

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

EIA Reference number: DFFE Ref: 14/12/16/3/3/1/2908

Project name: Proposed Hardwater Reservoir and Associated Infrastructure

Project title: Proposed development of a Hardened Water Reservoir and Associated Infrastructure at the Koeberg Nuclear Power Station. Located on the farm Duynfontyn no. 1552, Melkbosstrand, Western Cape, Cape Town Municipality.

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Applicant: ESKOM HOLDINGS SOC LTD

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Application Category: Services|Water services|Storage|Reservoirs

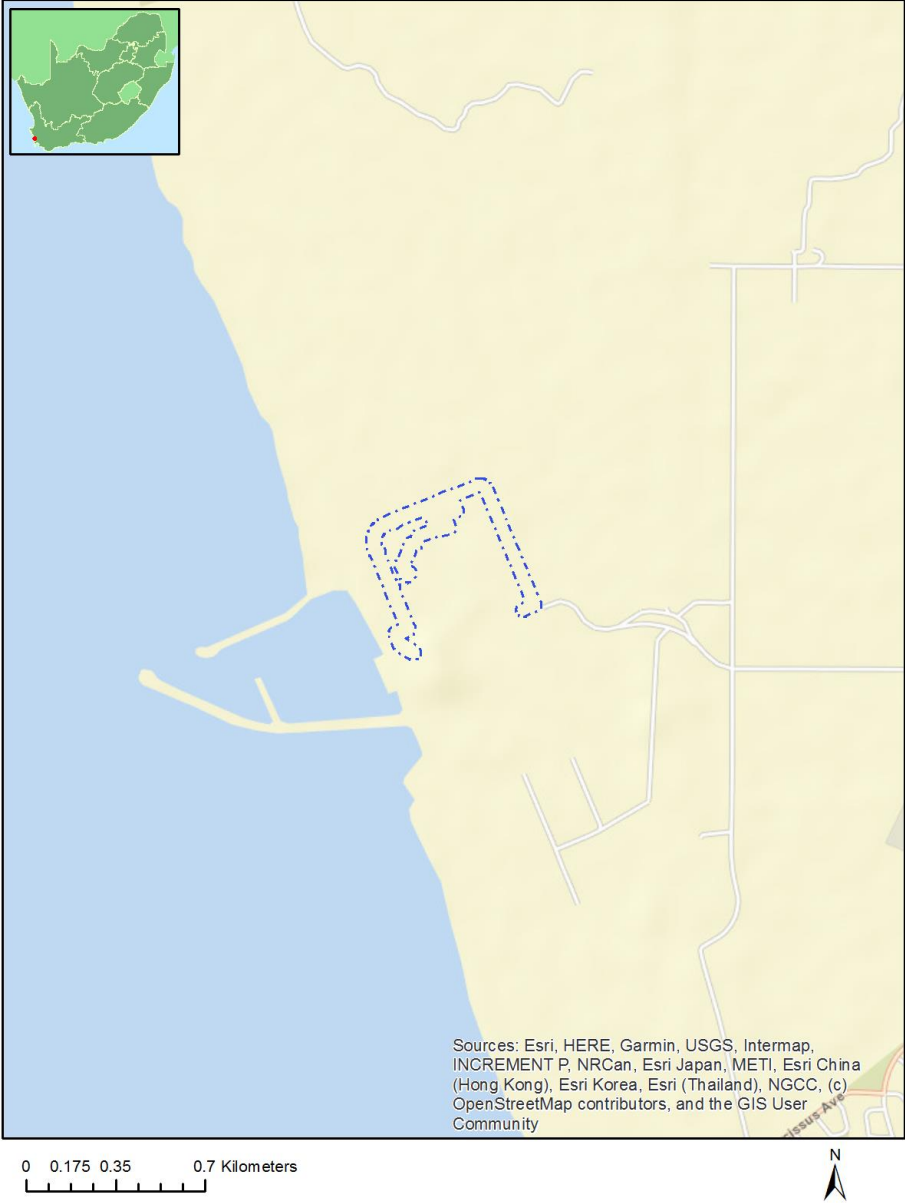
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Proposed Project Location

Orientation map 1: General location

General Orientation: Proposed Hardwater Reservoir and Associated Infrastructure



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		1552	0	33°39'58.74S	18°26'41.65E	Farm
2		1552	0	33°40'1.47S	18°26'42.67E	Farm Portion
3		34	0	33°40'7.57S	18°26'42.53E	Farm Portion
4		1375	0	33°40'46.11S	18°25'53.62E	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	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2109/AM2	Solar PV	Approved	22.8
2	12/12/20/2109/AM1	Solar PV	Approved	22.8
3	12/12/20/2217	Wind	Approved	21.4
4	12/12/20/2638/AM2	Wind	Approved	14.5

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.

5	12/12/20/2109/AM3	Solar PV	Approved	22.8
6	12/12/20/2217/AM2	Wind	Approved	21.3
7	12/12/20/2109	Solar PV	Approved	22.8
8	12/12/20/2638	Wind	Approved	14.5
9	12/12/20/2217/AM3	Wind	Approved	21.3
10	12/12/20/2638/AM3	Wind	Approved	14.5

Environmental Management Frameworks relevant to the application

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:

Services | Water services | Storage | Reservoirs.

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-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_EGI.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2023_Q3_Metadata.pdf
Main Electricity Transmission Substation	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Distribution_Transmission.pdf
Main Electricity Distribution Substation	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Distribution_Transmission.pdf
South African Protected Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SAPAD_OR_2023_Q3_Metadata.pdf

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

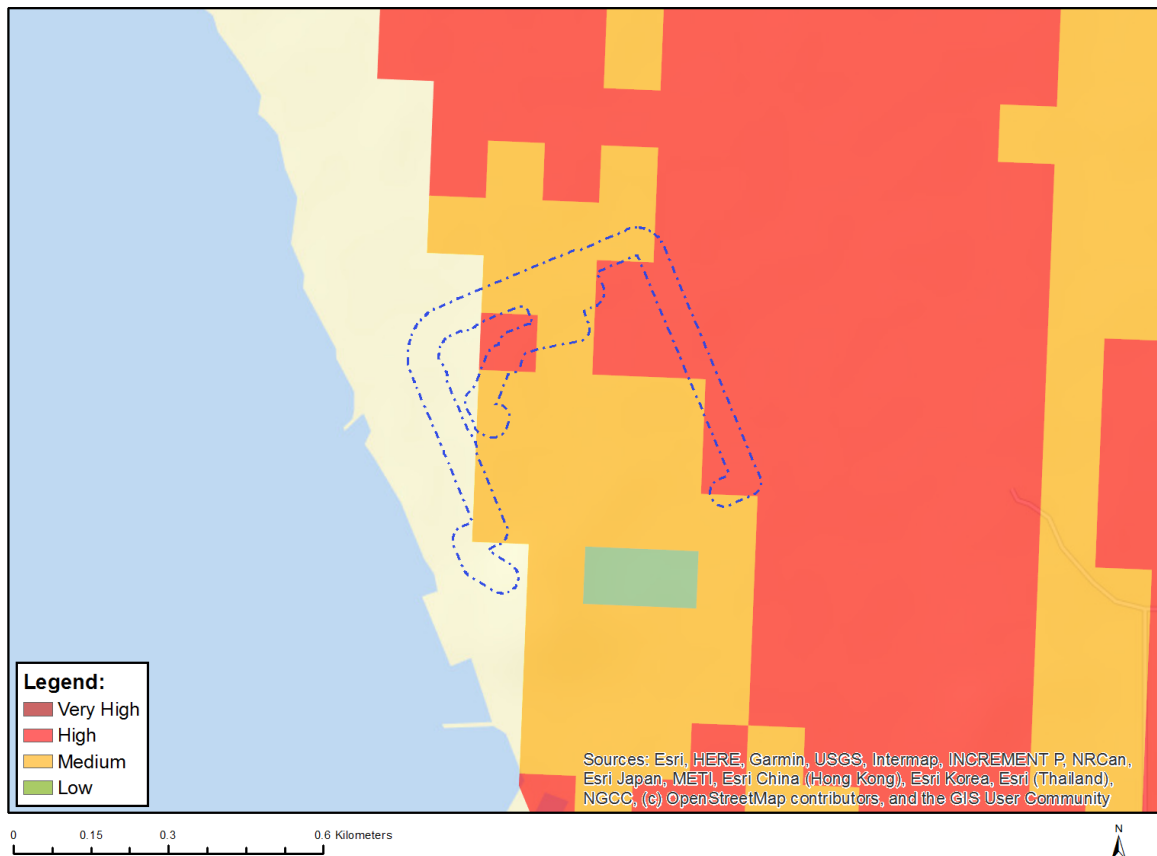
Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report,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

No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_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	Palaeontology 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 Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
7	Civil Aviation Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Civil_Aviation_Installations_Assessment_Protocols.pdf
8	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
9	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
10	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

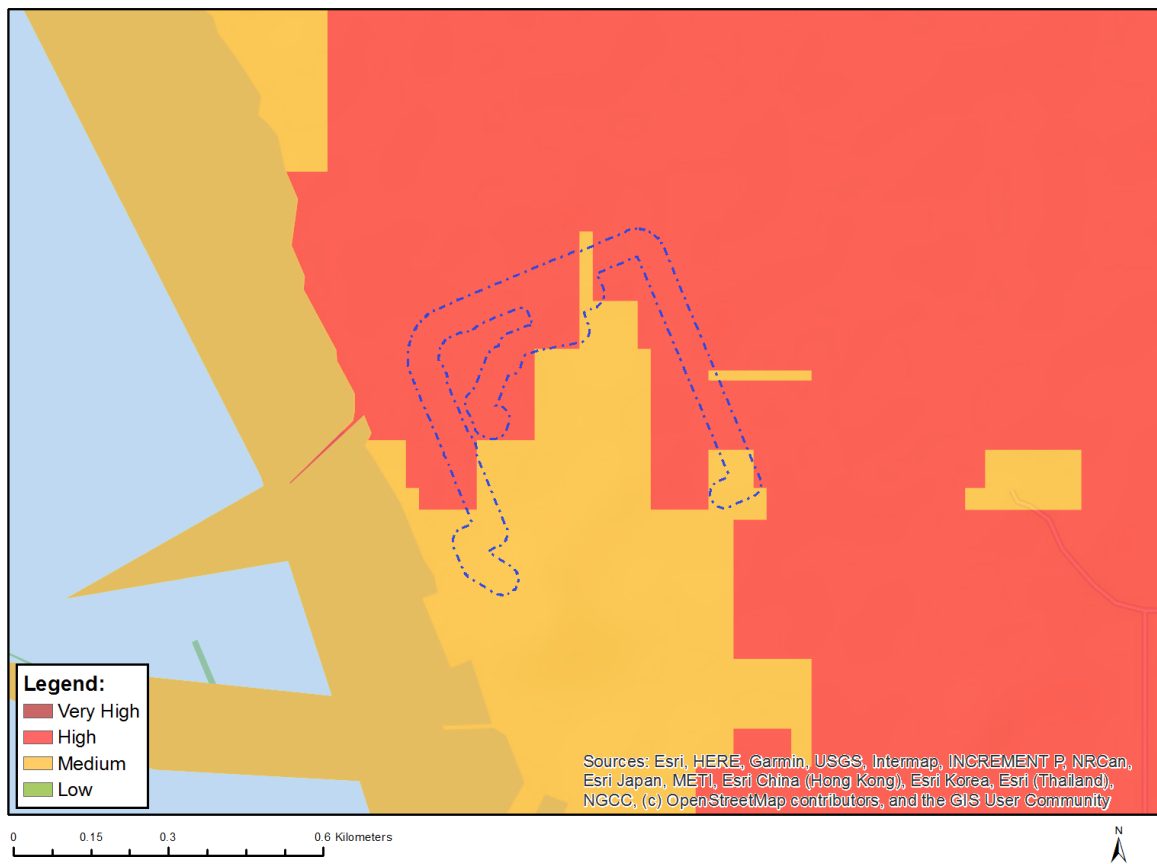


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



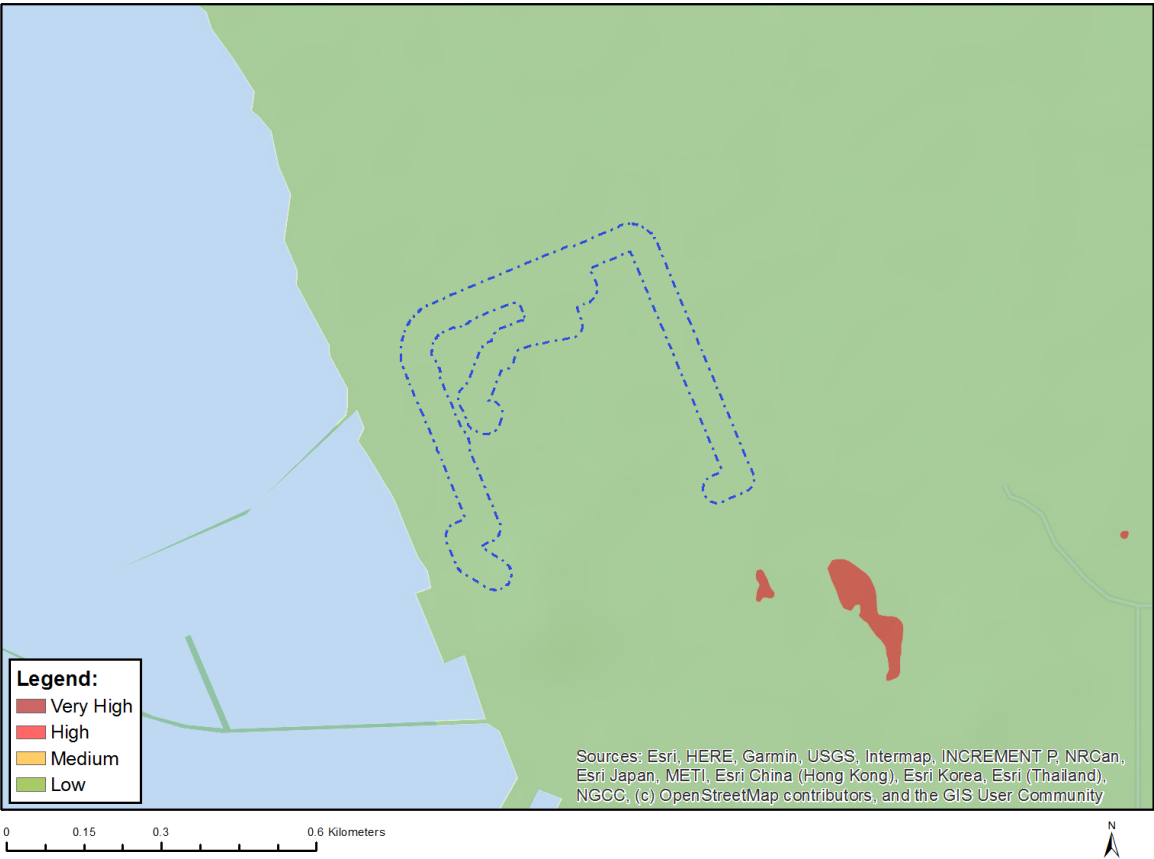
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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-Circus maurus
High	Aves-Afrotis afra
High	Aves-Circus ranivorus
Medium	Invertebrate-Pachysoma aesculapius
Medium	Invertebrate-Bullacris obliqua

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

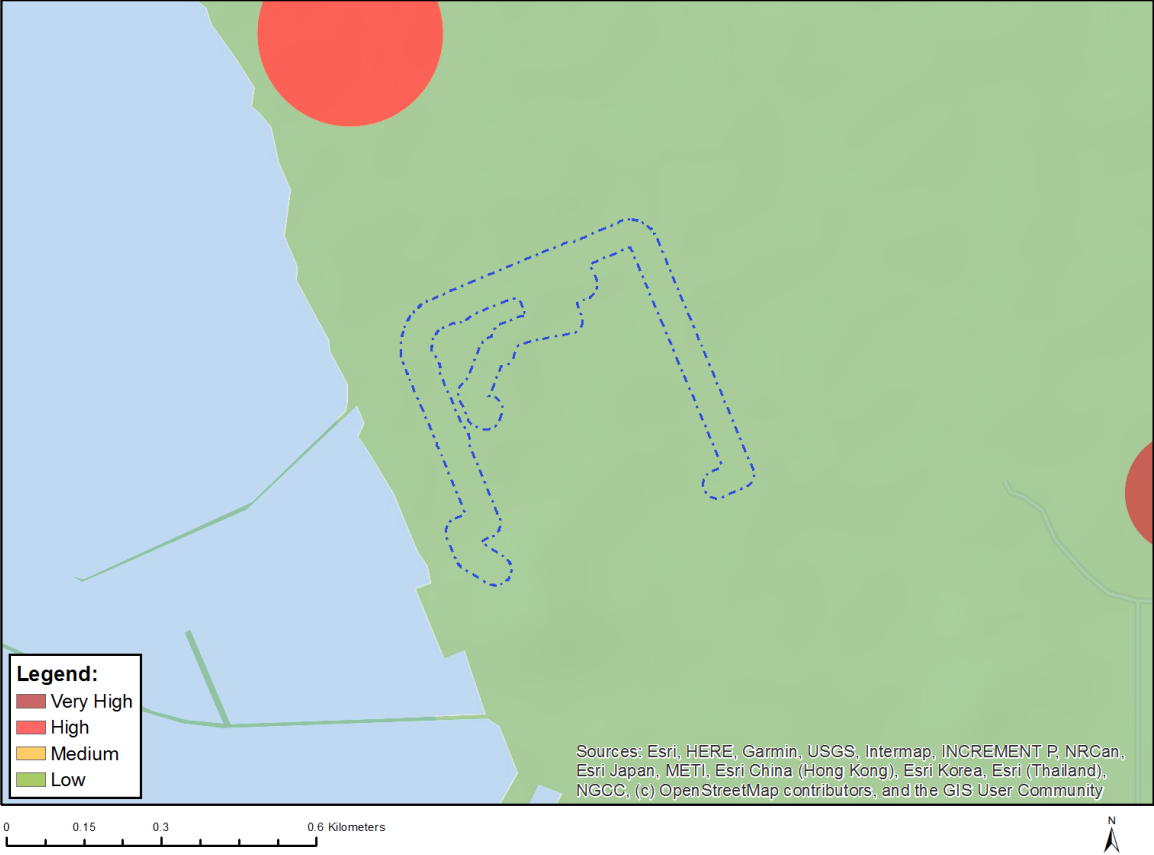


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

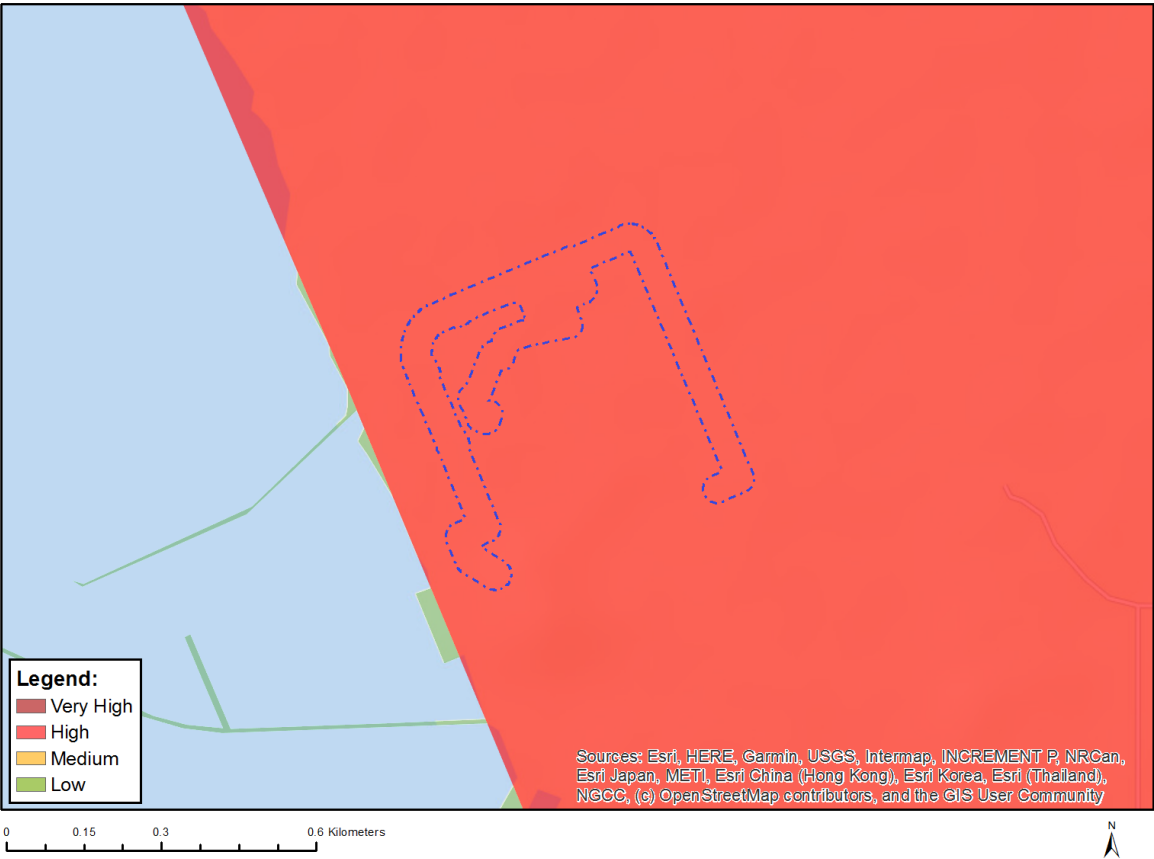


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

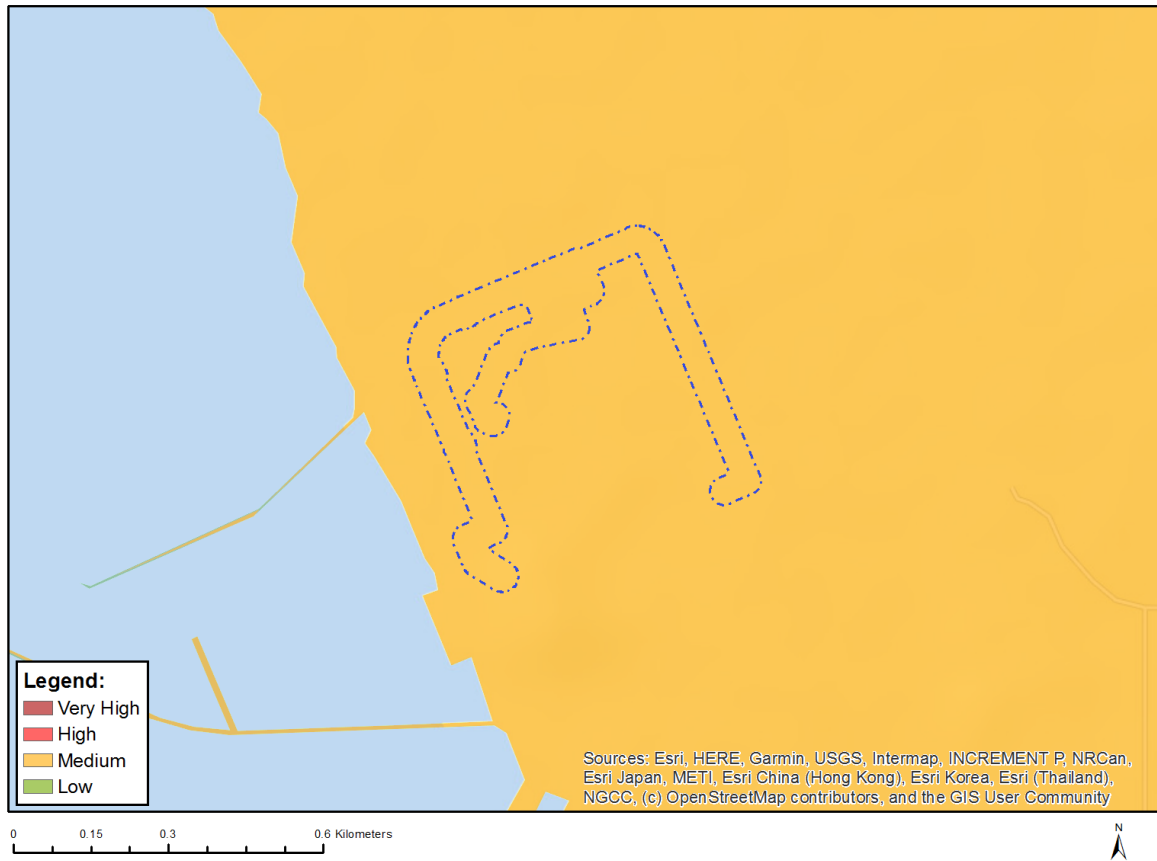


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
High	Dangerous and restricted airspace as demarcated

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

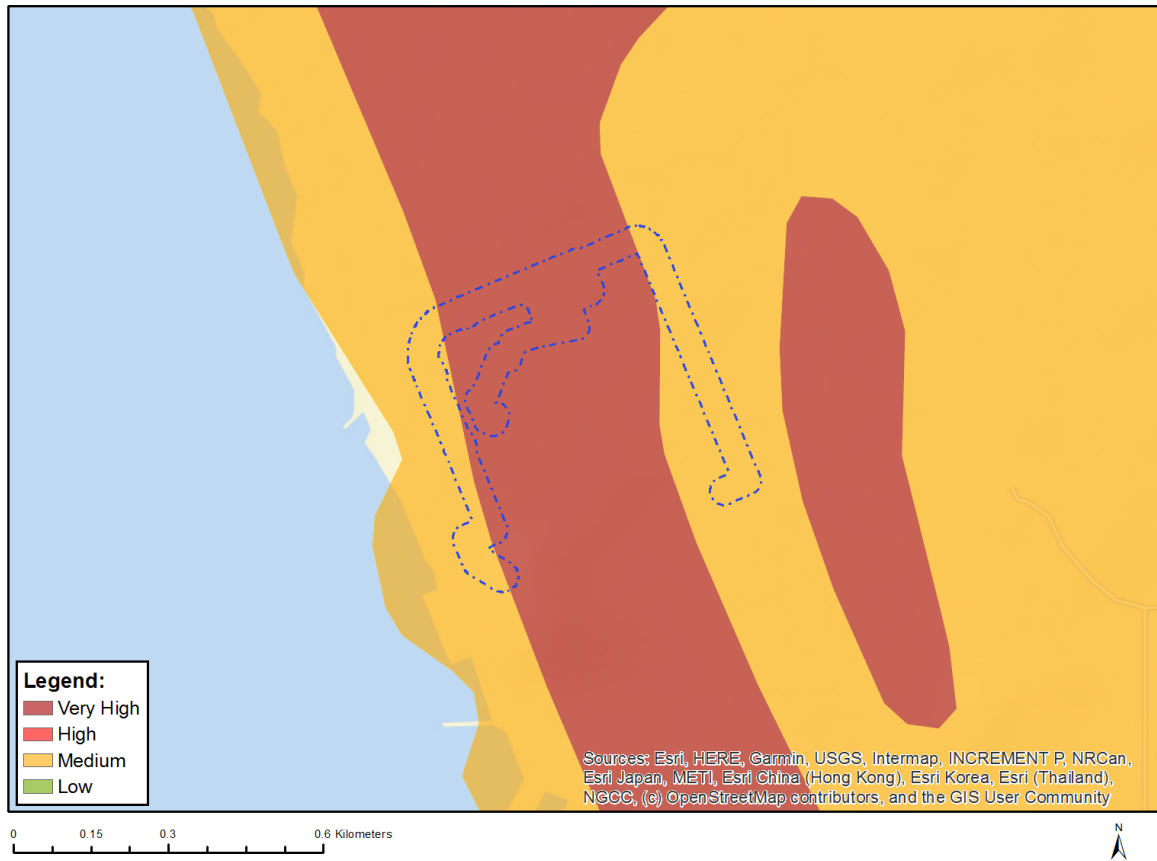


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Military and Defence Site

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

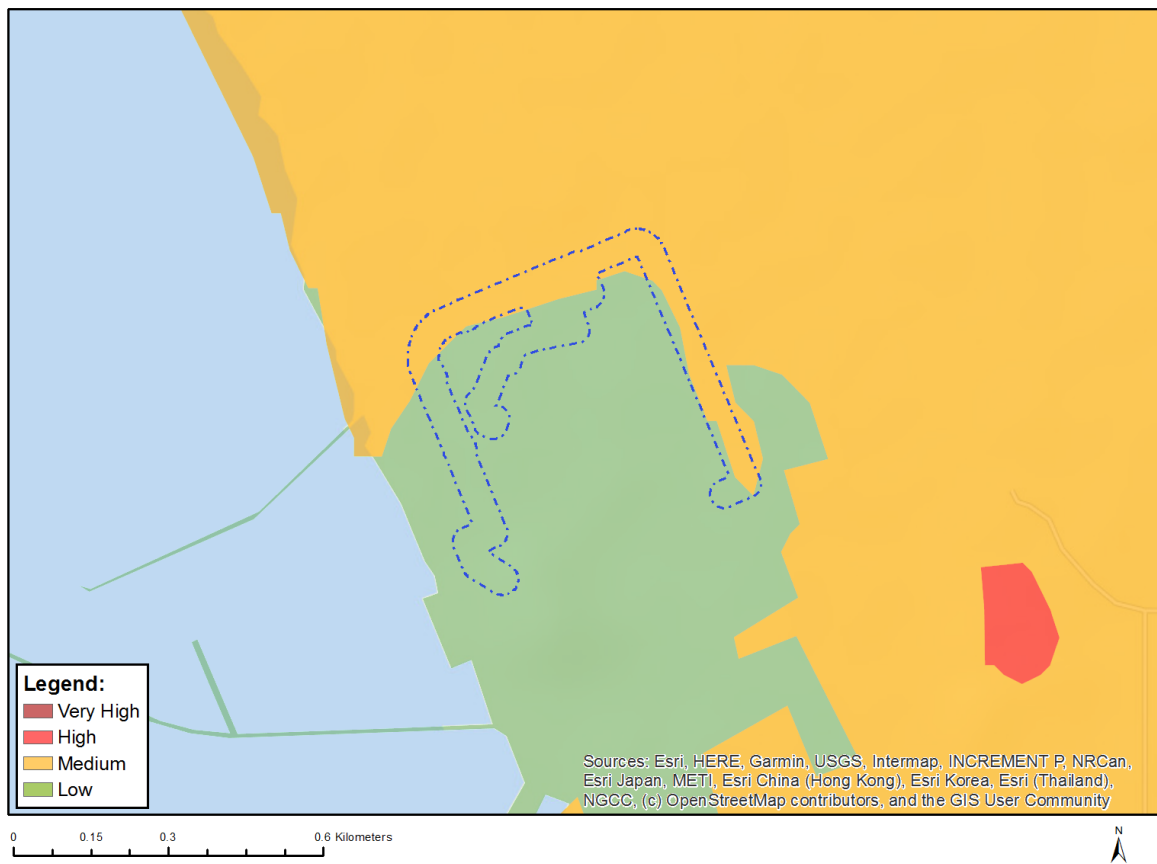


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
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)
Low	Low Sensitivity
Medium	Lampranthus stenus
Medium	Lampranthus tenuifolius
Medium	Cleretum clavatum
Medium	Ruschia geminiflora
Medium	Lessertia argentea
Medium	Psoralea glaucina
Medium	Indigofera platypoda
Medium	Indigofera psoraloides
Medium	Lebeckia plukenetiana
Medium	Podalyria sericea
Medium	Thesium litoreum
Medium	Leucospermum hypophyllocarpodendron subsp. canaliculatum

Medium	<i>Leucospermum hypophyllocarpodendron</i> subsp. <i>hypophyllocarpodendron</i>
Medium	<i>Leucospermum tomentosum</i>
Medium	<i>Manulea corymbosa</i>
Medium	Sensitive species 878
Medium	Sensitive species 816
Medium	<i>Hermannia procumbens</i> subsp. <i>procumbens</i>
Medium	<i>Galenia crystallina</i> var. <i>maritima</i>
Medium	<i>Isolepis venustula</i>
Medium	<i>Cannomois arenicola</i>
Medium	<i>Elegia prominens</i>
Medium	<i>Cynanchum zeyheri</i>
Medium	Sensitive species 985
Medium	<i>Gnidia spicata</i>
Medium	<i>Metalasia capitata</i>
Medium	<i>Steirodiscus tagetes</i>
Medium	<i>Cotula duckittiae</i>
Medium	<i>Cotula eckloniana</i>
Medium	<i>Oncosiphon africanum</i>
Medium	<i>Agathosma corymbosa</i>
Medium	<i>Agathosma glabrata</i>
Medium	<i>Cliffortia ericifolia</i>
Medium	<i>Cliffortia hirta</i>
Medium	<i>Cliffortia longifolia</i>
Medium	<i>Limonium purpuratum</i>
Medium	<i>Muraltia macropetala</i>
Medium	<i>Muraltia mitior</i>
Medium	Sensitive species 158
Medium	<i>Phylica plumosa</i> var. <i>squarrosa</i>
Medium	<i>Argyrobium velutinum</i>
Medium	<i>Xiphotheca reflexa</i>
Medium	Sensitive species 599
Medium	Sensitive species 654
Medium	<i>Lachnaea grandiflora</i>
Medium	<i>Cotula pusilla</i>
Medium	<i>Caesia sabulosa</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	Koeberg Private Nature Reserve
Very High	EN_Cape Flats Dune Strandveld