# SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

EIA Reference number: To Be Confirmed

Project name: Carmel Solar 3 PV Facility and Grid Infrastructure

**Project title:** The Proposed Carmel Solar 3 Photovoltaic Solar Energy Facility and Grid Connection Infrastructure Near Carletonville Gauteng and North West Provinces

Date screening report generated: 15/02/2023 13:57:30

Applicant: Carmel Solar 3 (Pty) Ltd

Compiler: Environamics Environmental Consultants

**Compiler signature:** 

Application Category: Utilities Infrastructure | Electricity | Distribution and Transmission | Powerline

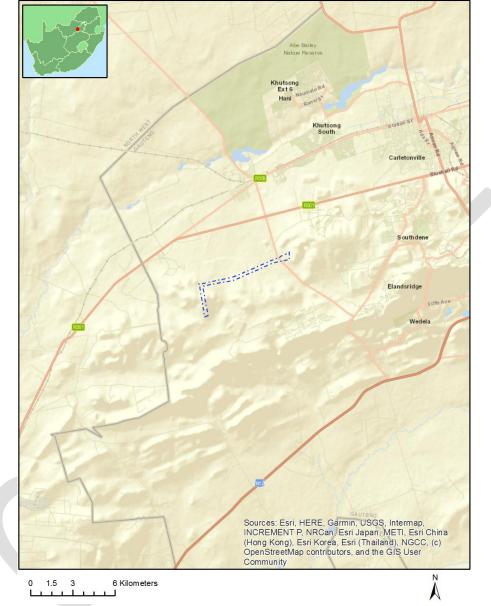
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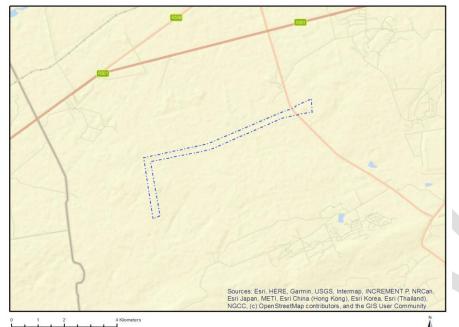
# **Proposed Project Location**

# Orientation map 1: General location



General Orientation: Carmel Solar 3 PV Facility and Grid Infrastructure

# Map of proposed site and relevant area(s)



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# Cadastral details of the proposed site

#### Property details:

No	Farm Name	Farm/ Erf	Portion	Latitude	Longitude	Property
		No				Туре
1	VARKENSLAAGTE	119	0	26°24'23.65S	27°17'40.06E	Farm
2	KLEINFONTEIN	141	0	26°27'56.69S	27°15'8.6E	Farm
3	DOORNFONTEIN	118	0	26°26'5.46S	27°19'5.74E	Farm
4	DOORNFONTEIN	118	23	26°25'23.89S	27°18'23.1E	Farm Portion
5	VARKENSLAAGTE	119	1	26°25'39.54S	27°15'8.34E	Farm Portion
6	DOORNFONTEIN	118	27	26°25'52.35S	27°19'13.67E	Farm Portion
7	VARKENSLAAGTE	119	5	26°24'33.76S	27°18'4.89E	Farm Portion
8	KLEINFONTEIN	141	3	26°26'46.53S	27°16'0.69E	Farm Portion
9	DOORNFONTEIN	118	11	26°26'53.67S	27°16'52.71E	Farm Portion
10	DOORNFONTEIN	118	28	26°26'24.6S	27°18'29.4E	Farm Portion
11	VARKENSLAAGTE	119	11	26°25'26.52S	27°16'26.42E	Farm Portion
12	VARKENSLAAGTE	119	4	26°25'18.04S	27°17'41.62E	Farm Portion
13	KLEINFONTEIN	141	0	26°28'16.5S	27°14'25.15E	Farm Portion
14	KLEINFONTEIN	141	1	26°28'6.7S	27°15'31.39E	Farm Portion
15	DOORNFONTEIN	118	1	26°26'37.25S	27°17'35.68E	Farm Portion
16	VARKENSLAAGTE	119	12	26°25'11.86S	27°17'1.51E	Farm Portion

Development footprint<sup>1</sup> vertices: No development footprint(s) specified.

<sup>&</sup>lt;sup>1</sup> "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	14/12/16/3/3/2/919	Solar PV	Approved	27.3

## EMF Outlines .... CannonRocks GreatKei EMF Dinokeng Garden Route EMF Gauteng EMF Moghaka EMF Ngwathe EMF Olifants EMF Sivanda District Municipality EMF The Msunduzi EMF Vredeford Dome World Heritage Site EMF Waterberg District Municipality EMF uMgungndlovu EMF A 5 Kilometers 1.25 2.5 LINK

# Environmental Management Frameworks relevant to the application

 Environme
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 Gauteng EMF
 https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF\_2021\_G

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# Environmental screening results and assessment outcomes

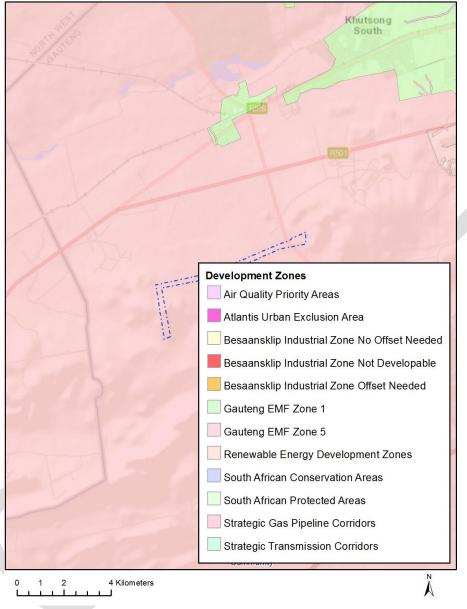
The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: Utilities Infrastructure | Electricity | Distribution and Transmission | Powerline.

#### Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive	Implication
,	
restrictio	
n or	
prohibiti	
on	
Strategic	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Co
Transmissi	mbined EGI.pdf
on	
Corridor-	
Central corridor	
Strategic	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Co
Gas	
Pipeline	mbined_GAS.pdf
Corridors-	
Phase 3:	
Richards	
Bay to	
Gauteng	

# Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



Project Location: Carmel Solar 3 PV Facility and Grid Infrastructure

# Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		Х		
Animal Species Theme			Х	
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Aquatic Biodiversity Theme	Х			
Archaeological and Cultural				Х
Heritage Theme				
Civil Aviation Theme		Х		
Defence Theme				Х
Paleontology Theme	Х			
Plant Species Theme			Х	
Terrestrial Biodiversity Theme	Х			

### Specialist assessments identified

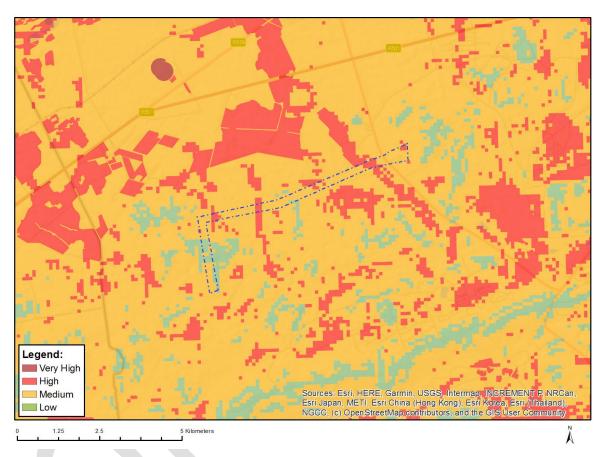
Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

Ν	Special	Assessment Protocol
0	ist	
Ŭ	assess	
	ment	
1	Agricult ural Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Landsca pe/Visu al Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Archaeo logical and Cultural Heritage Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted General Requirement Assessment Protocols.pdf
4	Palaeon tology Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted General Requirement Assessment Protocols.pdf
5	Terrestri al Biodiver sity Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
6	Aquatic Biodiver sity Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf

7	Avian Impact Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_Avifauna_Assessment_Protocols.pdf
8	Civil Aviation Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_Civil_Aviation_Installations_Assessment_Protocols.pdf
9	RFI Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_General_Requirement_Assessment_Protocols.pdf
1 0	Geotech nical Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_General_Requirement_Assessment_Protocols.pdf
1 1	Plant Species Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted_Plant_Species_Assessment_Protocols.pdf
1 2	Animal Species Assessm ent	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols /Gazetted Animal Species Assessment Protocols.pdf

# Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.



#### MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Х		

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate- High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low- Moderate/08. Moderate
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

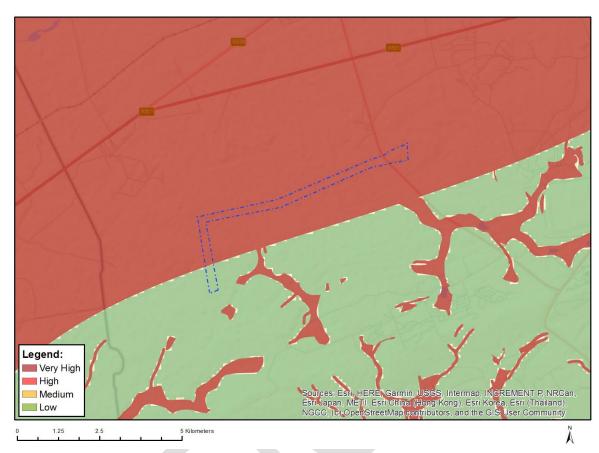
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#### MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

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 <u>eiadatarequests@sanbi.org.za</u> 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
		х	

Sensitivity	Feature(s)
Medium	Aves-Tyto capensis
Medium	Aves-Circus ranivorus
Medium	Aves-Eupodotis senegalensis
Medium	Insecta-Lepidochrysops procera
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Hydrictis maculicollis
Medium	Invertebrate-Clonia uvarovi



# MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Aquatic CBAs
Very High	Strategic water source area
Very High	Wetlands and Estuaries

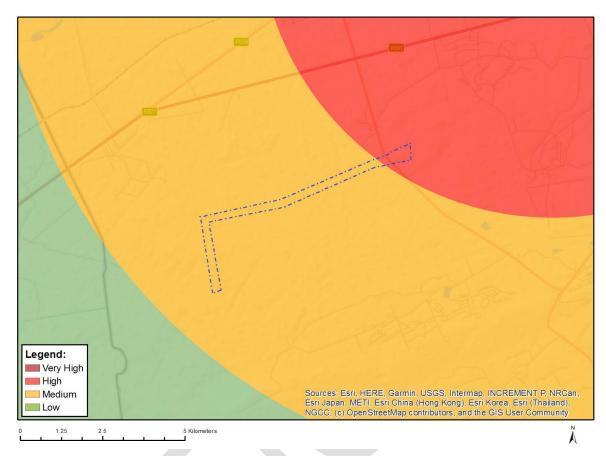
# MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			Х

Sensitivity	Feature(s)
Low	Low sensitivity

## MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Х		

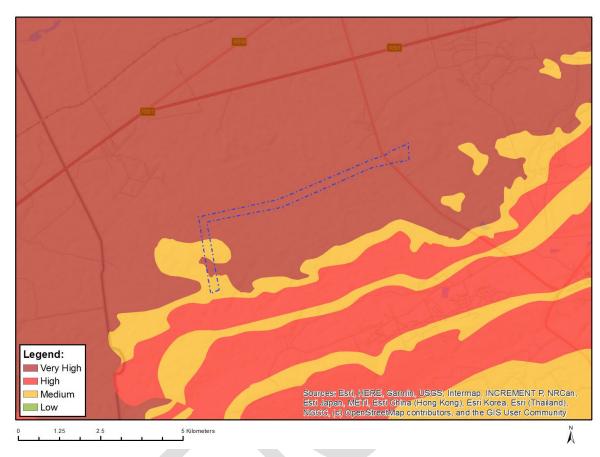
Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
Medium	Between 8 and 15 km of other civil aviation aerodrome

# MAP OF RELATIVE DEFENCE THEME SENSITIVITY

Legend:       Very High       High       Medium       Low         0     1.25       2.5     5 Kilometers	Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			Х

Sensitivity	Feature(s)
Low	Low Sensitivity



# MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity	Feature(s)
Low	Features with a Low paleontological sensitivity
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

# Legent: Successor: Successor:

#### MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

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Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Х	

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Khadia beswickii
Medium	Sensitive species 1147
Medium	Sensitive species 1261
Medium	Sensitive species 1248

# 

#### MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Х			

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Critical biodiveristy area 2
Very High	Ecological support area
Very High	Protected Areas Expansion Strategy