

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

EIA Reference number:

Project name: RE of P1 of Farm 492 Melkhoutrivier

Project title: RE of P1 of Farm 492 Melkhoutrivier

Date screening report generated: 02/12/2022 11:53:21

Applicant: H Booysen

Compiler: PHS Consulting

Compiler signature:

.....

Application Category: Any activities within or close to a watercourse

Table of Contents

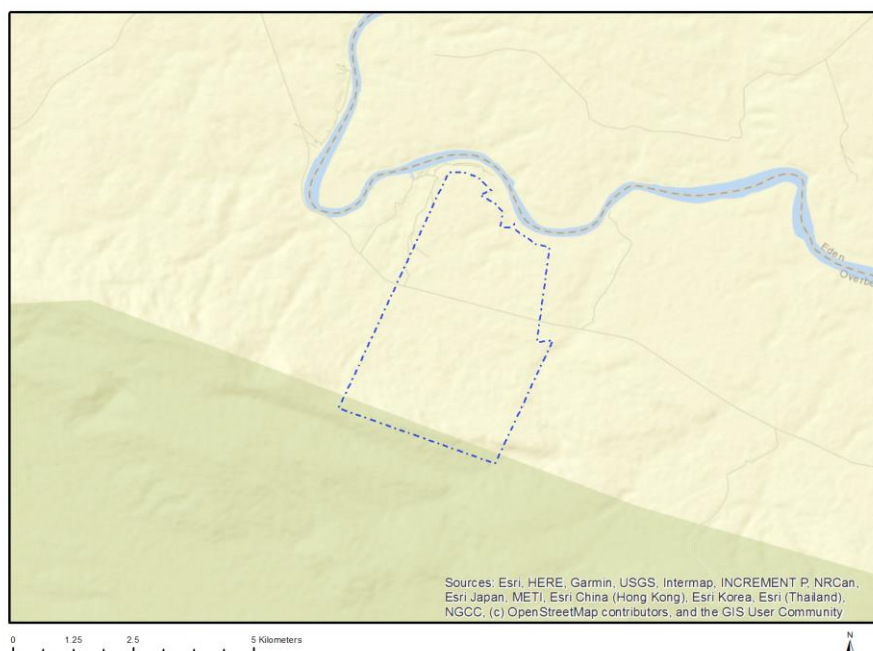
Proposed Project Location	3
Orientation map 1: General location	3
Map of proposed site and relevant area(s)	4
Cadastral details of the proposed site	4
Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area	4
Environmental Management Frameworks relevant to the application	4
Environmental screening results and assessment outcomes	5
Relevant development incentives, restrictions, exclusions or prohibitions	5
Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones	6
Proposed Development Area Environmental Sensitivity	6
Specialist assessments identified	7
Results of the environmental sensitivity of the proposed area	9
MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY	9
MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY	10
MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY	11
MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY	12
MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY	13
MAP OF RELATIVE DEFENCE THEME SENSITIVITY	14
MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY	15
MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY	16
MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY	18

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	MELK HOUT RIVIER	492	0	34°22'18.79S	20°38'59.96E	Farm
2	MELK HOUT RIVIER	492	1	34°22'8.37S	20°37'24.75E	Farm Portion

Development footprint¹ vertices:

No development footprint(s) specified.

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

No nearby wind or solar developments found.

Environmental Management Frameworks relevant to the application

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.

No intersections with EMF areas found.

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:

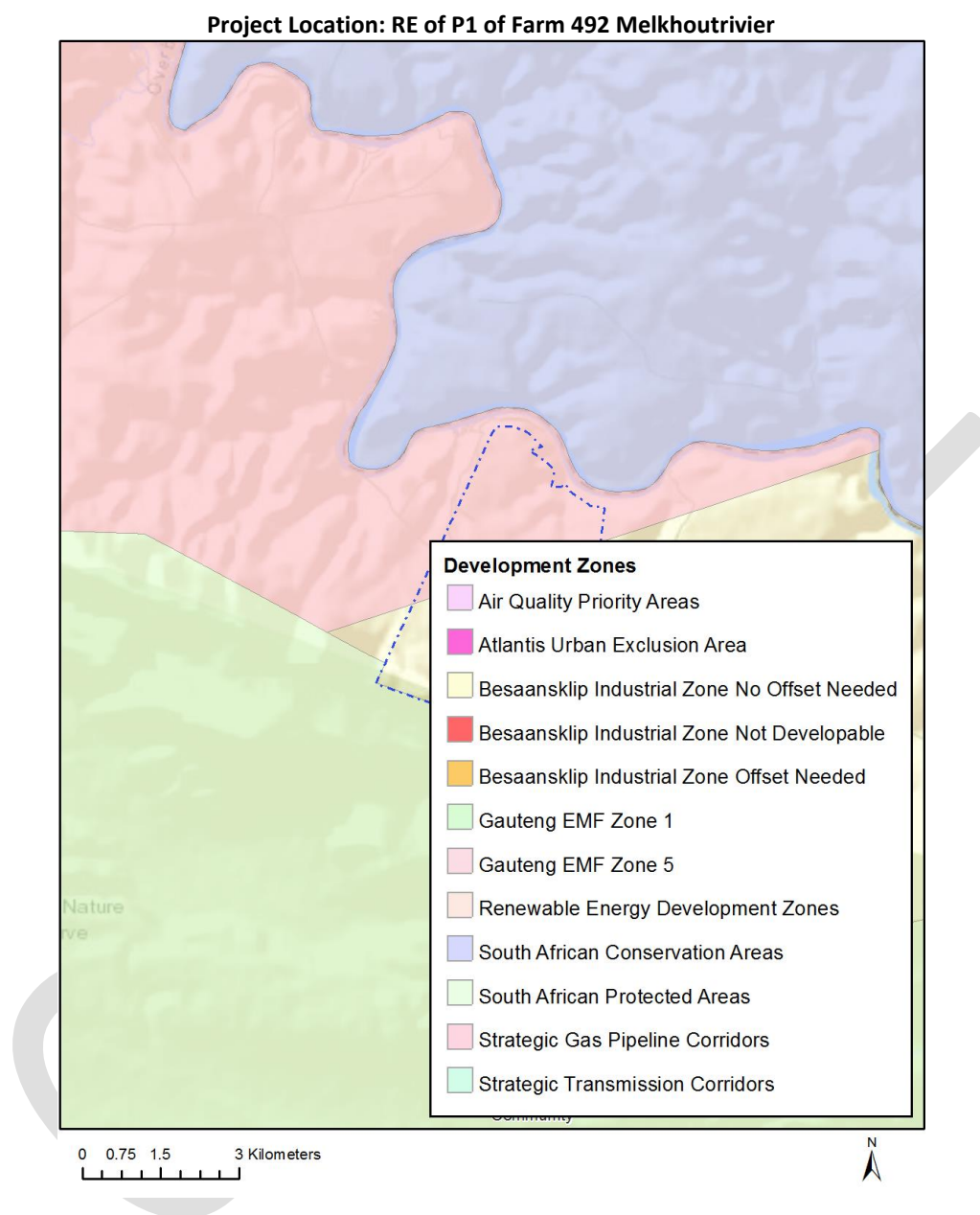
Any activities within or close to a watercourse.

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 Gas Pipeline Corridors -Phase 1a & 1b: Saldanha to Ankerlig and Saldanha to Mossel Bay	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
South African Protected Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SAPAD_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		
Civil Aviation Theme		X		
Defence Theme				X
Paleontology Theme	X			
Plant Species 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.

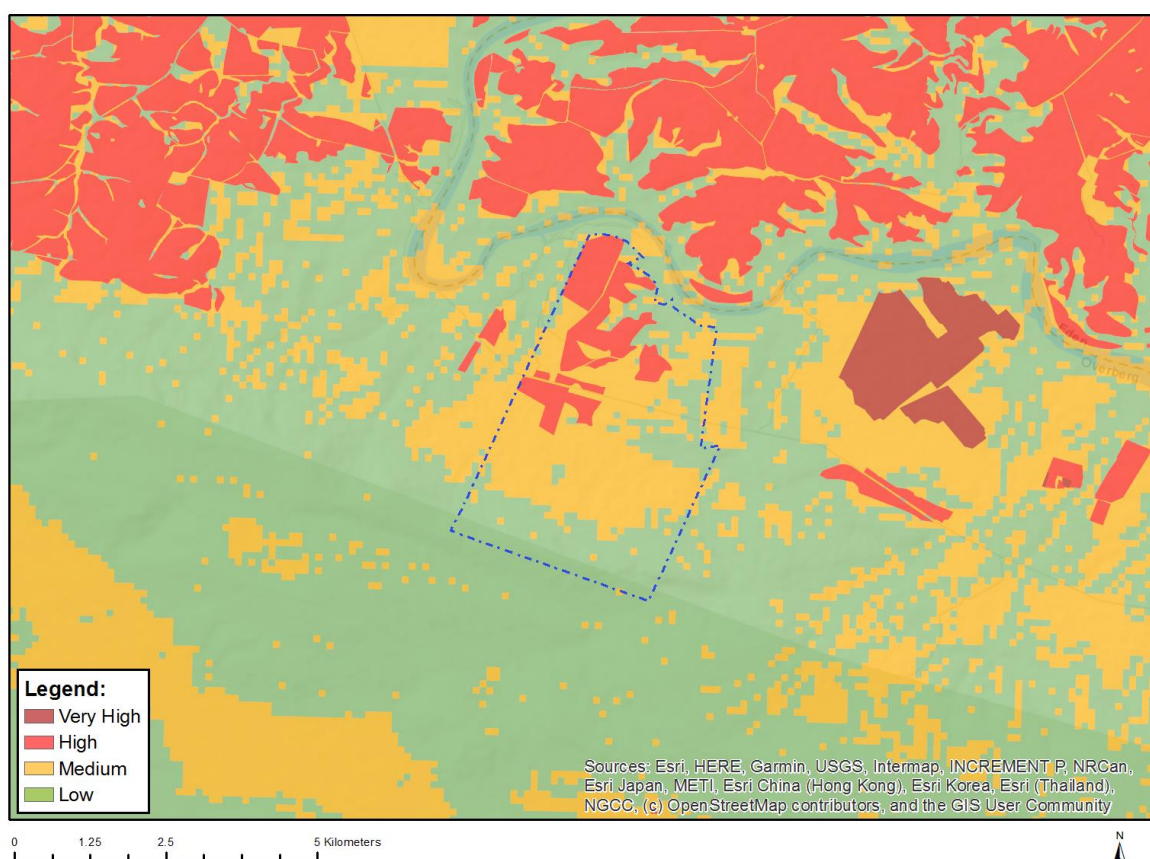
N o	Special ist assess ment	Assessment Protocol
1	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
6	Hydrology Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
7	Socio-Economic	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf

	Assessment	
8	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
9	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

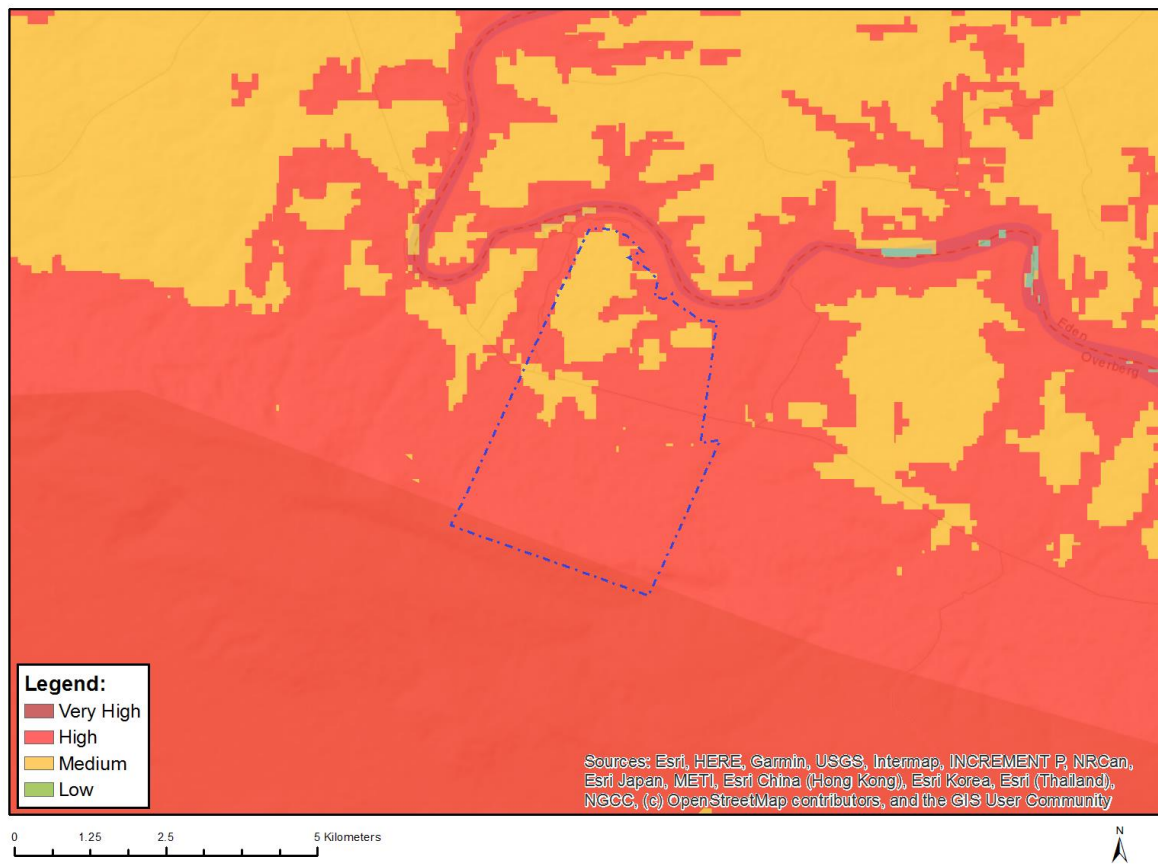


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

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

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



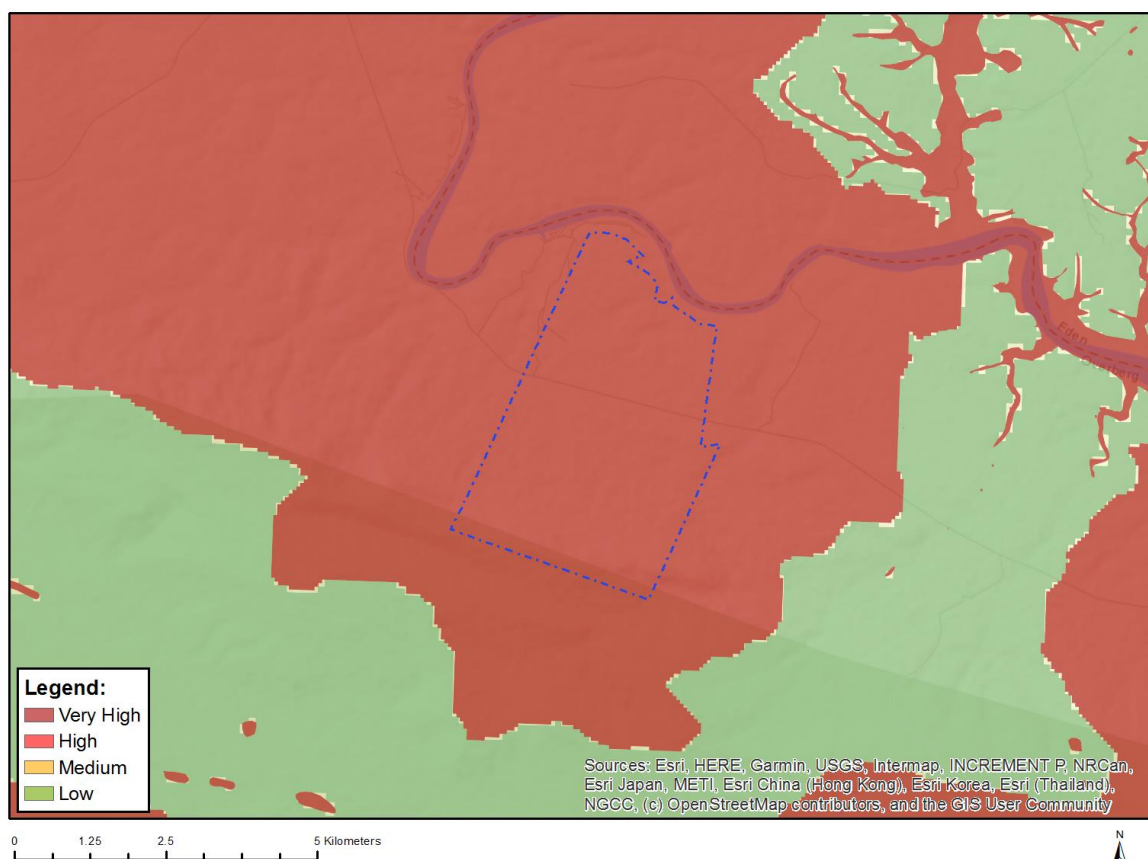
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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)
High	Aves-Gyps coprotheres
High	Aves-Neotis denhami
High	Aves-Circus maurus
Medium	Aves-Circus ranivorus
Medium	Aves-Hydroprogne caspia
Medium	Aves-Turnix hottentottus
Medium	Aves-Afrotis afra
Medium	Aves-Aquila verreauxii
Medium	Insecta-Chrysoritis brooksi tearei
Medium	Invertebrate-Aneuryphymus montanus

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

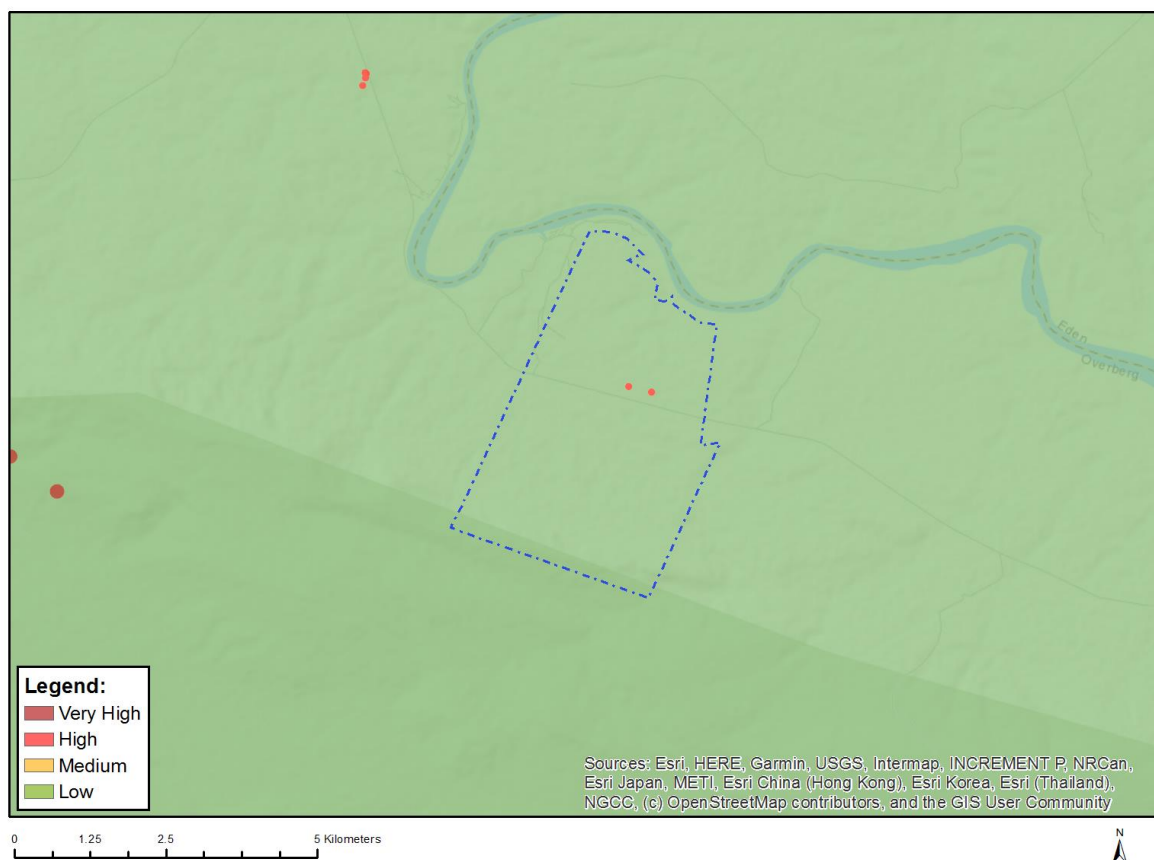


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Aquatic CBAs
Very High	Wetlands and Estuaries
Very High	Freshwater ecosystem priority area quinary catchments

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

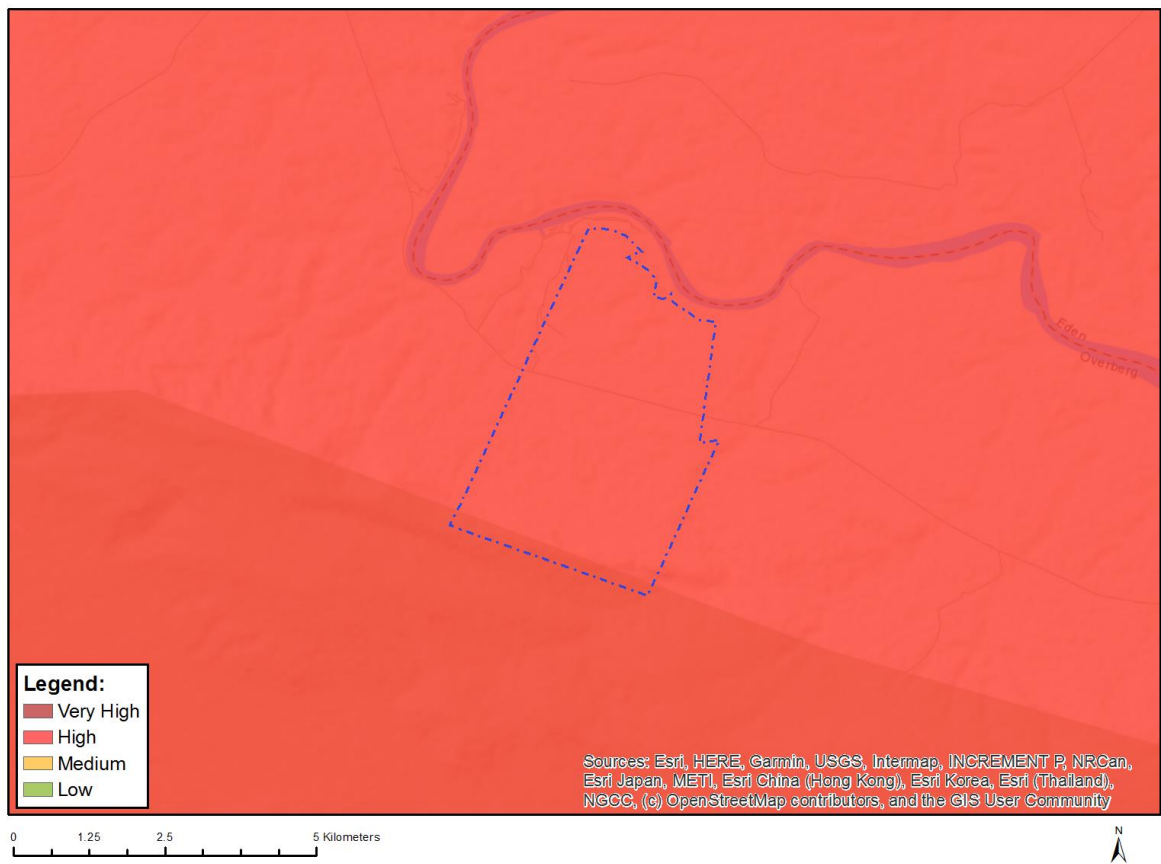


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 50m of a Grade IIIc Heritage site
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

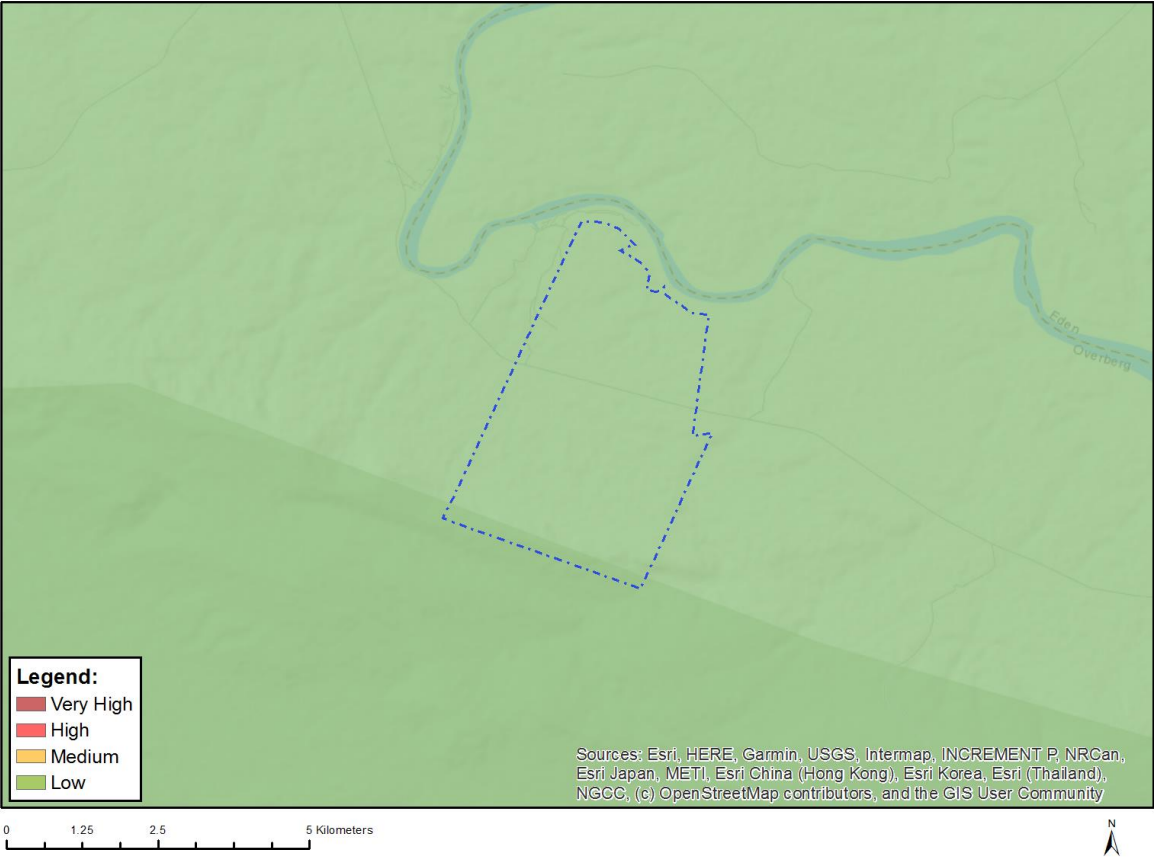


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Dangerous and restricted airspace as demarcated

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

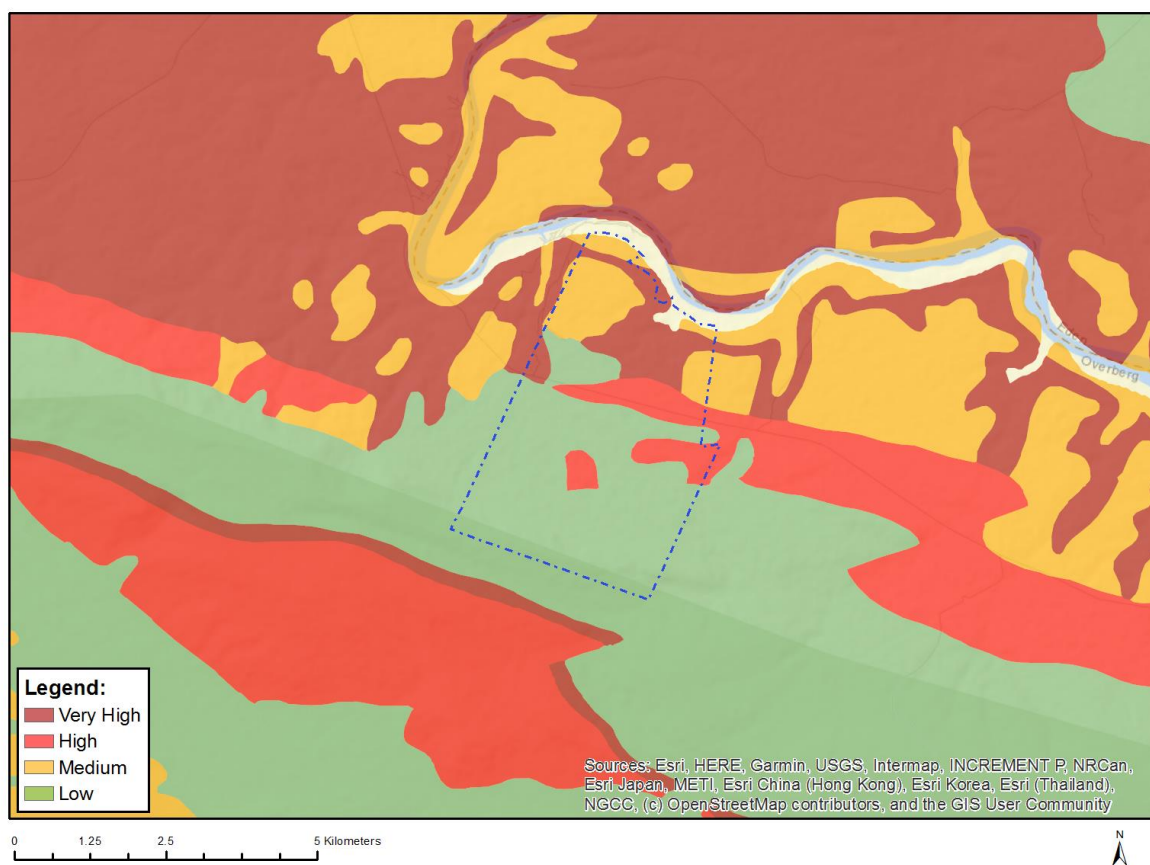


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

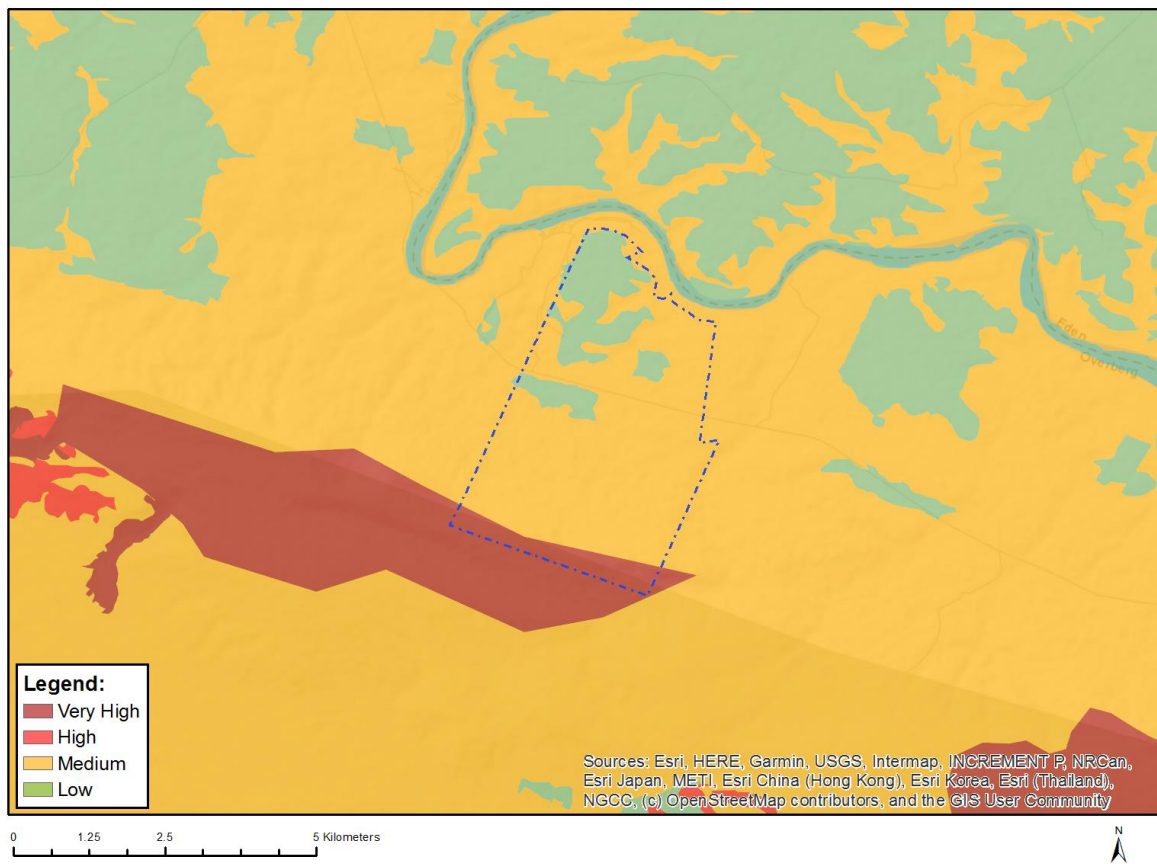


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

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

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			

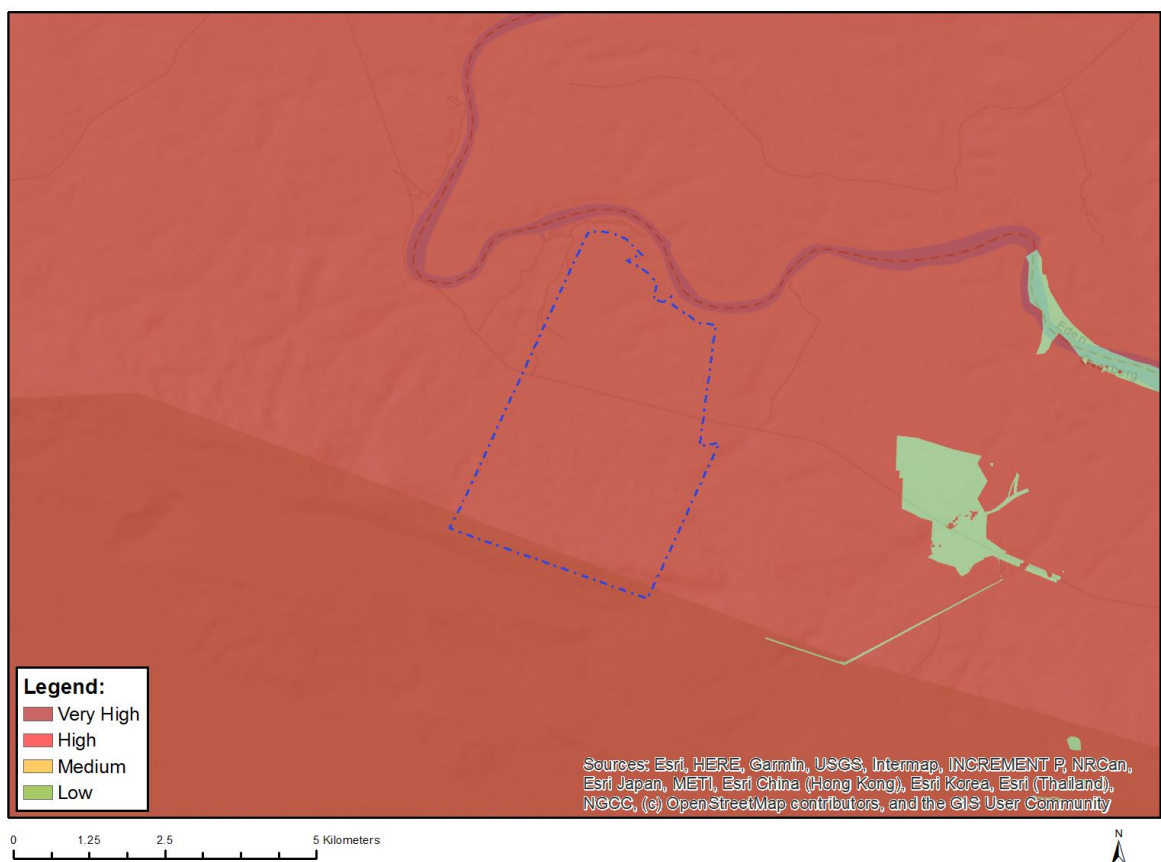
Sensitivity Features:

Sensitivity	Feature(s)
High	Protea denticulata
Low	Low Sensitivity
Medium	Lampranthus amabilis
Medium	Lampranthus pauciflorus
Medium	Sensitive species 964
Medium	Acrodon purpureostylus
Medium	Acrodon deminutus
Medium	Disphyma dunsdonii
Medium	Ruschia leptocalyx
Medium	Trichodiadema pygmaeum
Medium	Drosanthemum austricola
Medium	Drosanthemum quadratum
Medium	Amphithalea virgata

Medium	<i>Argyrobium pachyphyllum</i>
Medium	<i>Xiphotheca guthriei</i>
Medium	<i>Aspalathus barbigera</i>
Medium	<i>Aspalathus grobleri</i>
Medium	<i>Aspalathus joubertiana</i>
Medium	<i>Aspalathus millefolia</i>
Medium	<i>Aspalathus oblongifolia</i>
Medium	<i>Aspalathus potbergensis</i>
Medium	<i>Aspalathus smithii</i>
Medium	<i>Aspalathus steudeliana</i>
Medium	<i>Aspalathus zeyheri</i>
Medium	<i>Aspalathus microlithica</i>
Medium	<i>Aspalathus quartzicola</i>
Medium	<i>Otholobium pungens</i>
Medium	<i>Otholobium curtisiae</i>
Medium	<i>Polhillia pallens</i>
Medium	<i>Lotononis involucreta</i> subsp. <i>bracteata</i>
Medium	<i>Lotononis viborgioides</i>
Medium	<i>Berzelia cordifolia</i>
Medium	<i>Leucadendron coriaceum</i>
Medium	<i>Leucadendron cryptocephalum</i>
Medium	<i>Leucadendron linifolium</i>
Medium	<i>Leucadendron modestum</i>
Medium	<i>Protea aurea</i> subsp. <i>potbergensis</i>
Medium	<i>Protea denticulata</i>
Medium	<i>Paranomus abrotanifolius</i>
Medium	<i>Prismatocarpus spinosus</i>
Medium	<i>Selago ramosissima</i>
Medium	<i>Selago neglecta</i>
Medium	<i>Pentameris scandens</i>
Medium	<i>Lobostemon lucidus</i>
Medium	<i>Lobostemon sanguineus</i>
Medium	<i>Lobostemon daltonii</i>
Medium	<i>Hesperantha muirii</i>
Medium	<i>Freesia fergusoniae</i>
Medium	Sensitive species 157
Medium	Sensitive species 232
Medium	Sensitive species 508
Medium	Sensitive species 802
Medium	<i>Bobartia longicyma</i> subsp. <i>microflora</i>
Medium	Sensitive species 499
Medium	<i>Lobelia barkerae</i>
Medium	<i>Oxalis duriuscula</i>
Medium	<i>Hermannia lavandulifolia</i>
Medium	Sensitive species 702
Medium	Sensitive species 1250
Medium	<i>Bulbinella potbergensis</i>
Medium	Sensitive species 1142
Medium	<i>Hypodiscus rugosus</i>
Medium	<i>Anisodonteia dissecta</i>
Medium	<i>Cynanchum zeyheri</i>
Medium	<i>Acrolophia ustulata</i>
Medium	<i>Gnidia ericoides</i>
Medium	<i>Gnidia spicata</i>
Medium	<i>Dymondia margaretae</i>
Medium	<i>Cotula myriophylloides</i>
Medium	<i>Osteospermum potbergense</i>
Medium	<i>Stoebe rugulosa</i>
Medium	<i>Stoebe schultzii</i>
Medium	<i>Relhania garnotii</i>

Medium	<i>Diosma parvula</i>
Medium	<i>Diosma tenella</i>
Medium	<i>Adenandra gummifera</i>
Medium	<i>Acmadenia macropetala</i>
Medium	<i>Euchaetis schlechteri</i>
Medium	<i>Limonium anthericoides</i>
Medium	<i>Muraltia pottebergensis</i>
Medium	<i>Polygala pottebergensis</i>
Medium	Sensitive species 545
Medium	Sensitive species 1183
Medium	Sensitive species 980
Medium	<i>Phylica elimensis</i>
Medium	<i>Phylica incurvata</i>
Medium	Sensitive species 1098
Medium	Sensitive species 1027
Medium	<i>Drosanthemum lavisii</i>
Medium	<i>Protea aspera</i>
Medium	Sensitive species 521
Medium	Sensitive species 142
Medium	Sensitive species 599
Medium	<i>Elegia squamosa</i>
Medium	<i>Elegia verreauxii</i>
Medium	<i>Diosma passerinoides</i>
Medium	<i>Agathosma microcarpa</i>
Medium	<i>Zostera capensis</i>
Very High	<i>Muraltia pottebergensis</i>

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Critical biodiversity area 1
Very High	Critical biodiversity area 2
Very High	Ecological support area 1
Very High	Ecological support area 2
Very High	FEPA Subcatchments
Very High	Protected Areas Expansion Strategy
Very High	Critically endangered ecosystem
Very High	Vulnerable ecosystem
Very High	De Hoop Nature Reserve
Very High	Cape Floral Region Protected Areas



25 July 2023

DEA&DP Ref: 14/1/1/E2/8/10/3/0617/21

SITE SENSITIVITY VERIFICATION:

RE OF P1 OF FARM 492 MELKHOUTRIVIER, SWELLENDAM

PART A: DISCUSSION OF SCREENING REPORT:

The screening tool report was based on the placement of the entire farm boundary as the site footprint. No individual placement of development footprints was done (refer Figure 1) as the project entails various elements spread over the site. The EAP conducted a site visit on 11 June 2022 and a photo report was compiled.



Figure 1: The farm outline forming the basis of the screening tool report

No nearby wind or solar developments and no intersections with EMF areas were found.

No development incentives, restrictions, exclusions or prohibitions apply to the site.

Site footprint Environmental Sensitivity:

a) Agricultural Theme - HIGH Sensitivity

Certain sections of the farm classify as high agricultural theme sensitivity based on annual crop cultivation. The farm remains agricultural in nature and is not affected by the expansion of the two dams, or the removal of vegetation on site for access roads. The cleaning and expansion of the two dams enables a secure supply of water both for domestic and future agricultural activities.

No further action recommended by EAP.

b) Animal Species Theme –HIGH sensitivity

A Terrestrial Biodiversity Assessment was completed for the site.

The study found that the impact of the assessed activities on fauna would seem to be low, and no animals are likely to have been permanently and negatively impacted by any of the activities.

No faunal SCC are likely to have been permanently impacted by the activities, and in general the faunal impacts are likely to have been of Low to Medium negative significance. Mitigation and management were developed for the site as part of the assessment.

c) Aquatic Biodiversity Theme – VERY HIGH Sensitivity

A Freshwater Ecological Assessment was completed for the site as part of the specialist studies identified in the screening report.

d) Archaeological and Cultural heritage theme– HIGH sensitivity due to the site being within 50m of a Grade IIIc Heritage site.

A NID and screener was submitted to HWC for comment, and according to HWC there is no reason to believe that the S24G application will impact on heritage resources, and no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay.

e) Civil Aviation Theme- HIGH sensitivity due to dangerous and restricted airspace as demarcated.

As this assessment is for various development elements on an existing farm with no relation to aviation activities, there is no anticipated effect on the restricted airspace.

Based on this above the EAP is of the opinion that the sensitivity should be decreased to LOW.

f) Defence Theme – LOW sensitivity

No further action recommended by EAP.

g) Palaeontology Theme – VERY HIGH sensitivity rating due to features with a very high sensitivity rating

A NID and screener was submitted to HWC for comment, and according to HWC there is no reason to believe that the S24G application will impact on heritage resources, and no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. Based on the historical disturbance of the site it is assumed that any palaeontological resources would already be disturbed and of low heritage value, however the HWC Fossil Finds Procedure must be implemented.

If any significant find is made during construction these should be safeguarded (preferably in situ) and the ECO should alert Heritage Western Cape so that appropriate mitigation (e.g., recording, sampling or collection) can be taken by a professional palaeontologist. The specialist involved would require a collection permit from SAHRA. Fossil material must be curated in an approved repository (e.g., museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA.

Based on this above the EAP is of the opinion that the sensitivity should be decreased to LOW.

h) Plant species Theme– VERY HIGH sensitivity based on the expected vegetation on site.

A Terrestrial Biodiversity study was conducted for the site which identified the vegetation types and impacts associated with the work completed on site.

The remaining natural vegetation on the greater study area is mostly of High conservation value and is classified as Potberg Sandstone Fynbos (mainly south of Infanta Road), Potberg Ferricrete Fynbos and Eastern Ruens Shale Renosterveld (only in the valleys below the plateau, and not formally mapped in this area).

i) Terrestrial Biodiversity Theme – VERY HIGH

A Terrestrial Biodiversity study was conducted for the site, and it found that most of the remaining natural vegetation on the greater property is mapped as a Critical Biodiversity Area (CBA1) in the CapeNature Spatial Biodiversity Plan.

PART B: DISCUSSION OF SPECIALIST REPORTS:

The following specialist assessments were identified as part of the screening reports:

1) Landscape/ Visual Impact Assessment

The farm is in a remote rural setting with the roads, dams and lodge location hidden from view by the natural vegetation and topography of the site.

No further specialist assessment recommended.

2) Archaeological and Cultural Heritage Impact Assessment

A NID and screener was submitted to HWC for comment, and according to HWC there is no reason to believe that the S24G application will impact on heritage resources, and no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required.

However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay.

3) Palaeontology Impact Assessment

A NID and screener was submitted to HWC for comment, and according to HWC there is no reason to believe that the S24G application will impact on heritage resources, and no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required.

However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay.

4) Terrestrial Biodiversity Impact Assessment

A Terrestrial Biodiversity Study was conducted for the site which assessed the impacts associated with the project and recommended mitigation and management items.

5) Aquatic Biodiversity Impact Assessment

A Freshwater Ecological Assessment was completed for the site as part of the specialist studies identified in the screening report.

6) Hydrology Impact Assessment

A Hydrological assessment was conducted for the site which considered the spring and the two dams and impacts associated with the expansion of the two dams.

7) Socio-economic Assessment

No rating for socio-economic was produced as part of the screening report and thus the EAP is of the opinion that a separate specialist study is not required.

8) Plant Species Assessment

A Terrestrial Biodiversity Study including Botany, was conducted for the site which assessed the impacts associated with the project and recommended mitigation and management items.

9) Animal Species Assessment

A Terrestrial Biodiversity Study including Fauna, was conducted for the site which assessed the impacts associated with the project and recommended mitigation and management items.