

04 June 2026

Attention: AEP Bloemsmond Solar 1 (Pty) Ltd

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To whom it may concern:

TERRESTRIAL SPECIALIST INPUT FOR THE PART 1 AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (EA) FOR THE PROPOSED DEVELOPMENT OF THE AEP BLOEMSMOND SOLAR PV 1 (Pty) Ltd, NEAR UPINGTON, NORTHERN CAPE.

1. Background

AEP Bloemsmond Solar 1 (Pty) Ltd is the proponent for the proposed Bloemsmond Solar Energy 1 Facility. The project is located on the farm Bloemsmond 455, portions 5 and 14, situated southwest of Upington, within the ZF Mgcawu District Municipality, in the Northern Cape Province, South Africa. The proposed solar development is planned to cover approximately 225 hectares to meet the required capacity. The facility is designed for a contracted generation capacity of 100 megawatts (MW).

The Environmental Authorisation (EA) for the facility was issued on the 26 April 2016, DEA Reference 14/12/16/3/3/2/815, and has subsequently been amended since:

- 14/12/16/3/3/2/815/AM1 – 13 March 2020 – Increase in facility capacity from 75MW to 100MW
- 14/12/16/3/3/2/815/AM2 – 20 February 2021 – Inclusion of a BESS facility in the project description and an extension to the EA validity to 26 April 2026
- 14/12/16/3/3/2/815/AM3 - 25-Mar-2021 – Correction to 14/12/16/3/3/2/815/AM2

For the purpose of this report, reference to the EA includes the original EA and all amendments thereto.

Condition 7 of the EA states that:

“This activity must commence within a period of ten (10) years from the date of issue of the authorisation (i.e. the EA lapses on 26 April 2026). If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.”

An application to extend the validity of the EA was submitted on 16 April 2026. The competent authority acknowledged receipt of the application on 24 April 2026 and confirmed that the application falls within the ambit of amendments to be applied for in terms of Part 1 of Chapter 5 of the Environmental Impact Assessment Regulations, 2014, as amended.

Further to the acknowledgement, the competent authority requested additional information in support of this application, including a review of all specialist studies undertaken, a detailed assessment, including a site verification report providing an indication of the status of the receiving environment (by the relative specialist, if applicable) and confirmation of validity of the impact ratings and mitigation measures recommended previously.

2. Scope of Work

The Biodiversity Company was appointed to provide specialist inputs for this Amendment Application. The Scope of Work for this report is as follows:

- Confirmation of the status of the environment compared to that at the time of the original assessments done in 2015 by Simon Todd, as well as the subsequent specialist impact statement provided in the BESS EA amendment application.
- An indication as to whether the impact ratings as provided in the previous assessments remains valid; if the mitigation measures provided in the initial assessments are still applicable; or if there are any new mitigation measures which need to be included into the EA, should the request to extend the commencement period be granted by the DFFE.
- An indication as to whether there are any new assessments/guidelines which are now relevant to the authorised development which were not undertaken as part of the initial assessment, must be taken into consideration and addressed in the report.
- A description and an assessment of any changes to the biophysical environment that has occurred since the EA was issued.
- A description and an assessment of the surrounding environment, in relation to new developments or changes in land use which might impact on the authorised project, the assessment must consider the following:
 - Identified cumulative impacts, and where possible the size of the identified impact must be quantified and indicated, i.e., hectares of cumulatively transformed land.

3. Assumptions and Limitations

A field survey was conducted to meet the amendment requirements. The field survey sought to determine site characteristics and conditions to determine any changes from the baseline conditions and previous reports, supplemented by satellite imagery.

The field survey for the Bloemsmond Solar PV 1 Energy Facility was conducted from the 25th to the 26th of May 2026, which falls within the typical dry season for the region southwest of Upington, Northern Cape. In this area, the dry season generally spans from May to September. Although the survey was conducted during the dry season, site conditions were suitable, and this did not present a limitation for the amendment process, as the ecological assessment could still be effectively completed under these conditions.

4. Project Description

The Project Area of Influence (PAOI) for the original Bloemsmond Solar PV 1 assessment is shown in Figure 4-1 below.

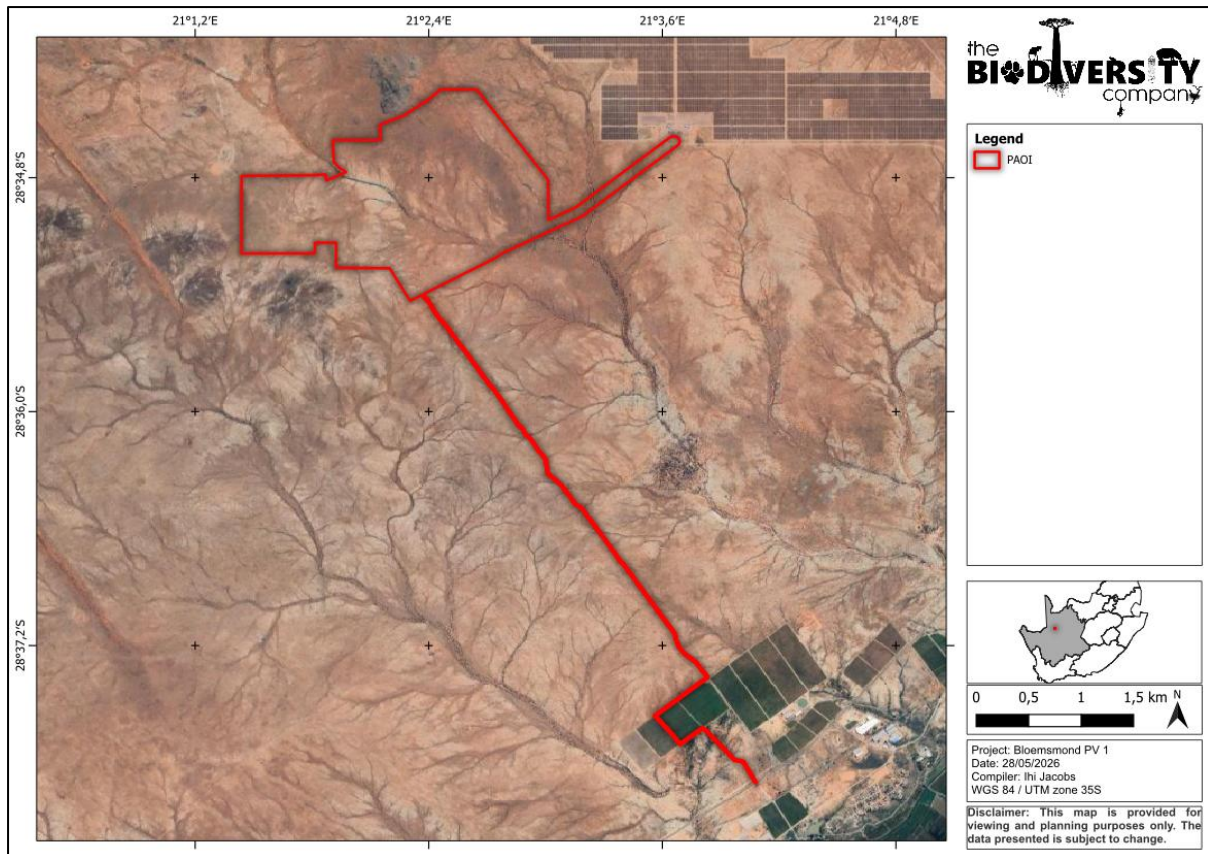


Figure 4-1 ***The Project Area of Influence, consisting of Bloemsmond Solar PV 1.***

The PAOI, project description and layout remain as authorised in the EA and no changes to the scope are proposed as part of this EA Amendment process.

The EA authorised project infrastructure includes:

- Solar Technology: Several arrays of PV solar panels;
- Mounting structures to support the PV panels;
- On-site inverters to step up the power and a substation to facilitate the connection between the Solar Facility and the Eskom electricity grid;
- A new 132kV power line between the on-site substation and the Dyasons Klip Substation (located on the farm Dyasons Klip RE/454);
- Cabling between the project components, to be laid underground where practical;
- Offices and workshop areas for maintenance and storage;
- Temporary laydown areas;
- Internal access roads and fencing around the development area; and
- A Battery Energy Storage System of up to 500MWh.

5. Site Baseline and Sensitivity (2015)

Simon Todd Consulting undertook the initial fauna, flora and avifaunal specialist impact assessment for the project in 2015 (9th and the 26th of May). The faunal and floral baseline environment is summarised as follows in the 2015 assessment:

- Six habitat types were identified within the study area by Todd (2015): Shrubby Grassland, Rocky Hills, Quartz Outcrops, Plains Washes, Ephemeral Drainage Courses, and Pans. The site remains broadly homogenous, with some variation due to differences in soil depth and slope position. Overall, the habitat is best described as “low open grassland,” with predominantly shallow, stony soils, exposed calcrete in some areas, and loose surface stones in others. Where soils are deeper, taller and larger woody shrubs occur, but the vegetation is primarily dominated by grass species.
- No terrestrial fauna Species of Conservation Concern (SCC) were observed on the site. The protected plant species *Hoodia gordonii*, *Boscia foetida*, *Dinteranthus wilmotianus*, *Vachellia erioloba* (Camel Thorn), and *Aloe claviflora* were recorded within the proposed Bloemsmond Solar project footprint area. *Hoodia gordonii*, which was previously recorded, was not observed during the most recent survey conducted by TBC in 2026. While there is a high likelihood of additional protected species occurring in the PAOI, none besides those listed were observed during either the initial (2015) or the second survey (2026).

The habitat was assigned low and medium - Low sensitivity areas (Figure 5-1).

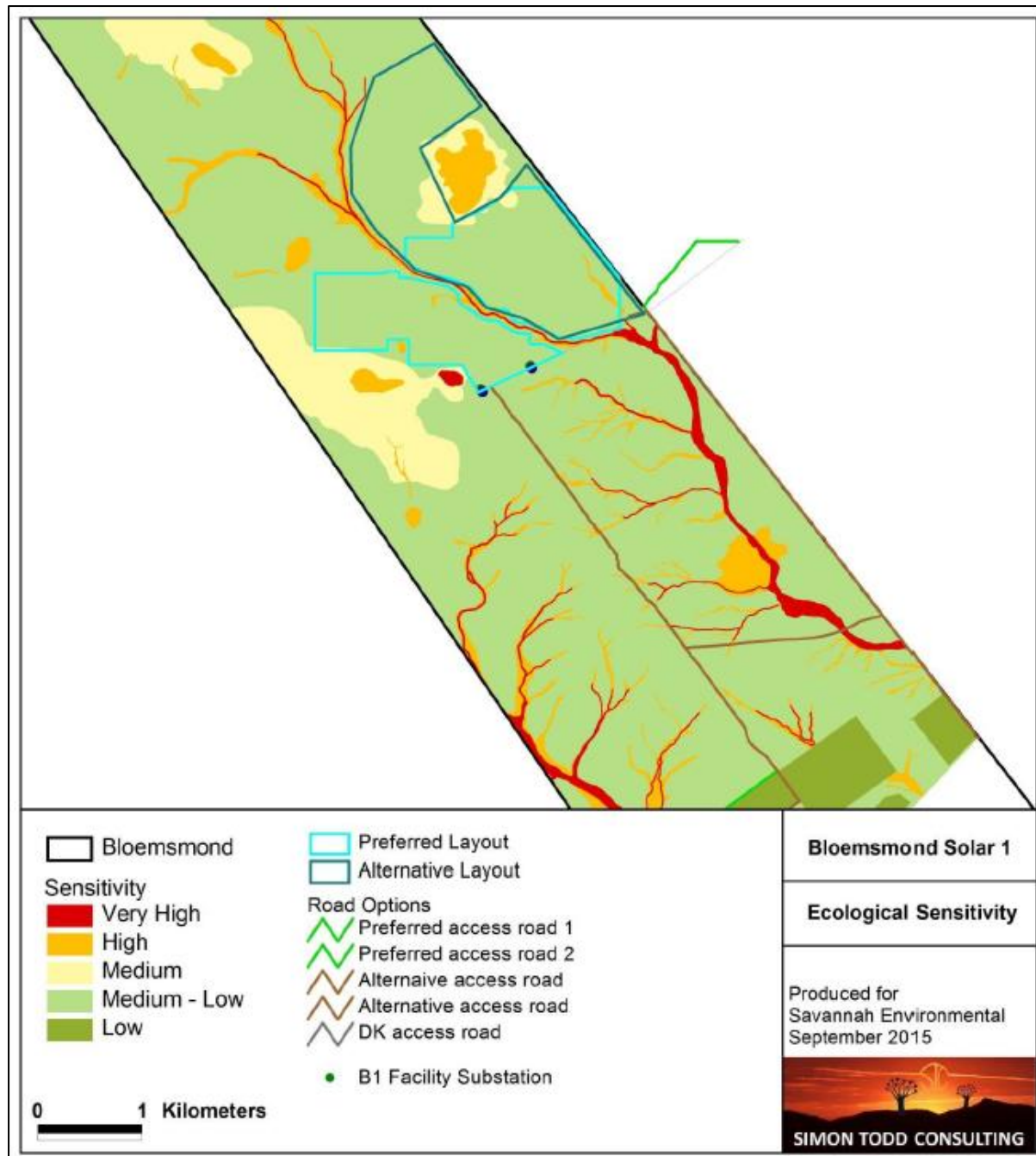


Figure 5-1 *Terrestrial sensitivity of Bloemsmond Solar PV 1 as described by Simon Todd (2015).*

6. Site Baseline and Sensitivity (2026)

A specialist from The Biodiversity Company (TBC) undertook a new site survey on the 25th and 26th of May 2026. The pictures below were taken during the site visit (Figure 6-1).



Figure 6-1 **Example of the vegetation represented within the PAOI considered for this amendment.**

6.1. A screening tool report was generated for the PAOI. Below are the outcomes for each (applicable) theme:

- Animal Species Theme – High. This rating is assigned due to the potential presence of one (1) species with high sensitivity (*Falco biarmicus*), one bird species (*Neotis ludwigii*) with medium sensitivity, and one species with low sensitivity Subjected to Confirmation (Figure 6-2).
- Plant Species Theme – Low. This rating is assigned due to no flora SCC being expected within the PAOI (Figure 6-3); and
- Terrestrial Theme – Low sensitivity according to the DFFE Screening Tool Report (Figure 6-4).

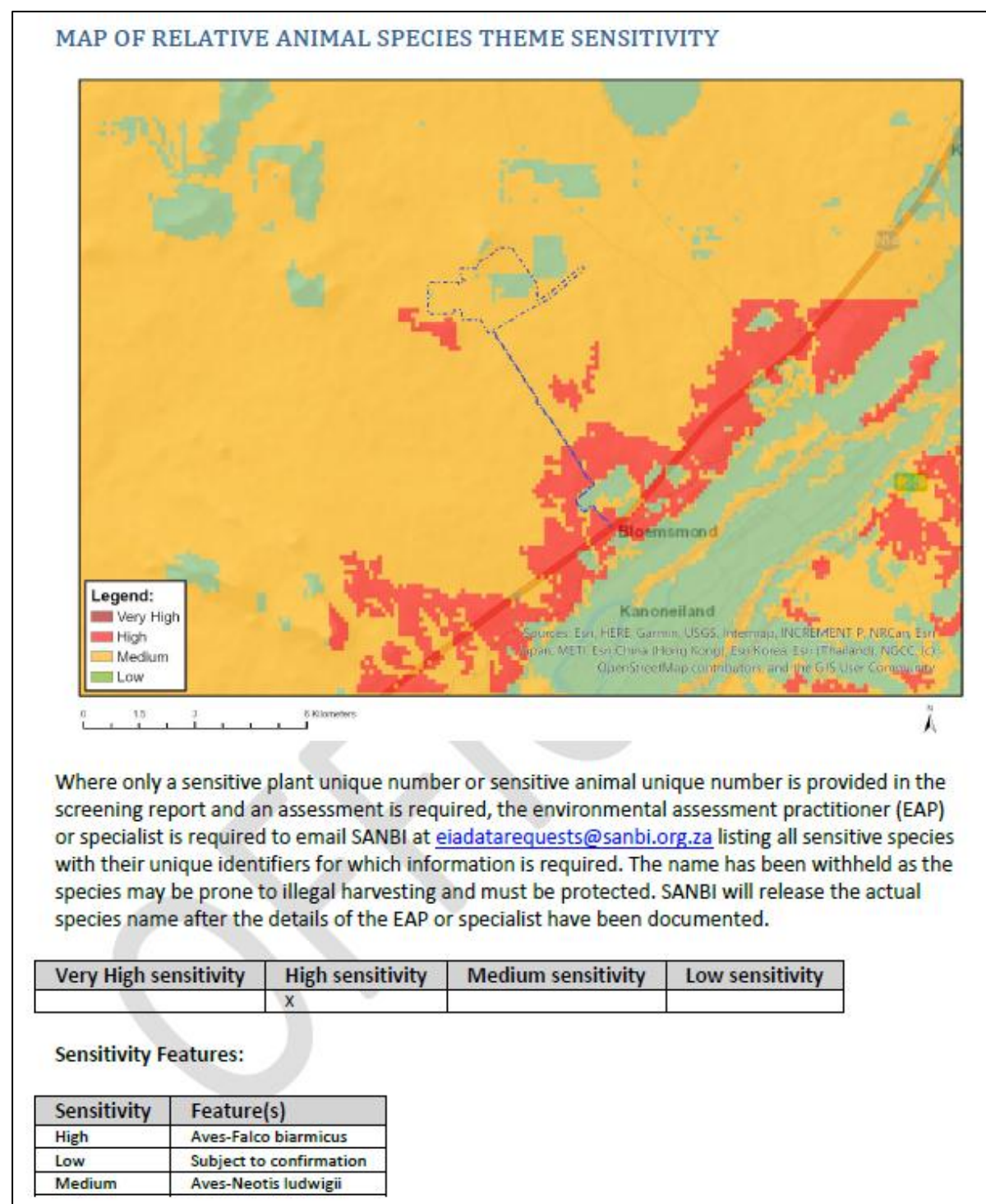


Figure 6-2 Figure indicating the relative Animal Species Theme Sensitivity as identified by the Environmental Screening Tool for Bloemsmond Solar PV 1.

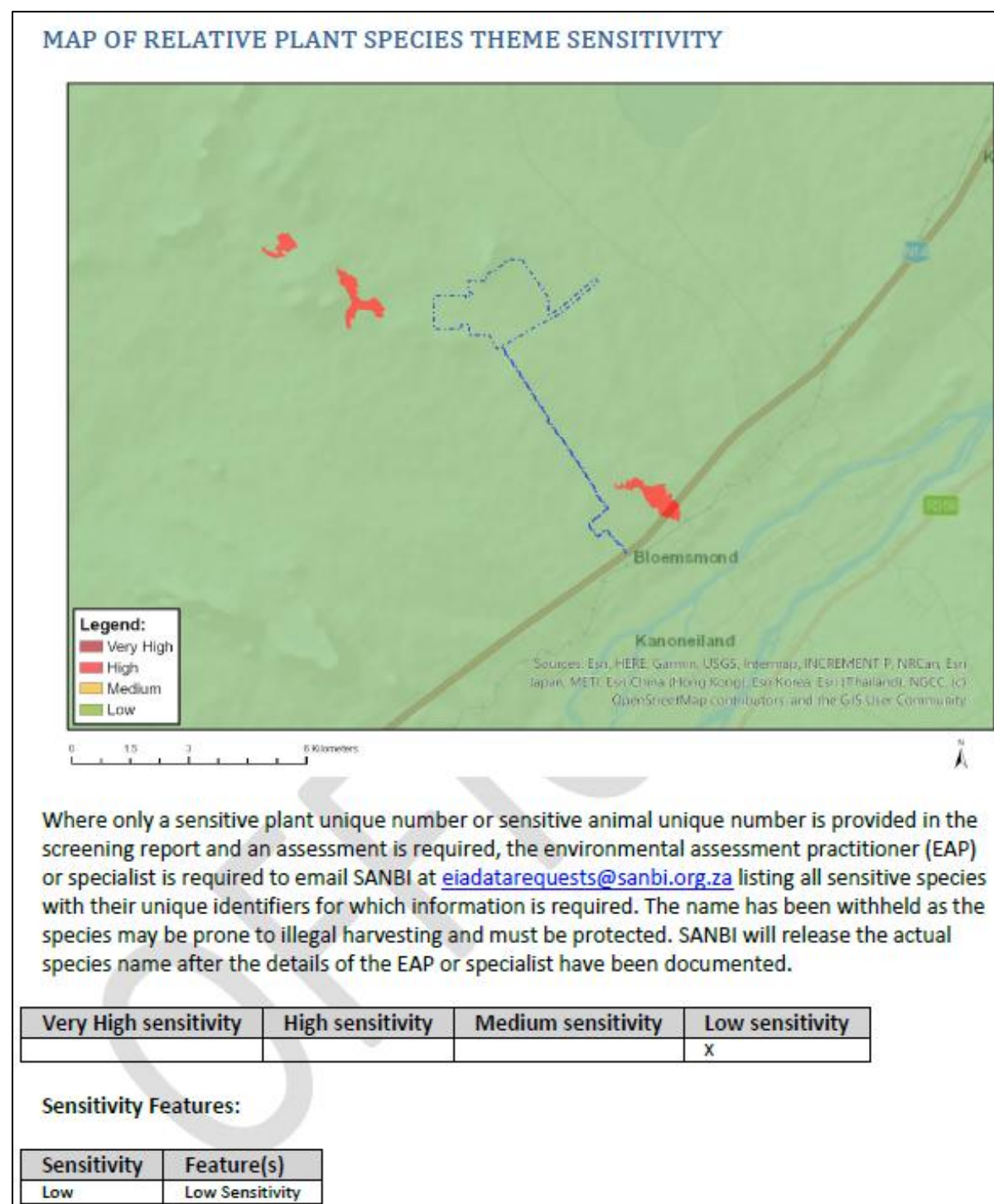


Figure 6-3 Figure indicating the relative Plant Species Theme Sensitivity as identified by the Environmental Screening Tool for Bloemsmond Solar PV 1.

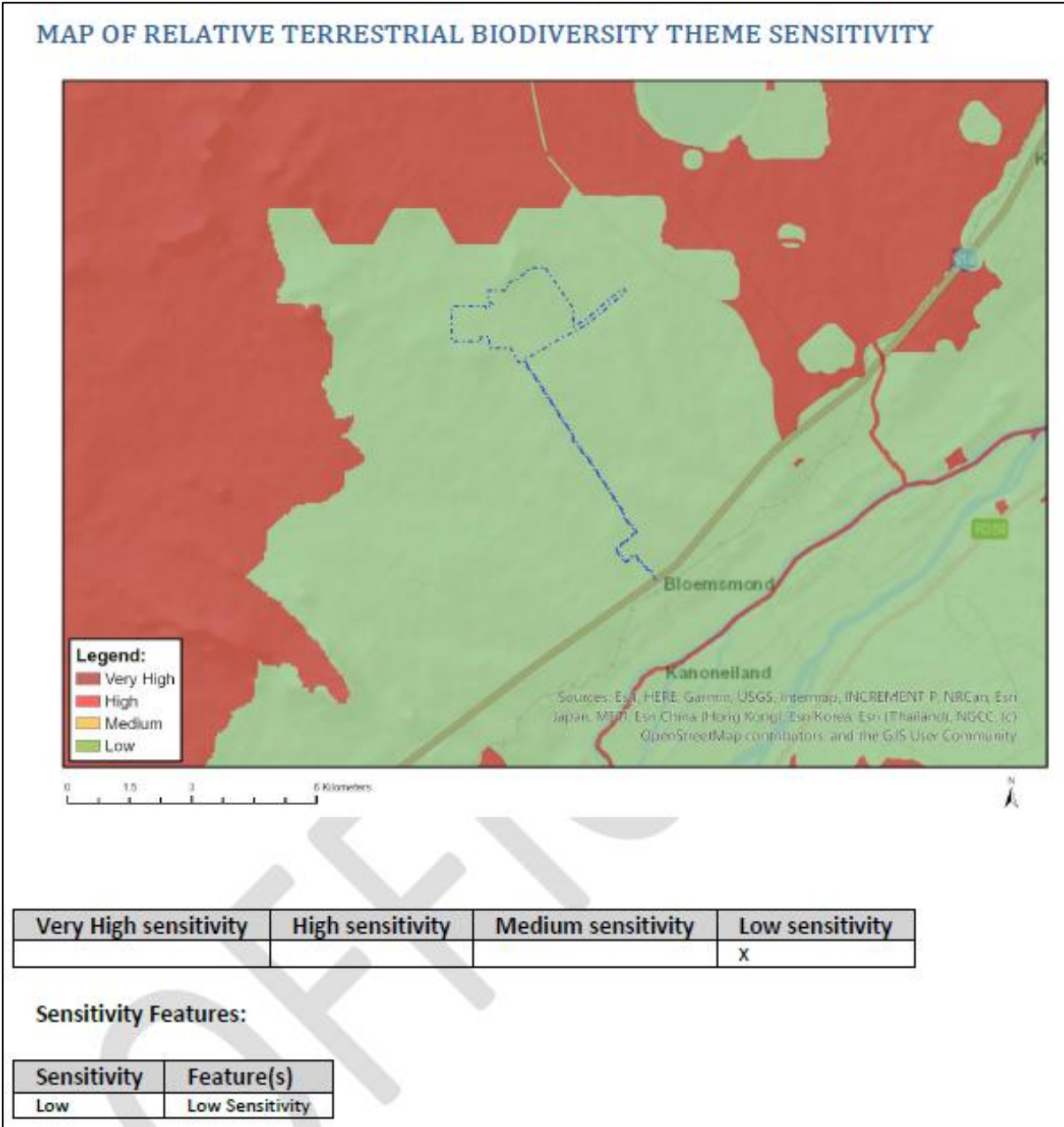


Figure 6-4 *Figure indicating the relative Terrestrial Biodiversity Theme Sensitivity as identified by the Environmental Screening Tool for Bloemsmond Solar PV 1.*

7. Project Impacts

Table 7-1 to Table 7-8 highlights the impacts that were identified during the 2015 assessment. The quantitative impacts of the proposed project on terrestrial biodiversity are expected to be “Low” overall, provided that the mitigation measures recommended in the 2015 report are implemented. It should be noted that the impacts remained unchanged following the inclusion of the BESS facility in the 2021 EA amendment assessment.

The most recent survey conducted by TBC in 2026 fully supports these findings. Please note that avifaunal impacts are assessed in a separate study.

The impact assessment for the Bloemsmond Solar PV 1 project finds that, with mitigation, impacts on arid grassland, shrubland habitats and protected plant species are of low to moderate significance. Sensitive features have been avoided, and no unmitigable impacts on terrestrial biodiversity are anticipated.

The 2026 survey by TBC confirmed these findings, and there are no ecological fatal flaws preventing project approval if recommended mitigation is implemented.

Table 7-1 ***Impacts on vegetation & protected plant species during construction.***

Impact Nature: Impacts on vegetation and protected plant species will occur due to vegetation clearing and disturbance associated with the construction of the facility.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Long-term (4)	Long-term (4)	Long-term (4)	Long-term (4)
Magnitude	Medium-High (6)	Medium (5)	Medium (5)	Medium (5)
Probability	Highly Probable (4)	Highly Probable (4)	Probable (3)	Probable (3)
Significance	Medium (44)	Medium (40)	Medium-Low (30)	Medium-Low (30)
Status	Negative	Negative	Negative	Negative
Reversibility	Low	Low	Low	Low
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Impacts on protected plant species can to some extent be mitigated through avoidance, but some impact on vegetation and habitat is inevitable and cannot be avoided.			

Table 7-2 Faunal Impacts During Construction.

Impact Nature: Disturbance, transformation and loss of habitat will have a negative effect on resident fauna during construction.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Short-term (2)	Short-term (2)	Short-term (2)	Short-term (2)
Magnitude	Medium (6)	Medium (6)	Medium (4)	Medium (4)
Probability	Highly Probable (4)	Highly Probable (4)	Highly Probable (4)	Highly Probable (4)
Significance	Medium (36)	Medium (36)	Low (28)	Low (28)
Status	Negative	Negative	Negative	Negative
Reversibility	Medium	Medium	Medium	Medium
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Large amounts of noise and disturbance at the site during construction is largely unavoidable.			

Table 7-3 Increased erosion risk during construction.

Impact Nature: Increased erosion risk as a result of soil disturbance and loss of vegetation cover, as well as increased runoff generated by the PV area and access roads.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Short-term (2)	Short-term (2)	Short-term (2)	Short-term (2)
Magnitude	Medium (5)	Medium (5)	Low (3)	Low (3)
Probability	Highly Probable (4)	Highly Probable (4)	Improbable (2)	Improbable (2)
Significance	Medium (32)	Medium (32)	Low (12)	Low (12)
Status	Negative	Negative	Negative	Negative
Reversibility	Moderate	Moderate	High	High
Irreplaceable loss of resources	Yes	Yes	No	No
Can impacts be mitigated?	Yes			
Mitigation	- Dust suppression and erosion management should be an integrated component of the construction approach. - Disturbance near to drainage lines should be avoided and sensitive			

Table 7-4 Direct Faunal Impacts During Operation.

Impact Nature: The operation and presence of the facility may lead to disturbance or persecution of fauna.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Long-term (4)	Long-term (4)	Long-term (4)	Long-term (4)
Magnitude	Medium-Low (4)	Medium-Low (4)	Low (3)	Low (3)
Probability	Probable (3)	Probable (3)	Probable (3)	Probable (3)
Significance	Low (27)	Low (27)	Low (24)	Low (24)
Status	Negative	Negative	Negative	Negative
Reversibility	Moderate	Moderate	Moderate	Moderate
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	To some extent, but not that part related to the presence and operation of the facility.			

Table 7-5 Increased alien plant invasion,

Impact Nature: Alien plants are likely to invade the site as a result of the large amounts of disturbance created during construction.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Long-term (4)	Long-term (4)	Medium-term (3)	Medium-term (3)
Magnitude	Medium (5)	Medium (5)	Low (3)	Low (3)
Probability	Probable (4)	Probable (4)	Improbable (3)	Improbable (3)
Significance	Medium (40)	Medium (40)	Low (21)	Low (21)
Status	Negative	Negative	Negative	Negative
Reversibility	Moderate	Moderate	High	High
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Yes			

Table 7-6 Increased erosion risk.

Impact Nature: Increased erosion risk as a result of soil disturbance, loss of vegetation cover and increased runoff generated by roads and other hardened surfaces.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Long-term (4)	Long-term (4)	Medium-term (3)	Medium-term (3)
Magnitude	Medium (5)	Medium (5)	Low (3)	Low (3)
Probability	Highly Probable (4)	Highly Probable (4)	Probable (3)	Probable (3)
Significance	Medium (40)	Medium (40)	Low (21)	Low (21)
Status	Negative	Negative	Negative	Negative
Reversibility	Low	Low	High	High
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Yes			

Table 7-7 Faunal Impacts During Decommissioning.

Impact Nature: Disturbance or persecution of fauna during the decommissioning phase may occur.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Short-term (2)	Short-term (2)	Short-term (2)	Short-term (2)
Magnitude	Medium (4)	Medium (4)	Low (2)	Low (2)
Probability	Probable (3)	Probable (3)	Improbable (3)	Improbable (3)
Significance	Low (21)	Low (21)	Low (15)	Low (15)
Status	Negative	Negative	Negative	Negative
Reversibility	High	High	High	High
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Yes.			

Table 7-8 Increased alien plant invasion following decommissioning.

Impact Nature: Alien plants are likely to invade the site as a result of disturbance created during decommissioning				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (1)	Local (1)	Local (1)	Local (1)
Duration	Long-term (4)	Long-term (4)	Medium-term (3)	Medium-term (3)
Magnitude	Medium (5)	Medium (5)	Low (3)	Low (3)
Probability	Highly Probable (4)	Highly Probable (4)	Improbable (3)	Improbable (3)
Significance	Medium (40)	Medium (40)	Low (21)	Low (21)
Status	Negative	Negative	Negative	Negative
Reversibility	Low	Low	High	High
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Yes			

8. Mitigation Measures

The following mitigation measures and management recommendations have been identified to minimise environmental impacts throughout the planning, construction and operational phases of the Bloemsmond Solar PV 1 project. These measures, first recommended by Todd (2015) and confirmed by a second survey conducted on 25th and 26th of May 2026, are essential for compliance with legislation and the long-term ecological integrity of the site. Strict adherence to these conditions will ensure acceptable residual impacts and will remain applicable for the requested extension of the Environmental Authorisation. All mitigation measures from both the initial and recent assessments are listed below.

8.1. The following conditions/mitigations were recommended by Todd, 2015 and verified by TBC 2026:

8.1.1. Preconstruction/Planning Phase

- Preconstruction walk-through of the facility in order to locate Species of Conservation Concern (SCC) that can be translocated.
- Vegetation clearing to commence only after walk through has been conducted and necessary permits obtained.
- Preconstruction environmental induction for all construction staff on site to ensure that basic environmental principles are adhered to. This includes awareness as to no littering, appropriate handling of pollution and chemical spills, avoiding fire hazards, minimising wildlife interactions, remaining within demarcated construction areas etc.
- Environmental Control Officer (ECO) to provide supervision and oversight of vegetation clearing activities near sensitive areas.
- Vegetation clearing to be kept to a minimum. No unnecessary vegetation to be cleared.
- All construction vehicles should adhere to clearly defined and demarcated roads. No off-road driving to be allowed.
- Temporary lay-down areas should be located within the development footprint or within areas that have been identified as being of low sensitivity. These areas should be rehabilitated after use.

8.1.2. Construction Phase

- No unauthorised persons should be allowed onto the site.
- Undesirable and problem fauna such as snakes or fauna threatened by the maintenance and operational activities should be removed to a safe location, by a qualified person.
- The collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden.
- If parts of the site must be lit at night for security purposes, this should be done with low-UV type lights (such as most LEDs), which do not attract insects.
- All hazardous materials should be stored in the appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.

- All vehicles accessing or on the site should adhere to a low speed limit (30km/h max) to avoid collisions with susceptible species such as snakes and tortoises.

8.1.3. Operational Phase

- No unauthorised persons should be allowed onto the site.
- Undesirable and problem fauna such as snakes or fauna threatened by the maintenance and operational activities should be removed to a safe location.
- The collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden.
- If parts of the site must be lit at night for security purposes, this should be done with low-UV type lights (such as most LEDs), which do not attract insects.
- All hazardous materials should be stored in the appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.
- All vehicles accessing or on the site should adhere to a low speed limit (30km/h max) to avoid collisions with susceptible species such as snakes and tortoises.

Mitigation measures prescribed by the reviewed reports remain applicable and must be strictly adhered to. All prescribed mitigation measures and supporting recommendations presented will help to achieve an acceptable residual impact. These measures and recommendations will remain applicable for the requested extension of the EA.

9. Cumulative Impacts

The cumulative impacts were rated as follows in the Todd (2015) study:

Impact Nature: The facility would contribute to cumulative habitat loss and broad-scale ecological processes.				
	Without Mitigation		With Mitigation	
	Alternative 1 (Preferred)	Alternative 2 (Alternative)	Alternative 1 (Preferred)	Alternative 2 (Alternative)
Extent	Local (2)	Local (2)	Local (2)	Local (2)
Duration	Long-term (4)	Long-term (4)	Long-term (4)	Long-term (4)
Magnitude	Medium (5)	Medium (6)	Low (3)	Low (4)
Probability	Highly Probable (4)	Highly Probable (4)	Probable (3)	Probable (3)
Significance	Medium (44)	Medium (48)	Low (27)	Medium (30)
Status	Negative	Negative	Negative	Negative
Reversibility	Moderate	Moderate	Moderate	Moderate
Irreplaceable loss of resources	No	No	No	No
Can impacts be mitigated?	Only partly as much of the impact stems from the presence and operation of the facility.			

An in-situ review of similar developments under the current conditions was undertaken by TBC in 2026 and the results can be seen in Table 9-1.

Table 9-1 *The in-situ cumulative impact assessment of the current conditions for the project.*

Nature: Cumulative habitat loss within the region		
The development of the proposed infrastructure will partially contribute to cumulative habitat loss within ESAs and thereby impact the ecological processes in the region.		
	Overall impact of the proposed development considered in isolation	Cumulative impact of the project and other projects in the area
Extent	Low (2)	Moderate (3)
Duration	Moderate term (3)	Moderate term (3)
Magnitude	Low (4)	Low (4)
Probability	Improbable (2)	Improbable (2)
Significance	Low	Low
Status (positive or negative)	Negative	Negative
Reversibility	Moderate	Moderate
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes	

The cumulative impacts of the proposed project on terrestrial biodiversity are anticipated to be “Low Negative,” considering the number of similar developments currently in the area. This rating is based on existing projects only and does not account for potential future developments. Both Todd (2015) and the TBC (2026) studies note that the habitat is neither rare nor sensitive, and the project’s location is considered favorable.

10. Summary Of Findings

Table 10-1 illustrates the comparisons between the original (or initial) assessments and this amendment process.

Table 10-1 *Table depicting the differences between the Simon Todd 2015 findings and the current amendment findings by TBC 2026.*

Aspect	Comments and Recommendations	
	Pervious Study (Simon Todd, 2015)	Current study
Baseline	Findings: The vegetation type was deemed to be broadly homogenous with some variation due to changes in soil depth and slope position. The habitat is described as low open grassland. The authorised powerline does pass over a drainage line.	Findings: The site was found to be largely homogenous and the findings support that the habitat represents a low open karoo shrubland. No ephemeral pans are located on the project site. However, the powerline does cross over a drainage line, which has been impacted by quarrying. The baseline environment remains as described in the 2015 terrestrial study.
Sensitivity	Findings: The karoo rocky areas were assigned a medium sensitivity, with a majority of the area that is grasslands were medium-low rated.	Findings: The habitat sensitivity remains consistent with the 2015 report, confirming that the majority of the project footprint does not comprise protected grasslands and aligns with the previously assigned sensitivity rating.
Impacts		
Planning and Construction Phase Impacts	Findings: With mitigation measures in place, the terrestrial impacts are expected to range from Low Negative to Medium-Low Negative.	Findings: The quantitative impact assessment of the current assessment are in line with the findings from Todd (2015). No new impacts have been identified.
Operation Phase Impacts	Findings: The terrestrial impacts are all Low Negative with mitigation.	Findings: The quantitative impact assessment of the current assessment are in line with the findings from Todd (2015). No new impacts have been identified.
Cumulative Impacts	Findings: The cumulative impact is rated as Medium-Low Negative without mitigation and Low Negative with mitigation.	Findings: The cumulative impact, evaluated in-situ considering current similar projects within the area, is rated as Low Negative with mitigations.

11. Conclusion

The Bloemsmond Solar PV 1 project terrestrial ecological assessment confirms that, with the implementation of recommended mitigation measures, the overall and cumulative impacts on biodiversity are expected to be low to moderate and manageable. Sensitive habitats and protected species have been largely avoided in the project layout, and no ecological fatal flaws have been identified that would prevent the project from proceeding.

Both the original Todd 2015 study and the recent TBC 2026 survey are in agreement regarding the site's habitat sensitivity, impact significance, and the effectiveness of the proposed mitigation measures. Continued adherence to these recommendations will ensure that the project remains compliant with environmental legislation and maintains the ecological integrity of the area.

Kind regards,



Igi Jacobs
Terrestrial Ecologist
The Biodiversity Company
June 2026



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June 2026