onto bare ground and nests mainly constitute shallow scrapes in the ground, which are occasionally ringed by pebbles.	This assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.

No individuals, nests, burrows, spoor, scat/droppings or any other evidence associated with the presence of any faunal Species of Conservation Significance (SCC) was observed throughout the study area, during the site assessment. An extensive search and the trail cameras/camera traps yielded no sightings/findings

Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of such species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by any such species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat. The mobility of faunal/avifaunal species allows for individuals to simply leave an area where disturbance is taking place and relocate to surrounding similar, adequate areas. These factors significantly reduce the animal species conservational significance/value of the area.

It is therefore evident from a faunal biodiversity perspective, that the study area does not constitute an important component of the faunal ecology of the area. Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will however result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, - functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

If adequate mitigation measures (see section 8.3) are however implemented for the construction- and subsequent operational phases in order to ensure continued faunal species community movement/migration/dispersal through the landscape, it is not anticipated that the proposed development would pose any significant risk to- or impact on the faunal communities throughout the local or broader surrounding landscape.

It must again be noted that this assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.

Based on the outcomes and results of the site assessment, the specialist is therefore not in agreement with the DFFE National Web-Based Environmental Screening Tool Report's classification of a 'medium' Animal Species Theme sensitivity rating for the study area but rather concludes that the study area is rated as being of 'low' sensitivity. Merely a Compliance Statement is therefore required for the Animal Species Theme in order to inform the Environmental Impact Assessment (EIA) process associated with the proposed development.

6.5. Site Sensitivity Verification Map

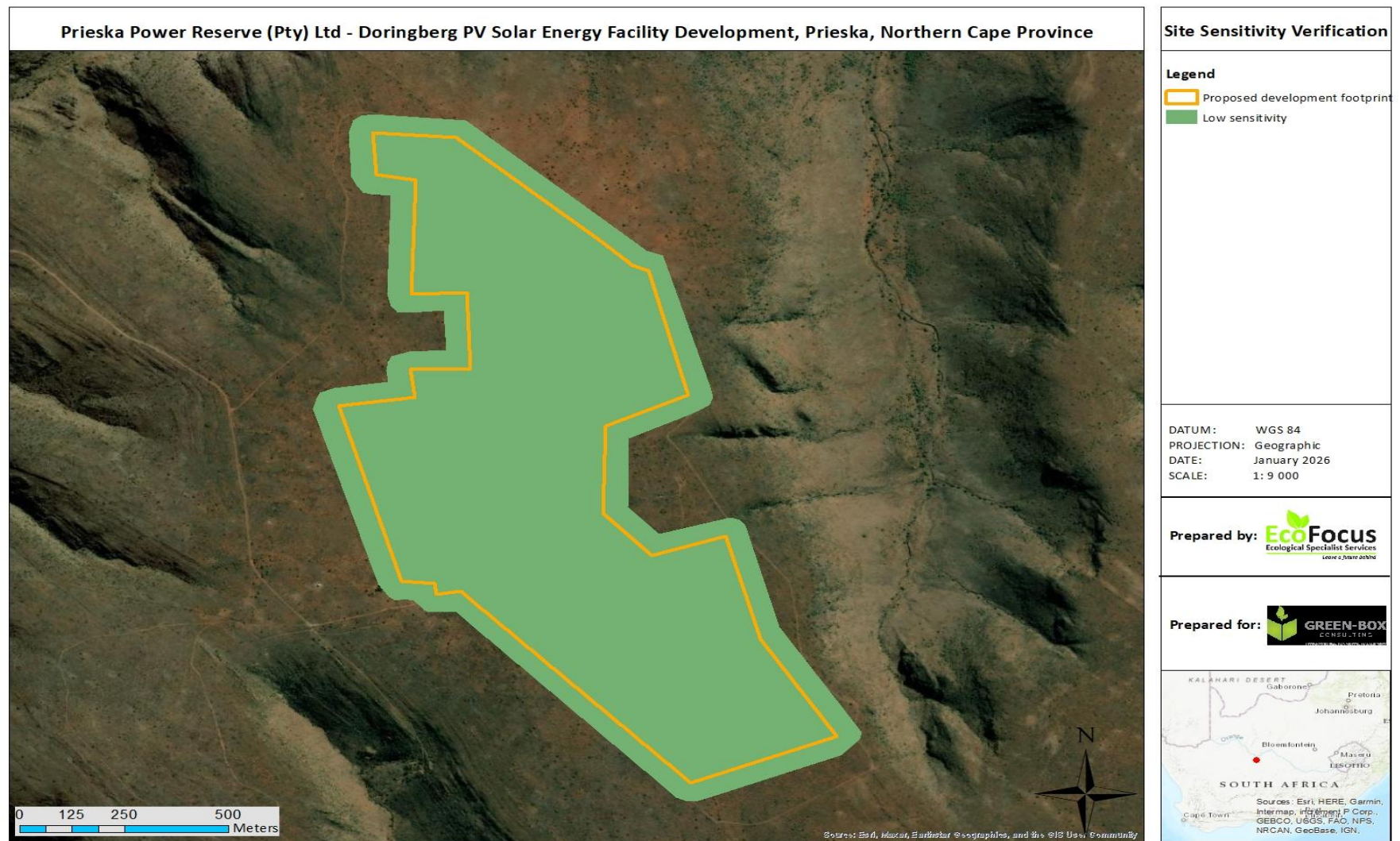


Figure 9: Site sensitivity verification map illustrating the combined sensitivities of the Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes associated with the study area

7. Compliance Statement

7.1. Aquatic Biodiversity Theme

7.1.1. Water Catchment and Drainage

The study area falls within the Lower Orange Water Management Area (WMA 14) and the associated D72A quaternary surface water catchment and drainage area. Although the mapping indicates that a very small central-western portion of the study area falls within the D62H quaternary surface water catchment and drainage area, the site-specific topographical contouring along with 'ground truthing' conducted during the site assessment, however determined that the entire study area rather falls within the D72A quaternary surface water catchment and drainage area. The majority of the study area is furthermore situated in the D72A - 4402 Sub Quaternary Reach (SQR), while the small southern and south-western portions are situated in the D72A - 4499 Sub Quaternary Reach (SQR).

A small local slightly elevated linear topographic highpoint/ridge apex traverses the mountaintop plateau and roughly lies in a north-west to south-east direction. It acts as a natural local linear surface water runoff- and drainage/watershed separator and boundary between the two Sub Quaternary Reaches (SQR). The majority of the study area associated with the 4402 SQR therefore generally slopes slightly towards the north, east and west, while the small portion associated with the 4499 SQR slopes slightly towards the south. The entire study area falls within the Nama Karoo Ecoregion (26).

7.1.2. Watercourse Baseline Information

According to the available desktop water catchment and drainage data of the latest South African National Biodiversity Assessment of 2018 (Van Deventer *et al.*, 2019), there are no significant natural perennial watercourses, -wetlands, -salt pans or non-perennial watercourses of which the regulated areas fall within the proposed development footprint.

'Ground truthing' conducted during the site assessment, however determined that a single first-order non-perennial watercourse (very small ephemeral preferential water flow path/drainage line) commences- and flows past the proposed development footprint within 100 m.

According to the National Freshwater Ecosystem Priority Areas Database (NFEPA, 2011), the portions of the D72A - 4402 and 4499 Sub Quaternary Reaches (SQR) associated with the study area, do not fall within any Freshwater Ecosystem Priority Area (FEPA), Fish Support Area, -Sanctuary, -Corridor or -Rehabilitation Area. No populations of conservationally significant threatened fish species have been recorded throughout the study area or local downstream region or are expected to specifically/exclusively rely on the study area as refuge or for breeding, foraging and/or persistence purposes.

These factors significantly reduce the aquatic conservational significance/value of the area. It is consequently not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial aquatic conservation- and persistence targets of the area or significantly impact on any local aquatic ecological features (watercourses or wetlands) or the continued ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area.

See Van Deventer *et al.*, 2019 desktop water catchment and drainage data map below (see A3 sized map in the Appendices).

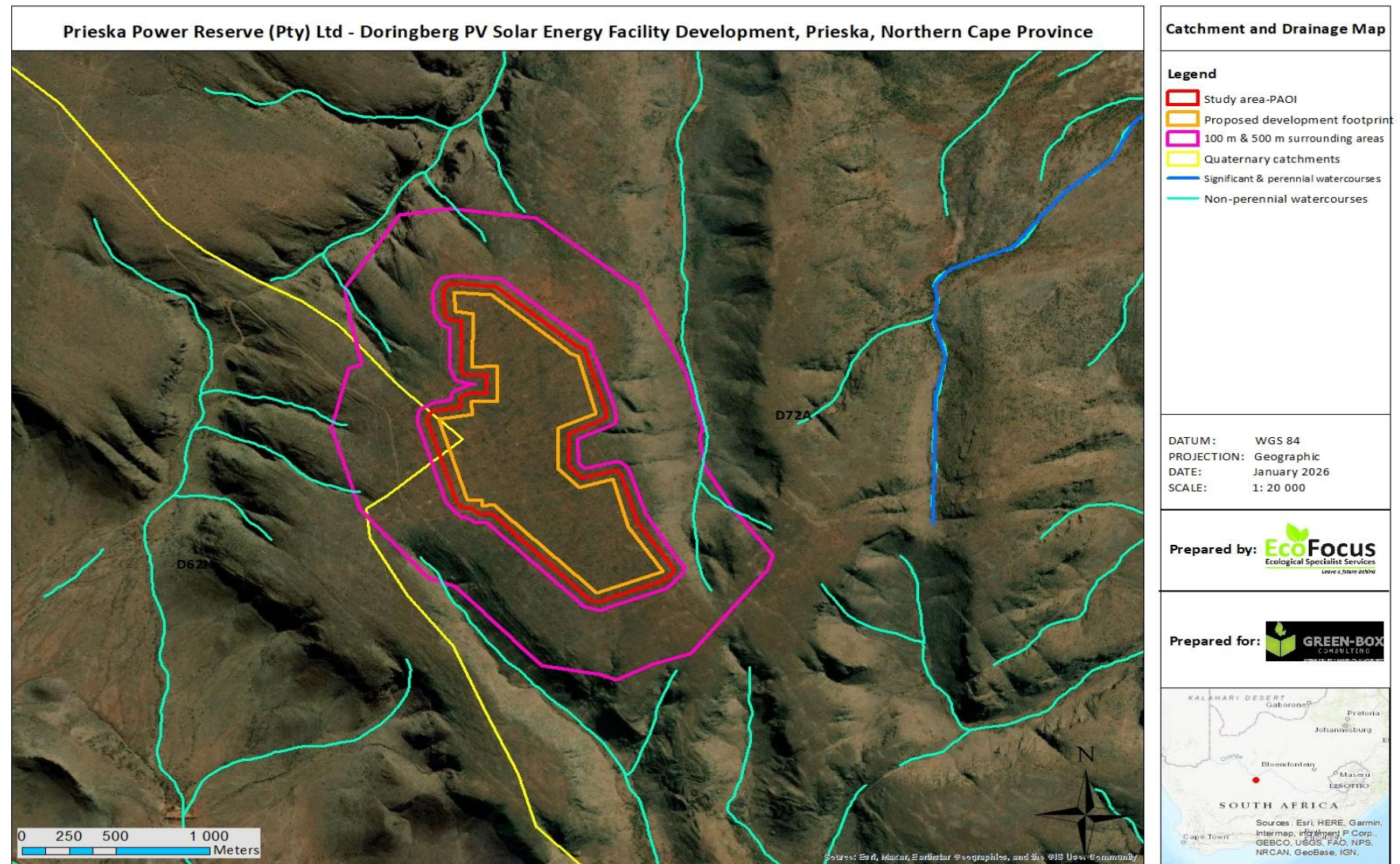


Figure 10: Van Deventer *et al.*, 2019 desktop water catchment and drainage data map illustrating the main watercourses and wetlands/pans as well as the quaternary surface water catchment and drainage area associated with the study area

7.1.3. Preferential Water Flow Path/Drainage Line

A single first-order non-perennial watercourse (very small ephemeral preferential water flow path/drainage line) commences and flows past the proposed development footprint within 100 m. This flow path/drainage line is one of a few which are present along the mountaintop plateau outer perimeter and cliff edge to the east of the study area but is the only one of which the regulated area falls within the proposed development footprint. These flow paths/drainage lines all merely concentrate dispersed general temporary surface water runoff from the mountaintop plateau towards the broad valley bottom to the east, during seasonal rainfall events. The flow path/drainage line is exempted from requiring an aquatic assessment and WULA Risk Assessment Matrix, as per Appendix D1 (see section 3).

7.1.3.1. Sources/Drivers

The flow path/drainage line possesses a very small and limited upstream surface water catchment area and consequently merely assists with channelling very low volumes of temporary surface water runoff during seasonal rainfall events.

7.1.3.2. Habitat

The flow path/drainage line possesses a shallow but distinct very narrow ephemerally active streamflow channel of which the bed mainly houses high soil surface rockiness. Due to the ephemerality and associated lack of continuous natural surface water flow through the local area, the flow path/drainage line possesses no ecologically distinct or important semi-aquatic/riparian habitat or any significant variation in vegetation species composition or -structure, relative to the surrounding terrestrial karroid shrubland landscape. It merely houses a slightly increased density representation of woody shrub species within the channel and along its edges/banks, relative to the surrounding terrestrial karroid shrubland landscape (100 m surrounding regulated area as no 1:100-year floodline delineation or riparian habitat is available).

The woody layer is mainly dominated by small to medium-sized shrub individuals of the woody species *Searsia burchellii* and *S. ciliata*. The woody species *Euclea undulata* and *Senegalia mellifera* were merely found to be sparsely present. The grass species *Aristida spp.*, *Enneapogon cenchroides*, *Eragrostis lehmanniana*, *Heteropogon contortus* and *Stipagrostis spp.* are moderately present within the channel.

No hydrophytic/obligate- or facultative aquatic grass-, reed-, sedge- or rush species were found to be present throughout the flow path/drainage line, during the site assessment.

No Red Data Listed-, nationally protected tree- or provincially protected aquatic plant species or any other aquatic floral Species of Conservation Concern (SCC), were found to be present throughout the flow path/drainage line, during the site assessment.

The flow path/drainage line is in a natural climax state. It is not specifically/exclusively relied upon by any common/general aquatic amphibian- or other aquatic faunal species (see section 7.3). It is therefore evident from a hydrological- and aquatic biodiversity perspective, that the ephemeral preferential water flow path/drainage line associated with the study area does not constitute an important component of the local watershed and broader quaternary surface water catchment and drainage area or the aquatic faunal/floral ecology of the area. The flow path/drainage line therefore possesses very low, if any overall long-term aquatic ecological/conservational value/significance. Its commencement point is also situated an adequate distance away from the study area and it is consequently not deemed necessary for this flow path/drainage line to be buffered out of the proposed development footprint from a hydrological- or aquatic biodiversity perspective. It is however still recommended that the natural flow regime of the flow path/drainage line should not be significantly and/or permanently contaminated or impacted by the proposed development, if practicably possible/feasible.



Figure 11: Image illustrating the presence of the single first-order non-perennial watercourse (very small ephemeral preferential water flow path/drainage line) associated with the study area; the high soil surface rockiness of the bed is visibly evident (red arrow indicates the water flow direction)

7.1.3.3. Present Ecological State (PES), Ecological Importance and Sensitivity (EIS) & Recommended Ecological Category (EIS)

See section 3 for the methodology outlining the criteria for categorisation of Present Ecological State (PES), Ecological Importance and Sensitivity (EIS) & Recommended Ecological Category (REC).

Due to the very small size and ephemeral nature of the preferential water flow path/drainage line, it is the opinion of the specialist that PES, EIS or REC determinations are not applicable. This flow path/drainage line is also exempted from requiring an aquatic assessment and WULA Risk Assessment Matrix, as per Appendix D1 (see section 3).

7.2. Terrestrial Biodiversity- and Plant Species Themes

7.2.1. Current Existing Vegetation and Site Description

The study area is situated on a reasonably flat to slightly undulating mountaintop plateau. The entire study area constitutes an undeveloped natural terrestrial karroid shrubland habitat with a well-established low-growing grass layer. The area houses high soil surface rockiness. The mountaintop plateau is mainly utilised by the landowner for livestock grazing purposes and the karroid shrubland habitat is therefore in a reasonably natural climax ecological state. The mountaintop plateau however forms part of a proposed Wind Power Generation Facility development which has been Environmentally Authorised (Ref No: NC/EIA/11/PIX/SIY/PR14/2022). A number of wind turbines and associated infrastructure will therefore also be developed throughout the local mountaintop plateaus surrounding the study area.

The karroid shrubland habitat is mainly dominated by the species *Eriocephalus ericoides*, while the species *Euryops oligoglossus*, *Osteospermum sp.*, *Pentzia spp.* and the provincially protected species *Ruschia spinosa* are also well-represented. The species *Aizoon schellenbergii*, *Chrysocoma spp.*, *Felicia spp.*, *Hertia pallens*, *Peliostomum leucorrhizum*, *Pteronia glauca*, *P mucronata*, *Rhigozum trichotomum*, *Thesium hystrix*, *Zygophyllum sp.* and the provincially protected species *Ruschia hamata* were also found to be present but to a lesser extent. The species *Asparagus striatus*, *Phaeoptilum spinosum*, *Rhigozum obovatum* and *Salsola aphylla* were merely found to be sparsely present.

Small shrub individuals of the woody species *Ehretia rigida*, *Euclea undulata*, *Lycium bosciifolium*, *Searsia burchellii*, *S ciliata* and *Senegalia mellifera* were merely found to be sporadically present throughout the karroid shrubland habitat. Individuals of the nationally protected tree species *Boscia albitrunca* were furthermore also found to be sparsely to moderately present throughout the study area. The average densities of this species throughout the study area, were respectively calculated to be approximately ≤ 6 individuals/ha (southern portion) and ≤ 4 individuals/ha (northern portion). This equates to a maximum estimate of approximately 400 individuals, which are projected to be present throughout the proposed development footprint. Virtually all of these individuals however constitute very small, low-growing, coppicing shrubs (≤ 1 m in height). Merely 10 individuals of ≥ 2 m in height and a further 3 significantly sized individuals (≥ 3 m in height with thick stem diameters) were found to be present throughout the study area.

The forb species *Acanthopsis disperma*, *A. hoffmannseggiana*, *Aptosimum lineare*, *A. procumbens*, *A. spinesence* are well-represented throughout the karroid shrubland habitat. The species *Barleria macrostegia*, *B. rigida*, *Blepharis mitrata*, *Geigeria ornativa* and *Kleinia longiflora* were also found to be present but to a lesser extent. The species *Albuca sp.*, *Berkheya spinosissima*, *Chascanum pinnatifidum*, *Corchorus sp.*, *Crabbea hirsuta*, *Portulaca kermesina*, *Sansevieria aethiopica*, *Selago subspinosa*, *Sesamum capense*, *S. triphyllum* as well as the provincially protected species *Aloe claviflora* (only burnt, dead clusters), *Anacampseros filamentosa*, *Bulbine abyssinica* and *Hereroa sp.* (low-confidence ID) were merely found to be sparsely present throughout the karroid shrubland habitat. Single individuals of the respective provincially specially protected species *Aloidendron dichotomum* (ToPS Vulnerable) and *Hoodia gordonii* were furthermore also found to be present throughout the proposed development footprint.

The well-established low-growing grass layer is mainly dominated by the robust/resilient Increaser 2 type grass species *Stipagrostis spp.* and *Eragrostis lehmanniana* (Van Oudtshoorn, 2022), while the species *Aristida spp.*, *Enneapogon cenchroides* and *E. desvauxii* are also well-represented. The species *Enneapogon scaber*, *Eragrostis echinochloidea*, *Heteropogon contortus*, *Melinis repens* and *Trachus sp.* were also found to be present but to a lesser extent.

The karroid shrubland habitat associated with the study area is rated as possessing **Low** overall long-term ecological/conservational value/significance.

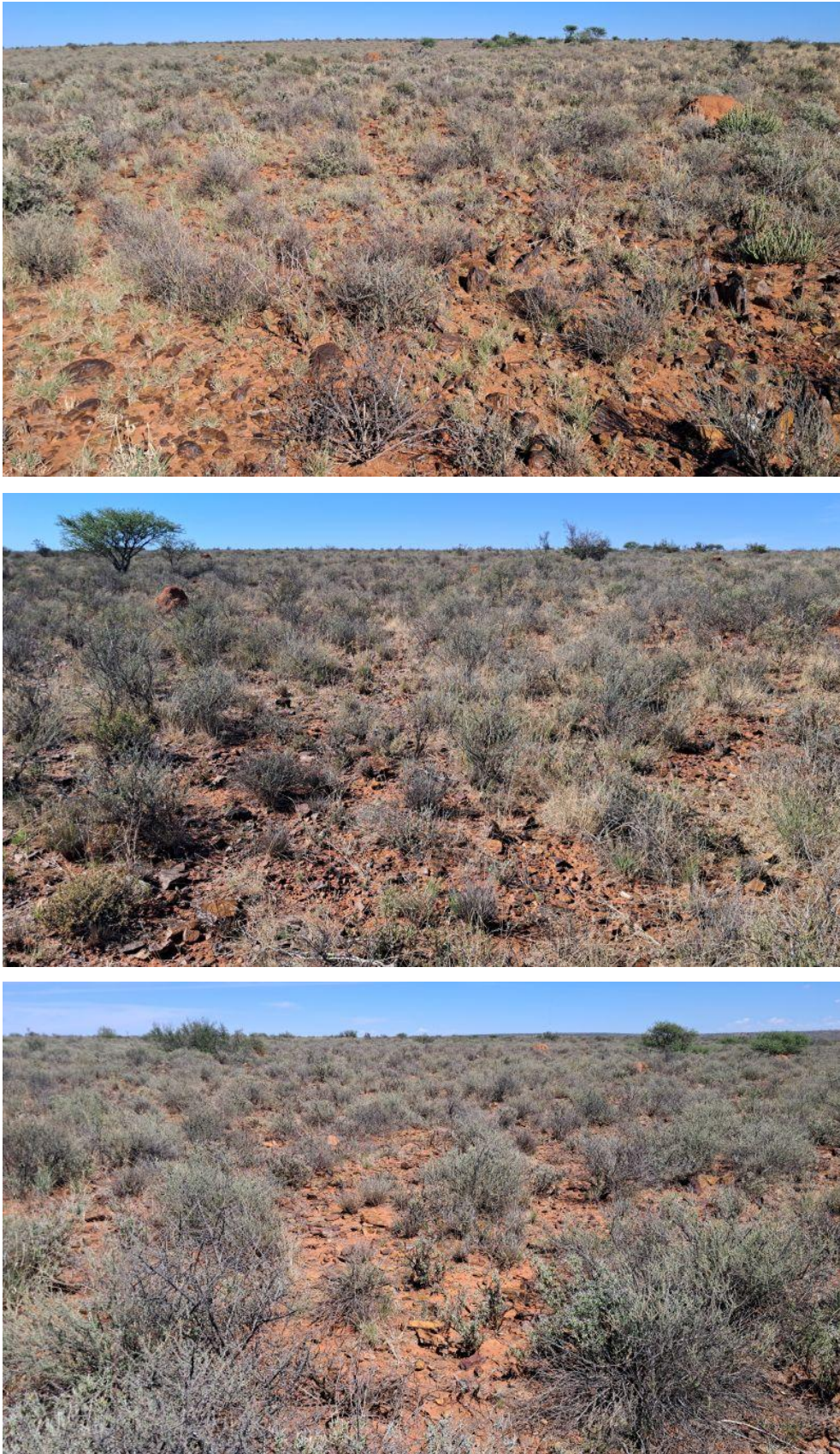


Figure 12: Three images illustrating examples of the undeveloped reasonably natural terrestrial karroid shrubland habitat at the sample sites associated with the study area; the sporadic presence of small woody shrub individuals, the well-established low-growing grass layer and high soil surface rockiness are visibly evident

7.2.2. Species of Conservation Concern (SCC)

The following threatened floral species are indicated by the platform iNaturalist as well as through past experience and extensive knowledge of the area, as having a realistic chance/possibility of potentially/likely occurring throughout the local and broader landscape into which the study area falls:

Table 11: List of threatened floral species which can realistically potentially/likely occur throughout the study area (species are listed based on decreasing threatened status)

Taxonomic Family	Scientific Name	Common Name	Red List Categories	Habitat Requirements	Probability of Occurrence
Asphodelaceae	<i>Aloe spp.</i>	Aloe's	Provincially Protected	Lower Gariep Broken Veld vegetation type (Nkb 1)	Low: No individuals of these species were found to be present throughout the study area, during the site assessment. An extensive search yielded no findings. The seasonal timing of the assessment also coincided with the general flowering times of potential floral Species of Conservation Concern (SCC) and was therefore reasonably favourable for successful identification of such species, if present. Due to the undeveloped natural ecological state of the study area, the presence of individuals of such species is therefore possible. It is however anticipated that the majority of SCC would rather be associated with the outer perimeters and cliff edges of the mountaintop plateaus. More underground bulb-plant species (geophytes) could however potentially be present throughout the karroid shrubland habitat, which were not necessarily visible aboveground due to the timing of the site assessment.
Amaryllidaceae	<i>Ammocharis coranica</i>	Berg lily	Provincially Protected		
Capparaceae	<i>Boscia foetida</i>	Stink shepherd's tree	Provincially Protected		
Crassulaceae	<i>Cotyledon orbiculata</i>	Pig's ear	Provincially Protected		
Euphorbiaceae	<i>Euphorbia spp.</i>	Melkbos	Provincially Protected		
Scrophulariaceae	<i>Jamesbrittenia spp.</i>	Wild phlox	Provincially Protected		
Apocynaceae	<i>Orbea spp.</i>	Carrion flower	Provincially Protected		
Apocynaceae	<i>Stapelia spp.</i>	Carrion flower	Provincially Protected		

The provincially protected species *Ruschia spinosa* is well-represented throughout the karroid shrubland habitat, while the provincially protected species *Ruschia hamata* was also found to be present but to a lesser extent. The provincially protected species *Aloe claviflora* (only burnt, dead clusters), *Anacampseros filamentosa*, *Bulbine abyssinica* and *Hereroa sp.* (low-confidence ID) were merely found to be sparsely present throughout the karroid shrubland habitat. Single individuals of the respective provincially specially protected species *Aloidendron dichotomum* (ToPS Vulnerable) and *Hoodia gordonii* were furthermore also found to be present within the proposed development footprint.

Individuals of the nationally protected tree species *Boscia albitrunca* were furthermore also found to be sparsely to moderately present throughout the study area. The average densities of this species throughout the study area, were respectively calculated to be approximately ≤ 6 individuals/ha (southern portion) and ≤ 4 individuals/ha (northern portion). This equates to a maximum estimate of approximately 400 individuals, which are projected to be present throughout the proposed development footprint. Virtually all of these individuals however constitute very small, low-growing, coppicing shrubs (≤ 1 m in height). Merely 10 individuals of ≥ 2 m in height and a further 3 significantly sized individuals (≥ 3 m in height with thick stem diameters) were found to be present throughout the study area.

Apart from these species, no Red Data Listed-, other nationally protected tree- or other provincially protected plant species or any other floral Species of Conservation Concern (SCC), were found to be present throughout the study area, during the site assessment. An extensive search yielded no findings. The seasonal timing of the assessment also coincided with the general flowering times of potential floral Species of Conservation Concern (SCC) and was therefore reasonably favourable for successful identification of such species, if present. Due to the undeveloped natural ecological state of the study area, the presence of individuals of such species is therefore possible. It is however anticipated that the majority of SCC would rather be associated with the outer perimeters and cliff edges of the mountaintop plateaus. More underground bulb-plant species (geophytes) could however potentially be present throughout the karroid shrubland habitat, which were not necessarily visible aboveground due to the timing of the site assessment.

Due to the undeveloped natural ecological state of the study area, the area is reasonably representative/reminiscent of the natural climax state of the relevant Least Concerned Lower Gariep Broken Veld vegetation type (NKB 1). The area however does not house any locally distinct or conservationally important habitat features or plant species communities or -populations associated with this vegetation type. The extensive local and broader landscape surrounding the study area also mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape.

These factors significantly reduce the terrestrial biodiversity- and plant species conservational significance/value of the area. It is consequently not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area or significantly impact on floral communities or the continued ecological connectivity, -functionality and -integrity of the local and broader surrounding landscape.

7.2.3. Plant Species List for the Study Area

Table 12: Plant species list for the study area (Nationally protected tree species highlighted in orange; ToPS Vulnerable species highlighted in purple; provincially protected species highlighted in yellow)

Graminoids	Forbs & Succulents	Woody/Karroid Shrubs & Trees
<i>Aristida spp.</i>	<i>Acanthopsis disperma</i>	<i>Aizoon schellenbergii</i>
<i>Enneapogon cenchroides</i>	<i>Acanthopsis hoffmannseggiana</i>	<i>Asparagus striatus</i>
<i>Enneapogon desvauxii</i>	<i>Albuca sp.</i>	<i>Boscia albitrunca</i>
<i>Enneapogon scaber</i>	<i>Aloe claviflora</i>	<i>Chrysocoma spp.</i>
<i>Eragrostis echinochloidea</i>	<i>Aloidendron dichotomum</i>	<i>Ehretia rigida</i>
<i>Eragrostis lehmanniana</i>	<i>Anacampseros filamentosa</i>	<i>Eriocephalus ericoides</i>
<i>Heteropogon contortus</i>	<i>Aptosimum lineare</i>	<i>Euclea undulata</i>
<i>Melinis repens</i>	<i>Aptosimum procumbens</i>	<i>Euryops oligoglossus</i>
<i>Stipagrostis spp.</i>	<i>Aptosimum spinesence</i>	<i>Felicia spp.</i>
<i>Trachus sp.</i>	<i>Barleria macrostegia</i>	<i>Hertia pallens</i>
-	<i>Barleria rigida</i>	<i>Lycium bosciifolium</i>
-	<i>Berkheya spinosissima</i>	<i>Osteospermum sp</i>
-	<i>Blepharis mitrata</i>	<i>Peliostomum leucorrhizum</i>
-	<i>Bulbine abyssinica</i>	<i>Pentzia spp.</i>
-	<i>Chascanum pinnatifidum</i>	<i>Phaeoptilum spinosum</i>
-	<i>Corchorus sp.</i>	<i>Pteronia glauca</i>
-	<i>Crabbea hirsuta</i>	<i>Pteronia mucronata</i>
-	<i>Geigeria ornativa</i>	<i>Rhigozum obovatum</i>
-	<i>Hereroa sp.</i>	<i>Rhigozum trichotomum</i>
-	<i>Hoodia gordonii</i>	<i>Ruschia hamata</i>
-	<i>Kleinia longiflora</i>	<i>Ruschia spinosa</i>
-	<i>Portulaca kermesina</i>	<i>Salsola aphylla</i>
-	<i>Sansevieria aethiopica</i>	<i>Searsia burchellii</i>
-	<i>Selago subspinosa</i>	<i>Searsia ciliata</i>
-	<i>Sesamum capense</i>	<i>Senegalia mellifera</i>
-	<i>Sesamum triphyllum</i>	<i>Thesium hystrix</i>
-	-	<i>Zygophyllum sp.</i>

7.2.4. Ecological Drivers, Functions, Processes and Corridors

The main ecological drivers, functions and processes which influence and maintain the surrounding portions of undeveloped natural karroid shrubland habitat include rainfall patterns, natural fire/burning regimes, faunal/floral community movement/migration and dispersal (landscape connectivity) and climate change.

The karroid shrubland habitat associated with the study area is rated as possessing **Low** overall long-term ecological/conservational value/significance. The extensive local and broader landscape surrounding the study area also mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape and will consequently not impact significantly on the natural rainfall drainage and surface waterflow of the area.

The small relative size of the study area will also not significantly impact on the natural fire/burning regimes. Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

It is consequently anticipated that the proposed development could potentially merely pose a low-significance risk and impact on the main ecological drivers, functions and processes of the local surrounding landscape.

7.2.5. Critical Biodiversity Areas (CBA), Protected Areas, Freshwater Ecosystem Priority Areas (FEPA), Strategic Water Source Areas (SWSA) and Indigenous Forests

Not applicable as there are none of these elements within- or associated with the study area.

7.2.6. Ecological Support Areas (ESA)

As per section 4.5.2, the northern- and eastern portions of the study area are categorised as Ecological Support Area (ESA), according to the Northern Cape Biodiversity Spatial Plan 2024 (Oosthuysen *et al.*, 2024).

The function of an ESA is to support Critical Biodiversity Areas (CBA) and connect core areas through corridors (Oosthuysen *et al.*, 2024).

According to the Biodiversity Spatial Plan Technical Report, the specific ESA categorisation within the study area is mainly associated with the connectivity corridors provided by the extensive mountain ridges throughout the local and broader surrounding landscape.

The extensive local and broader landscape surrounding the study area mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. The size of the Ecological Support area (ESA) portion within the study area is therefore negligible relative to the surrounding natural landscape associated with the broader Ecological Support area (ESA).

Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

If unmitigated, it is consequently anticipated that the proposed development could potentially merely pose a very slight risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area by impacting on the continued ecological connectivity, -functionality and -integrity of the Ecological Support Area (ESA).

If adequate mitigation measures (see section 8.3) are however implemented for the construction- and subsequent operational phases in order to ensure continued faunal/floral species community movement/migration/dispersal through the landscape and Ecological Support Area (ESA), it is not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area or significantly impact on faunal/floral communities or the continued ecological connectivity, -functionality and -integrity of the local and broader surrounding landscape. These factors significantly reduce the terrestrial biodiversity conservational significance/value of the area.

7.3. Animal Species Theme

7.3.1. Species of Conservation Concern (SCC)

Mammals

The following threatened mammalian species are indicated by the platform iNaturalist as having been previously identified in the local area and therefore have a realistic chance/possibility of potentially/likely occurring throughout the local and broader landscape into which the study area falls:

Table 13: List of mammalian Species of Conservation Concern (SCC) which can realistically potentially/likely occur throughout the study area (species are listed based on decreasing threatened status)

Taxonomic Family	Scientific Name	Common Name	Red List Categories	Habitat Requirements	Probability of Occurrence
Felidae	<i>Felis nigripes</i>	Black-footed Cat	Globally/Nationally Vulnerable & ToPS Protected	Inhabits dry, open savannah, grasslands and Karoo semi-deserts with sparse shrub and tree cover with a mean annual rainfall of between 100 to 500 mm. It is endemic to the dry grassland or dwarf shrub, and savanna of the Karoo and Kalahari in southern Africa. During the day it uses termite mounds or unoccupied burrows of springhare (<i>Pedetes capensis</i>), aardvark (<i>Orycteropus afer</i>), and Cape porcupine (<i>Hystrix africaeaustralis</i>). Additionally, it often uses occupied dens of aardwolf (<i>Proteles cristatus</i>). It has a strong preference for open dens that are surrounded by short grasses and where there is high abundance of rodents or ground roosting birds.	Low: No individuals, burrows, spoor, scat/droppings or any other evidence associated with the presence of this species was observed throughout the study area, during the site assessment. This is however a very contact-shy and disturbance-sensitive species with low detection probability. Although no individuals or burrows of this species were observed during the site assessment, the undeveloped natural karroid shrubland associated with the study area provides a limited degree of reasonably suitable habitat for its potential occurrence. Individuals of this species could therefore still be present or occasionally visit/traverse the study area. An extensive search and the trail cameras/camera traps however yielded no sightings/findings.

					Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of this species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by this species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat.
Hyaenidae	<i>Hyaena brunnea</i>	Brown Hyaena	Globally/Nationally Near Threatened & ToPS Protected	Desert areas with annual rainfall less than 100 mm (particularly along the Skeleton Coast in Namibia), semi-desert, open scrub and open woodland savannah with a maximum rainfall up to about 700 mm. It requires some type of cover in which to lie up during the day. For this it favours rocky, mountainous areas with bush cover in the bushveld areas of South Africa. They occupy a range of ranch land but typically avoid agricultural and heavily urbanised habitats.	Low: No individuals, burrows, spoor, scat/droppings or any other evidence associated with the presence of this species was observed throughout the study area, during the site assessment. Although no individuals or burrows of this species were observed during the site assessment, the undeveloped natural karroid shrubland associated with the study area provides a limited degree of reasonably suitable habitat for its potential occurrence. Individuals of this species could therefore occasionally visit/traverse the study area. An extensive search and the trail cameras/camera traps however yielded no sightings/findings.

					Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of this species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by this species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat.
Erinaceidae	<i>Atelerix frontalis</i>	Southern African Hedgehog	Nationally Threatened	Near	The distribution mainly falls within savannah and grassland vegetation types, within which it is found in a wide variety of semi-arid and sub-temperate habitats, including scrub brush, western Karoo, grassland and suburban gardens. They require ample ground cover, for cover, nesting and insect food sources. The main savannah vegetation types include Polokwane Plateau Bushveld, Central Sandy Bushveld, Kimberley Thornveld, Moot Plains Bushveld, and Queenstown Thornveld. Low to Medium: No individuals, burrows, spoor, scat/droppings or any other evidence associated with the presence of this species was observed throughout the study area, during the site assessment. This is however a very inconspicuous species with very low detection probability. Although no individuals or burrows of this species were observed during the site assessment, the undeveloped natural karroid shrubland associated with the study area provides a limited degree of reasonably suitable habitat for its potential occurrence. Individuals of this species could therefore still be present or occasionally visit/traverse the study area.

					An extensive search and the trail cameras/camera traps however yielded no sightings/findings. Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of this species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by this species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat.
Orycteropodidae	<i>Orycteropus afer</i>	Aardvark	ToPS Protected	Occurs in a broad range of habitats, including the semi-arid Karoo areas of southern Africa, grasslands, all savannah types, rainforests, woodlands and thickets. Well-adapted for multiple habitats, including arid regions, as long as sufficient prey are available. Absent from hyper-arid habitats and avoid very rocky terrain that is difficult to dig in. Occur at all altitudes within the assessment region but are not common on steep slopes Also known to occupy farmlands, for example in the Drakensberg Midlands of KwaZulu-Natal Province.	Low: No individuals, burrows, spoor, scat/droppings or any other evidence associated with the presence of these two species was observed throughout the study area, during the site assessment. Although no individuals or burrows of these two species were observed during the site assessment, the undeveloped natural karroid shrubland associated with the study area provides a limited degree of reasonably suitable habitat for their potential occurrence. Individuals of these two species could therefore occasionally visit/traverse the study area.
See next page					

Canidae	<i>Otocyon megalotis</i>	Southern Bat-eared Fox	ToPS Protected	Prime habitat is mainly short grass plains and areas with bare ground, but it is also found in open scrub vegetation and arid, semi-arid or winter rainfall shrub lands, and open arid savannah. They are absent from true desert or afforested areas.	An extensive search and the trail cameras/camera traps however yielded no sightings/findings. Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of these two species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by these two species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat.
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Herpetofauna

No threatened herpetofaunal species are indicated by the platform iNaturalist as having been previously identified in the local area and therefore having a realistic chance/possibility of potentially/likely occurring throughout the local and broader landscape into which the study area falls.

Avifauna

This assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.

7.3.2. Common/General Species

No currently active or significantly sized mammalian burrows were found to be present throughout the study area. A number of sightings of the following common/general faunal species were captured on the trail cameras/camera traps (see extracted images below):

- *Tragelaphus strepsiceros* (Greater Kudu; a number of small herds)



- *Herpestes pulverulentus* (Cape grey mongoose)



Due to the undeveloped natural ecological state of the study area, it is expected that the study area could be occasionally or even regularly be visited/traversed by meso-predatory- and small mammals or small deer species. Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of such species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by any such species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat.

Common/general rodent species individuals were encountered on numerous occasions throughout the study area. Individuals of the provincially protected small antelope species *Raphicerus campestris* (Steenbok) were also encountered during the site assessment. No other actual faunal sightings/encounters occurred during the site assessment. According to the information received from the landowner, small troops of the primate species *Papio ursinus* (Chacma baboon) have also been occasionally observed throughout the study area over time.

The ephemeral preferential water flow path/drainage line associated with the study area is not specifically/exclusively relied upon by any common/general aquatic amphibian- or other aquatic faunal species. It is therefore evident from an aquatic biodiversity perspective, that the flow path/drainage line does not constitute an important component of the aquatic faunal/floral ecology of the area.

7.3.3. Conclusion

No individuals, nests, burrows, spoor, scat/droppings or any other evidence associated with the presence of any faunal Species of Conservation Significance (SCC) was observed throughout the study area, during the site assessment. An extensive search and the trail cameras/camera traps yielded no sightings/findings

Due to the high surface and subsurface rockiness of the area, the presence of burrowing sites of such species is therefore unlikely and it is unlikely that the area would specifically/exclusively be relied upon by any such species as refuge or for breeding, foraging and/or persistence purposes. Although the study area is significantly sized, it is also small relative to the surrounding natural landscape which provides ample alternative habitat. The mobility of faunal/avifaunal species allows for individuals to simply leave an area where disturbance is taking place and relocate to surrounding similar, adequate areas. These factors significantly reduce the animal species conservational significance/value of the area.

It is therefore evident from a faunal biodiversity perspective, that the study area does not constitute an important component of the faunal ecology of the area. Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will however result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, - functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

If adequate mitigation measures (see section 8.3) are however implemented for the construction- and subsequent operational phases in order to ensure continued faunal species community movement/migration/dispersal through the landscape, it is not anticipated that the proposed development would pose any significant risk to- or impact on the faunal communities throughout the local or broader surrounding landscape.

It must again be noted that this assessment does not include an Avifaunal Assessment. A separate avifaunal specialist was appointed to conduct a specific Avifaunal Assessment. No avifaunal ecological aspects were therefore assessed or taken into consideration during any discussions, conclusions and/or recommendations associated with this report. See the Avifaunal Assessment Report for a discussion on avifaunal species.

7.4. Site Ecological Importance (SEI)

See section 3 for the methodology outlining the criteria for categorisation of Site Ecological Importance (SEI).

7.4.1. Plant Species

The floral species Site Ecological Importance (SEI) of the study area is classified as **Low** as it is merely viewed as being slightly ecologically important and/or sensitive on local scale. The study area is therefore merely viewed as being of low overall long-term conservational significance/value for habitat preservation and continued ecological functionality and -integrity persistence in support of the surrounding ecosystem, broader vegetation type and floral habitats. Minimisation and restoration mitigation - development activities of medium to high impact are consequently acceptable followed by appropriate restoration activities.

The SEI calculation is as follows:

$$\begin{array}{rclcl} \text{CI (Low)} & + & \text{FI (Very High)} & = & \text{BI (Medium)} \\ \text{BI (Medium)} & + & \text{RR (Low)} & = & \text{SEI (Low)} \end{array}$$

7.4.2. Animal Species

The faunal species Site Ecological Importance (SEI) of the study area is classified as **Low** as it is merely viewed as being slightly ecologically important and/or sensitive on local scale. The study area is therefore merely viewed as being of low overall long-term conservational significance/value for habitat preservation and continued ecological functionality and -integrity persistence in support of the surrounding ecosystem and faunal habitats. Minimisation and restoration mitigation - development activities of medium to high impact are consequently acceptable followed by appropriate restoration activities.

The SEI calculation is as follows:

$$\begin{array}{rclcl} \text{CI (Very Low)} & + & \text{FI (Very High)} & = & \text{BI (Low)} \\ \text{BI (Low)} & + & \text{RR (Medium)} & = & \text{SEI (Low)} \end{array}$$

7.5. Ecological Site Sensitivity Features Map

The ecological site sensitivity features map below (see A3 sized map in the Appendices) illustrates the locations of the identified aquatic ecological feature, conservationally significant plant species individuals and recommended buffer zone associated with the study area.

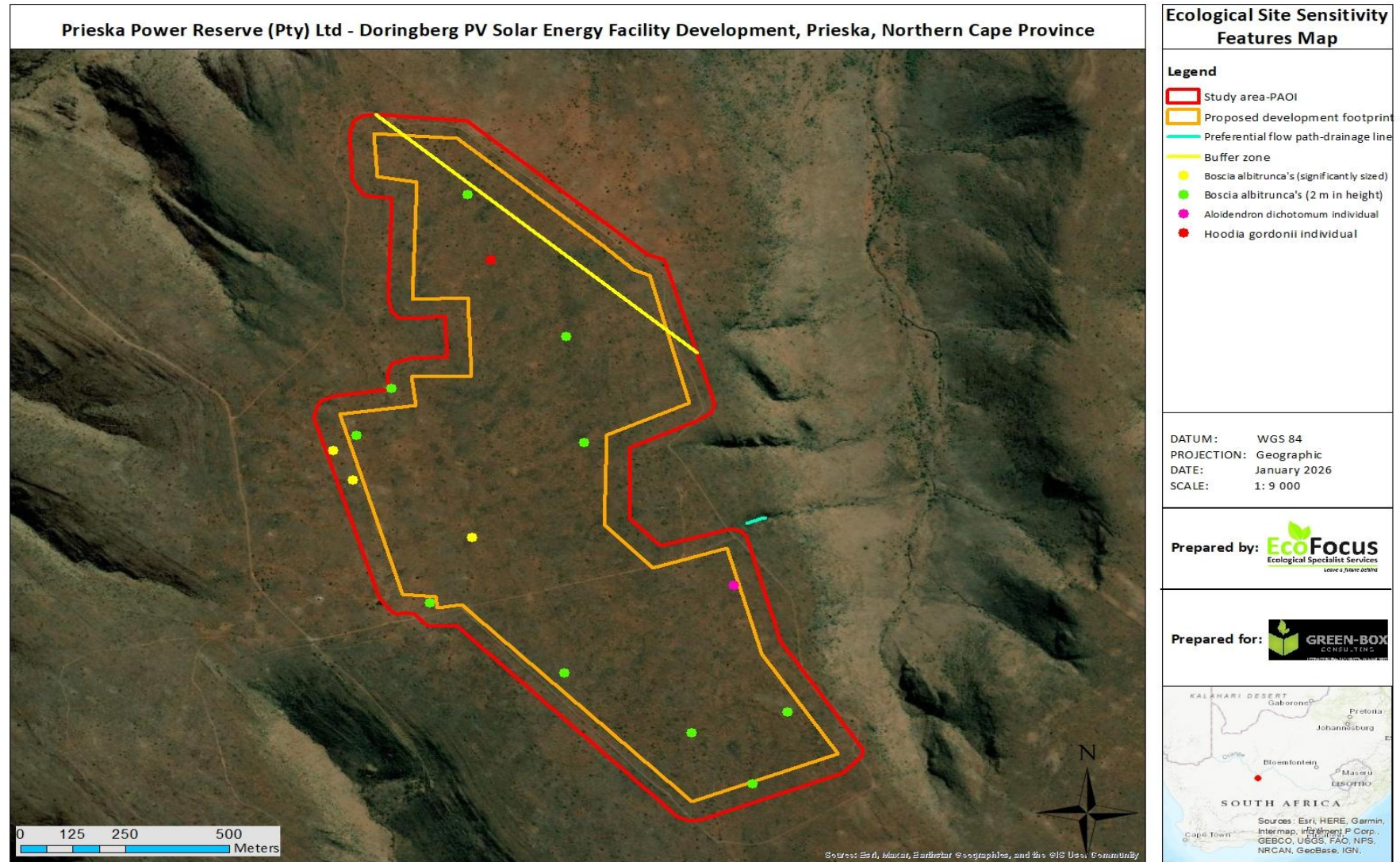


Figure 13: Ecological site sensitivity features map illustrating the locations of the identified aquatic ecological feature, conservationally significant plant species individuals and recommended buffer zone associated with the study area

8. Ecological Receptor Impact Management and Mitigation

8.1. Receptor Impacts

A single medium significance potential long-term ecological receptor impact was identified for the proposed development (see below). No other medium- or high significance potential long-term ecological receptor impacts were identified for the proposed development. The following main ecological impact receptors could potentially be affected by the proposed development:

- Clearance and transformation of a small reasonably natural portion of Lower Gariep Broken Veld vegetation type (NKb 1)
- Clearance and transformation of a small reasonably natural portion associated with common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats/individuals as well as provincially protected plant species- and nationally protected tree species individuals
 - This constitutes the only medium significance potential long-term ecological receptor impact identified for the proposed development as approximately 400 nationally protected tree species individuals will have to be destroyed/removed
- Contamination of a small reasonably natural portion of directly surrounding Lower Gariep Broken Veld vegetation type (NKb 1) along with common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats/individuals as well as provincially protected plant species- and nationally protected tree species individuals by slight fugitive dust generation, emissions and fallout
- Fragmentation of the local ecological connectivity, -functionality and -integrity of the Ecological Support Area (ESA) and associated common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal
- Operational noise and glare/shine impact/disturbance by the established development on fauna utilising the local surrounding landscape
- Exotic- and legally declared alien invasive species establishment and spreading within the reasonably natural directly surrounding portion
- Alteration/impeding of the sources/drivers and flow regime of the identified ephemeral preferential water flow path/drainage line (volumes and peak flow) and consequent impact on the ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area

- Contamination of the sources/drivers and flow regime of the identified ephemeral preferential water flow path/drainage line and consequent impact on the ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area (sewage, hydrocarbons, other chemicals, surface material/soil erosion as well as slight fugitive dust generation, emissions and fallout)
- Contamination of soil and groundwater resources (sewage, hydrocarbons and other chemicals)

8.2. Cumulative Impact

According to the Department of Forestry, Fisheries and the Environment's South African Renewable Energy EIA Application Database Official Release for Quarter 3 published on 28 November 2025, the following 4 moderate- to significantly sized Solar Energy Facilities (SEF) have been approved within a 30 km radius surrounding the proposed development footprint:

- The Proposed Construction Of A 75mw Photovoltaic Power Plant And Its Associated Infrastructure On A Portion Of The Remaining Extent Of Erf 1 Prieska Within The Siyathemba Local Municipality, Northern Cape Province (Ref No: 14/12/16/3/3/2/345/AM1)
- 115 MW Camel Thorn Photovoltaic Solar Energy Facility on the Remaining Extent of Portion 2 of the Farm Karabee 50 east of Prieska within the Siyathemba Local Municipality (Ref No: 14/12/16/3/3/2/937)
- The proposed 2MW Mahoebe solar energy facility and associated infrastructure on portion 19 of the farm De Hoek 32, Northern Cape Province (Ref No: 14/12/16/3/3/1/1475)
- The construction of the 75MW Bosjesmansberg PV centre solar energy facility situated on portion 1 of the farm Bosjesmansberg 67 near Copperton within the Siyathemba local municipality in the Northern Cape Province (Ref No: 14/12/16/3/3/2/579/AM3)

The following 5 provincially approved facilities are furthermore under the ownership of the project applicant:

- Prieska Power Reserve (Pty) Ltd PV Plant & Associated Infrastructure Phase 1 (Ref No: NC/EIA/15/PIX/SIY/PRI4/2021)
- Prieska Power Reserve (Pty) Ltd Wonderpan and Camelthorn Developments (both on hold for the foreseeable future)
- Prieska Power Reserve (Pty) Ltd Wind Energy Facility & Associated Infrastructure Phase 3 (Ref No: NC/EIA/11/PIX/SIY/PR14/2022)

These approved facilities have been taken into account in order to assess cumulative impacts throughout the local and broader surrounding landscape. It is likely that further similar SEF development and subsequent transformation could take place throughout the local area, over time.

Vegetation Types and Ecological Support Areas (ESA)

The extensive local and broader landscape surrounding the study area mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. The combined size of the proposed cumulative clearance and transformation footprints associated with the approved facilities in the surrounding area, is therefore still small relative to the surrounding natural landscape and remaining extents of the relevant Least Concerned vegetation types and Ecological Support Areas (ESA). It is consequently not anticipated that the current proposed development would add any significant cumulative risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the relevant Least Concerned vegetation types or Ecological Support Areas (ESA).

Nationally Protected Tree Species

The following combined numbers of nationally protected tree species individuals will have to be destroyed/removed from the proposed cumulative clearance and transformation footprints associated with the other approved facilities under the ownership of the project applicant:

- Prieska Power Reserve (Pty) Ltd PV Plant & Associated Infrastructure Phase 1 (Ref No: NC/EIA/15/PIX/SIY/PRI4/2021)
 - This proposed development has already received an approved Nationally Protected Tree License (Ref No: NC-PX-0018-2024-25)
 - A total of approximately 2 575 *Boscia albitrunca* individuals. Virtually all of these individuals however constitute small, low-growing, coppicing shrubs (≤ 1.5 m in height), while merely 8 individuals of ≥ 2 m in height were found to be present.
 - It is however recommended that as many as practicably possible of these identified 8 individuals should not be removed/damaged and should be left in situ and intact. A minimum approximately 15 m buffer distance must be implemented and fenced off around each of these individuals. No current or future development or transformation or any movement/operations of machinery/equipment may take place within these buffered zones. The proposed access/service road- and 33 kV transmission line networks as well as the main site access/service road and the access/service road associated with the proposed 132 kV transmission line, must also be adequately diverted around the identified locally significant individuals.

- Prieska Power Reserve (Pty) Ltd Wind Energy Facility & Associated Infrastructure Phase 3 (Ref No: NC/EIA/11/PIX/SIY/PR14/2022)
 - A total of approximately 370 *Boscia albitrunca* individuals. Virtually all of these individuals however constitute small, low-growing, coppicing shrubs (≤ 1.5 m in height), while merely 30 individuals of ≥ 2 m in height and a further 20 significantly sized individuals (≥ 3 m in height with thick stem diameters) were found to be present.
 - It is however recommended that these identified 30 and 20 individuals should not be removed/damaged and should be left in situ and intact. A minimum approximately 15 m buffer distance must be implemented and fenced off around each of these individuals. No current or future development or transformation or any movement/operations of machinery/equipment may take place within these buffered zones. The proposed access/service road- and 33 kV transmission line networks as well as the main site access/service road and the access/service road associated with the proposed 132 kV transmission line, must also be adequately diverted around the identified locally significant individuals.
- Current proposed development being applied for
 - A total of approximately 400 *Boscia albitrunca* individuals. Virtually all of these individuals however constitute very small, low-growing, coppicing shrubs (≤ 1 m in height). Merely 10 individuals of ≥ 2 m in height and a further 3 significantly sized individuals (≥ 3 m in height with thick stem diameters) were found to be present throughout the study area.
 - It is however recommended that these identified 10 and 3 individuals should not be removed/damaged and should be left in situ and intact. A minimum approximately 15 m buffer distance must be implemented and fenced off around each of these individuals. No current or future development or transformation or any movement/operations of machinery/equipment may take place within these buffered zones.
- **This equates to a total combined number of approximately 3 274 *Boscia albitrunca* individuals which will have to be destroyed/removed from the proposed cumulative clearance and transformation footprints associated with the approved facilities and current proposed development under the ownership of the project applicant. Although this constitutes a high number of this nationally protected tree species, virtually all of these individuals however constitute small to very small, low-growing, coppicing shrubs (≤ 1.5 m in height). The few identified significantly sized individuals will however not be removed/damaged and will be left in situ and intact.**

- **It is therefore the opinion of the specialist that the proposed development of the study area does not warrant the requirement of a Biodiversity Offset area to be identified or assessed for this impact, as part of the NEMA Mitigation Hierarchy. If the Prieska Power Reserve (Pty) Ltd Wonderpan and Camelthorn Developments (both on hold for the foreseeable future) are however subsequently reconsidered for proposed development in future, it is recommended that a Biodiversity Offset Feasibility Assessment must then be conducted for the significant cumulative destruction/removal of nationally protected tree species individuals. The Department of Forestry, Fisheries and the Environment (competent authority) must however provide a final decision in this regard.**

If unmitigated, the significant potential long-term ecological receptor impacts identified for the proposed development (see above), could potentially add low to moderate cumulative impact to the existing negative impacts associated with the other approved facilities under the ownership of the project applicant. The extensive local and broader landscape surrounding the study area however mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape.

It is the opinion of the specialist, by application of the NEMA Mitigation Hierarchy, that all the identified potential cumulative ecological receptor impacts associated with the proposed development, can be suitably reduced and mitigated to within acceptable residual levels, by implementation of the recommended mitigation measures (see section 8.3). It is therefore not anticipated that the proposed development will add any significant residual cumulative ecological receptor impacts to the surrounding environment, if all recommended mitigation measures as per this ecological report (see section 8.3) are adequately implemented and managed, for both the construction- and subsequent operational phases of the proposed development.

8.3. Mitigation and Management Measures

The following main ecological receptor impact management and mitigation measures are recommended for the proposed development (if applicable):

- The northern- and eastern portions of the study area are categorised as Ecological Support Area (ESA) and the area directly adjacent north-east of the proposed development footprint constitutes a neighbouring farm with a different landowner. In order to ensure continued future ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape, it is therefore recommended that an informal continuous ecologically viable terrestrial corridor of sufficient width must be adequately implemented along the north-eastern boundary of the farm portion. An ecological corridor of minimum 100 m from the boundary fenceline is proposed for the area. This ecological corridor must be maintained in an undisturbed and unobstructed natural condition and no current or future development is allowed to take place within the ecological corridor.
- It is furthermore also recommended that the Northern Cape Department: Agriculture, Environmental Affairs, Rural Development and Land Reform (competent authority) should enforce a similar ecological corridor to be implemented on the neighbouring farm along the opposite side of the shared boundary fenceline, in the event that any future development is potentially applied for on the neighbouring farm. This will yield a minimum 200 m continuous ecological corridor along the shared boundary fenceline of the two neighbouring farms.
- This recommended ecological corridor must achieve the following main ecological objectives:
 - Adequately maintain the ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape associated with the Ecological Support Area (ESA).
 - Allow for sufficient continued movement/migration/dispersal of faunal/floral communities through the landscape and consequently ensure the persistence/livelihood of such communities.

- The proposed development footprint must be kept as small as practicably possible to reduce the surface impact on surrounding vegetation and no unnecessary/unauthorised footprint expansion into the surrounding undeveloped landscape outside the proposed development footprint may take place.
- It is recommended that vegetation clearance should be avoided or at least minimised as far as practicably possible/feasible throughout the proposed development footprint and should only occur within the PV array-, internal access/service road network- and auxiliary infrastructure footprints, if required. Existing vegetation situated in-between these main infrastructure footprints, should not be cleared or damaged in any way and should be left intact and adequately preserved, as far as practicably possible/feasible. This must be done in order to sufficiently manage and prevent any significant soil erosion from occurring within and around the proposed development footprint.
- No temporary or permanent site construction basecamps may be established within the surrounding undeveloped landscape outside the proposed development footprint.
- Adequately cordon off the proposed development construction footprint and ensure that no construction activities, machinery or equipment operate or impact within the surrounding undeveloped landscape outside the cordoned off area.
- Adequate operational procedures for construction machinery and equipment must be developed in order to strictly govern and restrict movement of machinery only within the proposed development construction footprint and to ensure environmentally responsible construction practices and activities.
- Existing roads and farm tracks in close proximity to the proposed development construction footprint, must be used during the construction phase. No new temporary roads or tracks may be constructed or implemented through the surrounding undeveloped landscape outside the proposed development footprint.
- Disturbed areas within and immediately surrounding the proposed development construction footprint must be adequately rehabilitated concurrently with- or as soon as practicably possible after the construction processes. A Rehabilitation Management Plan must be compiled by a suitably qualified and experienced SACNASP registered ecologist, if deemed necessary by the competent authority.
- It is recommended that a sufficient grazing management plan and practices must be implemented for livestock of the landowner, in order to prevent any significant overgrazing of the surrounding landscape and to attempt to improve/restore the ecological condition, over time.

- It is recommended that an additional ecological walkthrough as well as a faunal and floral search, rescue and relocation exercise be conducted for the study area, during the flowering period of underground bulb-plant species (geophytes), prior to the commencement of construction activities. This will ensure that no faunal/floral Species of Conservation Concern (SCC) or any other conservationally significant species have potentially been omitted or will be destroyed/killed.
- A Nationally Protected Tree License has to be obtained from the Department of Forestry, Fisheries and the Environment (competent authority), prior to the commencement of any construction activities and the subsequent potential removal/destruction of any identified nationally protected tree species individuals.
 - It is however recommended that the 10 individuals of $\geq 2\text{m}$ in height and the 3 significantly sized individuals ($\geq 3\text{ m}$ in height with thick stem diameters) of the nationally protected tree species *Boscia albitrunca* should not be removed/damaged and should be left in situ and intact. A minimum approximately 15 m buffer distance must be implemented and fenced off around each of these individuals. No current or future development or transformation or any movement/operations of machinery/equipment may take place within these buffered zones.
 - It is the opinion of the specialist that the proposed development of the study area does not warrant the requirement of a Biodiversity Offset area to be identified or assessed for the destruction/removal of nationally protected tree species individuals, as part of the NEMA Mitigation Hierarchy. If the Prieska Power Reserve (Pty) Ltd Wonderpan and Camelthorn Developments (both on hold for the foreseeable future) are however reconsidered for proposed development in future, it is recommended that a Biodiversity Offset Feasibility Assessment must then be conducted for the significant cumulative destruction/removal of nationally protected tree species individuals. The Department of Forestry, Fisheries and the Environment (competent authority) must however provide a final decision in this regard.

- A Provincial Flora Permit has to be obtained from the Northern Cape Department: Agriculture, Environmental Affairs, Rural Development and Land Reform (competent authority), prior to the commencement of any construction activities and the subsequent removal/destruction of any identified indigenous- and provincially protected flora.
 - It is however recommended that the single individual of the provincially specially protected species *Aloidendron dichotomum* (ToPS Vulnerable) should not be removed/damaged and should be left in situ and intact. A minimum approximately 15 m buffer distance must be implemented and fenced off around this individual. No current or future development or transformation or any movement/operations of machinery/equipment may take place within this buffered zone.
 - It is also recommended that the single individual of the provincially specially protected species *Hoodia gordonii* must be adequately relocated to another suitable and similar area as to where it was removed from. This relocation process must be completed prior to the commencement of any vegetation clearance- and/or construction activities. A Protected Plant Species Relocation Management Plan must be compiled by a suitably qualified and experienced SACNASP registered ecologist.
- Implement adequate alien invasive species management and prevention measures during the construction- and subsequent operational phases of the proposed development. An Alien Invasive Species Management Plan must be compiled by a suitably qualified and experienced SACNASP registered ecologist, if deemed necessary by the competent authority.
- It is recommended that all individuals of any identified legally declared alien invasive species must be actively eradicated from the study area and specifically surrounding the artificial flow channel, in accordance with the requirements of the National Environmental Management: Biodiversity Act (Act 10 of 2004); Alien and Invasive Species Regulations, 2014. Removed materials must also be adequately and lawfully disposed of, in order to prevent potential further spreading/dispersal.
- As per the proposed Wind Power Generation Facility development which has been Environmentally Authorised (Ref No: NC/EIA/11/PIX/SIY/PR14/2022), the applicant intends to establish and manage the three mountaintop plateaus as an eco-friendly wildlife camp. It is therefore recommended that a sufficient game management plan and practices must be implemented for the proposed wildlife camp, in order to adequately manage the camp and to attempt to improve/restore the ecological condition, over time. The Game Management Plan must be compiled by a suitably qualified and experienced SACNASP registered ecologist, if deemed necessary by the competent authority.

- Implement adequate stormwater and erosion management measures during the construction- and subsequent operational phases of the proposed development. This must be done to sufficiently manage storm water runoff and clean/dirty water separation, in order to prevent any significant surface water contamination of the local and broader surrounding landscape as well as prevent any significant soil erosion from occurring within and around the proposed development footprint and to attempt to maintain the ecological functionality and - integrity of the local watershed and broader quaternary surface water catchment and drainage area.
- It is recommended that the development design layouts for the proposed infrastructure must include adequate stormwater management measures to ensure that sufficient volumes and quality of surface water runoff from the study area during seasonal rainfall events, continue to be channelled through the local catchment.
- Building material, hydrocarbon and other chemical storage areas must be adequately banded in order to be able to contain a minimum of 150 % of the capacity of storage tanks/units.
- Adequate hydrocarbon and other chemical storage, handling, usage and spillage clean-up procedures must be developed, and all relevant employees must be sufficiently trained on- and apply these procedures during the construction- or subsequent operational phases.
- Spill kits must be readily available at the construction- and subsequent operational site. All relevant employees must be adequately trained on the correct procedure and use of the spill kits.
- Suitable and lawful management and disposal of hydrocarbons other chemicals and all waste products generated by the proposed facility must be ensured by the applicant.
- All byproducts and waste emanating from the operational processes must be collected and removed from the facility in an adequately controlled and regulated manner.
- The ephemeral preferential water flow path/drainage line associated with the study area possesses very low, if any overall long-term aquatic ecological/conservational value/significance. Its commencement point is also situated an adequate distance away from the study area and it is consequently not deemed necessary for this flow path/drainage line to be buffered out of the proposed development footprint from a hydrological- or aquatic biodiversity perspective. It is however still recommended that the natural flow regime of the flow path/drainage line should not be significantly and/or permanently contaminated or impacted by the proposed development, if practicably possible/feasible.

- A Water Use License Application (WULA)/General Authorisation (GA) must be submitted to the Department of Water and Sanitation for the proposed development within 100 m of the ephemeral preferential water flow path/drainage line associated with the study area, as required in accordance with the National Water Act (Act 36 of 1998).
- Water saving initiatives must be implemented for the established development.
- Environmentally responsible water-use practices and activities must be adopted for the construction- and subsequent operational phases of the proposed development.
- Provide training interventions for the relevant employees on correct environmentally responsible water use practices and activities.
- Implement suitable dust suppression and management measures during the construction- and subsequent operational phases of the proposed development.
- Construction areas and -roads to be sufficiently wetted down during the construction phase of the proposed development, if/when necessary, in order to suppress/prevent significant fugitive dust generation, emissions and fallout.
- Adequate operational procedures for machinery and equipment must be developed to strictly govern and restrict movement of machinery, in order to avoid unnecessary fugitive dust generation, emissions and fallout and ensure environmentally responsible operational practices and activities.
- It is recommended that no bright light from any spotlights or perimeter lights or loud/excessive noise should be emitted into the surrounding landscape, during the nighttime. As little light emissions as practicably/reasonably possible from the established development, should occur during nighttime as this could lure aquatic bird- and other nocturnal avifaunal species individuals towards the permitter fences and potentially result in collisions and mortality.
- Lighting and illumination infrastructure technology and layout designs must be done in an environmentally friendly and responsible manner.
- The minimum amount of lighting and illumination infrastructure which is practicably/feasibly possible for the established development to function at, must be utilised during nighttime.
- Lighting and illumination infrastructure must as far as practicably possible be directed at low shining angles towards the ground and towards the inner portions of the established development, in order to reduce the amount of bright light being emitted into the surrounding natural landscape.
- Lower shining intensity environmentally friendly lighting products must be utilised in order to reduce the brightness of light being emitted into the surrounding natural landscape.

- An adequate sewage management system must be installed for the proposed development.
- Adequate leakage detection and prevention systems/measures must be installed into the sewage management system in order to detect any potential leakages and subsequent contamination of soil and groundwater resources.
- If any leakages or overflows of the sewage management system occur, the competent authority must immediately be notified and the necessary steps must be followed by the applicant to locate and remediate the source of contamination, as soon as practicably possible/feasible.
- The integrity of the sewage management system must be inspected on a regular basis and adequately maintained over time, in order to ensure its continued functionality and prevent any leakages or failures.

9. Conclusion

The identified single first-order non-perennial watercourse (very small ephemeral preferential water flow path/drainage line) possesses very low, if any overall long-term aquatic ecological/conservational value/significance. Its commencement point is also situated an adequate distance away from the study area and it is consequently not deemed necessary for this flow path/drainage line to be buffered out of the proposed development footprint from a hydrological- or aquatic biodiversity perspective. It is however still recommended that the natural flow regime of the flow path/drainage line should not be significantly and/or permanently contaminated or impacted by the proposed development, if practicably possible/feasible.

It is consequently not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial aquatic conservation- and persistence targets of the area or significantly impact on any local aquatic ecological features (watercourses or wetlands) or the continued ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area

The study area is rated as possessing **Low** overall long-term ecological/conservational value/significance. The study area scored **Low** faunal and floral species Site Ecological Importance (SEI) values and is merely viewed as being of low overall long-term conservational significance/value for habitat preservation and continued ecological functionality and -integrity persistence in support of the surrounding ecosystem, broader vegetation type as well as faunal and floral habitats.

It is therefore evident from a faunal and floral biodiversity perspective, that the study area does not constitute an important component of the faunal/floral ecology of the area. Due to the study area covering a significant north-south linear length across the mountaintop plateau, the proposed development will however result in slight habitat fragmentation of the undisturbed surrounding undeveloped natural karroid shrubland habitat throughout the local mountaintop plateaus surrounding the study area. It could therefore potentially pose a low-significance impact to the ecological connectivity, -functionality and -integrity of the local and broader surrounding mountaintop plateau landscape and on common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal.

If unmitigated, it is consequently anticipated that the proposed development could potentially merely pose a very slight risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area by impacting on the continued ecological connectivity, -functionality and -integrity of the Ecological Support Area (ESA).

If adequate mitigation measures (see section 8.3) are however implemented for the construction- and subsequent operational phases in order to ensure continued faunal/floral species community movement/migration/dispersal through the landscape and Ecological Support Area (ESA), it is not anticipated that the proposed development would pose any significant risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the area or significantly impact on faunal/floral communities or the continued ecological connectivity, -functionality and -integrity of the local and broader surrounding landscape.

It is therefore recommended that an informal continuous ecologically viable terrestrial corridor of sufficient width must be adequately implemented along the north-eastern boundary of the farm portion. An ecological corridor of minimum 100 m from the boundary fenceline is proposed for the area. This ecological corridor must be maintained in an undisturbed and unobstructed natural condition and no current or future development is allowed to take place within the ecological corridor.

A single medium significance potential long-term ecological receptor impact was identified for the proposed development (see below). No other medium- or high significance potential long-term ecological receptor impacts were identified for the proposed development. The following main ecological impact receptors could potentially be affected by the proposed development:

- Clearance and transformation of a small reasonably natural portion of Lower Gariep Broken Veld vegetation type (Nkb 1)
- Clearance and transformation of a small reasonably natural portion associated with common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats/individuals as well as provincially protected plant species- and nationally protected tree species individuals
 - This constitutes the only medium significance potential long-term ecological receptor impact identified for the proposed development as approximately 400 nationally protected tree species individuals will have to be destroyed/removed

- Contamination of a small reasonably natural portion of directly surrounding Lower Gariep Broken Veld vegetation type (Nkb 1) along with common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats/individuals as well as provincially protected plant species- and nationally protected tree species individuals by slight fugitive dust generation, emissions and fallout
- Fragmentation of the local ecological connectivity, -functionality and -integrity of the Ecological Support Area (ESA) and associated common/general faunal/floral species- and potentially Species of Conservation Concern (SCC) habitats and community movement/migration/dispersal
- Operational noise and glare/shine impact/disturbance by the established development on fauna utilising the local surrounding landscape
- Exotic- and legally declared alien invasive species establishment and spreading within the reasonably natural directly surrounding portion
- Alteration/impeding of the sources/drivers and flow regime of the identified ephemeral preferential water flow path/drainage line (volumes and peak flow) and consequent impact on the ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area
- Contamination of the sources/drivers and flow regime of the identified ephemeral preferential water flow path/drainage line and consequent impact on the ecological functionality and -integrity of the local watershed and broader quaternary surface water catchment and drainage area (sewage, hydrocarbons, other chemicals, surface material/soil erosion as well as slight fugitive dust generation, emissions and fallout)
- Contamination of soil and groundwater resources (sewage, hydrocarbons and other chemicals)

According to the Department of Forestry, Fisheries and the Environment's South African Renewable Energy EIA Application Database Official Release for Quarter 3 published on 28 November 2025, 4 moderate- to significantly sized Solar Energy Facilities (SEF) have been approved within a 30 km radius surrounding the proposed development footprint, while 5 provincially approved facilities are furthermore under the ownership of the project applicant. These approved facilities have been taken into account in order to assess cumulative impacts throughout the local and broader surrounding landscape. It is likely that further similar SEF development and subsequent transformation could take place throughout the local area, over time.

The extensive local and broader landscape surrounding the study area mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. The combined size of the proposed cumulative clearance and transformation footprints associated with the approved facilities in the surrounding area, is therefore still small relative to the surrounding natural landscape and remaining extents of the relevant Least Concerned vegetation types and Ecological Support Areas (ESA). It is consequently not anticipated that the current proposed development would add any significant cumulative risk to achieving and maintaining national and/or provincial terrestrial conservation- and persistence targets of the relevant Least Concerned vegetation types or Ecological Support Areas (ESA).

A total combined number of approximately 3 274 individuals of the nationally protected tree species *Boscia albitrunca* will have to be destroyed/removed from the proposed cumulative clearance and transformation footprints associated with the approved facilities and current proposed development under the ownership of the project applicant. Although this constitutes a high number of this nationally protected tree species, virtually all of these individuals however constitute small to very small, low-growing, coppicing shrubs (≤ 1.5 m in height). The few identified significantly sized individuals will however not be removed/damaged and will be left in situ and intact.

It is therefore the opinion of the specialist that the proposed development of the study area does not warrant the requirement of a Biodiversity Offset area to be identified or assessed for this impact, as part of the NEMA Mitigation Hierarchy. If the Prieska Power Reserve (Pty) Ltd Wonderpan and Camelthorn Developments (both on hold for the foreseeable future) are however subsequently reconsidered for proposed development in future, it is recommended that a Biodiversity Offset Feasibility Assessment must then be conducted for the significant cumulative destruction/removal of nationally protected tree species individuals. The Department of Forestry, Fisheries and the Environment (competent authority) must however provide a final decision in this regard.

If unmitigated, the significant potential long-term ecological receptor impacts identified for the proposed development (see above), could potentially add low to moderate cumulative impact to the existing negative impacts associated with the other approved facilities under the ownership of the project applicant. The extensive local and broader landscape surrounding the study area however mainly constitutes a vast, relatively homogenous, continuous undeveloped natural landscape. Although the study area is significantly sized, it is therefore small relative to the surrounding natural landscape.

It is the opinion of the specialist, by application of the NEMA Mitigation Hierarchy, that all the identified potential cumulative ecological receptor impacts associated with the proposed development, can be suitably reduced and mitigated to within acceptable residual levels, by implementation of the recommended mitigation measures (see section 8.3). It is therefore not anticipated that the proposed development will add any significant residual cumulative ecological receptor impacts to the surrounding environment, if all recommended mitigation measures as per this ecological report (see section 8.3) are adequately implemented and managed, for both the construction- and subsequent operational phases of the proposed development.

The proposed development footprint is confirmed to be of 'low' Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes sensitivity and no potential ecological fatal flaws were identified for the proposed development. It is therefore the opinion of the specialist from an ecological perspective, that the proposed development can be considered by the competent authority for Environmental Authorisation and approval. All recommended mitigation measures as per this ecological report (see section 8.3) must however be adequately implemented and managed for both the construction- and subsequent operational phases of the proposed development. All necessary authorisations, permits and licenses must also be obtained prior to the commencement of any construction.

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11. Details of the Specialist

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M.Env.Sci. Ecological remediation and sustainable utilisation (NWU: Potchefstroom)

South African Council for Natural Scientific Professions (SACNASP): Professional Ecological Scientist
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Abbreviated Curriculum Vitae

Qualifications

- M.Env.Sci Ecological Remediation and Sustainable Utilisation/Vegetation Ecology
 - 2011 - North West University Potchefstroom
- B.Sc Botany and Zoology (Cum Laude)
 - 2009 - North West University Potchefstroom

Accredited Courses Completed

- Implementing Environmental Management Systems ISO 14001
 - 2011 - North West University Potchefstroom
- Environmental Law for Environmental Managers
 - 2011 - North West University Potchefstroom
- SASS 5 Aquatic Biomonitoring Training Course
 - 2017 – GroundTruth Consulting
- Tools for Wetland Assessment
 - 2023 – GroundTruth Consulting
- Introduction to Wetland Assessments
 - 2023 – GroundTruth Consulting

Professional Registrations

- South African Council for Natural Scientific Professions (**SACNASP**)
 - Professional Ecological Scientist Registration number 115601
- International Association for Impact Assessment (**IAIA**)
 - Registration number 5232
- South African Green Industries Council (**SAGIC**) Invasive Species training
 - Registration number 2405/2459
- South African Wetland Society (**SAWS**)
 - Membership number 220958

Employment and Experience

March 2011 - October 2011

Upon completion of his studies, Rikus started his career in 2011 as an **Environmental Professional in Training (PIT) at Anglo American Thermal Coal: Environmental Services**. He received environmental training and practical implementation experience in all environmental facets of the mining industry with the focus on: Environmental rehabilitation, land management (biodiversity and invasive species eradication), waste & water-, air quality-, game reserve-, environmental management and legislation, as well as corporate reporting. He was also appointed as the Biodiversity Management Custodian at Anglo American Thermal Coal collieries.

November 2011 - November 2015

He was then employed by **Fraser Alexander Tailings as an Environmental Contracts Manager**, where he was responsible for the technical and operational management of all Fraser Alexander Tailings' mining environmental rehabilitation projects. He was responsible for implementation of rehabilitation- and environmental strategies as well as all facets/entire business value chain of project management.

He conducted a significant amount of quantitative and qualitative ecological vegetation monitoring during his employment period with the company. Such monitoring mainly included environmentally rehabilitated mining areas in the open-cast coal-, gold-, platinum- and chrome mining industries situated in the Free State, Gauteng, Mpumalanga, North-West and Limpopo Provinces. He was involved with analysis, processing and interpretation of environmental monitoring data and compilation of high quality technical/scientific environmental monitoring reports for clients. He was subsequently further involved with providing adequate ecological management and maintenance recommendations for rehabilitated areas. He also provided technical/scientific environmental rehabilitation support to mining clients, with regards to sufficient soil preparation and amelioration, grassing processes, as well as grass species mixtures and ratios.

January 2016 - May 2017

He was then employed by **Enviroworks Consulting as a Senior Ecological Specialist** where he was responsible for all Terrestrial and Aquatic Ecological Specialist Assessments and reporting related to Environmental Impact Assessment (EIA) and Basic Assessment (BA) projects. He also completed numerous EIA and BA projects as the main project Environmental Assessment Practitioner (EAP).

June 2017 - Present

Rikus then subsequently established the company EcoFocus Consulting (Pty) Ltd as the owner and Managing Director, which provides high quality professional environmental and ecological specialist services and solutions to the industrial-, construction-, mining-, agricultural-, renewable energy- and other sectors.

He possesses significant qualifications, vast knowledge, skills as well as technical and practical experience in the project management and environmental specialist fields. This, coupled with his disciplined, determined, innovative, goal-driven and solution-oriented mindset as well as exceptional problem-solving-, communication- and people skills along with his high level of personal standards, ensure high quality, timely and outcomes-based outputs and service delivery relating to any project.

Ecological & Wetland Specialist Assessment & Report Completion for the last two years

2025

- Aquatic Ecological Compliance Statement for the proposed Obed Nkosi Residential and Attenuation Pond Development, Heidelberg, Gauteng Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed Obed Nkosi Residential and Attenuation Pond Development, Heidelberg, Gauteng Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 1 200 m² Erf 2103 Upton Single Residential Development, Northern Cape Province.
- Aquatic Ecological Compliance Statement for the proposed 990 m and 0.23 ha Nala Local Municipality Pipeline and Pumping Station Development, Bothaville, Free State Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 990 m and 0.23 ha Nala Local Municipality Pipeline and Pumping Station Development, Bothaville, Free State Province.
- Grazing and Invasive Species Follow-up Assessment for the Farm Retiefs Nek No. 123 outside Bethlehem, Free State Province.

- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes Compliance Statement for the proposed 5.84 ha Modder Rivier Truckstop Development, Northern Cape Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes Specialist Assessment Report for the proposed 462 ha Manoke Residential Development, Burgersfort, Limpopo Province.
- Terrestrial- as well as Plant- and Animal Species Themes Site Sensitivity Verification Report for the proposed 800 ha Seriti Green (Pty) Ltd Middelburg Mine Services (MMS) Solar PV Energy Facility Northern Portion Development, eMalahleni, Mpumalanga Province.
- Terrestrial- as well as Plant- and Animal Species Themes Site Sensitivity Verification Report for the proposed 510 ha Seriti Green (Pty) Ltd Middelburg Mine Services (MMS) Solar PV Energy Facility Southern Portion Development, eMalahleni, Mpumalanga Province.
- Terrestrial- as well as Plant- and Animal Species Themes Site Sensitivity Verification Reports for the proposed 17.4 km Seriti Green (Pty) Ltd Middelburg Mine Services (MMS) Overhead Powerline North Options A & B Developments, eMalahleni, Mpumalanga Province.
- Terrestrial- as well as Plant- and Animal Species Themes Site Sensitivity Verification Reports for the proposed 7.12 km Seriti Green (Pty) Ltd Middelburg Mine Services (MMS) Overhead Powerline Olifants Grid Northern Exit, South A & South B Developments, eMalahleni, Mpumalanga Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 600 m Jagersfontein Road and Bridge Watercourse Crossing Development, Free State Province.
- Ecological Re-vegetation and Alien Invasive Species Management Plan for the proposed Nketoana Local Municipality Existing Waste Water Treatment Works Decommissioning, Lindley, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 29.6 ha Hoopstad Cemetery Development, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 29 ha Bultfontein Cemetery Development, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 43.2 ha Witho Developers Upington Residential Development, Northern Cape Province.

- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 64.6 ha Phaliso Residential Development, Trompsburg, Free State Province.
- Aquatic Biodiversity Theme SSV & Compliance Statement for the proposed 78.7 km 386 Phetogo - Welbedacht Pipeline Development, Dewetsdorp, Free State Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 78.7 km 386 Phetogo - Welbedacht Pipeline Development, Dewetsdorp, Free State Province.
- Aquatic Biodiversity Theme SSV & Compliance Statement for the proposed 643 ha and 9.3 km Sol Platz Solar PV Facility with Battery Energy Storage System, Electrical Grid Connection, and Associated Infrastructure Development, Bloemfontein, Free State Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 643 ha and 9.3 km Sol Platz Solar PV Facility with Battery Energy Storage System, Electrical Grid Connection, and Associated Infrastructure Development, Bloemfontein, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 13 ha AHB Logistix Upington Truckstop Expansion, Northern Cape Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 153 ha 322 Majwemasweu Township Development, Brandfort, Free State Province.
- Indigenous species list for the proposed Riverton Water Treatment Works (WTW) Perimeter Fenceline Development, Northern Cape Province.
- National Water Act (Act 36 of 1998) Section 21 C & I Water Use Letter for the proposed Kathu Waste Handling Facility Transfer Station Development, Northern Cape Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 18 ha Springbokvlakte Coldmix Plant Development, Bela-Bela, Limpopo Province.
- Aquatic Biodiversity Theme SSV & Compliance Statement for the proposed 880 m Smaldeel Road Upgrade, Kroonstad, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 15.3 ha Ribblesdale Industrial Park Development, Bloemfontein, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 10.6 ha Ribblesdale Borrow Pit Development, Bloemfontein, Free State Province.

- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 10.4 ha Holtzhuisfontein Borrow Pit Development, Bloemfontein, Free State Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 29.6 ha Hoopstad Cemetery Development, Free State Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 7 ha Olyvenshouts Drift Settlement Raisin Drying Facility, Upington, Northern Cape Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 8.1 ha Olyvenshouts Drift Settlement Raisin Drying Facility NEMA Section 24G, Upington, Northern Cape Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 47.6 ha Brandfontein Feedlots Expansion, Burgersdorp, Eastern Cape Province.
- Terrestrial- and Aquatic Biodiversity- as well as Plant- and Animal Species Themes SSV & Compliance Statement for the proposed 10.2 ha Holtzhuisfontein Borrow Pit Development, Bloemfontein, Free State Province.
- Aquatic Ecological Impact Assessment Review for the proposed 101 ha Khauta West 80 MW Solar PV Energy Facility Development, Riebeeckstad, Free State Province.
- Terrestrial Biodiversity- as well as Plant- and Animal Species Themes SSV & Specialist Assessment Report for the proposed 209.41 ha Beginsel Agriculture Estate Development, Clarens, Free State Province.
- Watercourse/Wetland Assessment Report for the proposed 9 ha Barkly West Wastewater Treatment Works (WWTW) Refurbishment, Northern Cape Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 9 ha Barkly West Wastewater Treatment Works (WWTW) Refurbishment, Northern Cape Province.
- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 47.6 ha Brandfontein Feedlots Expansion, Burgersdorp, Eastern Cape Province.
- Desktop Site Sensitivity Maps for the proposed refurbishment of Moeding WWTW and 10 Pump Stations, Phuthaditjhaba, Free State Province.
- Water Use License Application (WULA) Risk Assessment Matrix review for the proposed 7.22 ha Welgegund Borrow Pit Development, Excelsior, Free State Province.
- Watercourse/Wetland Assessment Report for the proposed 9.1 ha Utopia Gas Depot & Light Industrial Development, Bethlehem, Free State Province.

- Water Use License Application (WULA) Risk Assessment Matrix for the proposed 9.1 ha Utopia Gas Depot & Light Industrial Development, Bethlehem, Free State Province.
- Aquatic Biodiversity Theme SSV & Specialist Assessment Report for the proposed 262 ha 434 Orange River Solar Facility 1 Associated Infrastructure Development, Groblershoop, Northern Cape Province.