

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

EIA Reference number:

Project name: Mafadi Solar Power Plant

Project title: Mafadi Solar Power Plant

Date screening report generated: 08/12/2022 17:36:37

Applicant: Mafadi Solar Power Plant

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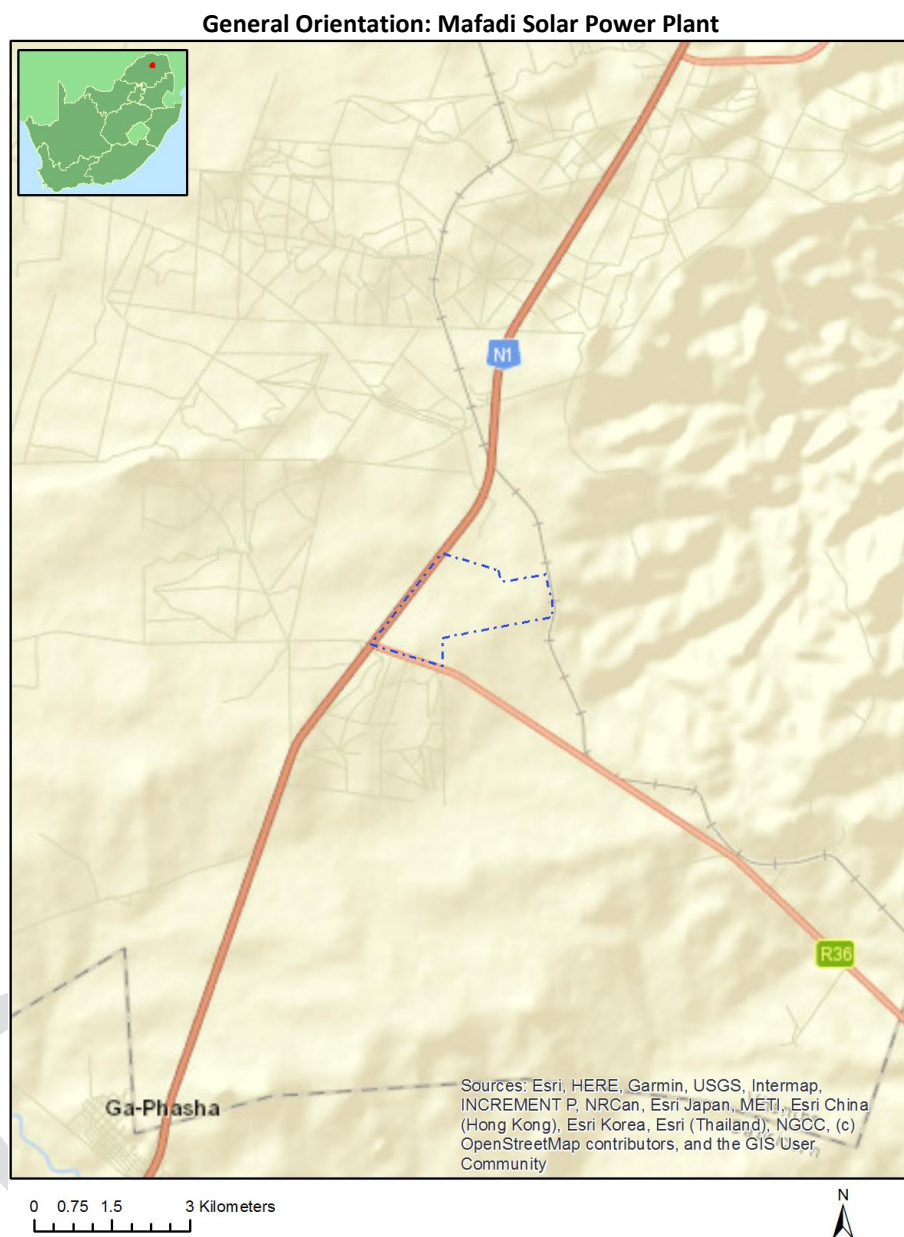
Application Category: Utilities Infrastructure|Electricity|Generation|Renewable|Solar|PV

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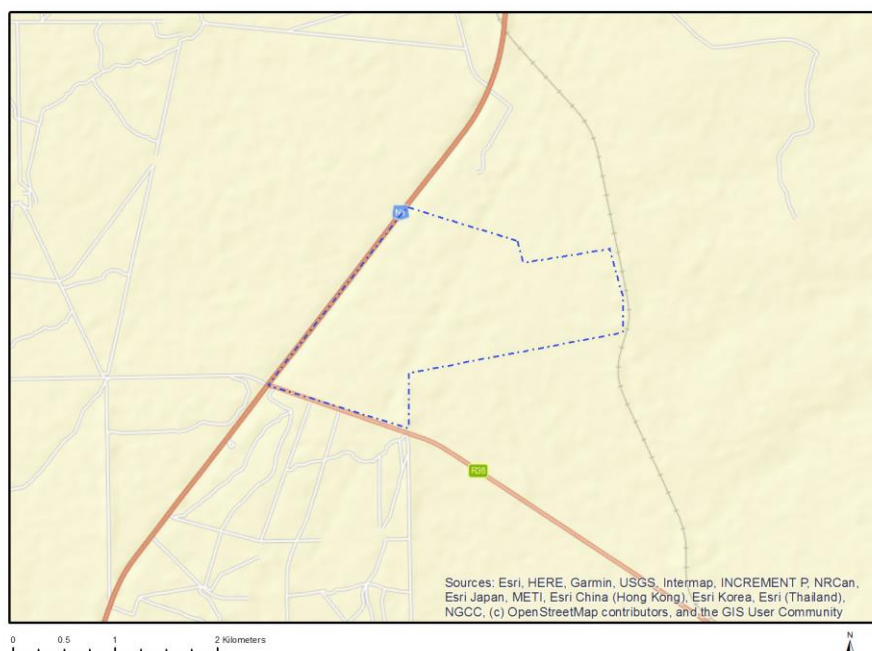
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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	VRYHEID	418	0	23°20'30.43S	29°47'14.42E	Farm
2	JOPPA	473	0	23°21'44.29S	29°46'44.21E	Farm
3		1210	0	23°20'40.29S	29°48'36.1E	Farm
4	ZYVERGAT	479	0	23°23'47.16S	29°47'51.27E	Farm
5		414	1	23°21'8.1S	29°48'51.25E	Farm Portion
6	JOPPA	473	4	23°22'0.19S	29°46'29.91E	Farm Portion
7	ZYVERGAT	479	0	23°21'34.85S	29°48'23.82E	Farm Portion
8	VRYHEID	418	4	23°20'20.46S	29°48'3.73E	Farm Portion
9	JOPPA	473	8	23°21'37.33S	29°47'29.81E	Farm Portion
10	VRYHEID	418	1	23°21'13.27S	29°48'0.66E	Farm Portion
11	JOPPA	473	5	23°21'28.89S	29°47'2.61E	Farm Portion
12		1210	0	23°20'40.29S	29°48'36.1E	Farm Portion

Development footprint¹ vertices:

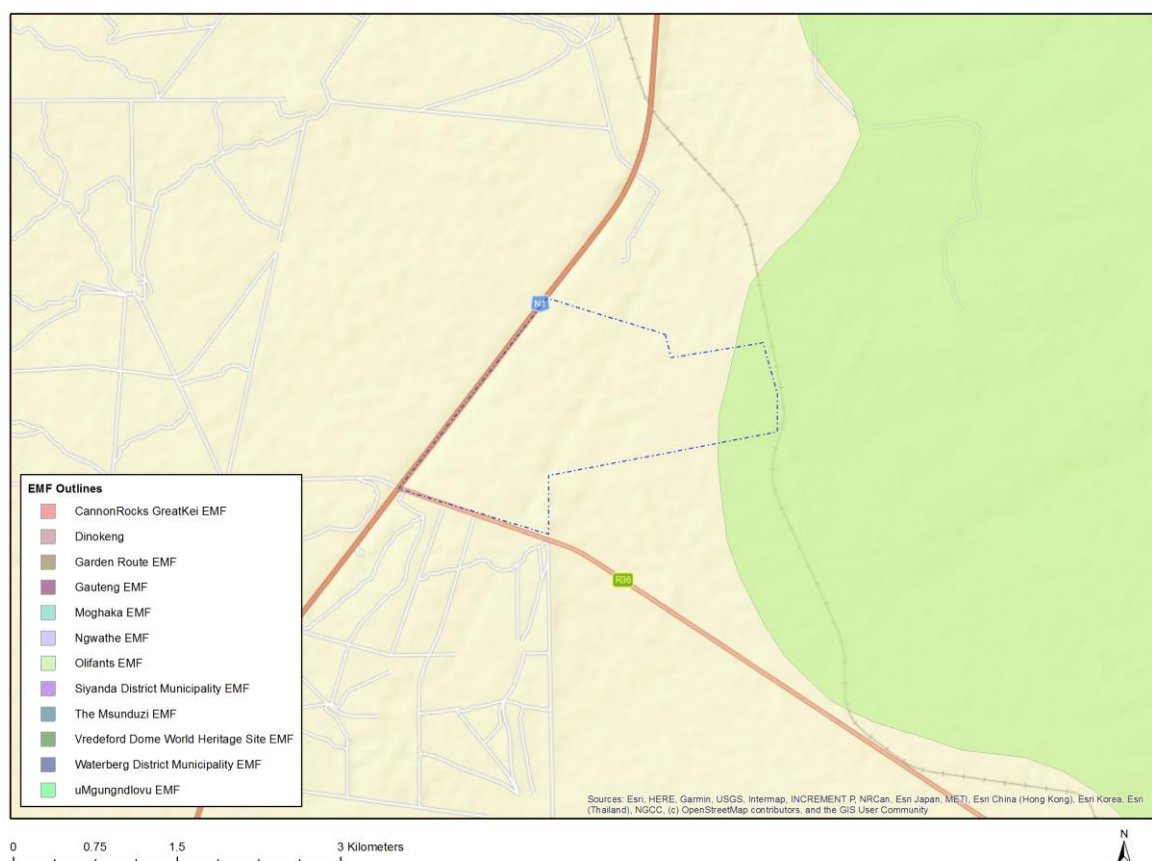
No development footprint(s) specified.

¹ "development footprint", means the area within the site on which the development will take place and includes 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	12/12/20/2619	Solar PV	Approved	12.4

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Olifants EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Zone_46,_67,_78,_80,_92,_103,_122,_129.pdf

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

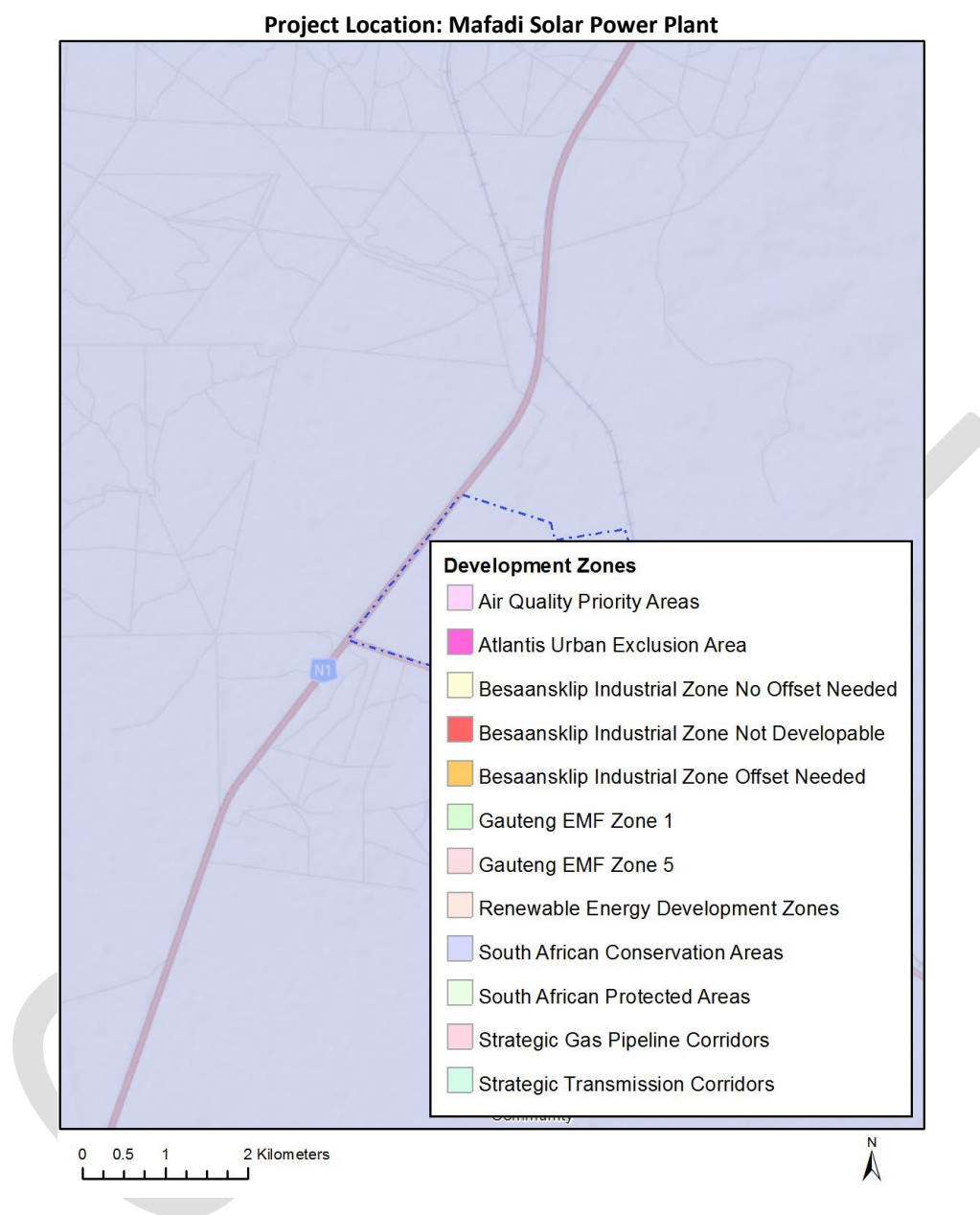
sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:
Utilities Infrastructure | Electricity | Generation | Renewable | Solar | PV.

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, restriction or prohibition	Implication
Strategic Transmission Corridor- International corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2022_Q2_Metadata.pdf

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



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			X	
Animal Species Theme			X	

Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Avian Theme	X			
Civil Aviation (Solar PV) Theme				X
Defence Theme			X	
Landscape (Solar) Theme	X			
Paleontology Theme			X	
Plant Species Theme				X
RFI Theme				X
Terrestrial Biodiversity Theme	X			

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.

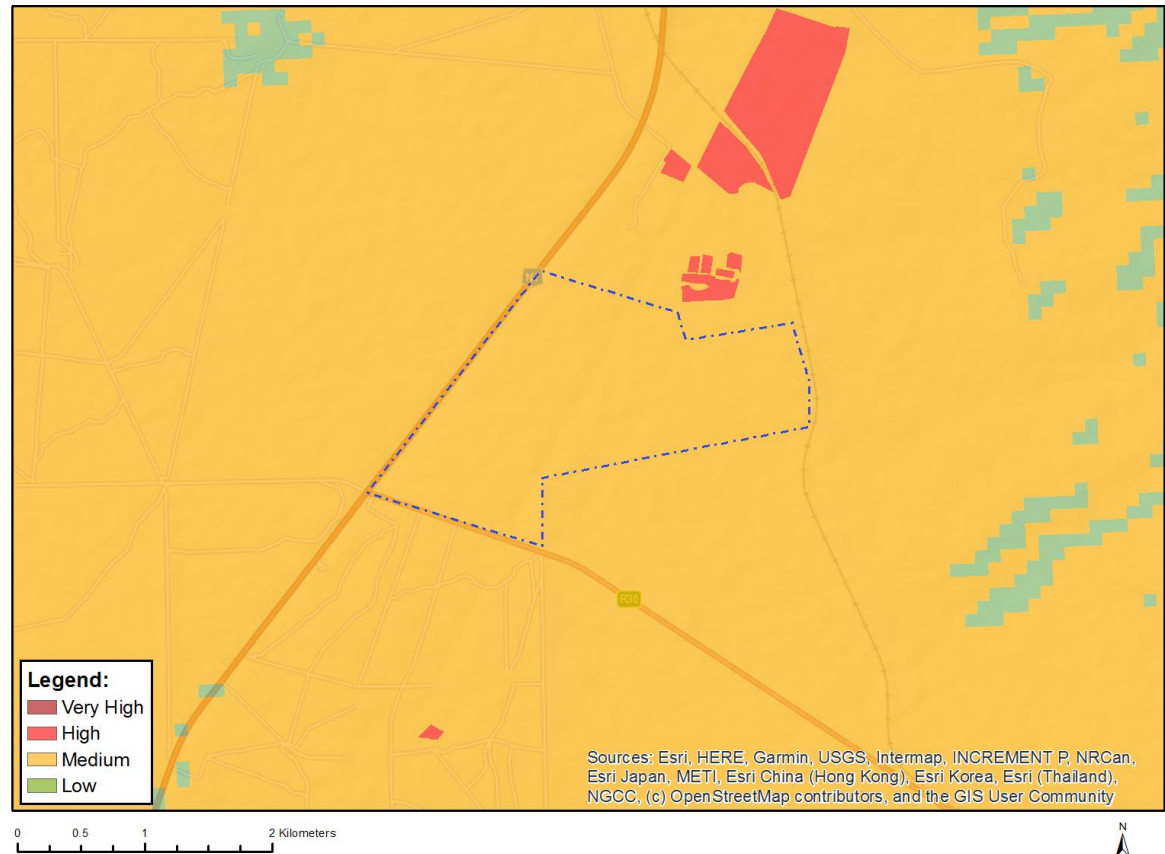
N o	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_WindAndSolar_Agriculture_Assessment_Protocols.pdf
2	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Paleontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
5	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
6	Aquatic Biodiversity	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf

	Impact Assessment	
7	Civil Aviation Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Civil_Aviation_Installations_Assessment_Protocols.pdf
8	Defense Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Defence_Installations_Assessment_Protocols.pdf
9	RFI Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
10	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
11	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
12	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
13	Animal Species Assessment	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

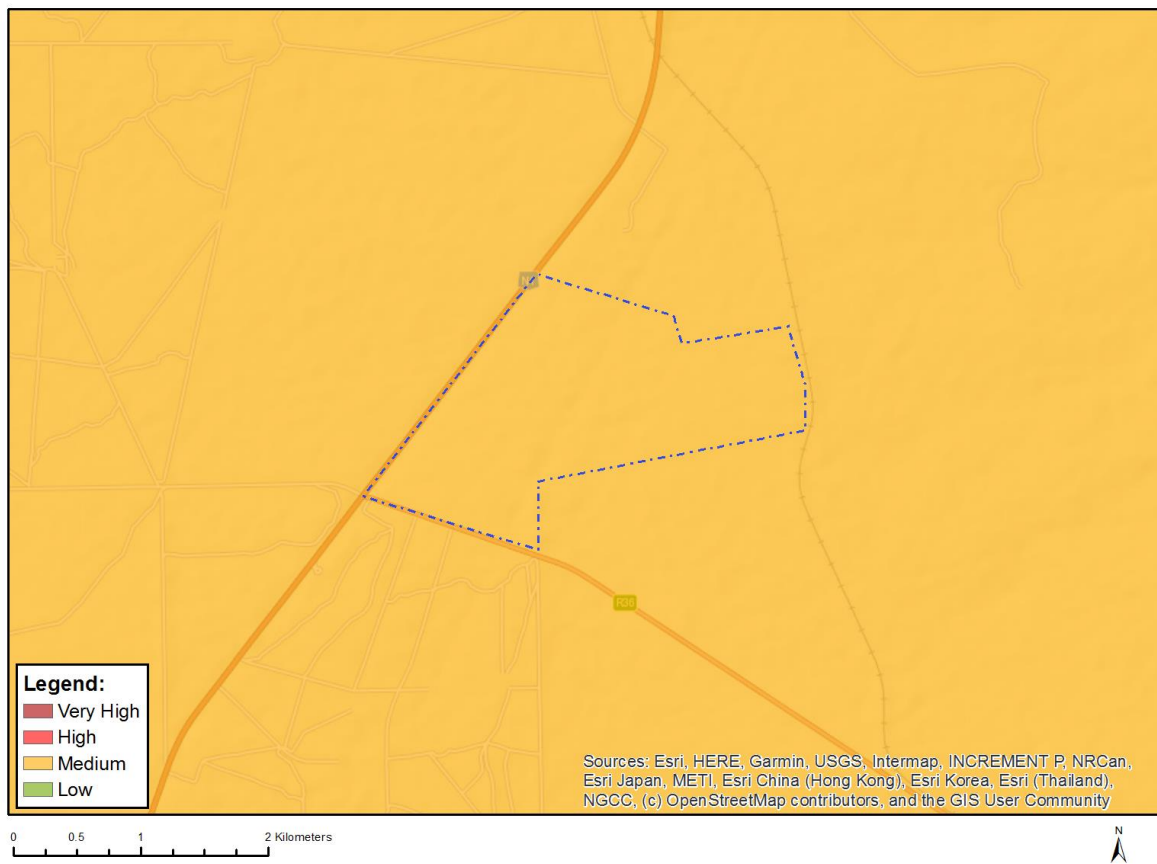


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



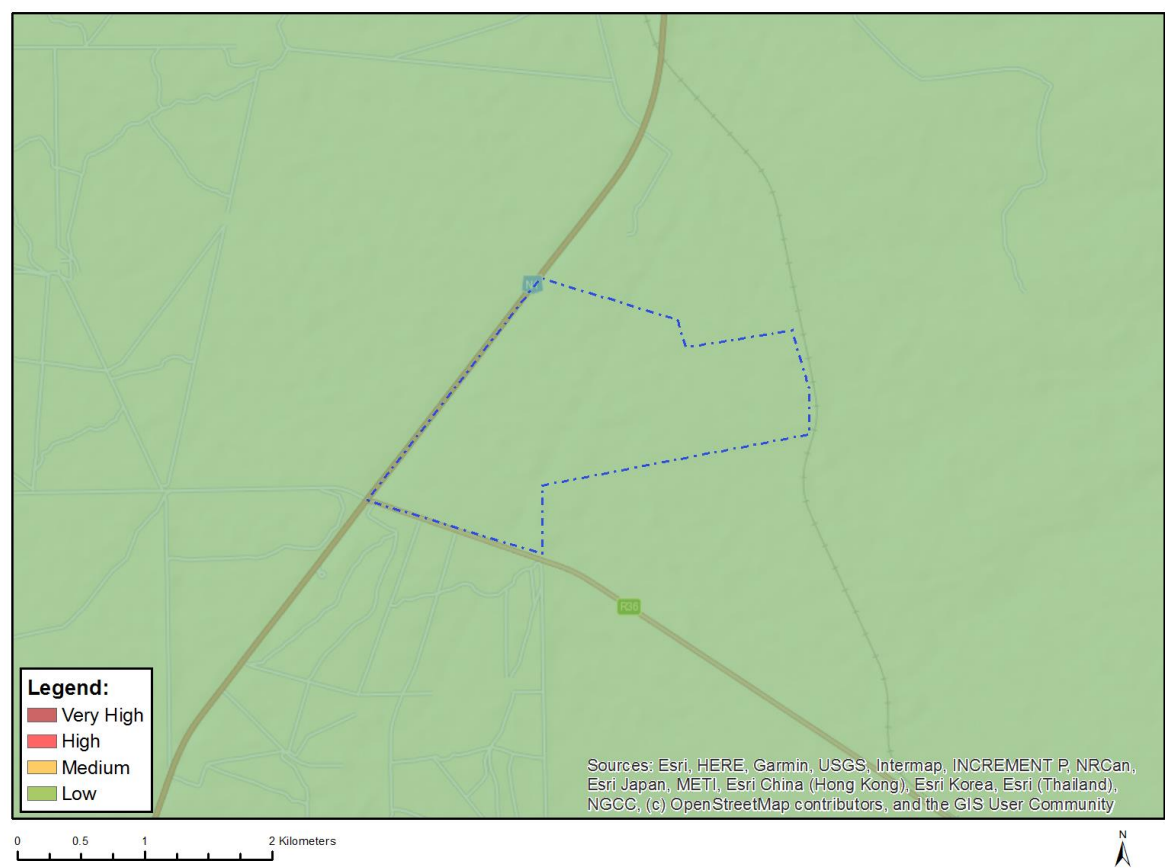
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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	Sensitive species 5
Medium	Mammalia-Crocidura maquassiensis
Medium	Invertebrate-Thoracistus viridicrus

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

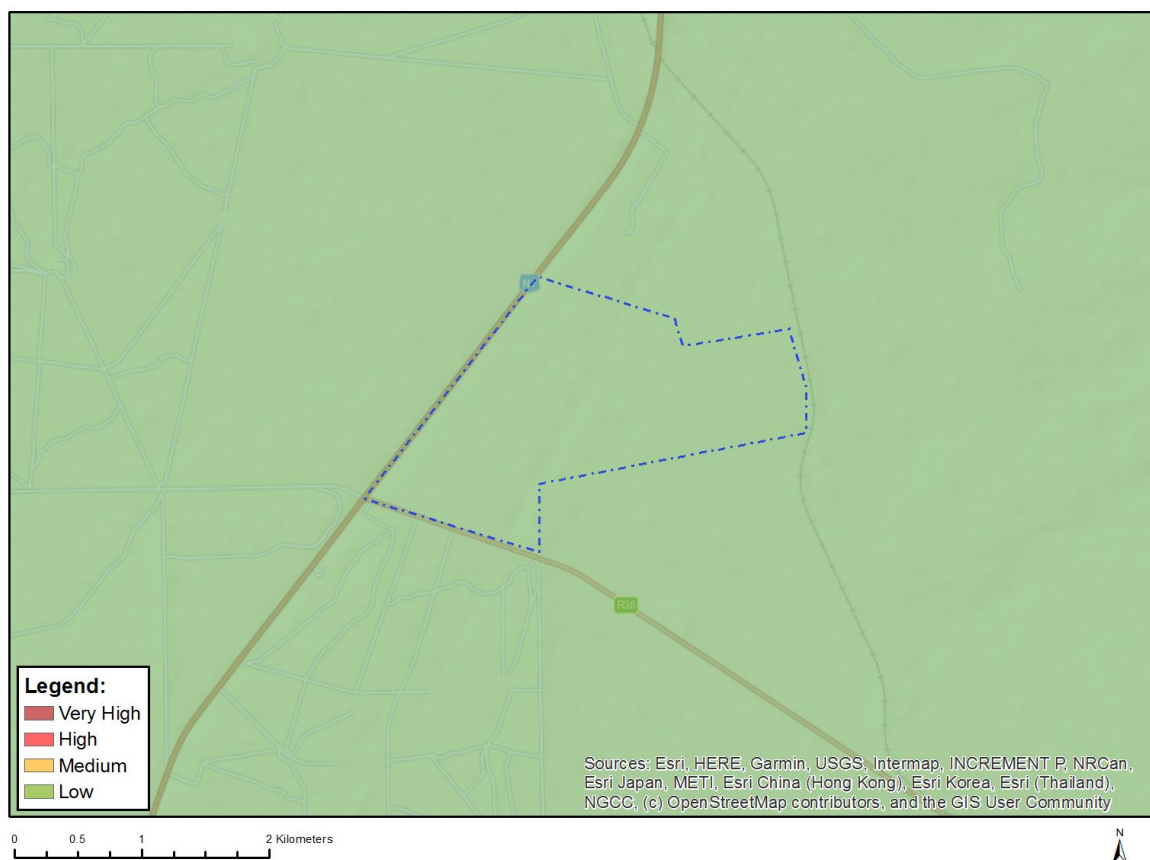


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

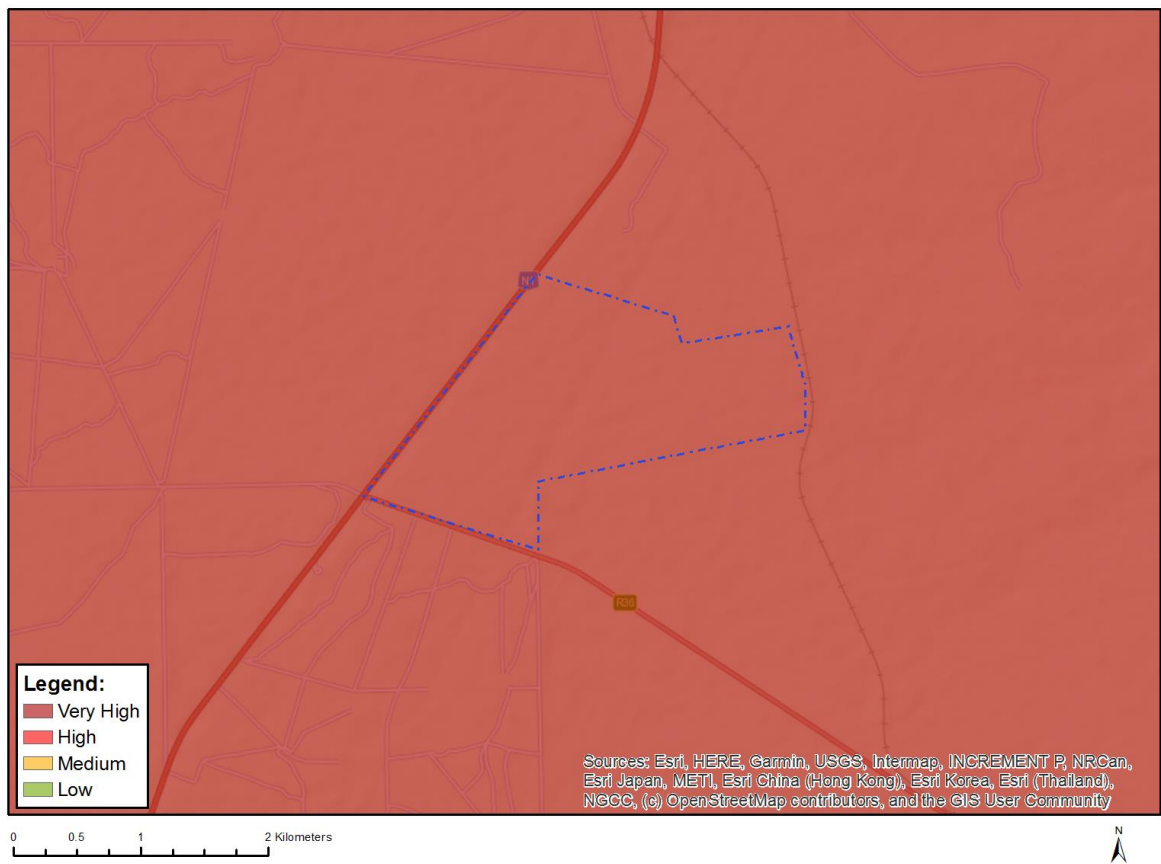


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE AVIAN THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	within 50 km of Colonies

MAP OF RELATIVE CIVIL AVIATION (SOLAR PV) THEME SENSITIVITY

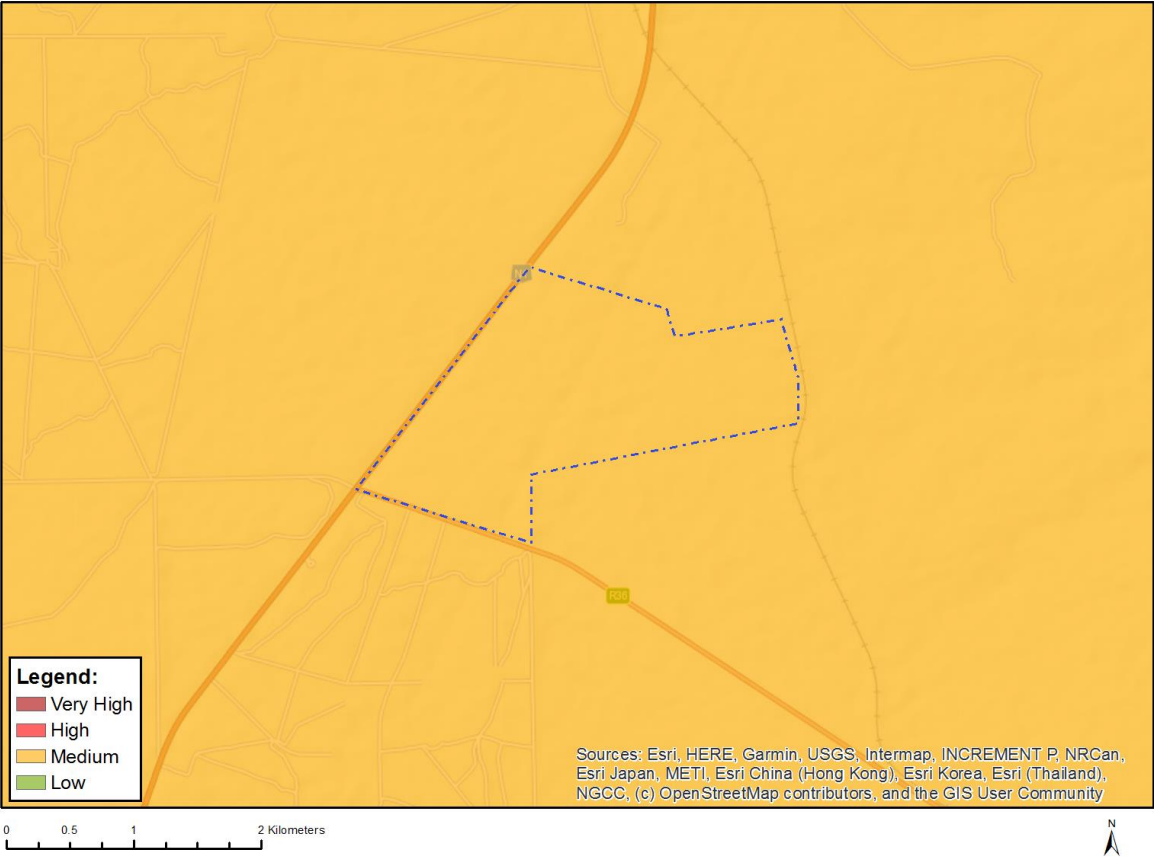


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	No major or other types of civil aviation aerodromes

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

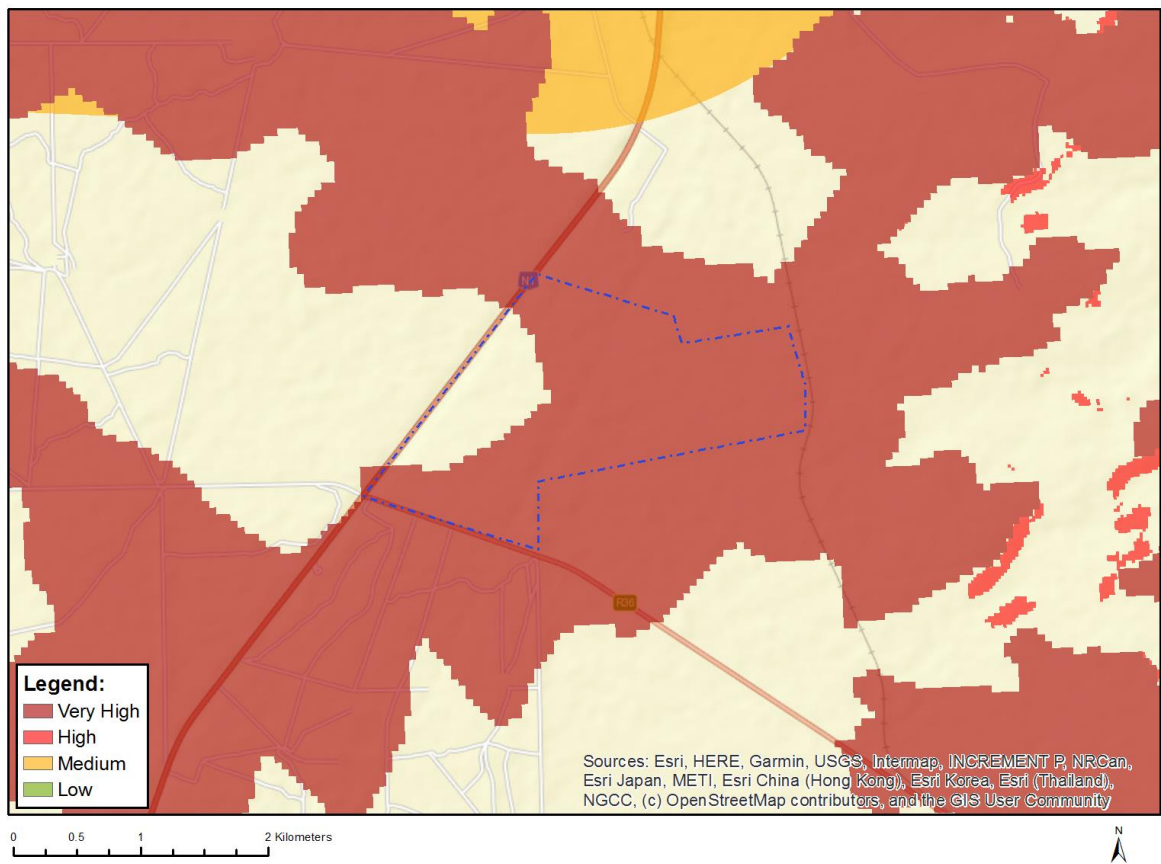


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Defence Site

MAP OF RELATIVE LANDSCAPE (SOLAR) THEME SENSITIVITY

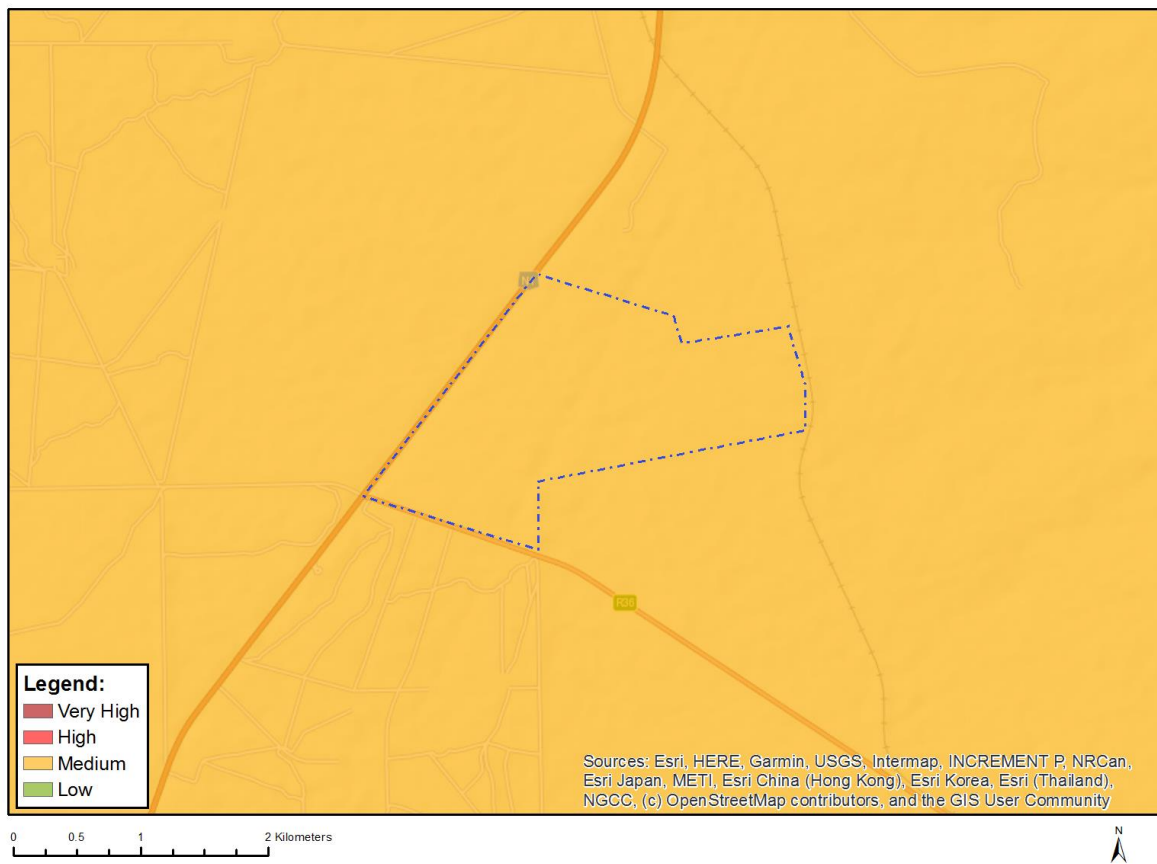


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Mountain tops and high ridges

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

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

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



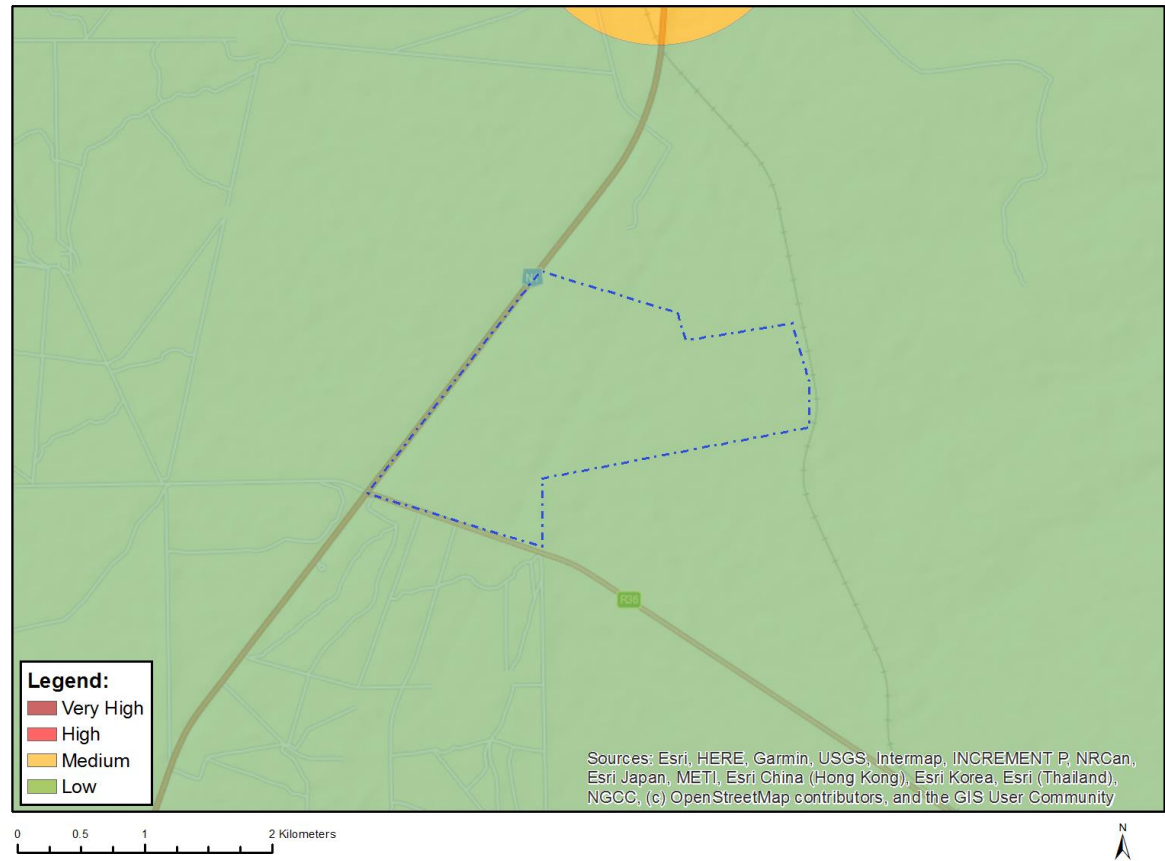
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Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE RFI THEME SENSITIVITY

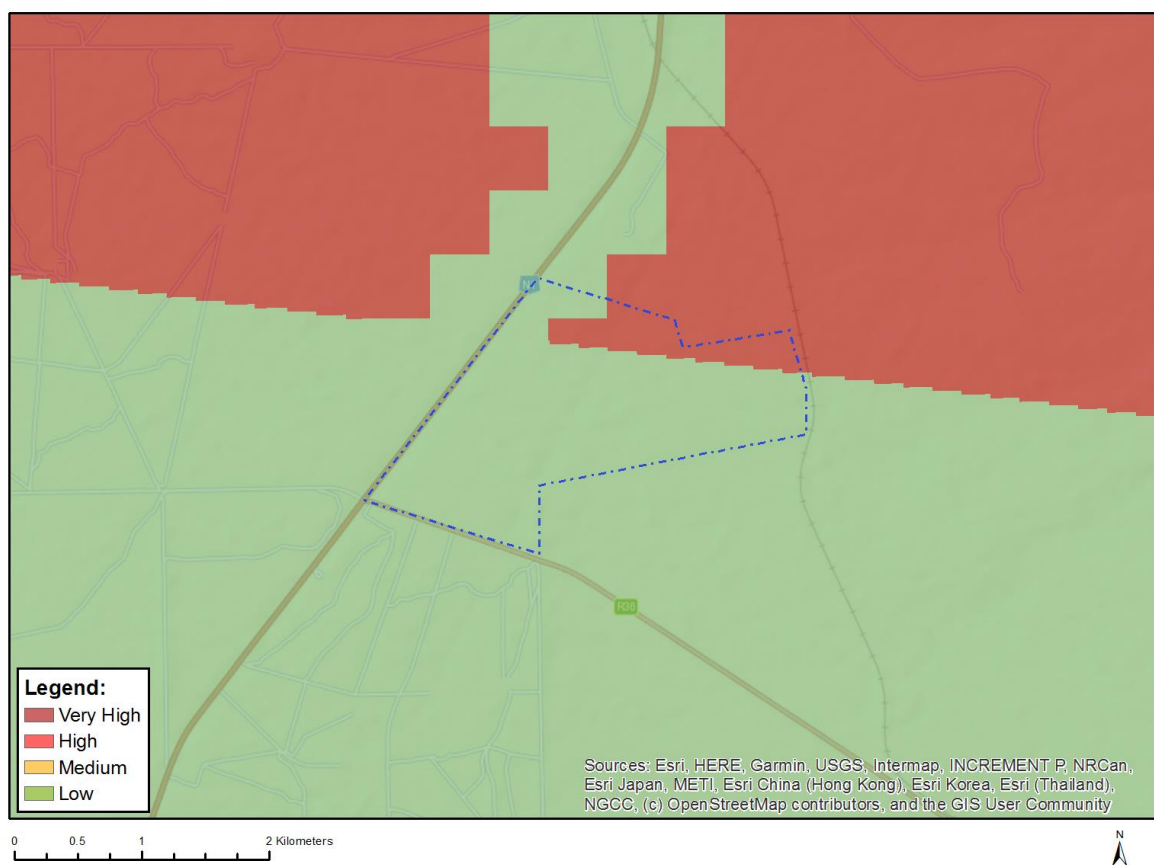


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Ecological support area 1