



**PROPOSED CITRUSDAL SOLAR FARM,
BRAKFORTEIN ESTATE, COMPLIANCE
STATEMENT:**

Plant Species Theme

Animal Species Theme

Biodiversity Theme

**Cederberg Local Municipality, Cederberg District
Municipality, Western Cape Province, South Africa**

06 May 2026

Prepared by:

The Biodiversity Company

Cell: +27 81 319 1225

Fax: +27 86 527 1965

info@thebiodiversitycompany.com

www.thebiodiversitycompany.com

Report Name	PROPOSED CITRUSDAL SOLAR FARM, BRAKFORTEIN ESTATE, COMPLIANCE STATEMENT:	
Specialist Theme	Terrestrial Biodiversity, Plant and Animal Theme	
Project Reference	Citrusdal Solar Farm	
Report Version	Draft 1 / 06 May 2026	
Environmental Assessment Practitioner		
Technical Support	Gemma Schleicher (Cand. Nat. Sci. Pending)	
Responsible Specialist	Wesley Black (Pr. Nat. Sci. 147190)	
Declaration	The Biodiversity Company and its associates operate as independent consultants under the auspice of the South African Council for Natural Scientific Professions. We declare that we have no affiliation with or vested financial interests in the proponent, other than for work performed under the Environmental Impact Assessment Regulations, 2017. We have no conflicting interests in the undertaking of this activity and have no interests in secondary developments resulting from the authorisation of this project. We have no vested interest in the project, other than to provide a professional service within the constraints of the project (timing, time and budget) based on the principals of science.	

Table of Contents

1	Introduction.....	7
1.1	Background	7
1.2	Project Description	8
1.3	Scope of Work.....	9
1.4	Assumptions and Limitations	9
1.5	Legislative Framework	10
1.5.1	Terrestrial Biodiversity.....	10
1.5.2	Animal Species Theme	10
1.5.3	Plant Species Theme	11
1.6	Report Requirements	11
1.6.1	Terrestrial Biodiversity.....	11
1.6.2	Animal Species Theme	12
1.6.3	Plant Species Theme	13
2	Fieldwork.....	13
2.1	Biodiversity Field Assessment	13
3	Results & Discussion	15
3.1	Ecologically Important Landscape Features	15
3.2	Fauna Species of Conservation Concern (SCC)	15
3.3	Flora Species of Conservation Concern (SCC)	16
3.4	Desktop Ecological Sensitivity	19
3.5	Biodiversity Field Survey.....	23
3.5.1	Terrestrial Biodiversity.....	23
3.5.2	Animal Species Theme	26
3.5.3	Plant Species Theme	26
3.6	Site Sensitivity Verification	27
3.6.1	Terrestrial Biodiversity.....	27
3.6.2	Animal Species Theme	28
3.6.3	Plant Species Theme	29
3.6.4	Screening Tool Comparison.....	30
4	Impacts.....	32
4.1	Impacts Observed and Potential Impacts	32
4.2	Impact Management and Mitigation Plan.....	32

5	Conclusion.....	35
5.1	Impact Statement	35
5.2	Specialist Opinion.....	35
6	References	36
7	Appendix Items.....	38
7.1	Appendix A: Methods	38
7.1.1	Desktop Dataset Assessment	38
7.1.2	Field Survey	39
7.2	Appendix B: Terrestrial Site Ecological Importance	41
7.3	Appendix C: Specialist Declaration of Independence	44
7.4	Appendix D: Specialist CVs	46

List of Tables

Table 1-1	Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.	11
Table 1-2	Animal Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.	12
Table 1-3	Plant Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.	13
Table 3-1	Summary of relevance of the proposed project to ecologically important landscape features.	15
Table 3-2	Threatened fauna species that are expected to occur within the PAOI. EN = Endangered; VU = Vulnerable; LC = Least Concerned.....	16
Table 3-3	Threatened flora species that are expected to occur within the PAOI. VU = Vulnerable .	16
Table 3-4	Summary of field survey conducted within the PAOI.	23
Table 3-5	Summary of habitat types and associated SEIs delineated within the PAOI.....	27
Table 3-6	Summary of habitat types and associated SEIs delineated within the PAOI.....	28
Table 3-7	Summary of habitat types and associated SEIs delineated within the PAOI.....	30
Table 3-8	Summary of the screening tool vs specialist assigned sensitivities.	31
Table 4-1	Project specific mitigation measures.....	33
Table 4-2	General mitigation measures for the project.	34
Table 7-1	Summary of Conservation Importance (CI) criteria.....	41
Table 7-2	Summary of Functional Integrity (FI) criteria.....	42
Table 7-3	Matrix used to derive Biodiversity Importance (BI) from Functional Integrity (FI) and Conservation Importance (CI).	42
Table 7-4	Summary of Receptor Resilience (RR) criteria.	42
Table 7-5	Matrix used to derive Site Ecological Importance from Receptor Resilience (RR) and Biodiversity Importance (BI).	43
Table 7-6	Guideline for interpreting Site Ecological Importance in the context of proposed activities.	43

List of Figures

Figure 1-1	Map illustrating the regional context of the Project Area of Influence (PAOI).....	8
Figure 1-2	Proposed Project Area of Influence.	9
Figure 2-1	Map depicting the survey tracks and survey points within the PAOI.	14
Figure 3-1	Map depicting the relative terrestrial biodiversity theme sensitivity for the PAOI as generated for by the environmental screening tool.....	20
Figure 3-2	Map depicting the relative animal theme sensitivity for the PAOI as generated for by the environmental screening tool.	21
Figure 3-3	Map depicting the relative plant theme sensitivity for the PAOI as generated for by the environmental screening tool.	22
Figure 3-4	Map depicting the habitat types defined within the PAOI.....	25
Figure 3-5	Crops found within the PAOI: A) <i>Aspalathus linearis</i> ; and B) <i>Citrullus lanatus</i>	26
Figure 3-6	Map depicting the Terrestrial Biodiversity Site Ecological Importance (SEI) sensitivity for the PAOI.	27
Figure 3-7	Map depicting the Animal Theme sensitivity for the PAOI.....	29
Figure 3-8	Map depicting the Plant Theme sensitivity for the PAOI.....	30

1 Introduction

1.1 Background

The Biodiversity Company was appointed by Sillito Environmental Consulting (Pty) Ltd to undertake a terrestrial biodiversity assessment for the proposed Citrusdal Solar Farm on Brakfontein Estate Farm (Nr. 438). The project is located approximately 12 km north of Citrusdal, within the Cederberg Local Municipality, Cederberg District Municipality, Western Cape Province, South Africa (Figure 1-1). The Project Area of Influence (PAOI) is the development area as provided by the proponent (Figure 1-2).

To determine the baseline ecological state of the PAOI and to present a detailed description of the receiving environment, a desktop assessment and field survey (conducted on the 22nd of April 2026) were completed in tandem. Both the desktop assessment and field survey involved detecting, identifying, and describing of any locally relevant sensitive receptors. The potential risks that the proposed development would have on the sensitive features was also investigated.

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations, 2014 (No. 326, 7 April 2017) of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998). The approach has taken cognisance of the recently published Government Notice 320 in terms of NEMA dated 20 March 2020 as well as the Government Notice 1150 in terms of NEMA dated 30 October 2020: "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation." The National Web based Environmental Screening Tool has characterised the terrestrial theme sensitivity of the PAOI as follows:

- Terrestrial Biodiversity Theme sensitivity – Very High;
- Plant Species Theme sensitivity – Medium; and
- Animal Species Theme sensitivity – Medium.

The purpose of conducting the specialist study is to provide relevant input into the Environmental Authorisation application process, with a focus on the proposed activities and the impacts associated with the project. This report, after taking into consideration the findings and recommendations provided by the specialist stipulated herein, should inform and guide the Registered Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making as to the ecological viability of the proposed project.

Based on the findings of the specialist, the environmental themes listed above are presented as a **joint environmental compliance statement**.

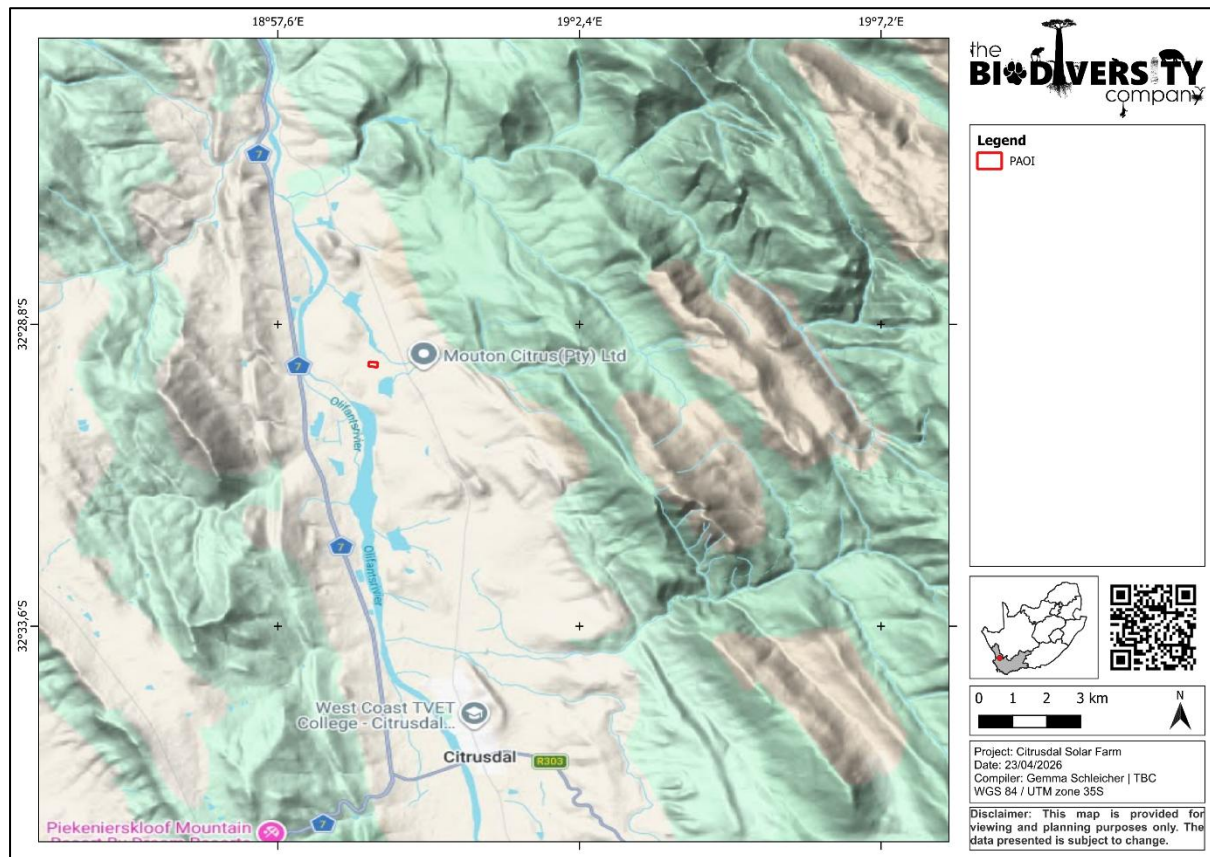


Figure 1-1 Map illustrating the regional context of the Project Area of Influence (PAOI).

1.2 Project Description

The following project description is as per information provided by Sillito Environmental Consulting (2026).

The project relates to the development of a solar photovoltaic (PV) energy facility at Mouton Citrus (Pty) Ltd near Citrusdal in the Western Cape. The site is located within the Cederberg Municipal area (Figure 1-2).

The proposed development comprises both ground-mounted and rooftop-mounted solar PV infrastructure, together with associated electrical infrastructure and energy storage. The layout indicates a ground-mounted PV component with a capacity of approximately 2.03 MWp DC/1.75 MWac, as well as a rooftop PV component of approximately 1.15 MWp DC/1 MWac. In addition, the development includes a Battery Energy Storage System (BESS) with a capacity of 5 MWh and associated power conversion systems, inverters, medium-voltage substations, and underground cabling.

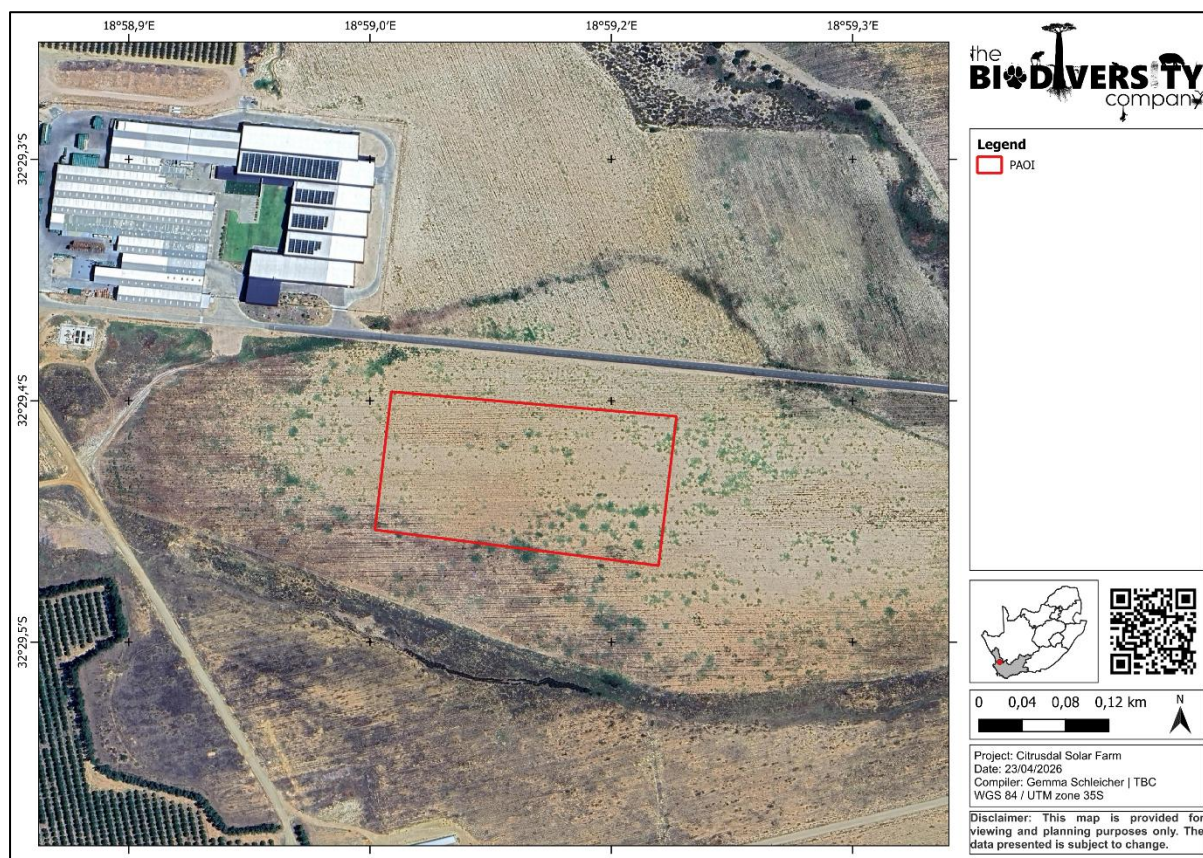


Figure 1-2 Proposed Project Area of Influence.

1.3 Scope of Work

The aim of the biodiversity assessment was to provide information to guide the risk of the proposed development on the current state of the associated ecosystems within the PAOI. The biodiversity assessment culminates in the compilation of a combined Compliance Statement (this report) which covers the terrestrial biodiversity, plant species and animal species themes in accordance with the *Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes*.

This was achieved through the following:

- Desktop assessment to identify the ecologically important terrestrial features within the PAOI;
- Desktop assessment to identify possible Species of Conservation Concern (SCC) that may occur within the PAOI;
- Field survey to identify and record flora and fauna species, (especially SCC) within the PAOI;
- Determine the Site Ecological Importance (SEI), also commonly referred to as the sensitivity, of the PAOI; and
- The prescription of mitigation measures for identified risks associated with the proposed development.

1.4 Assumptions and Limitations

The following assumptions and limitations are applicable for this assessment:

- It is assumed that all information received from the client and landowner is accurate;

- All datasets accessed and utilised for this assessment are considered to be representative of the most recent and suitable data for the intended purposes;
- The assessment area (PAOI) was based on the footprint areas as provided for by the EAP, and any alterations to the area and/or missing Global Information System (GIS) information pertaining to the assessment area would have affected the area surveyed and hence the results of this assessment;
- A single site survey conducted on the 22nd of April 2026 was completed. Therefore, this assessment does not consider temporal/seasonal trends. It is possible that owing to the seasonal constraints stipulated that certain flora species were undetected during the field survey. However, owing to the small area and high disturbances of the receiving environment, this is unlikely and the site survey is deemed sufficient to derive a meaningful baseline;
- Whilst every effort was made to cover as much of the PAOI as possible within time and safety limitations, sufficient representative sampling was completed. Consequently, it is possible that some fauna and flora species present within the PAOI may have not been recorded during the field survey. However, the site survey is deemed sufficient to derive a meaningful baseline; and
- The Global Positioning System (GPS) used in the assessment has an accuracy of 5 m and will be taken into account by the specialist in the determination of buffers around identified spatial features.

1.5 Legislative Framework

1.5.1 Terrestrial Biodiversity

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020: “Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of ‘Very High sensitivity’ for terrestrial biodiversity must submit either a Terrestrial Biodiversity Specialist Assessment Report or a Terrestrial Biodiversity Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4, which states that:
 - Where SCC are found on site or have been confirmed to be likely present, a Terrestrial Biodiversity Specialist Assessment must be submitted in accordance with the requirements specified for ‘Very high’ and ‘High’ sensitivity in this protocol; or
 - Where no SCC are found on site during the site inspection or the presence is confirmed to be unlikely, a Terrestrial Biodiversity Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall ‘Very Low’ terrestrial sensitivity. These findings dispute the sensitivities from the DFFE screening tool report. Therefore, this report constitutes a Terrestrial Biodiversity Compliance Statement.

1.5.2 Animal Species Theme

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species, as per Government Notice 1150 published in terms of NEMA, dated 30 October 2020: “Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National

Environmental Management Act, 1998, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of ‘Medium sensitivity’ for terrestrial animal species, must submit either a Terrestrial Animal Species Specialist Assessment Report or a Terrestrial Animal Species Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4, which states:
 - Where no SCC are found on site during the investigation or if the presence is confirmed to be unlikely, a Terrestrial Animal Species Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall ‘Low’ Animal Species Theme sensitivity with no SCCs recorded during the field survey and presence within the PAOI being unlikely. These findings dispute the sensitivities from the DFFE screening tool report. Therefore, this report constitutes an Animal Species Compliance Statement.

1.5.3 Plant Species Theme

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species, as per Government Notice 1150 published in terms of NEMA, dated 30 October 2020: “Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation” – section 3, subsection 1:

- An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of ‘Medium sensitivity’ for terrestrial plant species, must submit either a Terrestrial Plant Species Specialist Assessment Report or a Terrestrial Plant Species Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4, which states:
 - Where no SCC are found on site during the investigation or if the presence is confirmed to be unlikely, a Terrestrial Plant Species Compliance Statement must be submitted.

The information obtained from a site sensitivity verification, which involved both a desktop assessment as well as a field survey, confirmed that the proposed development footprint is of an overall ‘Very Low’ plant Species Theme sensitivity with no SCCs recorded during the field survey and presence within the PAOI being unlikely. These findings dispute the sensitivities from the DFFE screening tool report. Therefore, this report constitutes a Plant Species Compliance Statement.

1.6 Report Requirements

As per sections 2 and 3 of the protocols discussed above (section 1.5), the required information which need to be included in a Terrestrial Biodiversity Compliance Statement, Animal Species Compliance Statement and Plant Species Compliance Statement is listed in Table 1-1 to Table 1-3 below.

1.6.1 Terrestrial Biodiversity

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-1 below.

Table 1-1 *Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 20 March 2020)	Report Section
---	----------------

Citrusdal Solar Farm

Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.3
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1
A statement on the duration, date, and season of the site inspection	2.1
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.1
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	4.2
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	4.1
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

1.6.2 Animal Species Theme

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-2 below.

Table 1-2 *Animal Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 30 October 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.1
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1 and 3.2
A statement on the duration, date, and season of the site inspection	2.1
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.5 and 3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.5 and 3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.2
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	4.2
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	4.1
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

1.6.3 Plant Species Theme

Terrestrial Biodiversity Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report are listed in Table 1-3 below.

Table 1-3 *Plant Species Compliance Statement information requirements as per the relevant protocol, including the location of the information within this report.*

Information to be Included (as per GN 320, 30 October 2020)	Report Section
Methodology used to undertake the site assessment and survey, and prepare the compliance statement, including relevant equipment and modelling used	7.1
Description of the assumptions and any uncertainties or gaps in knowledge or data	1.4
A baseline profile description of biodiversity and ecosystems of the site	3.1
Site sensitivity verification: Desktop Analysis using satellite imagery and available information	3.1 and 3.3
A statement on the duration, date, and season of the site inspection	2.1
Site sensitivity verification: Onsite inspection, including a description of current land use and vegetation found on-site	3.5 and 3.6
Site sensitivity verification: Photographs/evidence of environmental sensitivity	3.5 and 3.6
Screening tool confirmation/dispute: The assessment must verify the "Low" sensitivity of the site, in terms of plant, animal, and terrestrial biodiversity themes	3.6.3
Proposed impact management outcomes or monitoring requirements for inclusion in the EMPr	4.2
Indicate whether the proposed development will have any impact on the terrestrial environment, animals and/or plants	4.1
A signed statement of independence by the specialist	7.3
Specialist details, including a CV	7.4

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

2 Fieldwork

2.1 Biodiversity Field Assessment

A single season field survey was conducted on the 22nd of April 2026 – constituting a late summer (early wet season) survey – to delineate the various habitat types and determine their associated sensitivities, and to determine the presence of any local fauna and flora SCC within the PAOI. Every effort was made to cover all the respective habitat types within the PAOI within the limits of time and security. The site visit conducted by the specialist stipulated herein is considered sufficient for the proposed project (Figure 2-1).

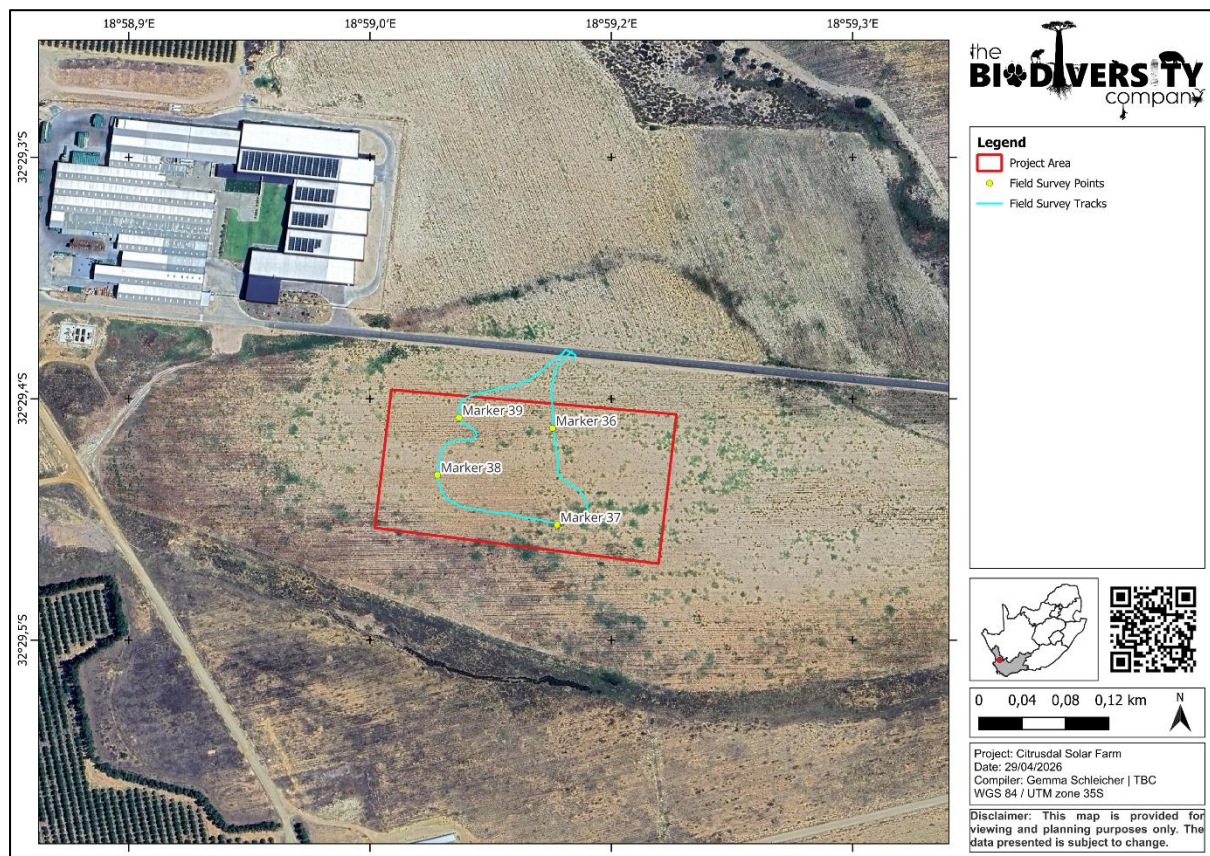


Figure 2-1 Map depicting the survey tracks and survey points within the PAOI.

3 Results & Discussion

3.1 Ecologically Important Landscape Features

Table 3-1 below has been produced from the spatial data collected and analysed as provided for by relevant sources. It presents a summative breakdown of the ecological boundaries considered and the associated relevance that each has to the region or PAOI.

Table 3-1 *Summary of relevance of the proposed project to ecologically important landscape features.*

Desktop Information Considered	Relevance	Reasoning
Ecosystem Threat Status	Relevant	The PAOI overlaps with Endangered (EN) and Critically Endangered (CR) ecosystems.
Ecosystem Protection Level	Relevant	The PAOI Overlaps with a Not Protected (NP) ecosystem.
Provincial Conservation Plan	Irrelevant	The PAOI does not overlaps with any identified conservation areas.
South African Protected Areas Database (SAPAD) & South African Conservation Areas Database (SACAD)	Relevant	The PAOI is located within 5 km from the nearest SAPAD Area (The Sederberg Mountain Catchment Area).
National Protected Areas Expansion Strategy (NPAES)	Irrelevant	The PAOI does not overlap with any listed Priority Focus Areas.
Key Biodiversity Areas (KBA)	Relevant	The PAOI overlaps with the Citrusdal Shale KBA.
South African Inventory of Inland Aquatic Ecosystems (SAIIAE)	Irrelevant	The PAOI does not overlap with any listed Inland Aquatic Ecosystems. There are several CR, VU, and EN SAIIAE wetlands within ~1 km of the PAOI and one VU river (the Olifants River) within ~1.5 km of the PAOI.
National Freshwater Priority Area (NFEPA)	Irrelevant	The PAOI does not overlap with any classified NFEPA Wetlands or Rivers. There are several Well Protected (WP), Poorly Protected (PP), and Moderately Protected (MP) wetlands within ~1 km of the PAOI and one Class D: Largely Modified River (the Olifants River) within ~1.5 km of the PAOI.
Strategic Water Source Areas (SWSA)	Irrelevant	The PAOI does not overlap with any SWSA. One SWSA, Groot Winterhoek, is located within ~210 m of the PAOI.

3.2 Fauna Species of Conservation Concern (SCC)

The Screening Tool indicates that one (1) Medium sensitivity avifauna species and two (2) Medium sensitivity Invertebrate species could occur within the PAOI (Table 3-2). Owing to the limited spatial extent and high anthropogenic disturbances of the PAOI, the probability of occurrence of faunal species of conservation concern (SCCs) within the PAOI is assessed as low.

Table 3-2 Threatened fauna species that are expected to occur within the PAOI. EN = Endangered; VU = Vulnerable; LC = Least Concerned

Species Name	Common Name	Regional Conservation Status (SANBI/ BirdLife)	Global Conservation Status (IUCN)	Habitat	Screening Tool Sensitivity	Likelihood Of Occurrence	Reason
Avifauna							
<i>Aquila rapax</i>	Tawny Eagle	EN	VU	It is mainly restricted to lightly wooded savannah and thornveld, as well as protected areas.	Medium	Low	No suitable habitat is present in PAOI.
Invertebrates							
<i>Brinckiella mauerbergerorum</i>	Mauerberger's Winter Katydid	VU	VU	Occurs on succulent shrubs of the Succulent Karoo and Fynbos biomes.	Medium	Low	No suitable habitat is present in PAOI.
<i>Brinckiella aptera</i>	Mute Winter Katydid	VU	VU	Occurs primarily on low, herbaceous shrubs. Within the Succulent Karoo and Fynbos biomes.	Medium	Low	No suitable habitat is present in PAOI.

3.3 Flora Species of Conservation Concern (SCC)

The Screening Tool indicates that thirty (30) Medium sensitivity flora species could occur within the PAOI (Table 3-3). Owing to the extensively modified condition and limited spatial extent of the PAOI, the probability of occurrence of flora SCCs within the PAOI is assessed as low.

As per the best practise guideline that accompanies the Animal and Plant Species Protocol for the screening tool, please, remember that **the name of the sensitive species may not appear in the final EIA report nor any of the specialist reports released into the public domain**. It should be referred to as sensitive plant or sensitive animal and its threat status may be included, e.g. critically endangered sensitive plant or endangered sensitive animal.

Table 3-3 Threatened flora species that are expected to occur within the PAOI. VU = Vulnerable

Family Name	Species Name	Regional Conservation Status (SANBI)	Habitat	Screening Tool Sensitivity	Likelihood Of Occurrence	Reason
Fabaceae	<i>Aspalathus wurmbiana</i>	CR	It occurs within the Renosterveld biome.	Medium	Low	No suitable habitat is present in PAOI
Asteraceae	<i>Athanasia adenantha</i>	EN	It occurs on Lower sands and clays.	Medium	Low	No suitable habitat is present in PAOI

Citrusdal Solar Farm

Hemerocallidaceae	<i>Caesia sabulosa</i>	VU	It occurs on deep sandy flats.	Medium	Low	No suitable habitat is present in PAOI
Scrophulariaceae	<i>Diascia appendiculata</i>	VU	Occurs on slopes or flats in loose alluvial sands derived from Table Mountain Sandstone.	Medium	Low	No suitable habitat is present in PAOI
Azoiaceae	<i>Drosanthemum hispidifolium</i>	VU	Occurs on lowland hills or flats in loamy shale.	Medium	Low	No suitable habitat is present in PAOI
Boraginaceae	<i>Echiostachys incanus</i>	VU	It occurs in seasonally damp clay flats, sometimes overlain by sands.	Medium	Low	No suitable habitat is present in PAOI
Iridaceae	<i>Geissorhiza inaequalis</i>	LC	It is found in heavy red clay soils associated with rocky doleritic outcrops.	Medium	Low	No suitable habitat is present in PAOI
Iridaceae	<i>Geissorhiza lewisiae</i>	NT	It grows on granite outcrops, limestone pavements and calcrete soils.	Medium	Low	No suitable habitat is present in PAOI
Brassicaceae	<i>Heliophila elata</i>	VU	Occurs on sandy flats, mountain plateaus and slopes.	Medium	Low	No suitable habitat is present in PAOI
Iridaceae	<i>Ixia mollis</i>	VU	Grows among rocks on seasonally moist south-facing sandy or clay slopes.	Medium	Low	No suitable habitat is present in PAOI
Thymelaeaceae	<i>Lachnaea capitata</i>	VU	Found on acid sand flats, often seasonally damp.	Medium	Low	No suitable habitat is present in PAOI
Thymelaeaceae	<i>Lachnaea grandiflora</i>	VU	It grows in sandy flats and sandy areas on lower mountain slopes.	Medium	Low	No suitable habitat is present in PAOI
Aizoaceae	<i>Lampranthus glaucus</i>	NT	It occurs in seasonally wet sandstone soil or sandy clay loams.	Medium	Low	No suitable habitat is present in PAOI
Proteaceae	<i>Leucadendron brunioides</i> var. <i>flumenlupinum</i>	EN	It occurs in dry montane fynbos in moist habitats such as seeps and river courses on sandy alluvium or sandstone-derived soils.	Medium	Low	No suitable habitat is present in PAOI
Proteaceae	<i>Leucadendron procerum</i>	VU	This species is found in deep sands, slopes and flats.	Medium	Low	No suitable habitat is present in PAOI

Citrusdal Solar Farm

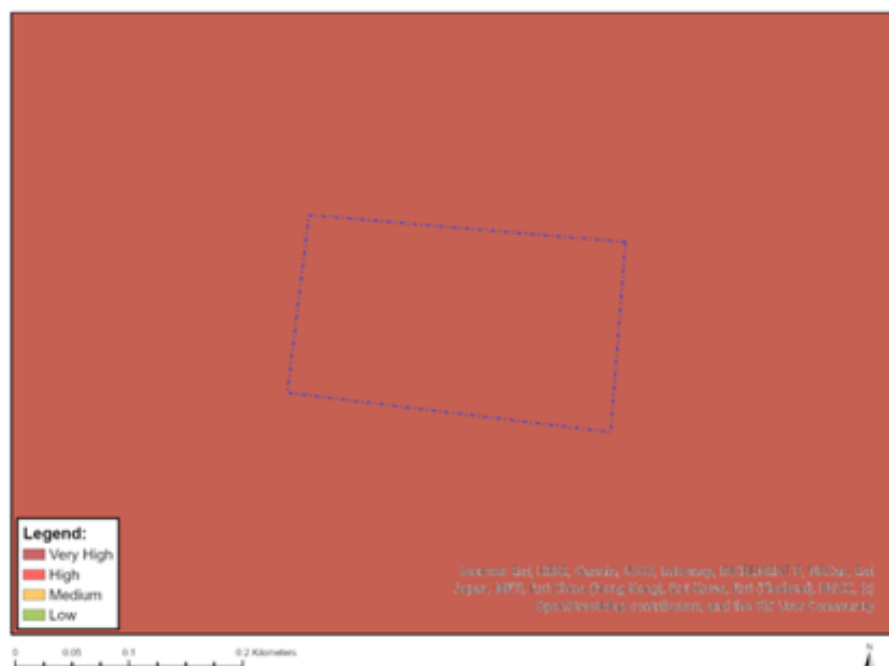
Proteaceae	<i>Leucospermum rodolentum</i>	NT	This plant occurs in sand fynbos and survives in arid areas by tapping deep water.	Medium	Low	No suitable habitat is present in PAOI
Rutaceae	<i>Macrostylis crassifolia</i>	VU	Grows on sandy flats.	Medium	Low	No suitable habitat is present in PAOI
Oxalidaceae	<i>Oxalis aurea</i>	VU	This plant grows on clay slopes and flats below 300 m.	Medium	Low	No suitable habitat is present in PAOI
Oxalidaceae	<i>Oxalis pallens</i>	EN	This species occurs in seasonally wet flats.	Medium	Low	No suitable habitat is present in PAOI
Rhamnaceae	<i>Phylica cylindrica</i>	VU	Occurs in lowland sand flats and lower mountain slopes.	Medium	Low	No suitable habitat is present in PAOI
Proteaceae	<i>Protea scolymocephala</i>	VU	This species occurs in sandy flats and coastal lowlands, often near drainage lines and seepage areas between 0 and 400 m.	Medium	Low	No suitable habitat is present in PAOI
Fabaceae	<i>Psoralea alata</i>	VU	This plant is found in seasonally damp clay soils on lowlands and flats.	Medium	Low	No suitable habitat is present in PAOI
Scrophylariaceae	<i>Selago cryptadenia</i>	VU	Occurs on lower slopes, often in ecotonal areas between shale and sandstone.	Medium	Low	No suitable habitat is present in PAOI
Iridaceae	<i>Sparaxis grandiflora subsp. acutiloba</i>	VU	This plant occurs at low elevations along the valley bottom in exposures of Bokkeveld shales in the area of predominantly Cape Sandstone-derived soils.	Medium	Low	No suitable habitat is present in PAOI
	<i>Sensitive species 1</i>	VU	-	Medium	Low	No suitable habitat is present in PAOI
	<i>Sensitive species 1225</i>	VU	-	Medium	Low	No suitable habitat is present in PAOI
	<i>Sensitive species 18</i>	VU	-	Medium	Low	No suitable habitat is present in PAOI
	<i>Sensitive species 244</i>	VU	-	Medium	Low	No suitable habitat is present in PAOI

						present in PAOI
<i>Sensitive species 288</i>	Rare	-	Medium	Low		No suitable habitat is present in PAOI
<i>Sensitive species 871</i>	VU	-	Medium	Low		No suitable habitat is present in PAOI

3.4 Desktop Ecological Sensitivity

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

- Terrestrial Biodiversity Theme sensitivity for the PAOI is 'Very High' owing to the potential overlap with the CR Citrusdal Shale Renosterveld and the EN Leipoldtville Sand Fynbos (Figure 3-1);
- Animal Species Theme sensitivity is 'Medium' for the PAOI owing to the potential occurrence of one (1) medium sensitivity avifauna and two (2) medium sensitivity invertebrate SCCs (Figure 3-2); and
- Plant Species Theme sensitivity is 'Medium' for the PAOI with the potential of thirty (30) SCCs predicted to occur (Figure 3-3).



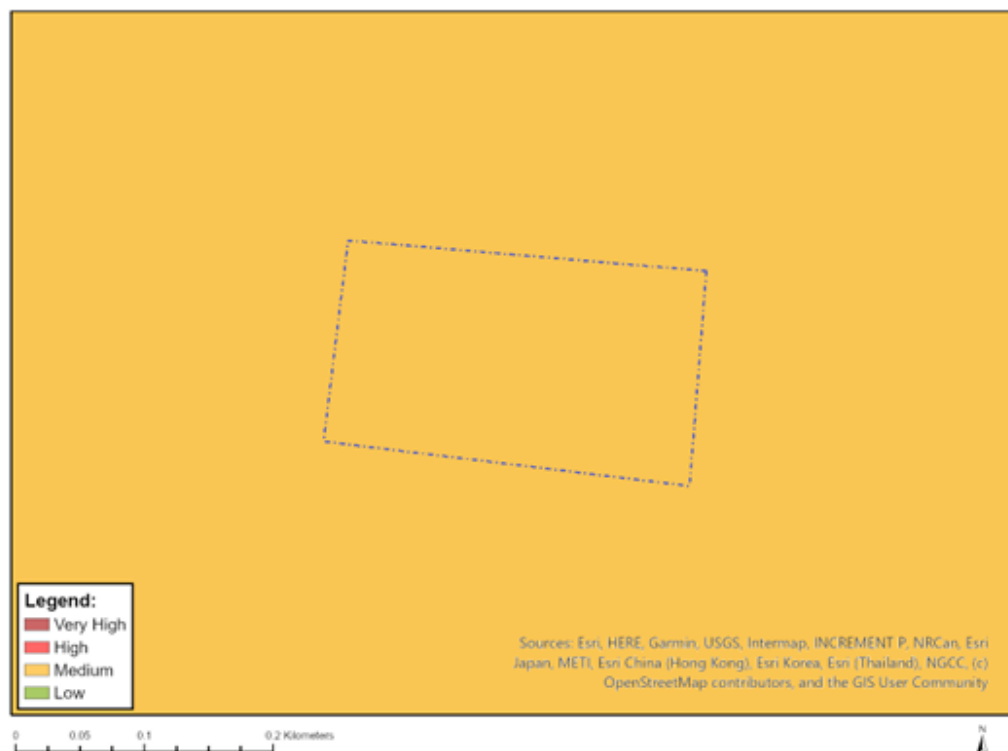
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
x			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	CR Citrusdal Shale Renosterveld
Very High	EN Leipoldville Sand Fynbos

Figure 3-1 Map depicting the relative terrestrial biodiversity theme sensitivity for the PAOI as generated for by the environmental screening tool.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



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

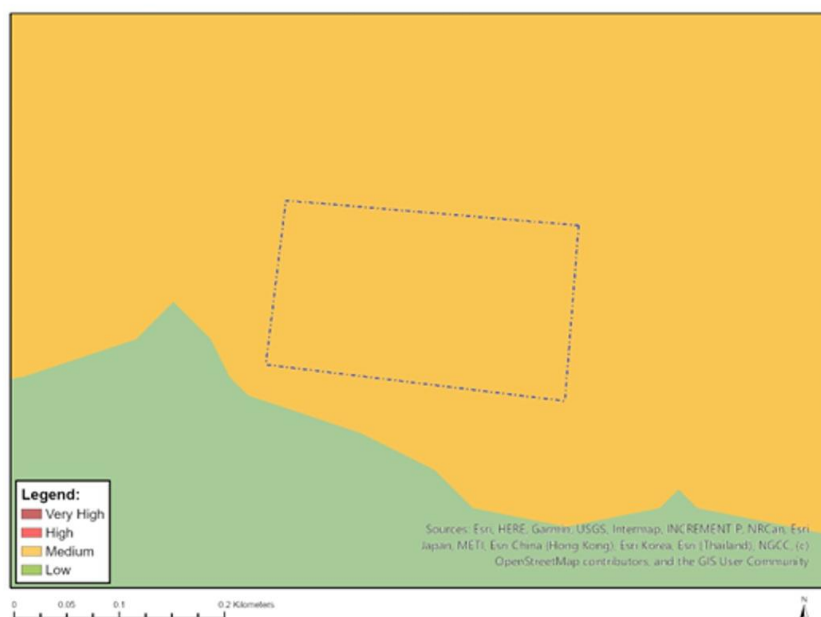
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Aves-Aquila rapax
Medium	Invertebrate-Brinckiella mauerbergerorum
Medium	Invertebrate-Brinckiella aptera

Figure 3-2 Map depicting the relative animal theme sensitivity for the PAOI as generated for by the environmental screening tool.

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



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

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Sensitive species 244
Medium	Drosanthemum hispidifolium
Medium	Aspalathus wurmbiana
Medium	Leucadendron brunioides var. flumenlupinum
Medium	Leucadendron procerum
Medium	Selago cryptadenia
Medium	Diascia appendiculata
Medium	Echiostachys incanus
Medium	Geissorhiza inaequalis
Medium	Geissorhiza lewisiae
Medium	Sparaxis grandiflora subsp. acutiloba
Medium	Ixia mollis
Medium	Sensitive species 1
Medium	Oxalis aurea
Medium	Oxalis pallens
Medium	Sensitive species 18
Medium	Sensitive species 288
Medium	Athanasia adenantha
Medium	Macrostylis crassifolia
Medium	Sensitive species 871
Medium	Phyllaea cylindrica
Medium	Lampranthus glaucus
Medium	Psoralea alata
Medium	Leucospermum rodolentum
Medium	Protea scolymocephala
Medium	Heliophila elata
Medium	Lachnaea capitata
Medium	Lachnaea grandiflora
Medium	Sensitive species 1225
Medium	Caesia sabulosa

Figure 3-3 Map depicting the relative plant theme sensitivity for the PAOI as generated for by the environmental screening tool.

3.5 Biodiversity Field Survey

3.5.1 Terrestrial Biodiversity

A summary of the terrestrial field assessment is provided in Table 3-4. The PAOI was surveyed to establish the overall ecological condition of the vegetation and to determine the likelihood of any flora and faunal SCC occurring within the area. Any potential sensitive habitat features were also assessed. Table 3-4 shows a summary of the survey points recorded during the site assessment. Figure 3-4 illustrates the habitats defined within the PAOI.

Table 3-4 *Summary of field survey conducted within the PAOI.*

Habitat	Description & condition	Ecosystem processes & services
Severely Modified (Agriculture)	The site is located within an area that has been a severely modified due to anthropogenic influences. The area is characterised by past and ongoing agricultural disturbance, with the original indigenous vegetation having been ploughed and removed to plant crops. In this case rooibos has been last planted as seen in the site photos. No faunal or floral Species of Conservation Concern (SCC) were recorded within this habitat during the assessment, and the likelihood of such species occurring within the transformed development footprint is considered very low. This habitat is no longer representative of the Citrusdal Shale Renosterveld (CR) or Leipoldville Sand Fynbos (EN).	Ecosystem processes and services within this habitat have been substantially reduced and altered by historical agricultural transformation. The extensive loss of indigenous composition, structure and ecological function means that the area provides little support for natural ecosystem functioning. The habitat has limited value for ecological connectivity and offers minimal capacity to sustain viable populations of SCC, especially habitat-specific plant and invertebrate taxa.

Date:20/05/2026
Ref: Point 1
GPS Coordinates:
32°29'24.88"S
18°59'7.85"E



Habitat	Description & condition	Ecosystem processes & services
Date:20/05/2026 Ref: Point 2 GPS Coordinates: 32°29'27.76"S 18°59'7.98"E		
Date:20/05/2026 Ref: Point 3 GPS Coordinates: 32°29'26.27"S 18°59'4.41"E		
Date:20/05/2026 Ref: Point 4 GPS Coordinates: 32°29'24.56"S 18°59'5.05"E		

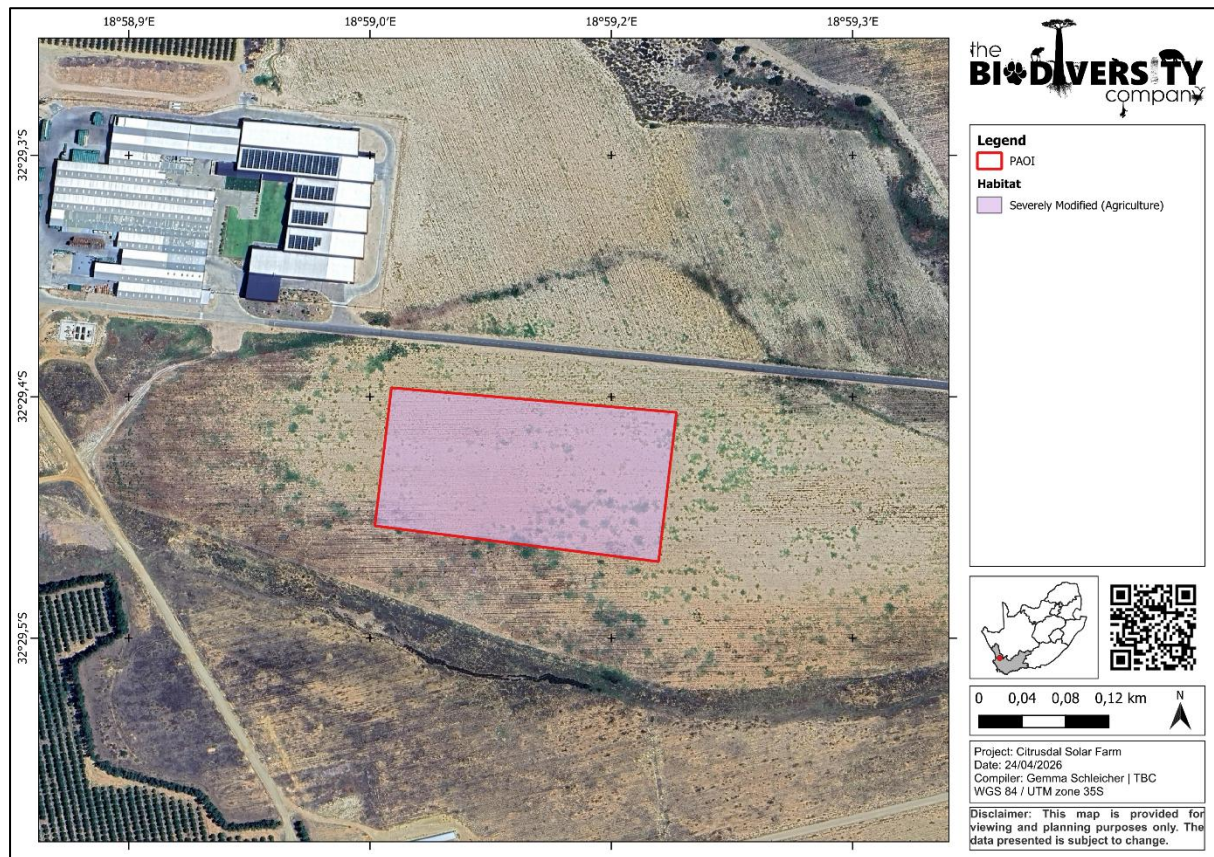


Figure 3-4 Map depicting the habitat types defined within the PAOI.

3.5.2 Animal Species Theme

The PAOI was surveyed to establish the presence of fauna SCCs and to determine if any are likely to occur within the PAOI. The PAOI is situated within cultivated land for agricultural purposes, indicating prior disturbances within the PAOI. Surrounding the PAOI are several anthropogenic features, including road infrastructure and industry infrastructure related to citrus and rooibos farming. These structures, along with associated agricultural activities, have resulted in a landscape that is largely modified from its natural state. The presence of these built environments and ongoing land use practices has contributed to a reduction in habitat quality and ecological integrity within the immediate vicinity of the project area. Consequently, the area is characterized by a predominance of modified habitats, which are less likely to support fauna SCC. No fauna SCCs were recorded during the field survey.

3.5.3 Plant Species Theme

The PAOI was surveyed to establish the presence of flora SCCs and to determine if any are likely to occur within the PAOI. The PAOI is associated with current and historical agricultural activity related to rooibos farming and is surrounded by anthropogenic features, including various farm-related buildings (See Figure 3-5). These structures, together with ongoing agricultural activities, have resulted in a landscape that is extensively modified and disturbed. The cumulative impact of infrastructure development and land use practices has significantly reduced the ecological integrity and habitat suitability of the area for indigenous plant species. As a result, the likelihood of flora SCC occurring within the PAOI is considered low, given the absence of suitable, undisturbed habitat required to support such species. No flora SCCs were recorded during the field survey.



Figure 3-5 **Crops found within the PAOI: A) *Aspalathus linearis*; and B) *Citrullus lanatus*.**

3.6 Site Sensitivity Verification

3.6.1 Terrestrial Biodiversity

Based on the criteria provided in Appendix B of this report, all habitats within the PAOI were assigned a sensitivity category, i.e., a SEI category. The PAOI was categorised as possessing habitats with very low SEI (Table 3-5 & Figure 3-6). The findings of this assessment therefore dispute the findings set forth by the Screening Tool with regards to the combined Terrestrial Biodiversity Theme Sensitivity.

It is important to note that the map depicted in Figure 3-6 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-5 Summary of habitat types and associated SEIs delineated within the PAOI.

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Severely Modified (Agriculture)	<u>Low</u> < 50% of receptor contains natural habitat with limited potential to support SCC.	<u>Low</u> 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.	Low	<u>High</u> Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality,	<u>Very Low</u> Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.



Figure 3-6 Map depicting the Terrestrial Biodiversity Site Ecological Importance (SEI) sensitivity for the PAOI.

3.6.2 Animal Species Theme

The Animal Species Theme sensitivity for the PAOI is identified as High by the national screening tool (see Section 3.4). However, based on the findings of the site assessment, this sensitivity rating is not considered representative of conditions within the proposed development footprint. The assessment found that the PAOI comprises predominantly transformed and disturbed habitat, and a Low animal species sensitivity is therefore assigned across the site (Table 3-6). Although the area may be used opportunistically by common faunal species, particularly certain avifaunal species for foraging purposes, it is not regarded as providing habitat of high significance for fauna.

It is important to note that the map depicted in Figure 3-7 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-6 Summary of habitat types and associated SEIs delineated within the PAOI.

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Irreversibly Modified	<u>Low</u> No confirmed or highly likely populations of SCC. No confirmed or highly likely populations of range-restricted species	<u>Low</u> 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. Several minor and major current negative ecological impacts.	Low	<u>Medium</u> 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	<u>Low</u> Minimisation and restoration mitigation – development activities of medium to high impact acceptable followed by appropriate restoration activities.

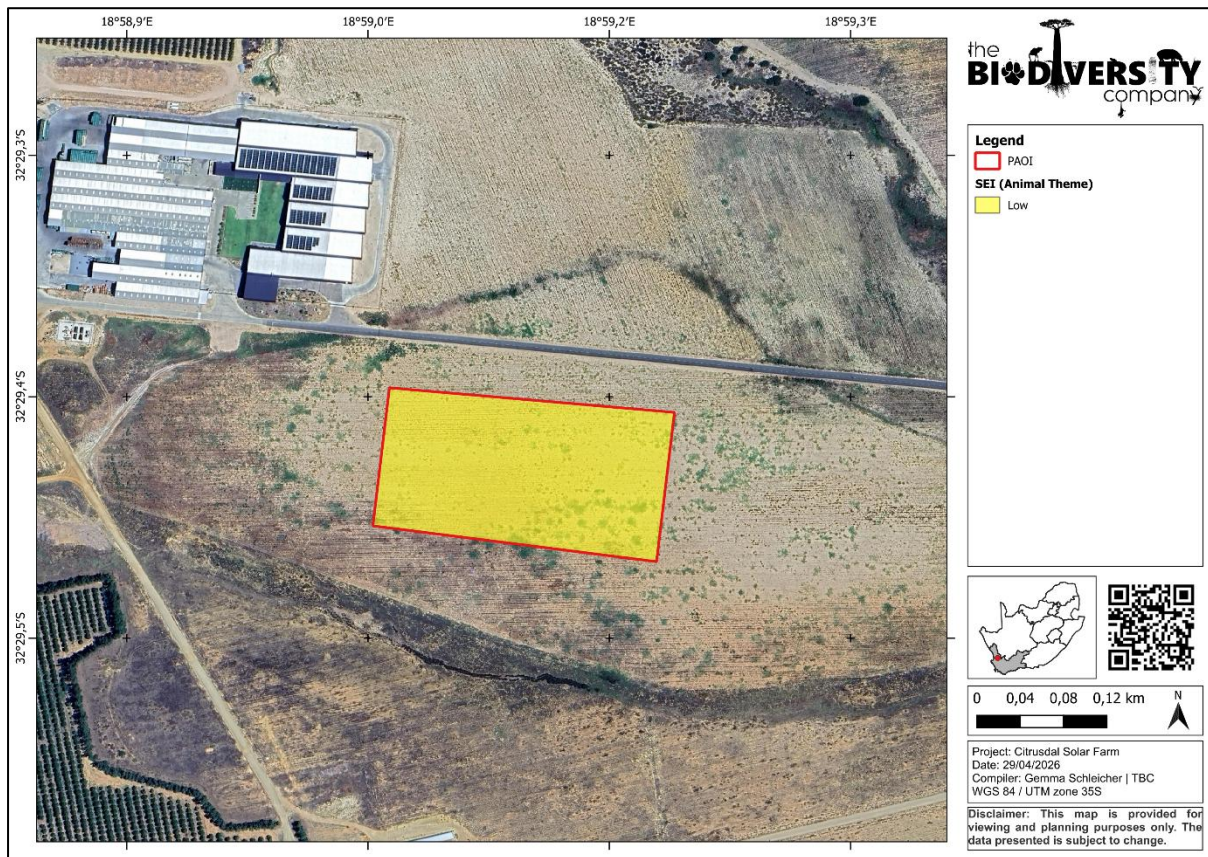


Figure 3-7 Map depicting the Animal Theme sensitivity for the PAOI.

3.6.3 Plant Species Theme

The Plant Species Theme sensitivity for the PAOI is identified as Medium by the national screening tool (see Section 3.4). However, the findings of the site assessment indicate that this rating is not representative of the current on-site conditions. The PAOI has been subject to extensive historical and ongoing clearing and transformation, primarily for rooibos farming, resulting in the substantial loss of indigenous vegetation, floristic composition, and ecological integrity. On this basis, the plant species sensitivity of the PAOI is considered to be Very Low across the development footprint and is not longer representative of the CR Citrusdal Shale Renosterveld or the EN Leipoldville Sand Fynbos (See Table 3-7).

It is important to note that the map depicted in Figure 3-8 does not replace any local, provincial, or national government legislation relating to these areas or the land use capabilities or sensitivities of these environments.

Table 3-7 Summary of habitat types and associated SEIs delineated within the PAOI.

Habitat Type	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI) Guidelines for interpreting SEI in the context of the proposed development activities
Irreversibly Modified	<u>Very Low</u> No confirmed and highly unlikely populations of SCC. No confirmed and highly unlikely populations of range-restricted species. No natural habitat remaining.	<u>Very Low</u> No habitat connectivity except for flying species or flora with wind-dispersed seeds. Several major current negative ecological impacts.	Very Low	<u>High</u> Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality.	<u>Very Low</u> Minimisation mitigation – development activities of medium to high impact acceptable and restoration activities may not be required.

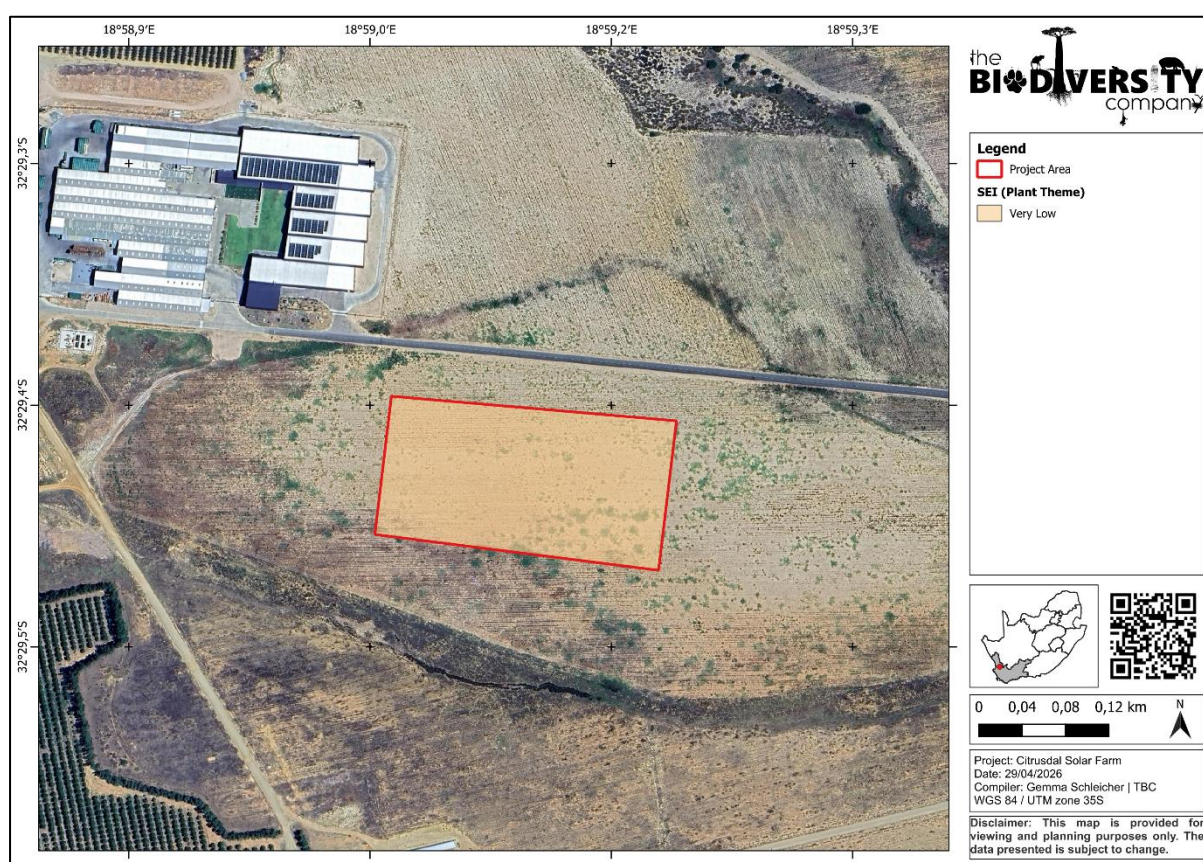


Figure 3-8 Map depicting the Plant Theme sensitivity for the PAOI.

3.6.4 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated in Table 3-8 below. A summative explanation for each result is provided as relevant. The specialist-assigned sensitivity ratings are based largely on the SEI process followed in the previous section, and consideration is given to any observed or likely presence of SCC or protected species.

Table 3-8 Summary of the screening tool vs specialist assigned sensitivities.

Screening Tool Theme	Screening Tool	Habitat	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Terrestrial Theme	Very High	Severely Modified (Agriculture)	Very Low	Disputed- Habitat has been modified due to historical and current agricultural clearing. No natural vegetation exists and habitat has lost most ecosystem functionality. It is no longer representative of the Citrusdal Shale Renosterveld (CR) and Leipoldtville Sand Fynbos (EN) vegetation types.
Animal Theme	High	Severely Modified (Agriculture)	Low	Disputed – The PAOI is highly modified due to anthropogenic impacts and existing infrastructure. No fauna SCCs were detected or are expected to occur within the PAOI. The area could be used opportunistically by common faunal species, particularly certain avifaunal species for foraging purposes.
Plant Theme	Medium	Severely Modified (Agriculture)	Very Low	Disputed – The PAOI is highly modified by anthropogenic impacts and existing infrastructure, with no remaining indigenous vegetation. No flora SCCs were detected or are expected to occur within the proposed PAOI. This habitat no longer represents the Citrusdal Shale Renosterveld (CR) and Leipoldtville Sand Fynbos (EN) vegetation types.

4 Impacts

4.1 Impacts Observed and Potential Impacts

Numerous impacts were observed within the PAOI, the most significant being anthropogenic disturbances such as historical and current clearing for agricultural purposes. Additional impacts include alien invasive plant (AIP) infestation, and human ingress. It is not anticipated that the proposed project will have any significant impact on fauna or flora SCCs.

4.2 Impact Management and Mitigation Plan

The aim of the management outcomes is to present mitigation actions in such a way that they can be incorporated into the Environmental Management Programme (EMPr), and possible biodiversity management programme, for the project, which should in turn allow for a more successful implementation and auditing of the mitigation measures and monitoring guidelines. Table 4-1 and Table 4-2 presents the recommended mitigation measures relative to the terrestrial assessment.

The focus of mitigation measures is to reduce the significance of the likely impacts associated with the development, and thereby:

- Prevent the further loss and fragmentation of indigenous vegetation communities within the ecosystem in and around the PAOI;
- Reduce the negative fragmentation effects of the development and facilitate the safe movement of fauna species;
- Prevent the direct and indirect loss and disturbance of flora and fauna species and communities; and
- Adequately follow the guidelines for interpreting the SEI ratings assigned to the PAOI.

Table 4-1 Project specific mitigation measures.

Anticipated Impact	Destruction, further loss and fragmentation of the of habitats, ecosystems and vegetation community
Activity/risk source	Site establishment, vegetation clearing, panel installation, internal access creation, trenching, stockpiling, laydown areas and construction vehicle movement.
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
- All construction-related activities must be restricted to the demarcated solar farm footprint and associated approved access areas only. No unnecessary expansion of the disturbance footprint must be permitted. - Clearly demarcate the construction footprint before construction commences using temporary fencing, danger tape or clearly visible marker posts. - Laydown areas, batching, cement mixing, temporary toilets, storage areas and contractor parking must be placed within already transformed agricultural areas of very low sensitivity and must occupy the smallest practical footprint. - Existing disturbed areas and existing farm tracks must be used as far as possible to limit additional vegetation loss and soil disturbance. No new informal tracks may be created outside the approved footprint. - Given that the site has already been cleared for agriculture and supports minimal indigenous vegetation, vegetation clearing must be limited to only what is required for the solar infrastructure and associated works. - Materials may not be stored for extended periods of time and must be removed from the PAOI once the construction phase has been concluded. No permanent construction phase structures, apart from approved structures, should be permitted. No storage of vehicles or equipment will be allowed outside of the designated laydown areas. - A habitat rehabilitation plan must be implemented. Rehabilitation should focus on stabilisation and erosion and alien invasive plant control, with re-vegetation using locally appropriate indigenous species where feasible and where such intervention is practical. - The areas disturbed and cleared for the construction of the proposed access road must be included in the habitat rehabilitation plan. - It must be made an offence for any staff member to remove any indigenous plant species from the PAOI or bring any alien species in, apart from rehabilitation purposes. This is to prevent the further spread of exotic or alien species or the illegal collection of plants.	
Anticipated Impact	Introduction of alien and invasive species, especially plants
Activity/risk source	Vegetation clearing, soil disturbance, stockpiling, imported material, vehicle movement, waste generation and poorly managed stormwater runoff.
Mitigation Objective	Avoidance / minimisation of the disturbance and degradation of vegetation and ecosystems
Mitigation: Action/control	
- Compile and implement an alien vegetation management plan from the onset of construction. The plan must identify areas for action (if any) and prescribe the necessary removal methods and frequencies to be applied. This plan must also include a monitoring plan and be updated as/when new data is collected. - Vehicles, machinery and equipment entering the site must be free of excessive soil and plant material to reduce the introduction of additional alien species. - Disturbed areas must be stabilised and reinstated as soon as practical after construction to reduce bare ground that may facilitate alien plant colonisation. - Implement a stormwater management plan for all developable areas. - Temporary storage of domestic waste, if applicable, shall be in covered waste skips.	
Anticipated Impact	Displacement of faunal community due to habitat loss, direct mortalities and disturbance (road collisions, noise, dust, vibration and poaching)
Activity/risk source	Vegetation clearing, trenching, construction traffic, increased human activity, night-time disturbance, waste and opportunistic harm to fauna.
Mitigation Objective	Avoidance / minimisation of the disturbance and mortality of fauna
Mitigation: Action/control	
Ensure solar panels have an anti-reflective coating to prevent avifaunal collisions due to the "Lake Effect" (where birds confuse the surface of solar panels for water bodies).	

- Construction activities must remain within the demarcated footprint to avoid unnecessary disturbance of adjacent areas that may still provide limited refuge to common fauna.
- Outside lighting must be designed and limited to minimize impacts on fauna. All outside lighting should be directed away from highly sensitive areas. Fluorescent and mercury vapor lighting should be avoided, and sodium vapor (red/green) lights should be used.
- Limit construction vehicle speeds to 40 km/h to prevent accidents and install appropriate speed control measures and signage.
 - Driving on access roads at night should be restricted to maximum 20 km/h to reduce or prevent wildlife road mortalities which occur more frequently during this period.
- Open trenches, excavations and foundation holes must be kept open for the shortest possible time, inspected daily for trapped fauna, and either covered overnight, ramped, or otherwise secured where feasible. Any trapped fauna must be safely removed by suitably competent personnel.
- Focus work on one area at a time to reduce the extent of on-site activities, allowing wildlife to relocate as the project progresses. This helps smaller animals find refuge in nearby undisturbed areas.
- Implement noise and light mitigation measures for any nighttime construction activities to minimise disturbances to nocturnal species expected in the area.
- No hunting, trapping, poisoning or deliberate killing of any fauna by staff or contractors may be permitted. This must be included in site rules and enforced by the contractor and Environmental Control Officer.
- Provide all personnel and contractors to undergo Environmental Awareness Training to all personnel and contractors. A signed register of attendance must be kept for proof.
 - Training and must include awareness about not harming or collecting species.

Table 4-2 General mitigation measures for the project.

Mitigation: Action/control
• Demarcate work areas during the construction phase to avoid affecting outside areas. Use physical barriers e.g., safety tape, not painted lines, and use signage. • Disturbance and clearing outside the designated footprint should be minimised as far as possible during construction. Any areas disturbed beyond the access road footprint must be rehabilitated in accordance with the habitat rehabilitation plan. Additionally, Alien and Invasive Plant species in these areas must be managed in line with the alien vegetation management plan. • Although indigenous vegetation within the footprint is minimal, any remnant indigenous vegetation or less disturbed patches occurring outside the approved footprint must be avoided where feasible and may not be cleared or used for stockpiling, parking or access. • Vegetation clearing must be kept to the minimum necessary for panel placement, internal access, cabling and associated infrastructure. • An Environmental Officer (EO) or suitably appointed environmental representative must inspect and approve the demarcation of the construction footprint before vegetation clearing begins and must oversee vegetation clearing where required. • Dust-reducing mitigation measures must be put in place and must be strictly adhered to, for all roads and bare (unvegetated) areas. ○ Reduce the dust generated by operational vehicles and earth moving machinery, through wetting the soil surface and putting up signs to enforce speed limits to enforce reduced speeds. ○ No non-environmentally friendly suppressants may be used as this could result in pollution of surrounding water sources. • Toilets at the recommended Health and Safety standards must be provided. These should be emptied regularly and once no longer required, they must be pumped dry to prevent leakage into the surrounding environment and removed from site. • A spill response procedure must be implemented for the site, and an adequately stocked spill kit must be available at all times during construction. ○ Drip trays or other suitable containment measures must be used beneath stationary vehicles, generators and equipment where there is a risk of hydrocarbon leakage. ○ All contaminated soil / yard stone shall be treated in situ or removed and be placed in containers. ○ Appropriately contain any generator diesel storage tanks, machinery spills (e.g., accidental spills of hydrocarbons oils, diesel etc.) in such a way as to prevent them from leaking and entering the environment. ○ Construction activities and vehicles could cause spillages of lubricants, fuels and waste material negatively affecting the functioning of the ecosystem. All vehicles and equipment must be maintained, and all re-fuelling and servicing of equipment is to take place in demarcated areas outside of the PAOI • Any leaking vehicle or equipment must be repaired immediately or removed from site until repaired.

5 Conclusion

The habitats within the PAOI have been significantly altered due to historical and current land clearing for agricultural purposes. Overall, the completion of this terrestrial biodiversity assessment led to disputing the 'Very High' Terrestrial Biodiversity Theme Sensitivity as set out in the National Environmental Screening Tool. The PAOI is assigned a 'Very Low' Terrestrial Theme Sensitivity due to the severely modified state of the habitat which is no longer representative of the CR Citrusdal Shale Renosterveld or the EN Leipoldville Sand Fynbos.

The Animal Species Theme sensitivity is 'Medium' for the PAOI as allocated by the National Environmental Screening Tool, which was disputed for all areas. The PAOI is assigned a 'Low' Animal Species Theme sensitivity, as it does not provide suitable habitat for potential SCCs or range-restricted species but rather opportunistic animal species.

The Plant Species Theme sensitivity is 'Medium' for the PAOI as allocated by the National Environmental Screening Tool, which was disputed for all areas. The PAOI is assigned a 'Very Low' Plant Species Theme sensitivity as there was limited indigenous vegetation on site due to historical and current agricultural activities.

5.1 Impact Statement

The location, state and size of the ecosystem suggests that it is unlikely that any functional habitat or SCCs will be lost because of the impacts arising from the proposed activities. However, these assumptions pertain to the terrestrial habitat within the PAOI only and a Freshwater Assessment needs to be read in conjunction to determine the impact of the proposed project on water resources within the PAOI (TBC, 2026).

5.2 Specialist Opinion

Provided that the mitigation measures outlined in this and other specialist reports are implemented, no significant impacts are anticipated from the proposed solar farm, given the limited project scope.

6 References

Bates, M.F., Branch, W.R., Bauer, A.M., Burger, M., Marais, J., Alexander, G.J & de Villiers, M.S. (Eds). 2014. Atlas and Red List of Reptiles of South Africa, Lesotho and Swaziland. Suricata 1. South African Biodiversity Institute, Pretoria.

Department of Forestry, Fisheries and the Environment (DFFE). 2023. SACAD (South Africa Conservation Areas Database) and SAPAD (South Africa Protected Areas Database). <http://egis.environment.gov.za>.

Department of Forestry, Fisheries and the Environment (DFFE). 2022. National Protected Areas Expansion Strategy <http://egis.environment.gov.za>.

Du Preez, L.H. & Carruthers, V. 2009. A Complete Guide to the Frogs of Southern Africa. Struik Nature, Cape Town.

Fish, L., Mashau, A.C., Moeaha, M.J. & Nembudani, M.T. 2015. Identification Guide to Southern African Grasses: An Identification Manual with Keys, Descriptions, and Distributions. SANBI, Pretoria.

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

Mucina, L., Rutherford, M.C. & Powrie, L.W. (Eds.). 2007. Vegetation map of South Africa, Lesotho and Swaziland. 1:1 000 000 scale sheet maps. 2nd ed. South African National Biodiversity Institute, Pretoria.

Mucina, L., Scott-Shaw, CR., Rutherford, MC., Camp., KGT., Matthews, WS., Powrie, LW and Hoare, DB. Indian Ocean Coastal Belt. IN Mucina, L. & Rutherford, M.C. (Eds.). 2006. The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria, South African.

National Biodiversity Assessment spatial data. 2018. <http://bgis.sanbi.org/>. Accessed April 2026.

Nel JL, Murray KM, Maherry AM, Petersen CP, Roux DJ, Driver A, Hill L, Van Deventer H, Funke N, Swartz ER, Smith-Adao LB, Mbona N, Downsborough L and Nienaber S. 2011. Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.

NEMBA. 2014. Government Gazette, Volume 584. No 37320. www.gpwonline.co.za. Accessed April 2026.

Raimondo, D., von Staden, L., Foden, W., Victor, J.E., Helme, N.A., Turner, R.C., Kamundi, D.A. and Manyama, P.A. 2009. Red List of South African Plants. Strelitzia 25. South African National Biodiversity Institute, Pretoria.

SANBI. 2022. Red List of South African Plants version 2020. redlist.sanbi.org

SANBI-BGIS. 2017. Technical guidelines for CBA Maps: Guidelines for developing a map of Critical Biodiversity Areas & Ecological Support Areas using systematic biodiversity planning.

SAPAD (South Africa Protected Areas Database) and SACAD (South Africa Conservation Areas Database). (2023). <http://egis.environment.gov.za>.

Skinner, J.D. & Chimimba, C.T. 2005. The Mammals of the Southern African Sub-region. Cambridge University Press, Cape Town.

Skowno, A.L. & Monyeki, M.S. 2021. South Africa's Red List of Terrestrial Ecosystems (RLEs). Land, 10, 1048, 1-14.

Skowno, A.L., Raimondo, D.C., Poole, C.J., Fizzotti, B. & Slingsby, J.A. (eds.). 2019. South African National Biodiversity Assessment 2018 Technical Report Volume 1: Terrestrial Realm. South African National Biodiversity Institute, Pretoria.

Taylor A, Cowell C, Drouilly M, Schulze E, Avenant N, Birss C, Child MF. 2016. A conservation assessment of *Pelea capreolus*. In Child MF, Roxburgh L, Do Linh San E, Raimondo D, Davies-Mostert HT, editors. The Red List of Mammals of South Africa, Swaziland and Lesotho. South African National Biodiversity Institute and Endangered Wildlife Trust, South Africa.

The Biodiversity Company. 2026. Aquatic Biodiversity Compliance Statement for the proposed development of a solar farm, on farm nr: 438, Brakfontein Estate, Citrusdal, Western Cape. Prepared for Sillito Environmental Consulting (Pty) Ltd.

Van Deventer H, Smith-Adao L, Collins NB, Grenfell M, Grundling A, Grundling P-L, Impson D, Job N, Lötter M, Ollis D, Petersen C, Scherman P, Sieben E, Snaddon K, Tererai F. and Van der Colff D. 2019. *South African National Biodiversity Assessment 2018*:

Technical Report. Volume 2b: Inland Aquatic (Freshwater) Realm. CSIR report number CSIR/NRE/ECOS/IR/2019/0004/A. South African National Biodiversity Institute, Pretoria. <http://hdl.handle.net/20.500.12143/6230>.

7 Appendix Items

7.1 Appendix A: Methods

7.1.1 Desktop Dataset Assessment

7.1.1.1 Ecologically Important Landscape Features

Existing ecologically relevant data layers were incorporated into a GIS to establish how the proposed development might interact with any ecologically important entities. Emphasis was placed around the following spatial datasets:

- National Biodiversity Assessment 2018 (Skowno et al, 2019) - The purpose of the National Biodiversity Assessment (NBA) is to assess the state of South Africa's biodiversity based on best available science, with a view to understanding trends over time and informing policy and decision-making across a range of sectors. The NBA deals with all three components of biodiversity: genes, species and ecosystems; and assesses biodiversity and ecosystems across terrestrial, freshwater, estuarine and marine environments. The two headline indicators assessed in the NBA are:
 - Ecosystem Threat Status – indicator of an ecosystem's wellbeing, based on the level of change in structure, function or composition. Ecosystem types are categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC), based on the proportion of the original extent of each ecosystem type that remains in good ecological condition. Red List of Ecosystems (RLE) 2021 – The list was first published in 2011 and has since been substantially revised by authors Dr Andrew Skowno and Mrs Maphale Monyeki (SANBI, 2022). This list is based on assessments that followed the International Union for Conservation of Nature (IUCN) Red List of Ecosystems Framework (version 1.1) and covers all 456 terrestrial ecosystem types described in South Africa by Mucina and Rutherford (2006). A total of 120 of the 456 terrestrial ecosystem types assessed are categorised as threatened and together make up approximately 10% of the remaining natural habitat in the country. Of these 120 ecosystem types, 55 are Critically Endangered (CR), 51 Endangered (EN) and 14 are Vulnerable (VU). The remainder are categorised as Least Concern (LC) (SANBI, 2022; Skowno & Monyeki, 2021).
 - Ecosystem Protection Level – indicator of the extent to which ecosystems are adequately protected or under-protected. Ecosystem types are categorised as Well Protected (WP), Moderately Protected (MP), Poorly Protected (PP), or Not Protected (NP), based on the proportion of the biodiversity target for each ecosystem type that is included within one or more protected areas. Not Protected, Poorly Protected or Moderately Protected ecosystem types are collectively referred to as under-protected ecosystems.
- Protected areas:
 - South Africa Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) (DFFE, 2025a) – The South African Protected Areas Database (SAPAD) and South Africa Conservation Areas Database (SACAD) contains spatial data for the conservation of South Africa. It includes spatial and attribute information for both formally protected areas and areas that have less formal protection. The database is updated on a continuous basis and forms the basis for the Register of Protected Areas which is a legislative requirement under the National Environmental Management: Protected Areas Act, Act 57 of 2003.

- National Protected Areas Expansion Strategy (NPAES) (DFFE, 2022b) – The National Protected Area Expansion Strategy (NPAES) provides spatial information on areas that are suitable for terrestrial ecosystem protection. These focus areas are large, intact and unfragmented and are therefore, of high importance for biodiversity, climate resilience and freshwater protection.
- Conservation/Biodiversity Sector Plans:
 - The purpose of the Western Cape Biodiversity Spatial Plan (BSP) (2023) is to inform land-use planning and development on a provincial scale and to aid in natural resource management. One of the outputs is a map of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). These are classified into different categories, namely CBA1 areas, CBA2 areas, ESA areas and Other Natural Areas (ONAs) based on biodiversity characteristics, spatial configuration, and requirements for meeting targets for both biodiversity patterns and ecological processes.
- A new set of Key Biodiversity Areas (KBA) specific to South Africa has been identified using the Global Standard for the Identification of Key Biodiversity Areas version 1.2 (IUCN 2016), applied to South African species and ecosystems. KBAs are critical sites that play a vital role in maintaining global biodiversity by serving as essential habitats for species. The identification of KBAs enables governments and civil society to pinpoint key locations crucial for species and their habitats worldwide. This understanding facilitates collaborative efforts to manage and conserve these areas, thereby safeguarding global biological diversity and supporting international biodiversity objectives; and
- Freshwater Ecology:
 - Strategic Water Source Areas (SWSAs) (Le Maitre et al, 2018) – SWSAs are defined as areas of land that supply a quantity of mean annual surface water runoff in relation to their size and therefore, contribute considerably to the overall water supply of the country. These are key ecological infrastructure assets and the effective protection of surface water SWSAs areas is vital for national security because a lack of water security will compromise national security and human wellbeing.
 - South African Inventory of Inland Aquatic Ecosystems (SAIIAE) (Van Deventer et al, 2018) – A South African Inventory of Inland Aquatic Ecosystems (SAIIAE) was established during the National Biodiversity Assessment of 2018. It is a collection of data layers that represent the extent of river and inland wetland ecosystem types as well as pressures on these systems.
 - National Freshwater Ecosystem Priority Area (NFEPA) (Nel et al., 2011) – The NFEPA database provides strategic spatial priorities for conserving the country's freshwater ecosystems and associated biodiversity as well as supporting sustainable use of water resources.

7.1.2 Field Survey

7.1.2.1 Fauna Survey

The faunal component of this report pertains terrestrial animal species. The faunal field survey utilised a variety of sampling techniques, including but not limited to:

- Visual and auditory searches: This involves strategic meandering and the use of binoculars and specialist camera equipment to view species from a distance without them being disturbed;

- Active hand-searches: Used for species that shelter in or under particular micro-habitats (typically rocks, exfoliating rock outcrops, fallen trees, leaf litter, bark etc.); and
- The identification of tracks and signs, and listening to species calls.

Relevant field guides and texts consulted for identification purposes included the following:

- The Mammals of the Southern African Subregion (Skinner & Chimimba, 2005);
- Field Guide to Snakes and other Reptiles of Southern Africa (Branch, 1998);
- A Complete Guide to the Snakes of Southern Africa (Marais, 2004);
- Atlas and Red List of the Reptiles of South Africa, Lesotho and Swaziland (Bates et al, 2014);
- A Complete Guide to the Frogs of Southern Africa (du Preez and Carruthers, 2009);
- Stuarts' Field Guide to Mammals of Southern Africa including Angola, Zambia & Malawi (Stuart and Stuart, 2015); and
- A Field Guide to the Tracks and Signs of Southern and East African Wildlife (Stuart and Stuart, 2000).

7.1.2.2 Flora Survey

The fieldwork and sample sites were placed within targeted areas (i.e. target sites) perceived as ecologically sensitive based on the preliminary interpretation of satellite imagery (Google Corporation) and GIS analysis (which included the latest applicable biodiversity datasets) available prior to the fieldwork. The focus of the fieldwork was therefore to maximise coverage and navigate to each target site in the field, to perform a rapid vegetation and ecological assessment at each sample site. Emphasis was placed on sensitive habitats, especially those overlapping with the proposed PAOI..

Homogenous vegetation units were subjectively identified using satellite imagery and existing land cover maps. The floristic diversity and search for flora SCC were conducted through timed meanders within representative habitat units delineated during the scoping fieldwork. Emphasis was placed mostly on sensitive habitats overlapping with the proposed PAOI.

The timed random meander method is highly efficient for conducting floristic analysis, specifically in detecting flora SCC and maximising floristic coverage. In addition, the method is time and cost effective and highly suited for compiling flora species lists and therefore gives a rapid indication of flora diversity. The timed meander search was performed based on the original technique described by Goff *et al.* (1982). Suitable habitat for SCCs were identified according to Raimondo *et al.* (2009) and targeted as part of the timed meanders.

At each sample site notes were made regarding current impacts (e.g. livestock grazing, erosion etc.), subjective recording of dominant vegetation species and any sensitive features (e.g. wetlands, outcrops etc.). In addition, opportunistic observations were made while navigating through the study area.

Relevant field guides and texts consulted for identification purposes in the field during the survey included the following:

- Identification Guide to Southern African Grasses: An Identification Manual with Keys, Descriptions, and Distributions (Fish *et al.*, 2015);
- iNaturalist (<https://www.inaturalist.org>);

- Flowering Plants of the Southern Kalahari (Van Rooyen and Van Rooyen, 2019);
- Problem Plants and Alien Weeds of South Africa (Bromilow, 2010);
- Field Guide to Succulents in Southern Africa (Smith *et al*, 2017);
- Guide to the Aloes of South Africa (Van Wyk & Smith, 2014);
- Medicinal Plants of South Africa (Van Wyk *et al.*, 2013).

7.2 Appendix B: Terrestrial Site Ecological Importance

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

Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present in the Project Area) and Receptor Resilience (RR) (its resilience to impacts).

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

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

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

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

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

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

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

Biodiversity Importance		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

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

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

Resilience	Fulfilling Criteria
Very High	Habitat that can recover rapidly (~ less than 5 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a very high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
High	Habitat that can recover relatively quickly (~ 5–10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a high likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Medium	Will recover slowly (~ more than 10 years) to restore > 75% of the original species composition and functionality of the receptor functionality, or species that have a moderate likelihood of: (i) remaining at a site

	even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Low	Habitat that is unlikely to be able to recover fully after a relatively long period: > 15 years required to restore ~ less than 50% of the original species composition and functionality of the receptor functionality, or species that have a low likelihood of: (i) remaining at a site even when a disturbance or impact is occurring, or (ii) returning to a site once the disturbance or impact has been removed.
Very Low	Habitat that is unable to recover from major impacts, or species that are unlikely to: (i) remain at a site even when a disturbance or impact is occurring, or (ii) return to a site once the disturbance or impact has been removed.

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

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

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

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

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

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

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

7.3 Appendix C: Specialist Declaration of Independence

I, Gemma Schleicher, declare that:

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



Gemma Schleicher

The Biodiversity Company

March 2026

I, Wesley Black, declare that:

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



Wesley Black

Terrestrial Ecologist

The Biodiversity Company

April 2026

7.4 Appendix D: Specialist CVs

Gemma Schleicher

Can. Sci. Nat. pending +27 76 79 33990 gemma@thebiodiversitycompany.com



PROFILE SUMMARY

Candidate Environmental Specialist (*pending*) with an academic background and hands-on experience in biodiversity assessment, water science and management, environmental management, and ecological consulting. Skilled in GIS, R Studio, and technical reporting, with a passion for sustainable development and conservation.

PERSONAL INFO

Nationality: South African
Date of birth: 11 September 2000

EXPERIENCE

Lender reporting requirements
Biodiversity Action Plan (BAP) and
Biodiversity Management Plan (BMP)
Environmental Impact Assessment (EIA) for
Avifauna
Site Sensitivity Reporting
Scoping Report

SKILLS

- ✓ Biodiversity Assessment
- ✓ Data Analysis – R Studio
- ✓ Monitoring & Management Plans
- ✓ GIS spatial analysis and digital cartography
- ✓ Critical Habitat Assessments



Signed: Gemma Schleicher

ACADEMIC QUALIFICATIONS

- M.Sc. Water Science and Management, Utrecht University, Utrecht, Netherlands
- B.A. Hons. Geo-Environmental Studies, Stellenbosch University, Stellenbosch, South Africa
- B.A. Development & environmental Studies, Stellenbosch University, Stellenbosch, South Africa

PROFESSIONAL EXPERIENCE

September 2025 – Present	The Biodiversity Company Terrestrial Intern
April – July 2024	Gold Fields & Utrecht University Consultancy Project – Biodiversity Assessment

INTERNATIONAL EXPERIENCE

South Africa, Netherlands

LANGUAGES

English – Proficient
German - Proficient



Wesley BLACK

Pr Sci Nat 147190

+27 72 242 3979

wesley@thebiodiversitycompany.com



PROFILE SUMMARY

I have extensive professional experience throughout Africa, with a particular emphasis on West Africa, Central Africa, Southern Africa, as well as the Middle East. My specialist background includes work in the mining, agriculture, protected areas, conservation, private sector, and land use planning sectors. My core areas of expertise are botany, terrestrial ecology, wildlife management, and agroecology.

PERSONAL INFO

Nationality: South African

Date of birth: 21 February 1991

EXPERIENCE

- Broad African and Middle Eastern project exposure
- Work across mining, agriculture, and conservation sectors
- Leadership in ecological and rehabilitation projects
- Freelance consultancy for major organizations
- Academic and field research roles
- Published in scientific and industry journals

SKILLS

- ✓ Forest Classification
- ✓ Rehabilitation and environmental management
- ✓ Wildlife and livestock management
- ✓ Impact assessment (environmental, social, health)
- ✓ Remote sensing and GIS application
- ✓ Botany and veld management
- ✓ Critical Habitat Assessments
- ✓ Carbon Stock Estimations
- ✓ Grazing Plans

ACADEMIC QUALIFICATIONS

- Masters in Agriculture (Wildlife Management and Grassland Sciences), University of the Free State.
- B Agric (Hons) – Wildlife Management (Cum Laude): University of the Free State.
- B-Tech in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- National Diploma in Nature Conservation, Tshwane University of Technology, Pretoria, South Africa.
- GIS short course – University of the Free State
- Snake identification and Snake handling (2013) (2020)

PROFESSIONAL EXPERIENCE

2024 – Present	The Biodiversity Company Terrestrial Ecologist / Land use specialist
2017 – 2024	Ecological Consultant (Self Employed)
Feb 2017 – Dec 2018	Research Assistant – University of the Free State
2014	Ecological Intern - Khamab Kalahari Reserve
2011	Intern at Liuwa Plains National Park (African Parks)