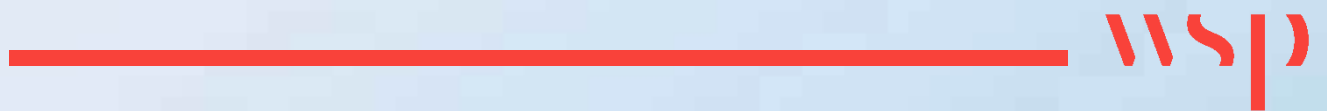


Appendix F

SITE SENSITIVITY VERIFICATION REPORT



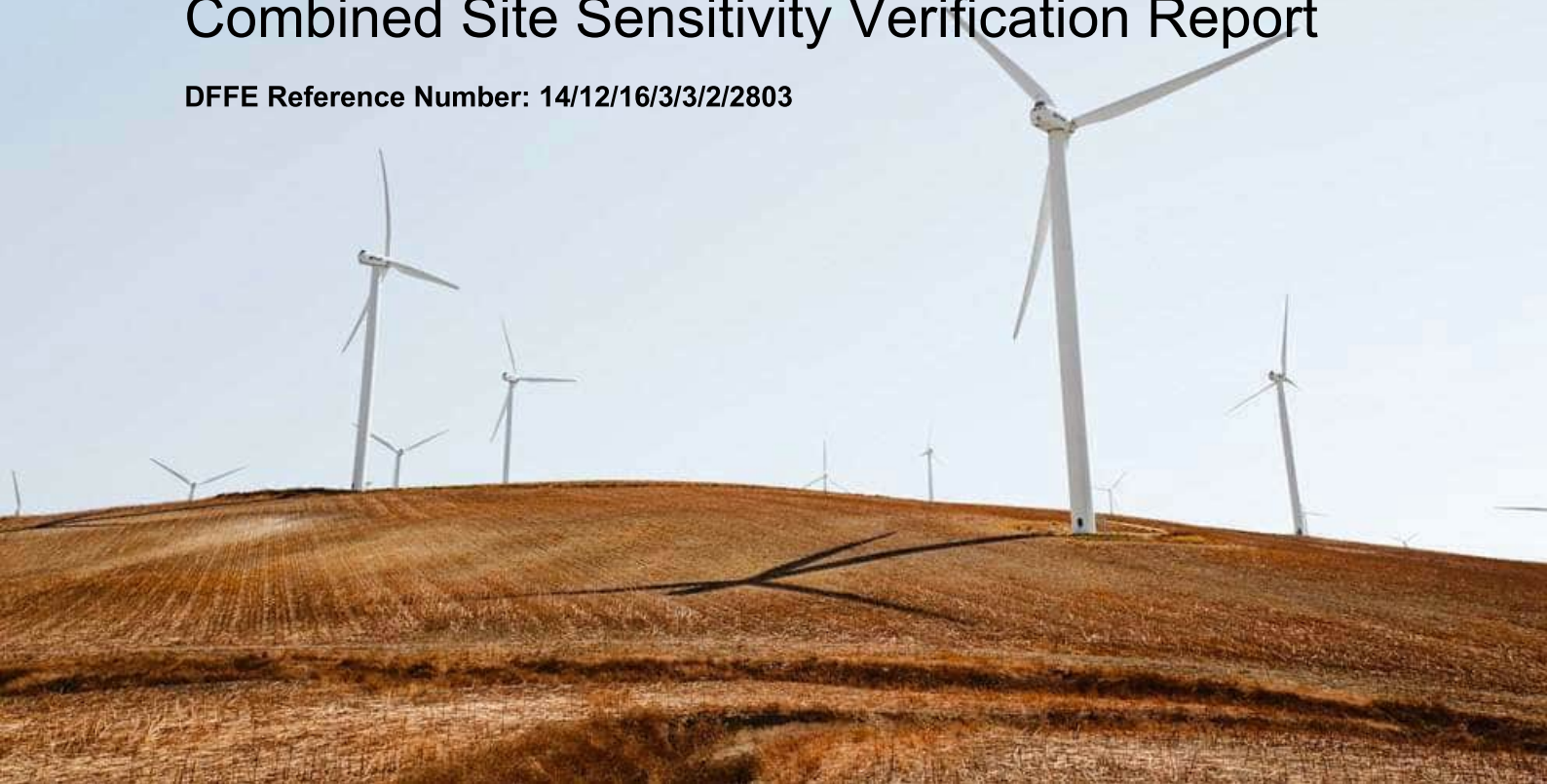


ABO Uvemvane Wind Energy Facility 1 (Pty)
Ltd

ABO UVEMVANE WIND ENERGY FACILITY 1 & 2, NEAR BALFOUR IN THE MPUMALANGA PROVINCE AND HEIDELBERG IN THE GAUTENG PROVINCE

Combined Site Sensitivity Verification Report

DFFE Reference Number: 14/12/16/3/3/2/2803





ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd

**ABO ABO UVEMVANE WIND ENERGY
FACILITY 1 & 2, NEAR BALFOUR IN THE
MPUMALANGA PROVINCE AND HEIDELBERG
IN THE GAUTENG PROVINCE**

Combined Site Sensitivity Verification Report

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 41106304

OUR REF. NO. 14/12/16/3/3/2/2803

DATE: AUGUST 2026



ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd

**ABO ABO UVEMVANE WIND ENERGY
FACILITY 1 & 2, NEAR BALFOUR IN THE
MPUMALANGA PROVINCE AND HEIDELBERG
IN THE GAUTENG PROVINCE**

Combined Site Sensitivity Verification Report

WSP

Building 1, Maxwell Office Park
Magwa Crescent West, Waterfall City
Midrand, 1685
South Africa

Phone: +27 11 254 4800

WSP.com



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Uvemvane WEF 1&2_Combined SSVR DFFE Temp Ref: 2024-11-0018	<u>Uvemvane WEF 1&2_Combined SSVR</u> <u>DFFE Ref: 14/12/16/3/3/2/2803</u>		
Date	February 2026	<u>August 2026</u>		
Prepared by	Palisa Bhengu	<u>Jashmika Maharaj</u>		
Signature		 Digitally signed by Maharaj, Jashmika (ZAJM05082)		
Checked by	Jashmika Maharaj	<u>Ashlea Strong</u>		
Signature		 Digitally signed by Ashlea.Strong@wsp.com DN: cn=Ashlea.Strong@wsp.com Date: 2026.08.23 20:09:36 +02'00'		
Authorised by	Ashlea Strong	<u>Ashlea Strong</u>		
Signature		 Digitally signed by Ashlea.Strong@wsp.com DN: cn=Ashlea.Strong@wsp.com Date: 2026.08.23 20:13:07 +02'00'		
Project number	41106304	<u>41106304</u>		
Report number	01	<u>01</u>		
File reference	\\corp.pbwan.net\za\Central_Data\Projects\41100xxx\41106304 - ABO Uvemvane WEF\41 PA\01-Reports\06-SSVR\			

CONTENTS

1	INTRODUCTION	1
1.1	PURPOSE OF THE REPORT	1
2	METHODOLOGY	3
3	PROJECT AND SITE OVERVIEW	5
4	FINDINGS	11
4.1	ENVIRONMENTAL SENSITIVITY	11
4.2	SPECIALIST ASSESSMENTS	12
4.3	SITE SENSITIVITY VERIFICATION SUMMARY	84
4.4	CONSOLIDATED SITE SENSITIVITY	96
5	CONCLUSION	101

TABLES

Table 2-1 - Site Sensitivity Verification and Minimum Report Content Requirements	3
Table 2-2 - Details of the Environmental Assessment Practitioner	4
Table 3-1 - Key Technical Details for the Project	5
Table 4-1 - Sensitivities identified in the DFFE Screening Report (WEF 1)	11
Table 4-2 - Sensitivities identified in the DFFE Screening Report (WEF 2)	12
Table 4-3 - Specialist Studies identified by the DFFE Screening Tool	13
Table 4-4 summarizes the conclusions of this sensitivity assessment, which are visually presented in Figure 4-2. Table 4-4 - Summary of the screening tool vs. specialist verified sensitivities	17
Table 4-5 - Summary of the screening tool vs specialist verified sensitivities.	51

Table 4-6 - Site sensitivity features as per the DFFE Screening Tool.	70
Table 4-7 - Assessment Protocols and Site Sensitivity Verifications for ABO Uvemvane WEF 1	84
Table 4-8 - Assessment Protocols and Site Sensitivity Verifications for ABO Uvemvane WEF 2	90

FIGURES

Figure 3-1 - Original Layout for ABO Uvemvane WEF 1 (Pre-scoping phase)	8
Figure 3-2 - Original Layout for ABO Uvemvane WEF 2 (Pre-scoping phase)	9
Figure 3-3 - Regional locality map and revised layout for ABO Uvemvane WEF 1 (DEIR Phase)	10
Figure 4-1 - Map of Agricultural Theme Sensitivity (Source: DFFE Screening Report, 2024)	16
Figure 4-2 - Sensitivity rating as assigned by this assessment on the agricultural sensitivity theme for the project area	18
Figure 4-3 - Map of Animal Species Theme Sensitivity (Source: DFFE Screening Report, 2024)	20
Figure 4-4 - Map of Aquatic Biodiversity Theme Sensitivity (Source: DFFE Screening Report, 2024)	21
Figure 4-5 - Mapped aquatic features within the project area (red polygons), shown in Google Earth. The recommended buffer or development setback areas are indicated by the yellow areas.	23
Figure 4-6 - Mapped sensitivity of aquatic features within the project area (pink polygon), shown in Google Earth.	24
Figure 4-7 - Map of Archaeological and Cultural Heritage Theme Sensitivity (Source: DFFE Screening Report, 2024)	25
Figure 4-8 - All heritage resources within proximity to the development area with recommended mitigation measures	26
Figure 4-9 - Map of Avian (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)	27
Figure 4-10 – Avifaunal Constraints Map	28
Figure 4-11 - Map of Bat (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)	29

Figure 4-12 – Suggested buffers for bat sensitive areas that could be determined based on data collected during the current survey period.	30
Figure 4-13 - Map of Civil Aviation (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)	31
Figure 4-14 - Map of Civil Aviation (Wind) Theme Sensitivity	32
Figure 4-15 - Map of Defence (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)	33
Figure 4-16 - Map of Flicker Theme Sensitivity (Source: DFFE Screening Report, 2024).	34
Figure 4-17 - Map of Landscape (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)	35
Figure 4-18 – Palaeontological sensitivity Map	37
Figure 4-19 - Map of Noise Theme Sensitivity (Source: DFFE Screening Report, 2024)	38
Figure 4-20 - Aerial Image indicating closest Noise-sensitive developments to the ABO Uvemvane 1 WEF project	39
Figure 4-21 - Preliminary 500m no-go Buffer	40
Figure 4-22 - Map of Plant Species Theme Sensitivity (Source: DFFE Screening Report, 2024)	41
Figure 4-23 - Map of RFI Theme Sensitivity (Source: DFFE Screening Report, 2024)	42
Figure 4-24 - Map of Terrestrial Biodiversity Theme Sensitivity (Source: DFFE Screening Report , 2024)	43
Figure 4-25 - Uvemvane WEF 1 in relation to the Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) of the Gauteng C-Plan (2011) and the MBSP (2024).	45
Figure 4-26 - Uvemvane WEF 1 in relation to the Priority Focus Areas of the National Protected Area Expansion Strategy (2018)	46
Figure 4-27 - Uvemvane WEF 1 in relation to the Priority Focus Areas of the Mpumalanga Protected Area Expansion Strategy – 20 Year Plan	47
Figure 4-28 - Uvemvane WEF 1 in relation to the Red List of Threatened Ecosystems (SANBI 2021)	48
Figure 4-29 - Map of Vulture Species Theme Sensitivity WEF 1	49
Figure 4-30 - Information obtained from the National Web-based Environmental screening Tool for the ABO Uvemvane WEF 2 project area.	50
Figure 4-31 - Sensitivity rating as assigned by the specialist assessment on the agricultural sensitivity theme for the project area.	52
Figure 4-32 - Animal species sensitivity for the project site	54

Figure 4-33 - Map of Aquatic Biodiversity theme sensitivity	56
Figure 4-34 - Mapped aquatic features within the project area (red polygons), shown in Google Earth. The recommended buffer or development setback areas are indicated by the yellow areas.	57
Figure 4-35 - Mapped sensitivity of aquatic features within the project area (pink polygon), shown in Google Earth.	58
Figure 4-36 - Map of archaeological and cultural heritage theme sensitivity	59
Figure 4-37 - All heritage resources within proximity to the development area with recommended mitigation measures.	61
Figure 4-38 - Map of Avian (Wind) theme sensitivity	62
Figure 4-39 - Avifaunal Constraints Map	64
Figure 4-40 - Map of Bat (Wind) Theme Sensitivity	65
Figure 4-41 - Map of Civil Aviation Theme sensitivity	66
Figure 4-42 - Map of Civil Aviation (Wind) Theme Sensitivity	67
Figure 4-43 - Map of Defence (Wind) Theme sensitivity	68
Figure 4-44 - Map of Flicker Theme Sensitivity	69
Figure 4-45 - Map of Landscape (Wind) Theme Sensitivity	70
Figure 4-46 - Overall visual sensitivity of the proposed ABO Uvemvane WEF 2	72
Figure 4-47 - Map of Palaeontology Theme Sensitivity	73
Figure 4-48 - Palaeontological sensitivity of the development area from SAHRIS.	74
Figure 4-49 - Map of Noise Theme Sensitivity	75
Figure 4-50 - Aerial Image indicating closest Noise-sensitive developments to the Uvemvane WEF 2 project	76
Figure 4-51 - Map of plant species theme sensitivity	77
Figure 4-52 - Map of RFI theme sensitivity WEF 2 (source: DFE screening report ,2024)	78
Figure 4-53 - Map of Terrestrial Biodiversity Theme Sensitivity	79
Figure 4-54 - Uvemvane WEF 2 in relation to the Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) of the Gauteng C-Plan (2011) and the adjacent MBSP (2022).	80
Figure 4-55 - Uvemvane WEF 2 in relation to the Priority Focus Areas of the National Protected Area Expansion Strategy (2018).	81

Figure 4-56 - Uvemvane WEF 2 in relation to the Red List of Threatened Ecosystems (SANBI 2021).	82
Figure 4-57 - Map of Vulture Species Theme Sensitivity WEF 2	83
Figure 4-58 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Original Layout)	97
Figure 4-59 - Consolidated site sensitivity map for ABO Uvemvane WEF 2 (Original Layout)	98
Figure 4-60 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Revised Layout – Scoping Phase)	99
Figure 4-61 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Final Layout – DEIR Phase)	100

APPENDICES

APPENDIX A

DFFE SCREENING TOOL REPORT

APPENDIX B

EAP CV

APPENDIX C

SPECIALIST SSVRS

APPENDIX C.1

AGRICULTURE SSVR

APPENDIX C.2

TERRESTRIAL BIODIVERSITY SSVR (INCLUDING PLANT AND ANIMAL SPECIES THEMES)

APPENDIX C.3

AQUATIC BIODIVERSITY SSVR

APPENDIX C.4

ARCHAEOLOGICAL, CULTURAL HERITAGE AND PALAEOONTOLOGICAL SSVR

APPENDIX C.5

AVIFAUNA SSVR

APPENDIX C.6



BATS SSVR

APPENDIX C.7

VISUAL SSVR (INCLUDING FLICKER)

APPENDIX C.8

NOISE SSVR

APPENDIX C.9

TRAFFIC SSVR

APPENDIX D

CORRESPONDENCE FROM TELECOM STAKEHOLDERS

1 INTRODUCTION

Changes made on this report have been underlined in this report for ease of reference.

ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd, proposes the development of ABO Uvemvane Wind Energy Facility 1 (WEF 1), a commercial wind energy generation facility near Heidelberg and Balfour in the Gauteng and Mpumalanga Provinces respectively. WEF 1 was previously proposed as part of a WEF Cluster, comprising of ABO Uvemvane Wind Energy Facility 1 and ABO Uvemvane Wind Energy Facility 2. However, the verified sensitivities resulted in significant changes to the original layouts and resulted in a layout that would be suitable for the development of a single WEF.

This Site Sensitivity Verification Report (SSVR) is a combined report for both ABO Uvemvane WEF 1 and ABO Uvemvane WEF 2. However, as detailed in the following report only ABO Uvemvane WEF 1 forms part of the Application for Environmental Authorisation in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA).

1.1 PURPOSE OF THE REPORT

WSP Group Africa (Pty) Ltd (WSP) has been appointed as the independent Environmental Assessment Practitioner (EAP) by ABO Energy South Africa (Pty) Ltd on behalf of the Applicant (ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd) to undertake the required Scoping and Environmental Impact Reporting (S&EIR) process.

The DFFE has developed the National Web-based Environmental Screening Tool in order to flag areas of potential environmental sensitivity related to a site as well as a development footprint and produces the screening report required in terms of regulation 16 (1)(v) of the EIA Regulations (2014, as amended). The Notice of the requirement to submit a report generated by the national web-based environmental screening tool in terms of section 24(5)(h) of the NEMA, 1998 (Act No 107 of 1998) and regulation 16(1)(b)(v) of the EIA regulations, 2014, as amended (GN 960 of July 2019) states that the submission of a report generated from the national web-based environmental screening tool, as contemplated in Regulation 16(1)(b)(v) of the EIA Regulations, 2014, published under Government Notice No. R982 in Government Gazette No. 38282 of 4 December 2014, as amended, is compulsory when submitting an application for environmental authorisation in terms of regulation 19 and regulation 21 of the EIA Regulations, 2014 as of 04 October 2019.

The Screening Report generated by the National Web-based Environmental Screening Tool contains a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development footprint as well as the most environmentally sensitive features on the footprint based on the footprint sensitivity screening results for the application classification that was selected.

A screening report for each facility was generated on 06 November 2024 and is attached as **Appendix A**. The Screening Report for the project identified various sensitivities for the site. The report also generated a list of specialist assessments that should form part of the legalisation process based on the development type and the environmental sensitivity of the site. Assessment Protocols in the report provide minimum information to be included in a specialist report to facilitate decision-making.

The Screening Report recognises that “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 footprint situation.” This report therefore



addresses the findings of the Screening Report and provides a motivation for the proposed specialist studies identified to be conducted.

It also discusses whether the specialist studies forming part of this project are required to comply with the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Section 24(5) (a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation (“the Protocols”) (Government Notice No. 320 as published in Government Gazette No. 43110 on 20 March 2020 (GNR 320)).

The extent of the proposed project area, which spans two provinces and three local municipalities, necessitates consideration of multiple environmental, social and administrative contexts. While every effort has been made to present information in a clear and accessible manner, the level of detail included in this report is intended to ensure a comprehensive, transparent and balanced assessment of all relevant issues and jurisdictions.

2 METHODOLOGY

In line with GNR 320, the site sensitivity verification requirements have been achieved as per **Table 2-1** below.

Table 2-1 - Site Sensitivity Verification and Minimum Report Content Requirements

Requirement	Reference
1.1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.	This SSVR was compiled by Ashlea Strong, a registered Environmental Assessment Practitioner (EAP) utilising the inputs of various specialists. Details of the EAP are provided in Table 2-2 below. The CV of the EAP is included in Appendix B .
1.2. The site sensitivity verification must be undertaken through the use of: (a) a desk top analysis, using satellite imagery; (b) a preliminary on-site inspection; and (c) any other available and relevant information.	The SSVR was undertaken through the use of the following: <ul style="list-style-type: none"> ■ Available satellite imagery; ■ Various desktop information sources; ■ Site inspections by the various specialists that took place between September and November 2025; and ■ Additional supporting information supplied by specialists.
1.3. The outcome of the site sensitivity verification must be recorded in the form of a report that-- (a) confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;	A summary of the environmental sensitivities identified by the DFFE Screening Tool and the confirmed sensitivity is provided in Appendix A . Motivation for the confirmed sensitivity rating as well as the discussion regarding the verification of the sensitivities is provided in Section 4.
(b) contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and	Motivation for the confirmed sensitivity rating is provided in Section 4.
(c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations ¹ (EIA Regulations).	<u>This SSVR is being submitted as Appendix F of the Draft Environmental Impact Assessment Report (DEIR) .</u>

The CV of the EAP is available in **Appendix B** and is attached in DEIR as **Appendix A.1**. The EAP declaration of interest and undertaking is included in the DEIR as Appendix. **Table 2-2** has the relevant contact details of the EAP.

Table 2-2 - Details of the Environmental Assessment Practitioner

Environmental Assessment Practitioner (EAP)	WSP Group Africa (Pty) Ltd
Contact Person:	Ashlea Strong
Postal Address:	Building 1, Maxwell Office Park, Magwa Cres, Midrand, 1685
Telephone:	011 361 1392
Fax:	011 361 1381
E-mail:	Ashlea.Strong@wsp.com
Qualifications:	<ul style="list-style-type: none"> ■ Masters in Environmental Management, University of the Free State ■ B Tech, Nature Conservation, Technikon SA ■ National Diploma in Nature Conservation, Technikon SA
EAPASA Registration Number:	EAPASA (2019/1005)

Statement of Independence

Neither WSP nor any of the authors of this Report have any material present or contingent interest in the outcome of this Report, nor do they have any business, financial, personal, or other interest that could be reasonably regarded as being capable of affecting their independence. WSP has no beneficial interest in the outcome of the assessment.

3 PROJECT AND SITE OVERVIEW

During the Pre-Scoping phase of the project, a preferred study area with a total combined extent of approximately 8,200 ha was identified as a technically suitable project site for the development of the WEF project, within this an affected area of approximately 7700 ha was assessed. The affected area has been reduced to 600ha and was assessed during the Draft EIA phase.

Originally, ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd proposed to develop two WEFs in the study area with a combined total of 66 turbines, however, the verified sensitivities resulted in significant changes to the original layouts and resulted in a single layout that would be suitable for the development of a single WEF.

The original layouts proposed for ABO Uvemvane WEF 1 and ABO Uvemvane WEF 2 are illustrated in **Figure 3-1** and **Figure 3-2**.

Following the layout revision, ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd (during the Draft EIA phase) now propose to develop only the ABO Uvemvane Wind Energy Facility 1 (WEF 1), a commercial WEF comprising up to 20 turbines and with a total generation capacity of up to 170 MWac as well as associated infrastructure. The proposed ABO Uvemvane WEF 1 will be located approximately 9km west of the town of Balfour in the Mpumalanga Province in the Dipaleseng Local Municipality within the Gert Sibande District Municipality and approximately 14km south-east of the town Heidelberg in the Gauteng Province in the Lesedi & Midvaal Local Municipalities within the Sedibeng District Municipality.

It is anticipated that the proposed WEF would have a total (permanent) development footprint of up to 67.2 ha, which is approximately 1.12% of the total project area (i.e., affected properties)¹.

The locality of ABO Uvemvane WEF 1 reflecting the revised layout is illustrated in **Figure 3-3**.

The ABO Uvemvane WEF 1 facility will comprise of the following components shown in Table 3-1.

Table 3-1 - Key Technical Details for the Project (Draft EIA Phase)

<u>Aspect</u>	<u>Details</u>
<u>Total Area of Applicable Farm Portions</u>	<ul style="list-style-type: none"> A preferred study area with a total combined extent of approximately 8,200 ha was identified as a technically suitable project site for the development of the WEF project, within this an affected area of approximately 6000 ha has been assessed.

¹ Note regarding proposed facility capacity, footprint, turbine number and maximum turbine capacity: Note that the proposed development entails a proposed maximum development footprint for a combination of factors, namely facility capacity in terms of overall MWac, development footprint in terms of extent turbine numbers which caps the proposed number of turbines that could be developed within the facility as well as maximum turbine capacity for any given turbine, whereby any given aspect has maximum development parameters that has been assessed and the first lowest parameter achieved in this regard would determine the remaining specifications within the said maximum limits (i.e. all maximum parameters could not be achieved simultaneously).

<u>Aspect</u>	<u>Details</u>
<u>Total Buildable Area (i.e. likely footprint area)</u>	<ul style="list-style-type: none"> Approximately 67.2 ha (1.12% of the total project area): <ul style="list-style-type: none"> Turbines/ hardstands/foundations: up to 1Ha per turbine (up to 20ha) Roads: up to 31km (approx. 18km of which are existing roads to be widened) and up to 33ha Electrical Infrastructure Hub: up to 7ha Temporary Laydown Areas: 4 x laydown areas (includes concrete batching plant) totalling up to 15ha Internal Underground Cabling: up to 31km, but nothing beyond proposed roads so has been included in road footprint 33kV OHL/underground facility connection: Up to 0.02ha
<u>Export Capacity</u>	<ul style="list-style-type: none"> Up to 170MWac
<u>Technology</u>	<ul style="list-style-type: none"> Wind
<u>Number of Wind Turbines</u>	<ul style="list-style-type: none"> Up to 20
<u>Turbine Specs/ Aspects</u>	<ul style="list-style-type: none"> Maximum hub height 180 m; Maximum blade length 100 m; Maximum rotor diameter 200 m; Maximum capacity per turbine 10 MW; A transformer at the base of each turbine; Concrete turbine foundations up to 1 ha each; Turbine, crane, and blade hardstands (included in the abovementioned 1 ha).
<u>Electrical Infrastructure Hub (with collector sub-station, sub-station, and BESS infrastructure)</u>	<ul style="list-style-type: none"> Three (3) locations have been assessed and are being applied for noting that only one will be constructed based on technical feasibility to be confirmed at pre-construction stage (Up to 7ha)
<u>Construction camp and laydown area</u>	<ul style="list-style-type: none"> 4 temporary laydown areas/ construction compounds (includes concrete batching), totalling up to 15 ha, would be fenced with access control.
<u>Access Routes</u>	<ul style="list-style-type: none"> Five (5) existing routes; four of these are off existing unnamed farm roads (originating from the D1220 and P243/1), and one is off Lagerspoort Road from Heidelberg - Balfour Road (R23). The Details of the access would be as per the recommendations in the Transport Impact Assessment.
<u>Internal Roads</u>	<ul style="list-style-type: none"> Up to 31 km length (approx. 18km of which are existing roads to be widened). Primary/main access roads as well as internal road reticulation (note that existing roads/disturbed areas would be used as far as possible, and for the proposed roads, a corridor of up to 12 m wide may be temporarily impacted upon during construction and be rehabilitated to up to 10 m wide after construction), inclusive of stormwater infrastructure where relevant.

<u>Aspect</u>	<u>Details</u>
<u>Associated infrastructure</u>	<p>Includes the following (to be located within the proposed development footprint):</p> <ul style="list-style-type: none"> ■ <u>Associated internal electrical reticulation/ cabling (i.e., low- and medium voltage powerlines), underground as far as is feasible, and to run within the proposed road footprint/route as far as possible;</u> ■ <u>A 33kV overhead/underground line to connect the northern and southern portions of the facility; and</u> ■ <u>On-site electrical infrastructure hub (up to 7 ha in extent). Note there are three (3) locations assessed as options, however only one will be constructed, consisting of:</u> <ul style="list-style-type: none"> • <u>On-site substation and associated infrastructure;</u> • <u>Additional step-up/ transformation /collector /switchyard infrastructure;</u> • <u>Auxiliary buildings, including but not limited to O&M building(s) administrative buildings, workshops, gatehouses, security buildings, control centres, offices, visitor centres, warehouses, etc.;</u> • <u>The installation of a communications tower (maximum height 32 m) and/or lighting mast (maximum height 25 m); and</u> • <u>BESS.</u>

Note that separate applications will be made for the grid connection options under consideration, however the impacts of the potential grid connection scenarios will be addressed in this process from a cumulative perspective.

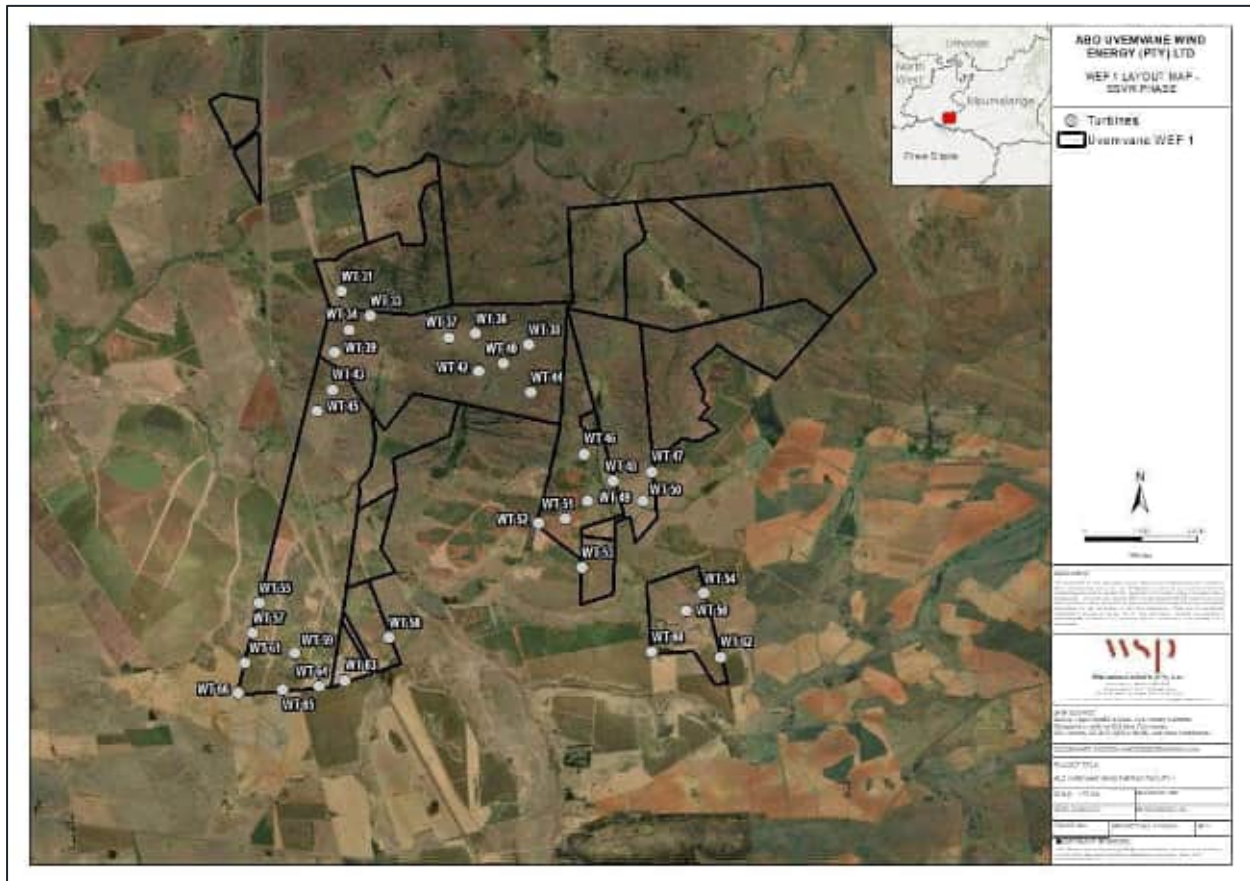


Figure 3-1 - Original Layout for ABO Uvemvane WEF 1 (Pre-scoping phase)

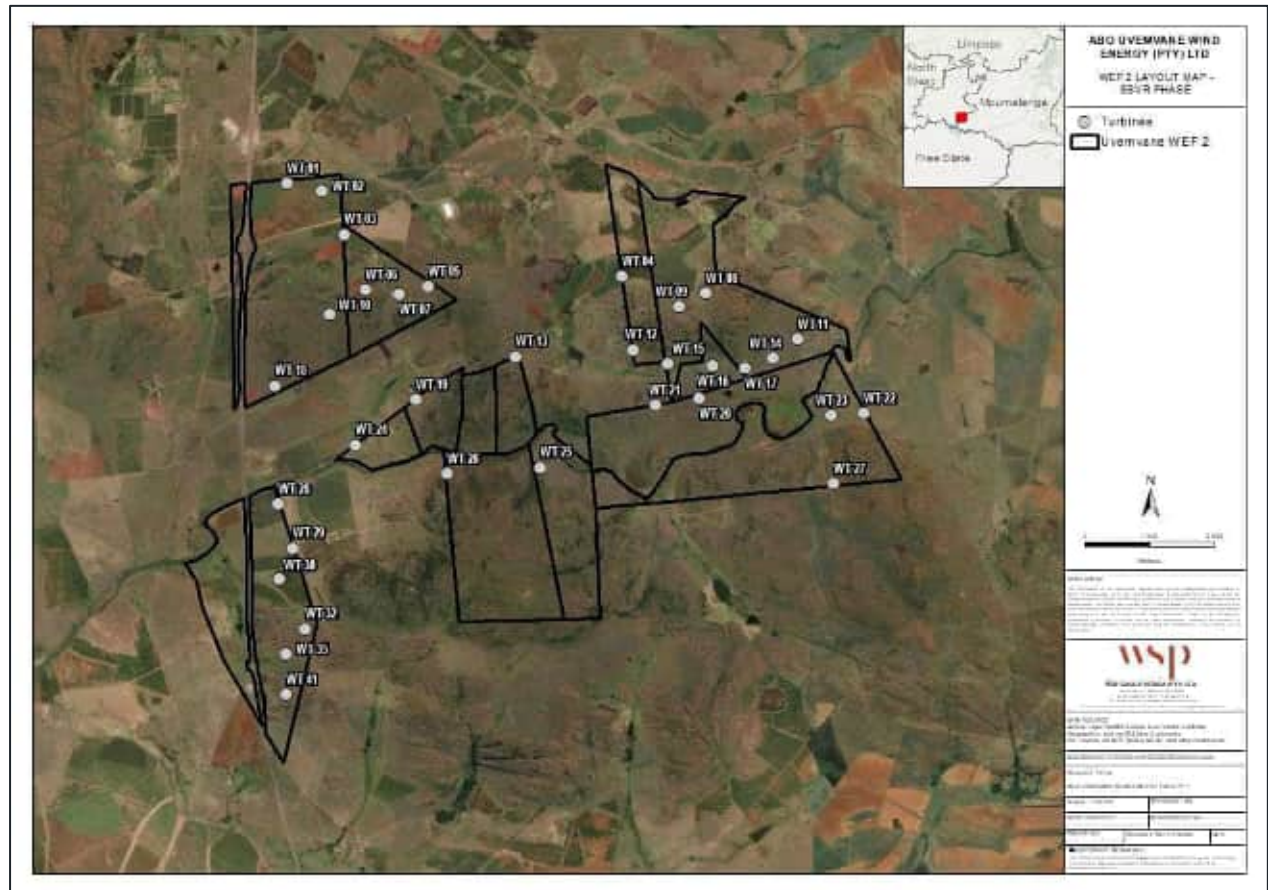


Figure 3-2 - Original Layout for ABO Uvemvane WEF 2 (Pre-scoping phase)

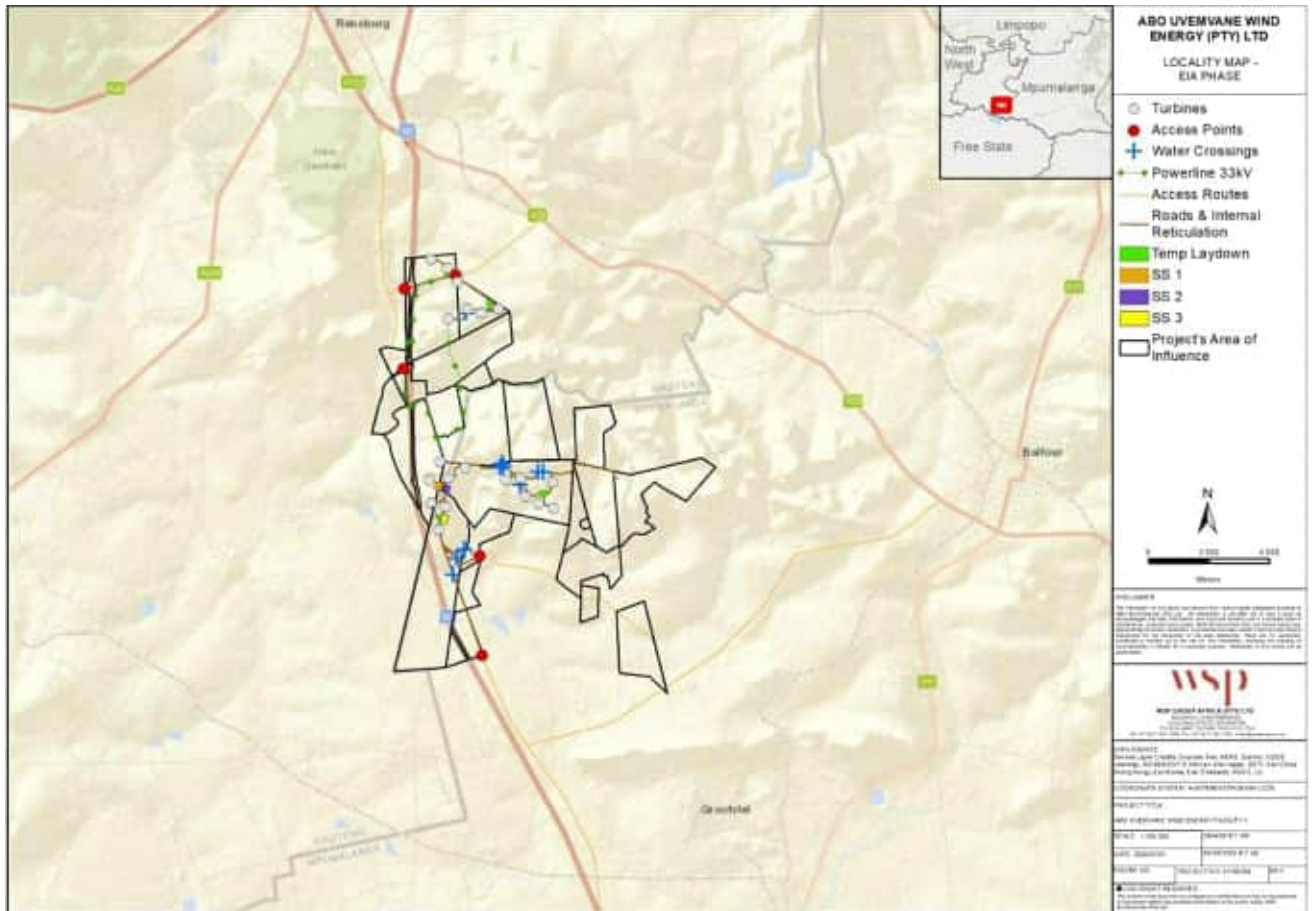


Figure 3-3 - Regional locality map and revised layout for ABO Uvemvane WEF 1 (DEIR Phase)

4 FINDINGS

4.1 ENVIRONMENTAL SENSITIVITY

As per the Screening Tool Reports (**Appendix A**), the originally proposed project area is indicated to be located within areas ranging from low to very high sensitivity. These are identified in **Table 4-1** and **Table 4-2**.

Table 4-1 - Sensitivities identified in the DFFE Screening Report (WEF 1)

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 (wind) Theme				X
Bats (Wind) Theme		X		
Civil Aviation(wind) Theme			X	
Defence (wind) Theme			X	
Flicker Theme	X			
Landscape (Wind) Theme	X			
Palaeontology Theme	X			
Noise Theme	X			
Plant Species Theme			X	
Radio Frequency Interference (RFI) (Wind) Theme		X		
Terrestrial Biodiversity Theme	X			
Vulture Species Theme			X	

Table 4-2 - Sensitivities identified in the DFFE Screening Report (WEF 2)

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 (wind) Theme				X
Bats (Wind) Theme		X		
Civil Aviation(wind) Theme			X	
Defence (wind) Theme			X	
Flicker Theme	X			
Landscape (Wind) Theme	X			
Palaeontology Theme			X	
Noise Theme	X			
Plant Species Theme			X	
Radio Frequency Interference (RFI) (Wind) Theme		X		
Terrestrial Biodiversity Theme	X			
Vulture Species Theme			X	

Based on information gathered through a desktop study and site assessment, not all of the identified sensitivities apply to the site in its current state. Section 4.2 below serves to:

- Verify land use and sensitivities identified in the Screening Tool Report (as indicated above);
- Provide motivation and evidence of either the verified or different use of the land and environmental sensitivity; and
- Confirm / refute the need for the various specialist inputs recommended in terms of the Screening Tool Report.

4.2 SPECIALIST ASSESSMENTS

The specialist studies required for WEF 1 and WEF 2 as identified by the DFFE Screening Tool are included in **Appendix A. Table 4-3** identifies the specialist studies commissioned and provides motivation for specialist studies not commissioned.

Table 4-3 - Specialist Studies identified by the DFFE Screening Tool

Specialist Identified	Study	Specialist Study Commissioned	Specialist and Report Reference	Motivation for Exclusion
Agriculture Theme		Yes	<ul style="list-style-type: none"> Environment Research Consulting Albie Götze Pr.Sci.Nat - 004497 Appendix C.1 	N/A
Animal Species Theme		Yes	<ul style="list-style-type: none"> Hawkhead Consulting Andrew Zinn Pr.Sci.Nat - 400687/15 Appendix C.2 	N/A
Aquatic Theme	Biodiversity	Yes	<ul style="list-style-type: none"> BlueScience Antonia Belcher Pr.Sci.Nat - 400040/10 Appendix C.3 	N/A
Archaeological and Cultural Heritage Theme		Yes	<ul style="list-style-type: none"> Cedar Tower Services (Pty) Ltd t/a CTS Heritage Nicholas Wiltshire Appendix C.4 	N/A
Avian (wind) Theme		Yes	<ul style="list-style-type: none"> Holland Associates & Environmental Consultants Anja Albertyn Pr.Sci.Nat - 400037/16 Appendix C.5 	N/A
Bats (Wind) Theme		Yes	<ul style="list-style-type: none"> Volant Environmental Dr. Low de Vries Pr.Sci.Nat - 124178 Appendix C.6 	N/A
Civil Aviation Theme		Yes	<ul style="list-style-type: none"> WSP Group Africa (Pty) Ltd 	The relevant Authorities have been included on the project stakeholder database. As of the 1st of February 2022, ATNS has been appointed as the new Obstacle application Service Provider for Wind Farms. Their responsibility would pertain to the assessments, maintenance, and

Specialist Identified	Study	Specialist Study Commissioned	Specialist and Report Reference	Motivation for Exclusion
				<p>all other related matters in respect to Wind Farm assessments.</p> <p>ABO Energy South Africa (Pty) Ltd has submitted an application to the civil aviation authority and the application is in progress.</p> <p><u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR).</u></p> <p><u>Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.</u></p>
Defence Theme	Yes	<ul style="list-style-type: none">■ WSP Group Africa (Pty) Ltd	<p>ABO Energy South Africa (Pty) Ltd has submitted a wayleave request in terms of Section 29 of the Electronic Communications Act (Act 36 of 2005) to SANDF on 16/02/2026. <u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR).</u></p> <p><u>Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.</u></p>	
Flicker Theme	Yes	<ul style="list-style-type: none">■ LoGIS /Nuleaf planning & Environmental■ Lourens du Plessis /Tosca de Villiers■ GPr GISc 0147 /SACLAP 20421■ Appendix C.7	N/A	
Landscape Theme (Wind)	Yes		N/A	
Palaeontology Theme	Yes	<ul style="list-style-type: none">■ Cedar Tower Services (Pty) Ltd t/a CTS Heritage■ Nicholas Wiltshire■ Appendix C.4	N/A	
Noise Theme	Yes	<ul style="list-style-type: none">■ Enviro Acoustic Research cc■ M. de Jager■ Pr.Sci.Nat, - 11725■ Appendix C.8	N/A	
Plant Species Theme	Yes	<ul style="list-style-type: none">■ Hawkhead Consulting	N/A	

Specialist Identified	Study	Specialist Study Commissioned	Specialist and Report Reference	Motivation for Exclusion
			<ul style="list-style-type: none"> Andrew Zinn Pr.Sci.Nat 400687/15 Appendix C.2 	
RFI (Wind) Theme	Yes		<ul style="list-style-type: none"> WSP Group Africa (Pty) Ltd 	ABO Energy South Africa (Pty) Ltd has engaged with SAWS and relevant telecommunications stakeholders prior to the S&IER application process regarding the proposed project. The Applicant received confirmation that the proposed project will not impact SAWS. <u>All correspondence received to date for the project in Appendix D of this SSVR.</u>
Terrestrial Biodiversity Theme	Yes		<ul style="list-style-type: none"> Hawkhead Consulting Andrew Zinn Pr.Sci.Nat 400687/15 Appendix C.2 	N/A
Vulture Species Theme	Yes		<ul style="list-style-type: none"> Holland Associates & Environmental Consultants Anja Albertyn Pr.Sci.Nat 400037/16 Appendix C.5 	N/A
Traffic Assessment	Impact	Yes	<ul style="list-style-type: none"> iWink Consulting Iris Wink Pr.Eng – 20110156 Appendix C.9 	N/A
Geotechnical Assessment	Yes		<ul style="list-style-type: none"> WSP Group Africa Khuthadzo Bulala Appendix C.10 	N/A
Socio-Economic Assessment	Yes		<ul style="list-style-type: none"> WSP Group Africa (Pty) Ltd Steve Horak Appendix C.11 	N/A

Specialist assessments were conducted in accordance with the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes, which were promulgated in

Government Notice No. 320 of 20 March 2020 and in Government Notice No. 1150 of 30 October 2020 (i.e. “the Protocols”), or Appendix 6 of the EIA Regulations, depending on which legislation apply to the assessment under consideration.

4.2.1 ABO UVEMVANE WEF 1

4.2.1.1 Agricultural Impact Assessment

The output of the DFFE Screening Tool for the Agricultural Theme is illustrated in **Figure 4-1** and indicates that the site is classified as **High** Sensitivity, citing *i.a.*: “Pivot Irrigation; Land capability;09. Moderate-High/10. Moderate-High”.

The Agricultural SSVR is attached in **Appendix C.1**.

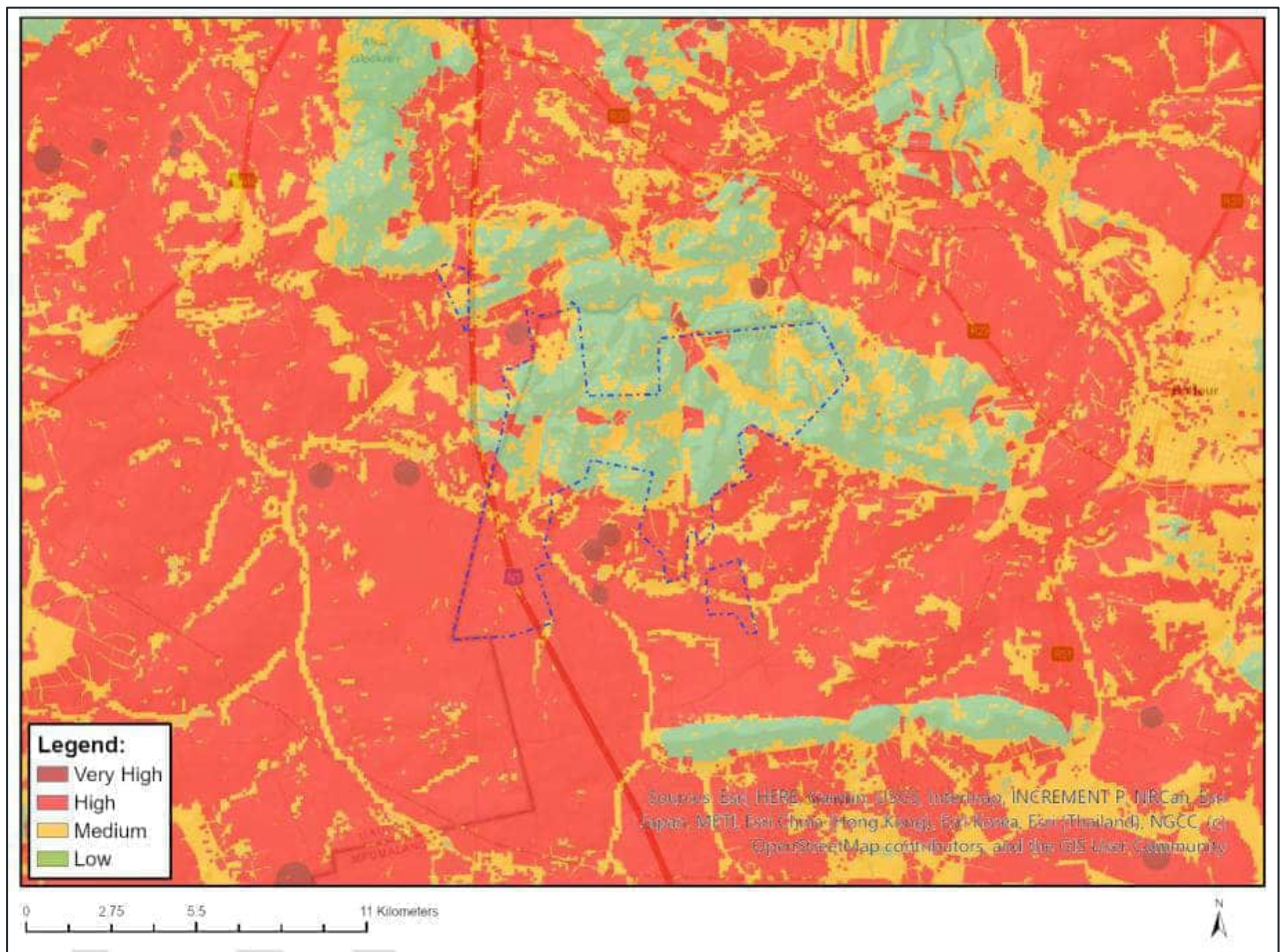


Figure 4-1 - Map of Agricultural Theme Sensitivity (Source: DFFE Screening Report, 2024)

There is a direct correlation between land capability rating and the National Web-based Environmental Screening Tool’s (screening tool’s) agricultural sensitivity.

From an Agricultural Theme Sensitivity point of view, the **Very high sensitivity classification is disputed** by this assessment for the whole site. No Pivot irrigation was recorded in the proposed ABO Uvemvane WEF 1 project area. Generally, areas of Category 1 soils are rated as high sensitivity by this assessment and do coincide with areas rated the same by the screening tool, however, most areas of high sensitivity according to the screening tool are also disputed due to soil potential

restrictions as noted in the previous section for category 2, 3 and 4 soils. The central section of the project area is rated as medium to low by the screening tool, which is mostly disputed from a medium sensitivity perspective and **validated as low** for most of that area.

Table 4-4 summarizes the conclusions of this sensitivity assessment, which are visually presented in Figure 4-2.
Table 4-4 - Summary of the screening tool vs. specialist verified sensitivities

Theme	Screening Tool	Soil Category	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Agricultural Theme	Very High	all	High	Disputed – no irrigation cultivation was recorded in the proposed project area of WEF 1, although such activities were noticed in neighboring areas.
	High	1	High	Validated – areas of category 1 soils that are rated as high sensitivity by the screening tool were found to be well suited for economically viable rainfed crop production.
	High	2	Medium	Disputed – category 2 soils have moderate restrictions in terms of soil depth and water holding capacity and will yield relatively good crops in average to above average rainfall seasons, which will not be sustained in below average seasons.
	High	3 & 4	Low	Disputed – category 3 & 4 soils have severe restrictions on water infiltration and crop available water and will not sustainably produce economically viable crops over the long term.
	Medium	2	Medium	Validated – category 2 soils have moderate restrictions in terms of soil depth and water holding capacity and will yield relatively good crops in average to above average rainfall seasons.
	Medium	3, 4 & 5	Low	Disputed – category 3, 4 & 5 soils have severe restrictions on water infiltration, crop available water and soil depth for root growth and will not sustainably produce economically viable crops over the long term.
	Low	3, 4 & 5	Low	Validated – no cultivation possible due to severe restrictions on water infiltration, crop available water and soil depth.

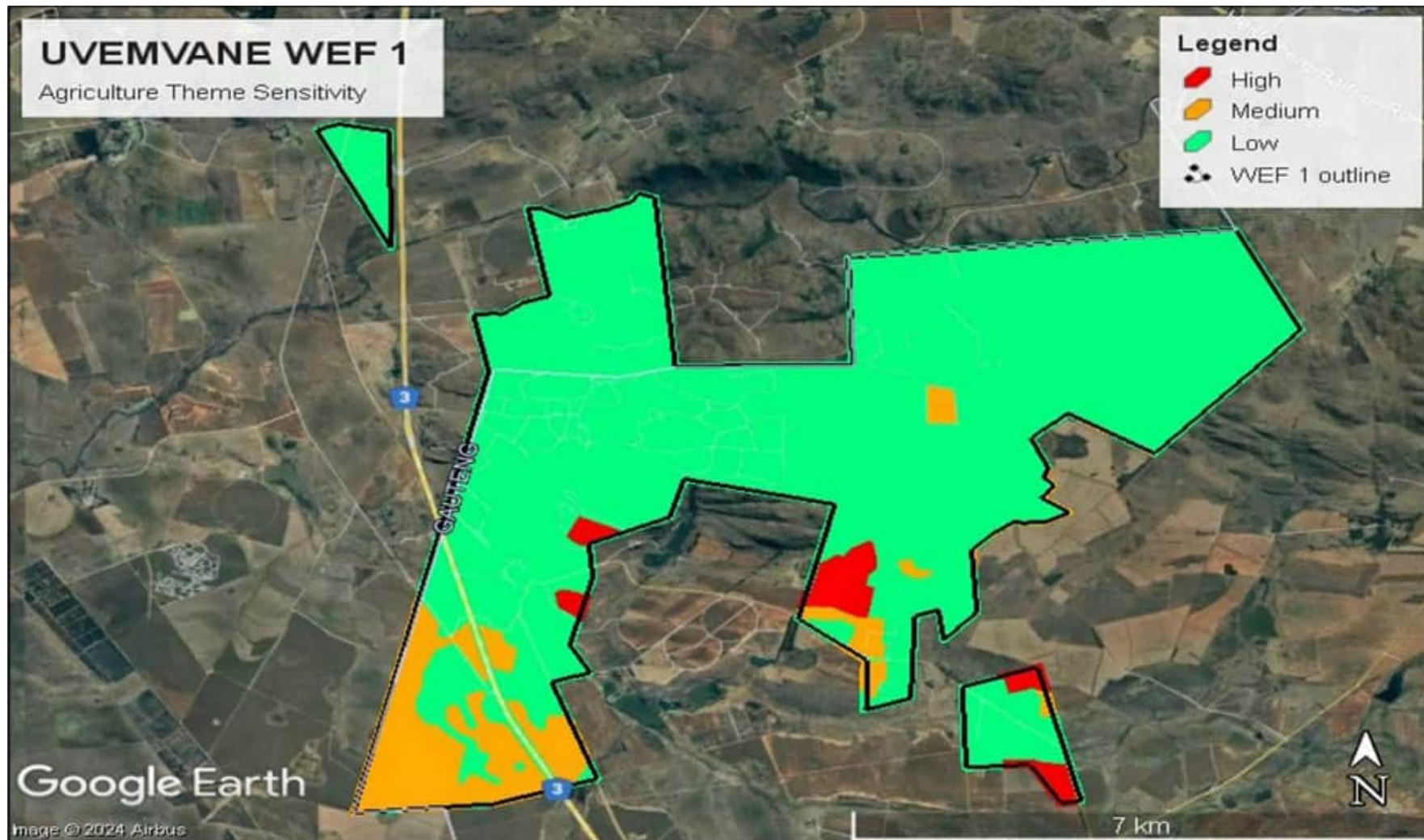


Figure 4-2 - Sensitivity rating as assigned by this assessment on the agricultural sensitivity theme for the project area

4.2.1.2 Animal Species Assessment

The output of the DFFE Screening Tool for the Animal Species Theme is illustrated **Figure 4-3** and indicates that the site is classified as **High Sensitivity**, due to the potential presence of the following fauna species of conservation concern (SCC):

- Three mammal species:
 - Spotted-necked Otter (*Hydrictis maculicollis*);
 - Maquassie Musk Shrew (*Crocidura maquassiensis*);
 - Oribi (*Ourebia ourebi ourebi*);
- Four bird species²:
 - White-bellied Bustard (*Eupodotis senegalensis*);
 - African Marsh Harrier (*Circus ranivorus*);
 - Secretarybird (*Sagittarius serpentarius*);
 - Caspian Tern (*Hydroprogne caspia*);
- Two invertebrate species³:
 - Potchefstroom Blue (*Lepidochrysops procera*);
 - Highveld Golden Opal (*Chrysoritis aureus*);

Among the identified species, *Circus ranivorus* and *Sagittarius serpentarius* are classified as having a High sensitivity rating, while all remaining species are considered to have Medium sensitivity.

The Animal Species SSVR is attached in **Appendix C.2**.

² Bird species were assessed as part of a separate sensitivity verification process, and are therefore not considered further in this report.

³ Butterfly species were assessed as part of a separate sensitivity verification process, and are therefore not considered further in this report.

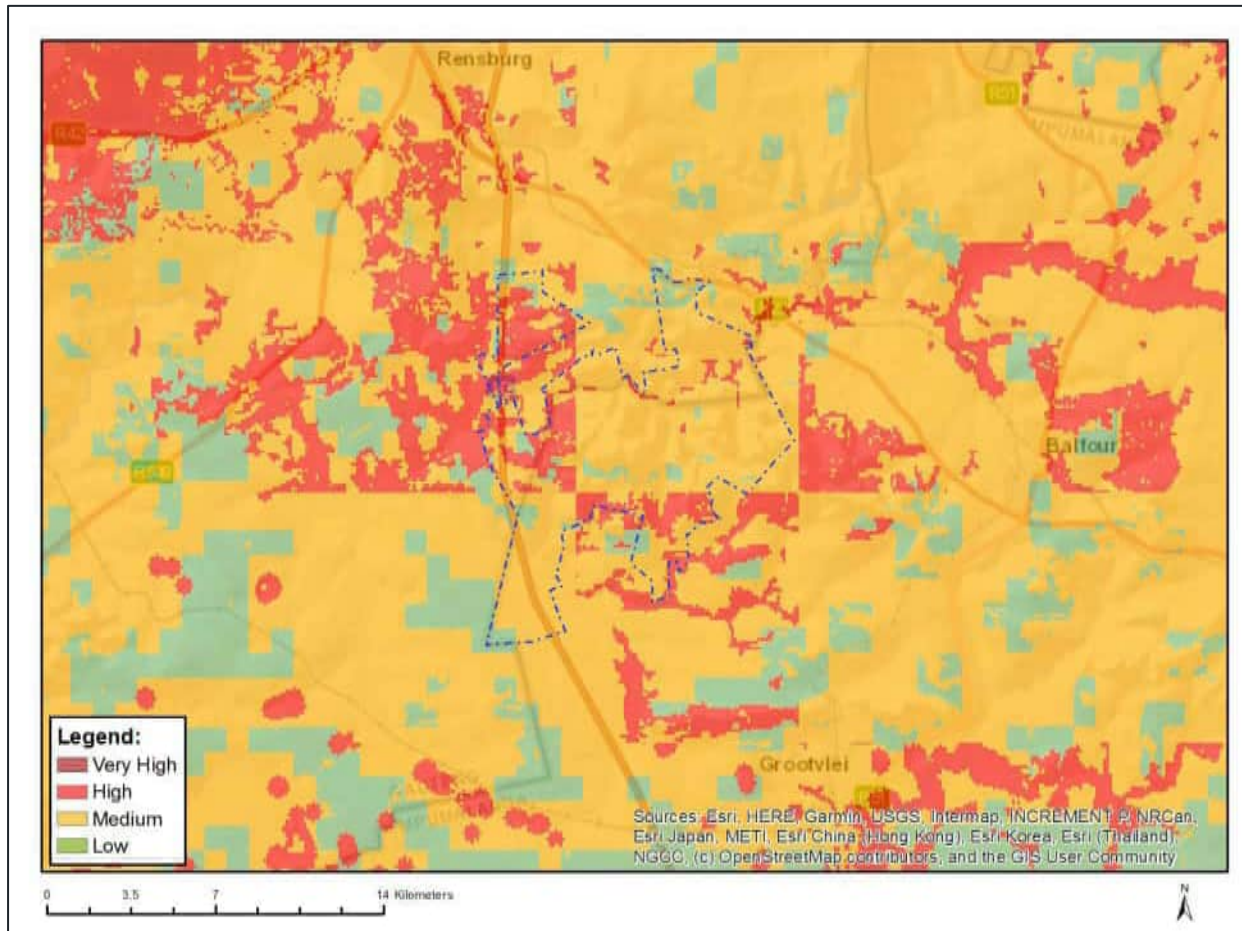


Figure 4-3 - Map of Animal Species Theme Sensitivity (Source: DFFE Screening Report, 2024)

Fauna species recorded in the study area are listed in Appendix C.2, along with their conservation statuses, as per regional/provincial Red Lists and national/provincial legislation.

Fauna SCC recorded during the verification field visit included Mountain Reedbuck (*Redunca fulvorufula fulvorufula*) - Endangered, Serval (*Leptailurus serval*) – Near Threatened, Cape-clawless Otter (*Aonyx capensis*) – Near Threatened, and Vlei Rat (*Otomys cf. auratus*) – Near Threatened. Considering the extent and diversity of natural habitat across the study area, it is possible that several other fauna SCC may be present, including some of those taxa highlighted by the DFFE Screening Tool.

Discussion on the habitat preferences and a preliminary ‘probability of occurrence’ for each of the fauna SCC that is listed by the DFFE Screening Tool (excl. birds) is presented below.

The Spotted-necked Otter (Vulnerable) prefers permanent, large open-water bodies (Ponsoby, *et al.*, 2016), while the Maquassie Musk Shrew (Vulnerable) favours moist habitats (Taylor, *et al.*, 2016). Open water pools characterise a number of stretches of the Suikerbosrand River, and numerous other smaller water courses and drainage features are also present on-site. It is therefore ‘probable’ that Spotted-necked Otter present in the Project site. Although some suitable habitat is present for Maquassie Musk Shrew, there are no post-2000 records of this species in either Gauteng or Mpumalanga Provinces. It is therefore unlikely that Maquassie Musk Shrew is present. Oribi (Endangered) typically occur in areas with a mix of tall- and short-grassland (Shrader, *et al.*, 2016).

This habitat is present in the Project site, although during informal interviews, local game farmers indicated that they were not aware of the presence of Oribi in the Project site. It is therefore 'unlikely' that Oribi is present.

The '**High**' sensitivity rating for the Animal Species theme is therefore **confirmed** for patches of natural habitat and low in areas of modified habitat (e.g., cultivated fields and stands of alien trees). An Animal Species Specialist Assessment Report will be compiled for the proposed Project, as per the applicable protocol.

4.2.1.3 Aquatic Biodiversity Impact Assessment

The output of the DFFE Screening Tool for the Aquatic Biodiversity Theme is illustrated in **Figure 4-4** and indicates that the site is classified as **Very High Sensitivity** due to the presence of wetland and river features in and around the study area.

The Aquatic Biodiversity SSVR is included in **Appendix C.3**.

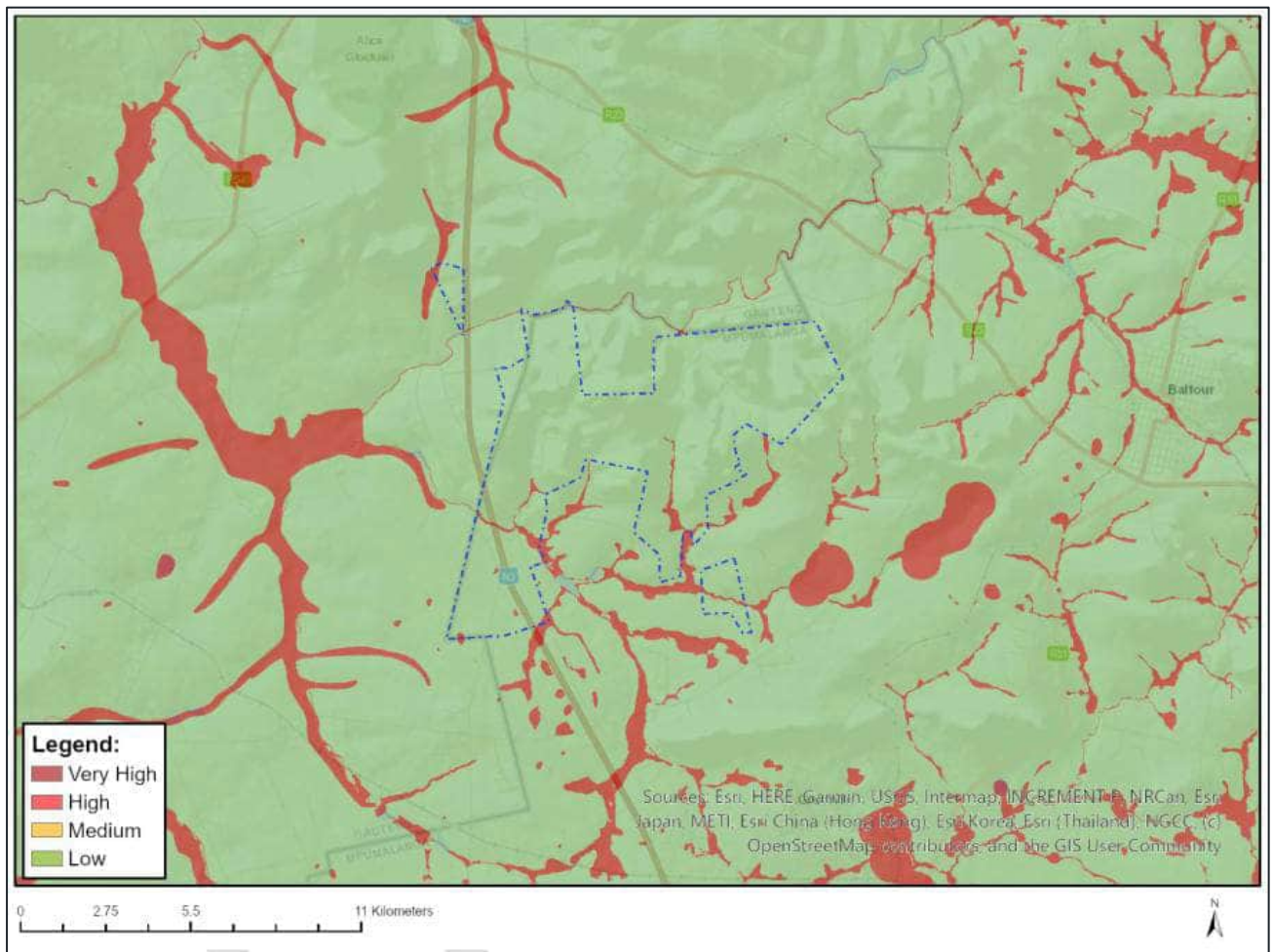


Figure 4-4 - Map of Aquatic Biodiversity Theme Sensitivity (Source: DFFE Screening Report, 2024)

The aquatic features occurring within the site are the Suikerbosrant tributary of the Vaal River and its associated tributaries and wetland areas. These watercourses range from being largely natural on the higher-lying areas of the site to being moderately to largely modified ecological condition in their

middle and lower reaches. The watercourses have moderate ecological importance but are of high sensitivity. They provide corridors for the movement of water and biota through the site and are particularly sensitive to flow, water quality and habitat modification due to the associated wetland habitat along many of the watercourses.

A buffer of 50m is recommended for the watercourses while the associated wetland habitats should be protected by a 100m buffer. Services could be placed through these aquatic habitats and buffer areas but must be kept to a minimum and adequately mitigated.

The findings of this assessment thus largely dispute the DFFE screening tool for aquatic biodiversity sensitivity mapping in that most of the site is of **low aquatic sensitivity**. The watercourses are however considered to be of **high sensitivity** and should be avoided by the proposed WEF facilities, as recommended above.

If the above-recommended buffers and the proposed mitigation measures in the impact assessment are implemented, the risk to the aquatic ecosystems is likely to be low such that the General Authorisations for Section 21(c) and (i) water uses under the National Water Act (Act 36 of 1998) would apply

In the aquatic sensitivity mapping, the watercourses have been mapped as being of high sensitivity, with restrictions as mentioned for infrastructure components. In addition, to protect the aquatic habitats, the buffer zones of 50m on either side of the watercourses and 100m from the wetland areas have been mapped as being of medium sensitivity. **Figure 4-5** shows the mapped aquatic features together with the recommended buffers and **Figure 4-6** shows the sensitivity mapping within the site.



Figure 4-5 - Mapped aquatic features within the project area (red polygons), shown in Google Earth. The recommended buffer or development setback areas are indicated by the yellow areas.

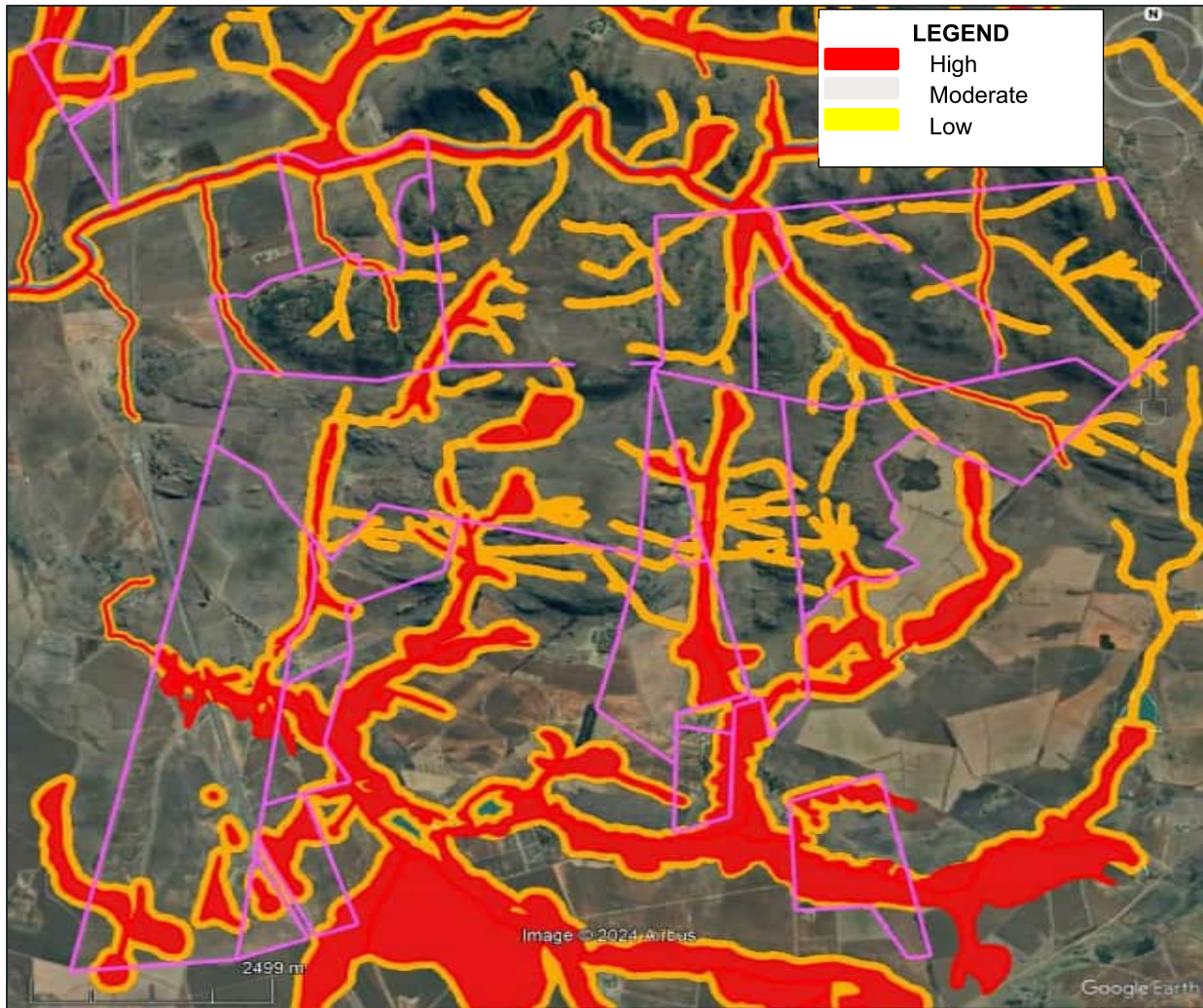


Figure 4-6 - Mapped sensitivity of aquatic features within the project area (pink polygon), shown in Google Earth.

4.2.1.4 Archaeological and Cultural Heritage Impact Assessment

The output of the DFFE Screening Tool for the Archaeological and Cultural Heritage Theme is illustrated in **Figure 4-7** and indicates that the site is classified as **Low Sensitivity**.

The Archaeological and Cultural Heritage SSVR is included in **Appendix C.4**.

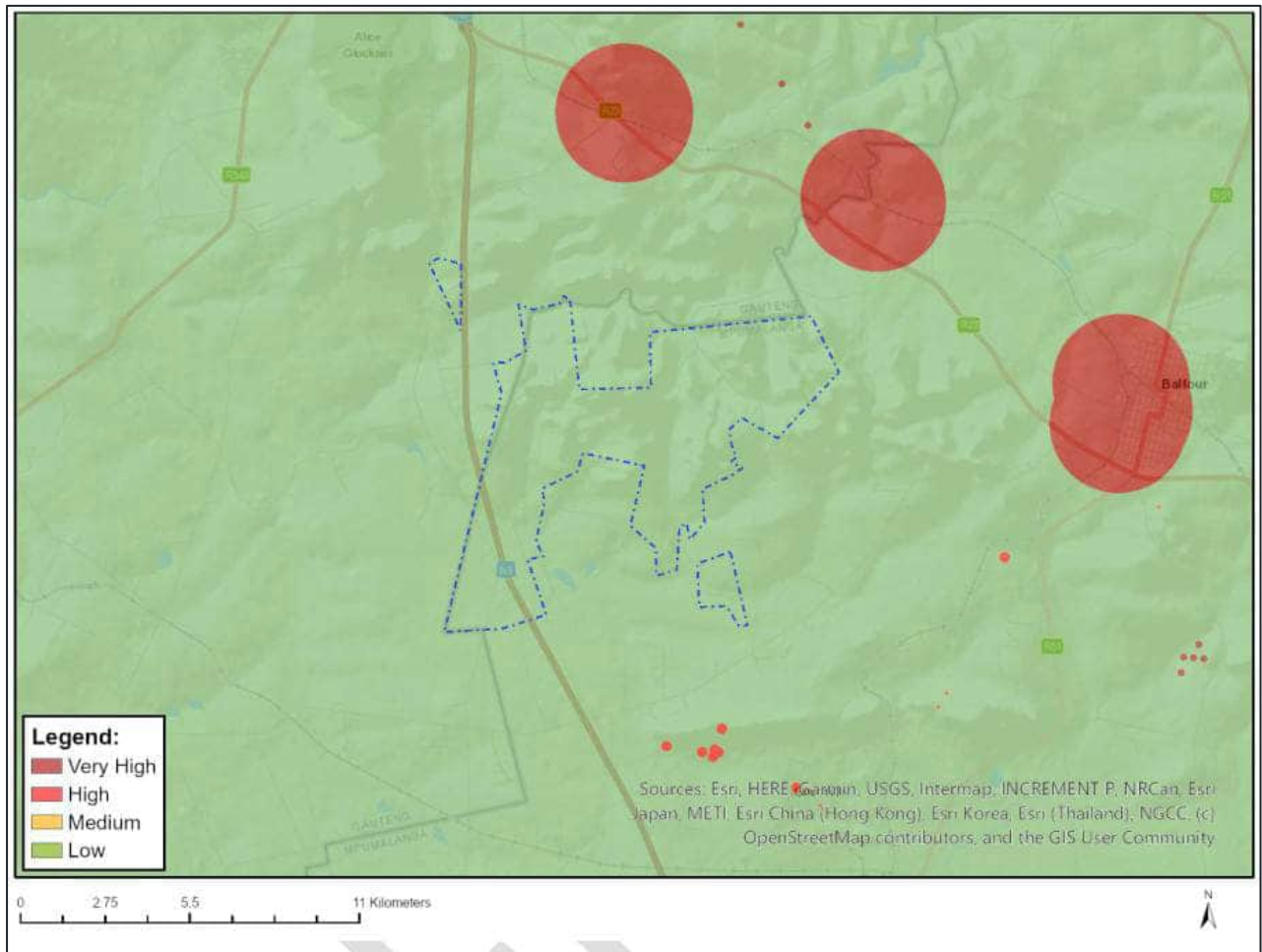


Figure 4-7 - Map of Archaeological and Cultural Heritage Theme Sensitivity (Source: DFFE Screening Report, 2024)

Cultural Landscape

Several heritage sites recorded on SAHRIS within the broader region relate to NZASM-built railway infrastructure, documented under the “Footsteps Along the Tracks (FAT)” project. While these structures hold high regional significance (Grade II), they are not formally protected under section 27 of the NHRA. Furthermore, the actual cultural value of these sites is likely to be of high or moderate local significance (Grade IIIA or IIIB). Due to the location of these structures being located outside of the area proposed for development, no impact to these resources is anticipated from this proposed development.

The field assessment noted the scenic and historic value of the R23 and the R103 and as such, a no development buffer of 1km is recommended on either side of these historic scenic routes for turbines, and a 500m buffer on either side for associated WEF infrastructure. Further, in order to avoid a canyon effect, It is therefore recommended that turbines are therefore limited to the eastern side of these roads.

The cultural value of the broader area has significance in terms of its settler and agricultural history, with intact cultural landscape resources located within the development area. Therefore, the DFFE **Low Sensitivity is disputed and verified as Very High.**

Archaeology

A no development buffer of 100m is recommended around each of these sites in order to ensure that the sense of place associated with these burials is retained, and to ensure that no nearby unmarked burials are accidentally impacted by excavations associated with this proposed development.

The field assessment identified a number of 20th Century farm werfs that have historic contextual value and are graded IIIC. These sites include the Steynskraal farm werf, the Klipplaatdrift farm werf, the Laagerspoort farm werf and the Driefontein farm werf. The Malanskraal farm werf is represented by two site recordings. The Malanskraal structures located at Site 065 have higher levels of historic value and as such are graded IIIB. In order to retain the sense of place associated with these historic farm werfs, a no development buffer of 500m is recommended around each of these sites.

Significant Iron Age archaeological heritage was identified within the development area. Therefore, the DFFE **Low Sensitivity is disputed and verified as Very High**.

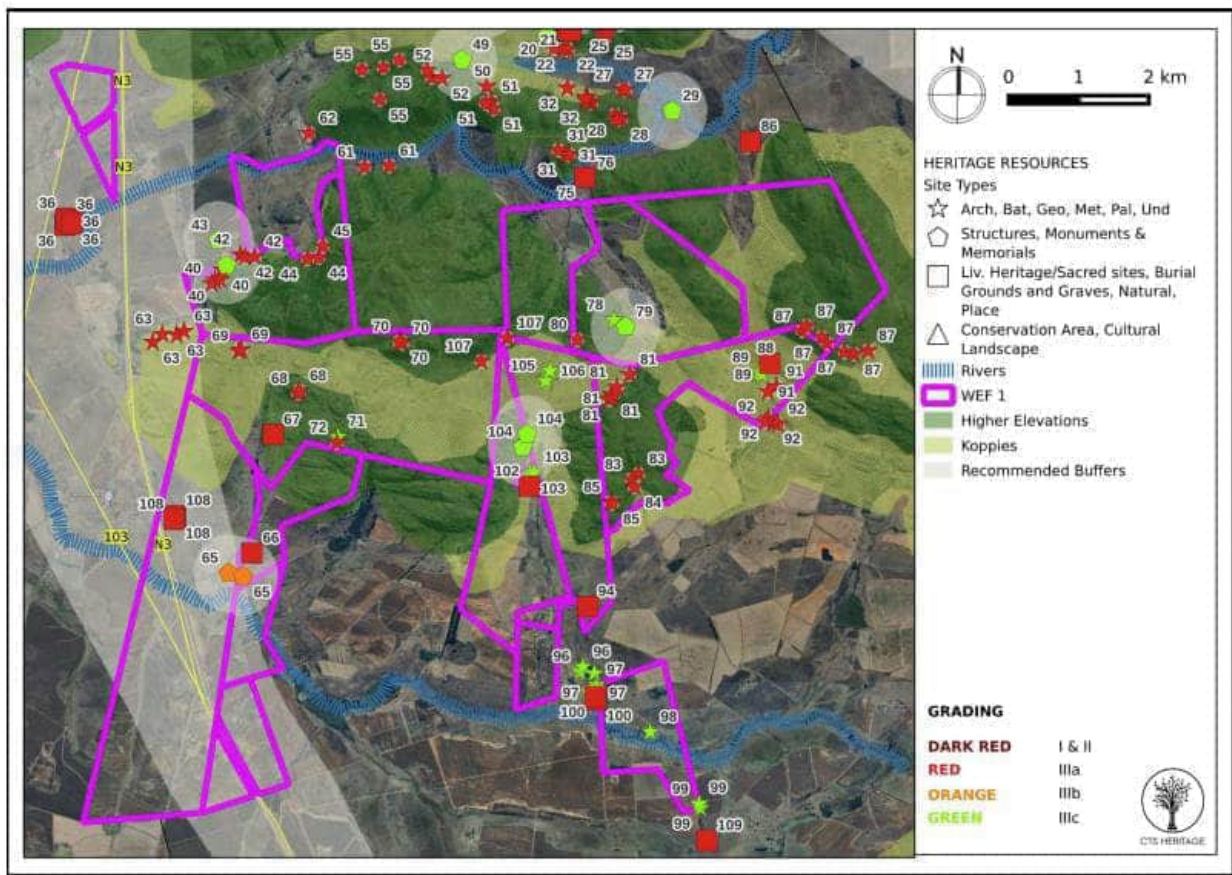


Figure 4-8 - All heritage resources within proximity to the development area with recommended mitigation measures

4.2.1.5 Avifauna Assessment

The output of the DFFE Screening Tool for the Avian (Wind) Theme is illustrated **Figure 4-9** and indicates that the site is classified as '**Low**' **Sensitivity**. The Avifauna SSVR is included in **Appendix C.5**.

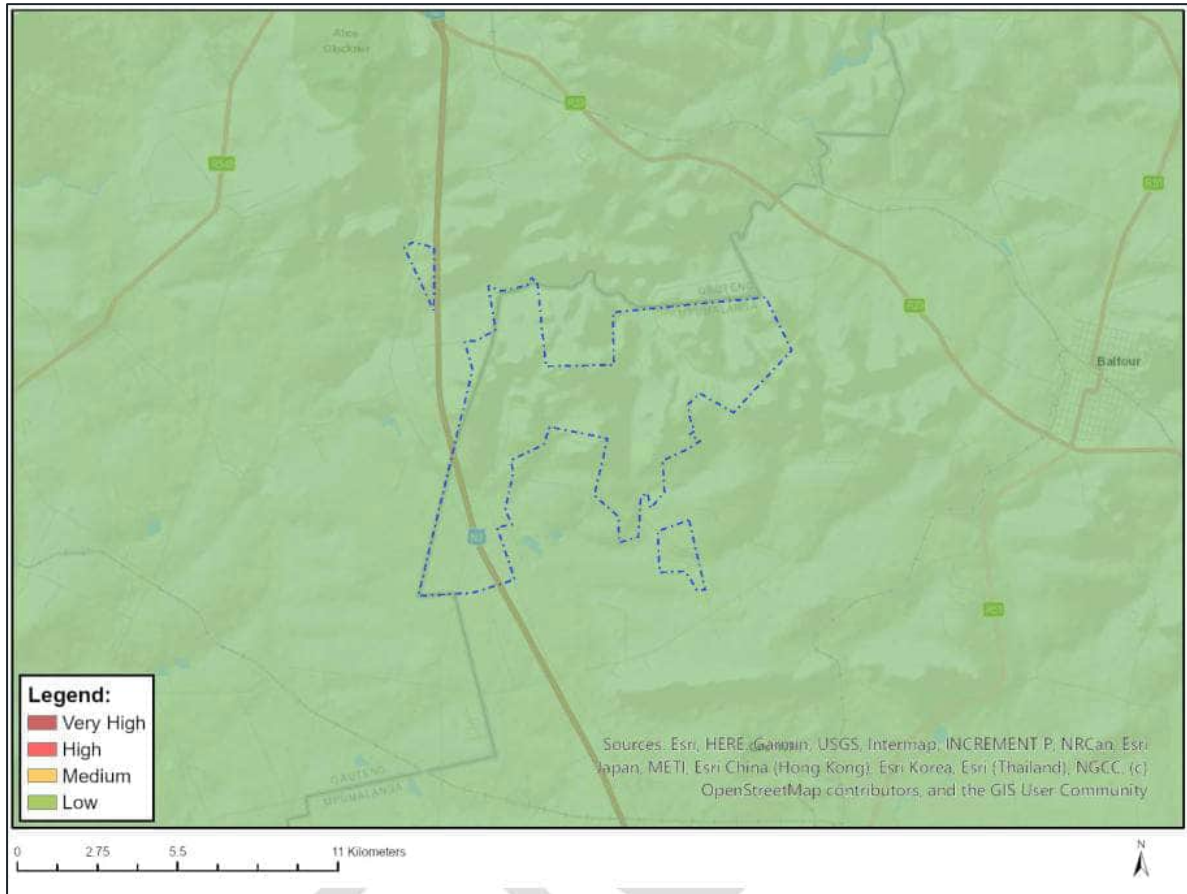


Figure 4-9 - Map of Avian (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)

The Screening Tool Report identified the area within 5 km of the project site as of high sensitivity for the avian species of conservation concern (SCC) African Marsh Harrier (*Circus ranivorus*), Secretarybird (*Sagittarius serpentarius*), Lanner Falcon (*Falco biarmicus*), White-bellied Bustard (*Eupodotis senegalensis*) and Yellow-billed Stork (*Mycteria ibis*) in terms of the animal species theme, that could be affected by the proposed development. Therefore, according to the Screening Tool Report, an avifaunal specialist impact assessment and an avian species specialist impact assessment is required, unless the land use or sensitivity identified by the Screening Tool is disputed.

The Site Inspection and one year of avifaunal pre-application/pre-construction monitoring confirmed that the site is of 'high' sensitivity for 12 SCC, in terms of the National Web-based Screening Tool classification, and that an Animal Species Specialist Assessment must be conducted by a specialist registered with SACNASP with a field of practice relevant to the taxonomic group (in this case Aves – Birds), for which the assessment is being undertaken. The assessment must be undertaken following the Species Environmental Assessment Guideline (SANBI, 2022). The DFFE sensitivity is **disputed and considered High Sensitivity**.

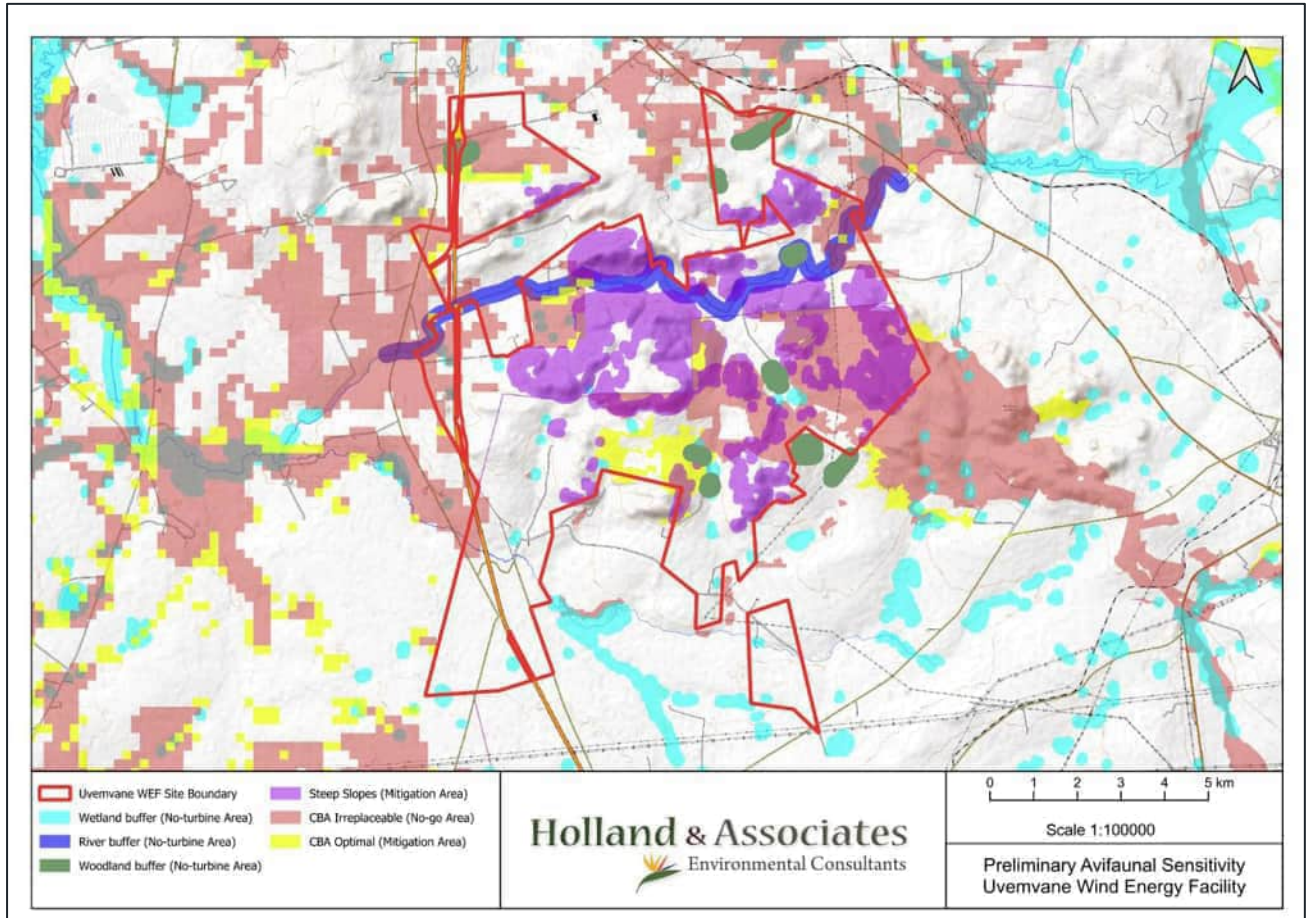


Figure 4-10 – Avifaunal Constraints Map

4.2.1.6 Bat Assessment

The output of the DFFE Screening Tool for the Bat (Wind) Theme is illustrated **Figure 4-11** and indicates that the site is classified as **High Sensitivity**.

The Bat SSVR is included in **Appendix C.6**.

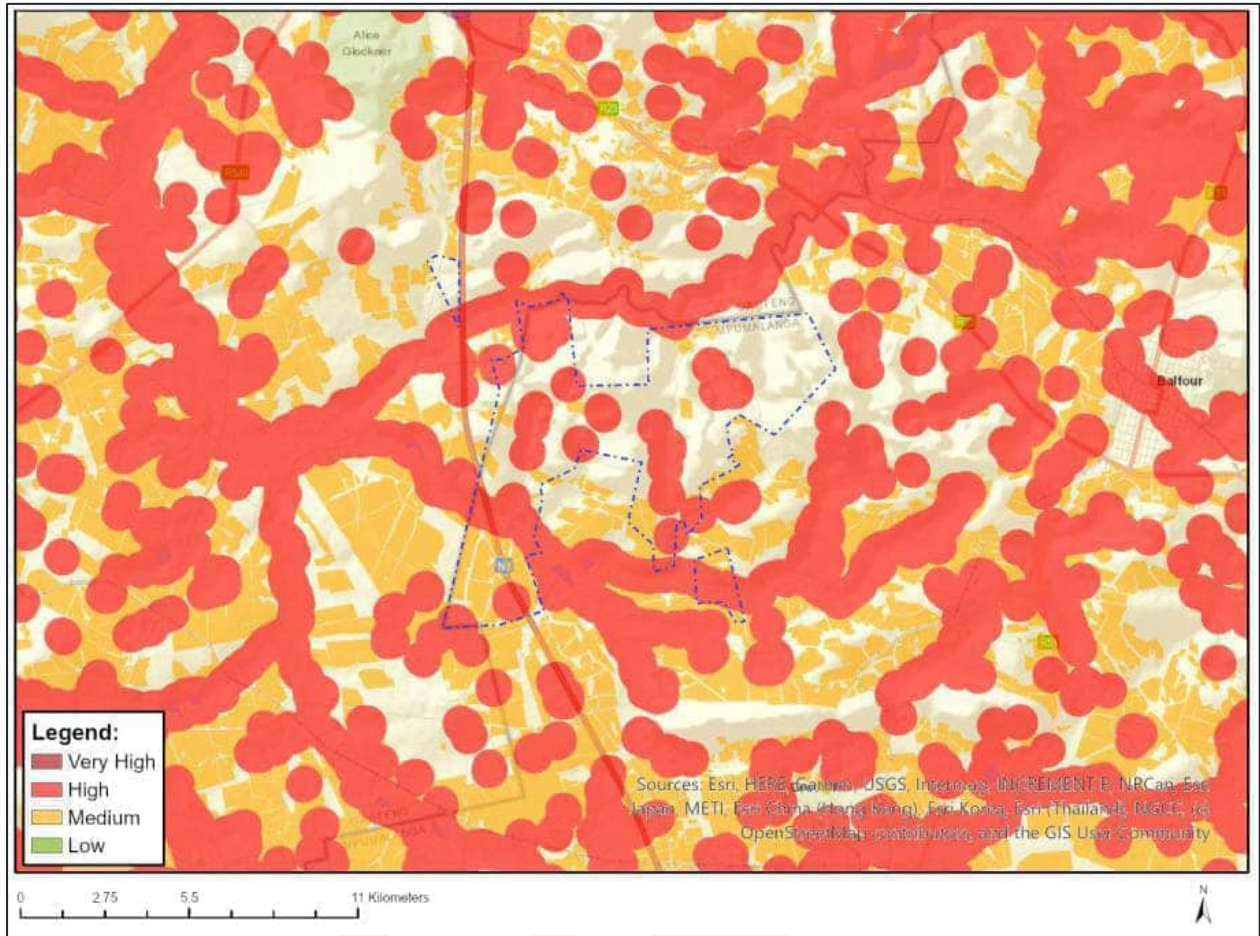


Figure 4-11 - Map of Bat (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)

The PAOI falls across a region with croplands, which is classified Medium Sensitive to bats. However, due to numerous water sources, wetlands and two rivers the area is classified as being of High Sensitivity (**Figure 4-11**). Based on the fly-ways, rivers, sources of open water and foraging areas we agree with the Screening tool that the area should be classified as a High Sensitivity area for bats. and based on desktop surveys, ground-truthing, and available data, this **classification is confirmed** (**Figure 4-12**). The rivers, open water and wetlands alone are highly sensitive areas, but there are also a large number of roosts in the area and the mine shafts. These factors are the likely causes for the large number of bats recorded thus far during the monitoring period. It is expected that the number of bats in the area will increase during the summer months and will only start decreasing after February.

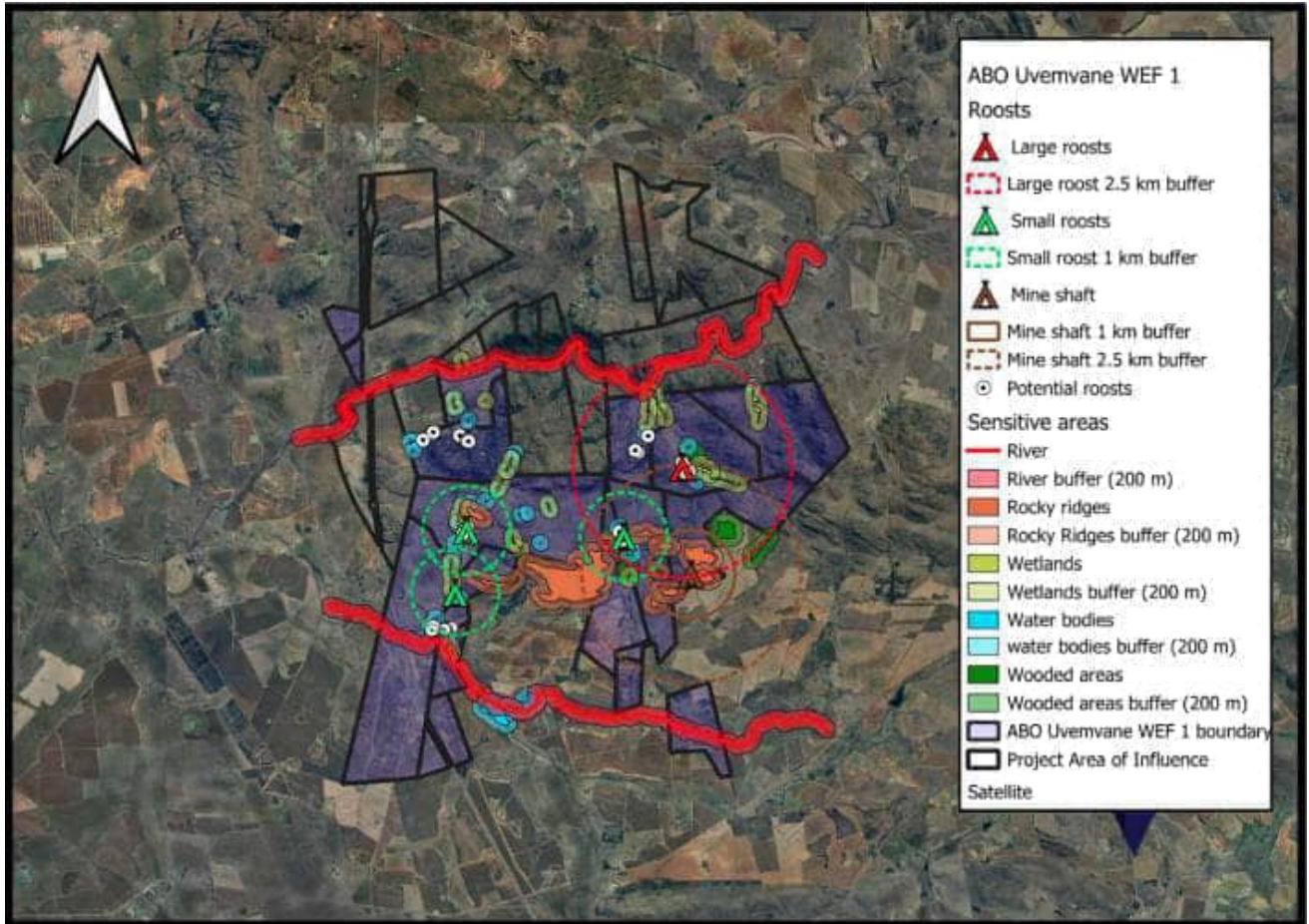


Figure 4-12 – Suggested buffers for bat sensitive areas that could be determined based on data collected during the current survey period.

4.2.1.7 Civil Aviation Assessment

The output of the DFFE Screening Tool for the Civil Aviation (Wind) Theme is illustrated in **Figure 4-13** and indicates that the site is classified as **Medium Sensitivity**. The Screening Tool indicates that there is a civil aviation aerodrome within 8-15km of the site.

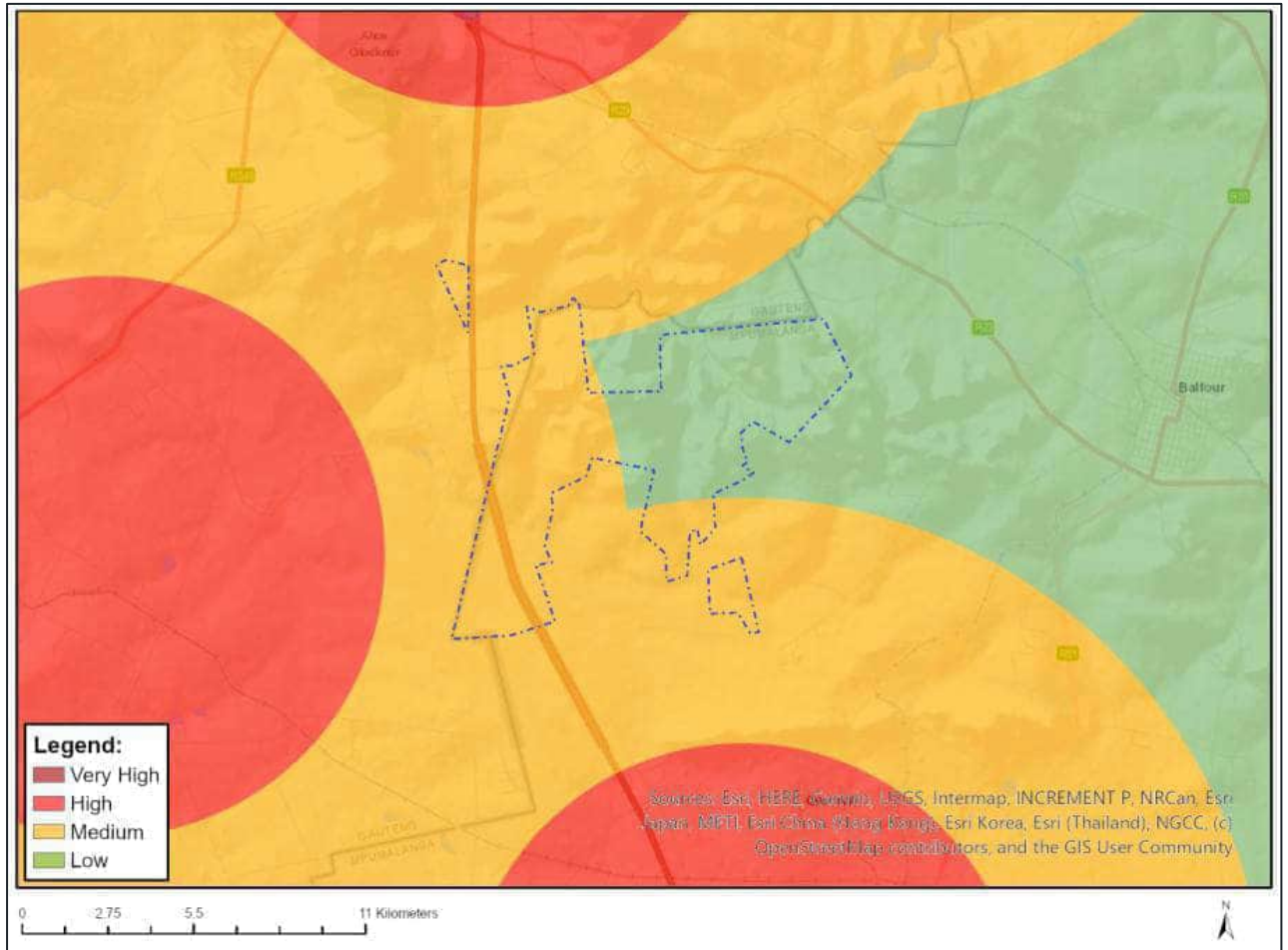


Figure 4-13 - Map of Civil Aviation (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)



Figure 4-14 - Map of Civil Aviation (Wind) Theme Sensitivity

(Source: Google Earth, 2026)

The sensitivity of the civil aviation theme can be seen as **low** due to the nature of the civil aviation aerodrome in the area. As per **Figure 4-14** above, the Ermelo Airfield – FAEO, is a 10m wide asphalt landing strip, which will cater for small scale aircraft. The nearest airport, the Heidelberg Airport is 25km away from WEF 1. The nearest landing strip is a smaller landing strip flagged within 3km of the WEF.

The relevant Authorities have been included on the project stakeholder database. A wind turbine Obstacles application has been submitted to ATNS for the project and the required permits will be obtained prior to the development of the project. The SACAA has been included on the project stakeholder database. They will be informed of the proposed Project, and comment will be sought. Their responsibility would pertain to the assessments, maintenance, and all other related matters in respect to Windfarms, as this grid connection is associated with a proposed wind farm.

Proof of notification of the stakeholder is included in the SER (**Appendix E** of the DEIR). Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.

4.2.1.8 Defence Assessment

The output of the DFFE Screening Tool for the Defence (Wind) Theme is illustrated in **Figure 4-15** and indicates that the site is classified as **Medium Sensitivity**. However, ABO Energy South Africa (Pty) Ltd has submitted a wayleave request in terms of Section 29 of the Electronic Communications Act (Act 36 of 2005) to SANDF on 16/02/2026. Any comments received will be included in the Final Scoping Report and updated throughout S&EIR process.. The sensitivity is therefore verified as **low**. Proof of notification of the stakeholder is included in the SER (**Appendix E** of the DEIR).

Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.

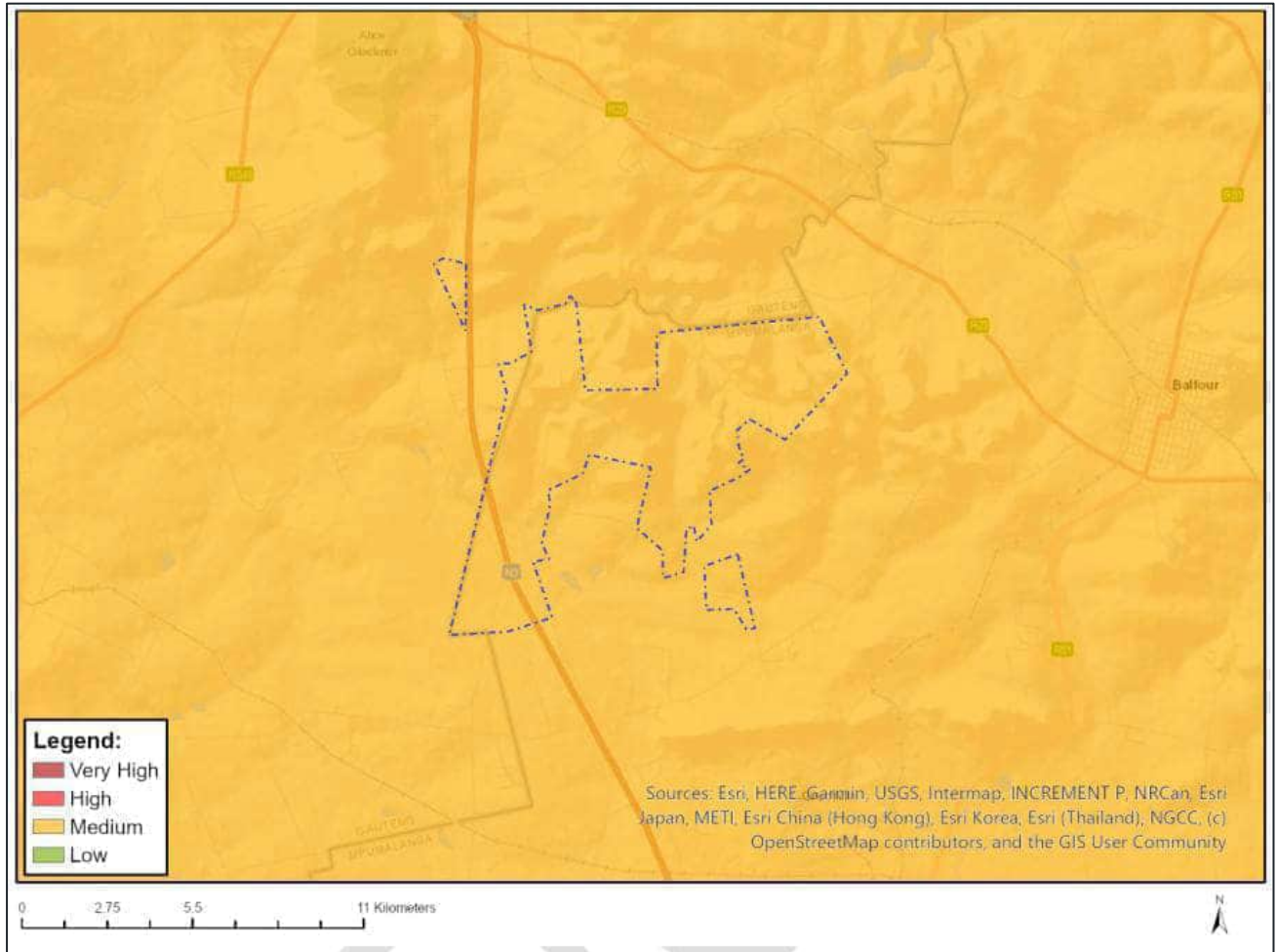


Figure 4-15 - Map of Defence (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)

4.2.1.9 Flicker Assessment

The output of the DFFE Screening Tool for the Flicker Theme is illustrated in **Figure 4-16** and indicates that the site is classified as **'Very High' Sensitivity**, due to the visual aspects of Flicker Theme Sensitivity (potential temporarily or permanently inhabited residence).

The Landscape (Visual) SSVR which includes the Flicker Theme, is included in **Appendix C.7**.

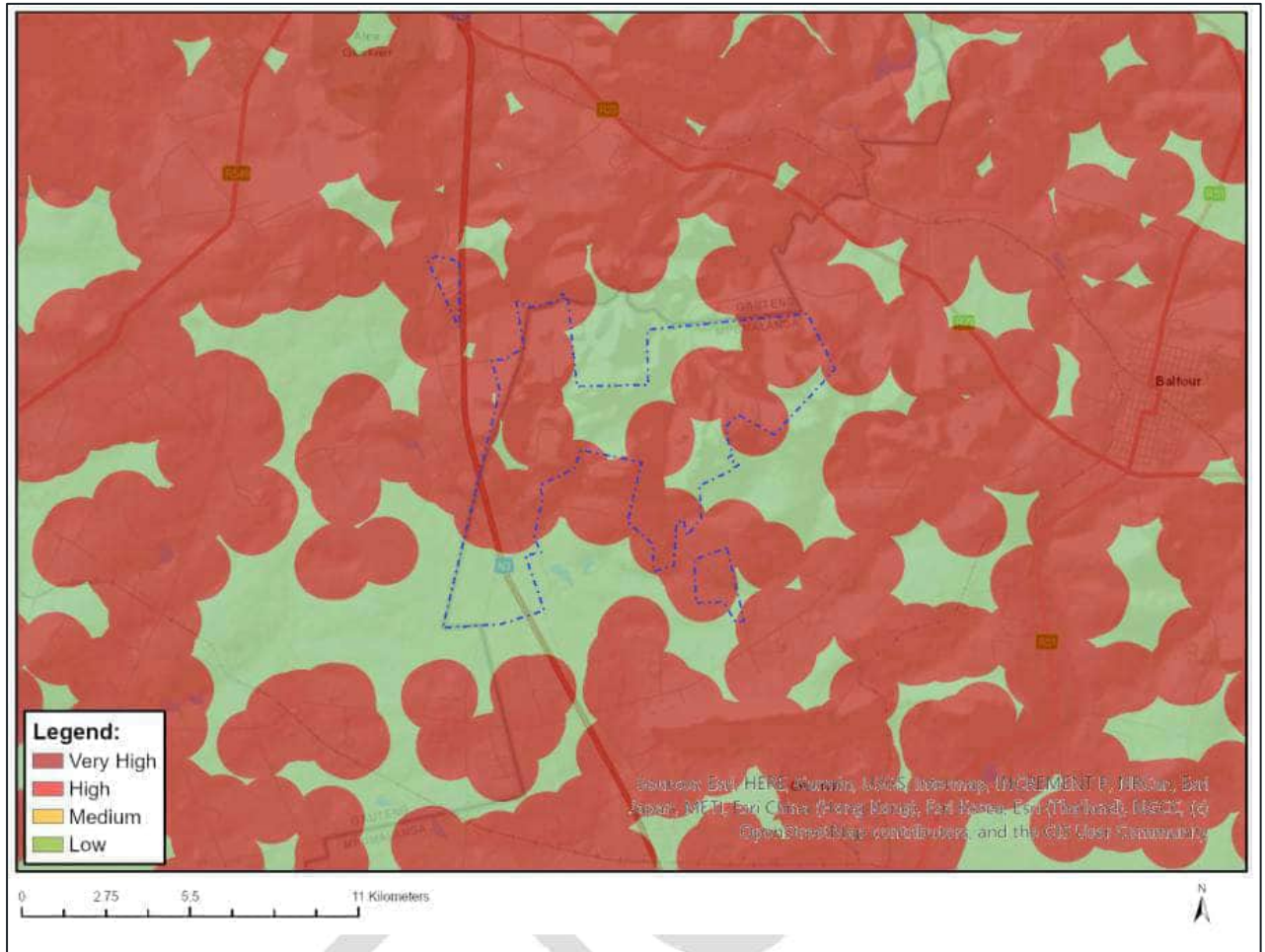


Figure 4-16 - Map of Flicker Theme Sensitivity (Source: DFFE Screening Report, 2024).

Based on the results of the sensitivity risk matrix as well as the site visit undertaken, it can be found that the sensitivity of the visual receiving environment for the proposed ABO Uvemvane WEF 1 and associated infrastructure is 'high'. This assessment therefore disputes some of the visual sensitivity classification identified by the Screening Tool with regards to Flicker theme sensitivities. Additionally, this assessment confirms that where the occupation of the homesteads within the study area was verified, the visual aspects of Flicker Theme Sensitivity for the proposed ABO Uvemvane WEF 1 is confirmed to be **'very high'**.

4.2.1.10 Landscape Assessment

The output of the DFFE Screening Tool for the Landscape (Wind) Theme is illustrated in **Figure 4-17** and indicates that the site is classified as **'Very High' Sensitivity**. The Landscape (Visual) SSVR is included in **Appendix C.7**.

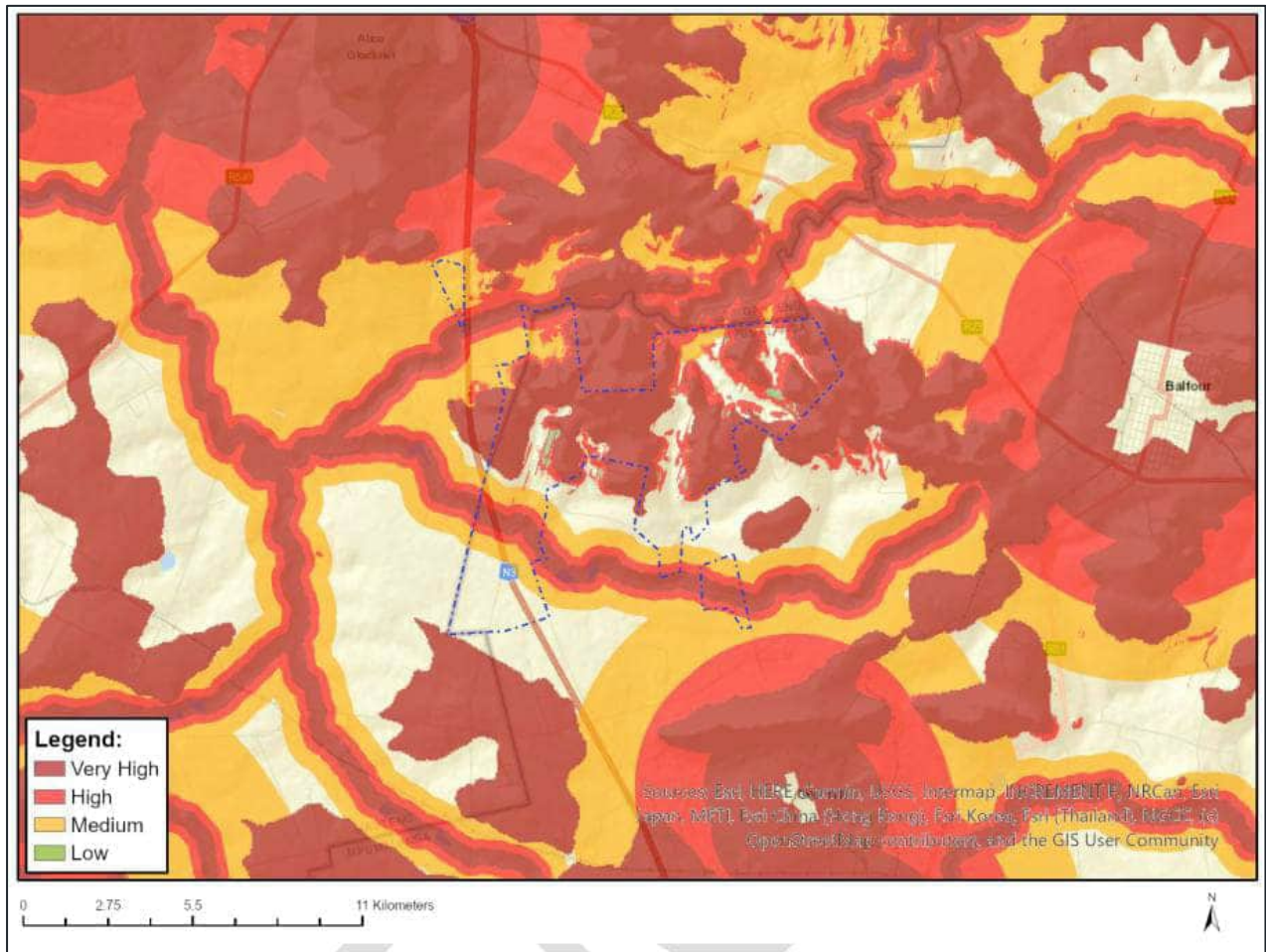


Figure 4-17 - Map of Landscape (Wind) Theme Sensitivity (Source: DFFE Screening Report, 2024)

Based on the results of the sensitivity risk matrix as well as the site visit undertaken, it can be found that the sensitivity of the visual receiving environment for the proposed ABO Uvemvane WEF 1 and associated infrastructure is 'high'. This assessment therefore disputes some of the visual sensitivity classification identified by the Screening Tool with regards to landscape theme sensitivities. Overall, the sensitivity rating in terms of the Landscape Theme Sensitivity of the entire site can be considered as **high** - as opposed to very high - as is mapped in the Screening Tool.

The sensitivity of the visual receiving environment for the proposed ABO Uvemvane WEF 1 is high due to the following :

- Low to moderate VAC of the receiving environment.
- Location of the site outside of a REDZ.
- Shadow flicker impacts as a result of turbines located within 1km of numerous homesteads located within and adjacent to the site.
- High visual quality of the receiving environment.
- Location of turbines within Mountains and tall hills located within the site extent.
- Location of turbines within 1km of the N3 national road directly adjacent to the site.
- Location of turbines beyond 3km of the Alice Glockner Nature Reserve.
- Presence of a moderate amount of existing infrastructure.

4.2.1.11 Palaeontology Impact Assessment

The output of the DFFE Screening Tool for the Palaeontology Theme indicates that the site is classified as **'Very High' Sensitivity**. The Palaeontological SSVR is included in **Appendix C.4**.

According to the SAHRIS Palaeo sensitivity Map, the proposed development is mostly underlain by sediments of Low palaeontological sensitivity, with some small areas underlain with 'Moderate to Very High' fossil sensitivity.

According to the extract from the Council of GeoScience Map CGS 2628 East Rand Geology Map the development area is underlain by sediments from Pv: Vryheid Formation in the Eccu Group, Ra: Alberton, and Rw: Westonaria, both in the Rk: Klipriviersberg Group, Rb: Booysens, Rjo: Johannesburg, and Rt: Turffontein Formations in the Central Rand Group, Rg: Government, and Rj: Jeppeshtown Formations in the West Rand Group, Q-a: Quaternary Alluvium and V-di: Diabase.

Most of the proposed development is underlain by the Klipriviersberg Group (Rk), and the Turffontein Formation (Rt) in the Central Rand Group. According to the Palaeotechnic report of Gauteng Groenewald and Groenewald, (2014), the Klipriviersberg Group, which also contains the Ra: Alberton, and Rw: Westonaria Formations, has Low palaeontological sensitivity, with no fossils recorded. Turffontein Formation (Rt) in the Central Rand Group falls in the Witwatersrand Supergroup Which, according to the SAHRIS Fossil Heritage Browser, has Insignificant or Zero palaeontological sensitivity.

Other underlying sediments with Insignificant/ Zero palaeontological sensitivity, belong to the Witwatersrand SuperGroup: Rb: Booysens, and Rjo: Johannesburg Formations in the Central Rand Group, Rg: Government, and Rj: Jeppeshtown Formations in the West Rand Group.

The sediments marked as having Moderate sensitivity on the SAHRIS Palaeosensitivity Map, are Quaternary Alluvium. Groenewald and Groenewald (2014) note that *"Superficial deposits of Quaternary and Tertiary age can contain important fossils. Most notable are fossils associated with, for example, the Tswaing Impact Crater north of Pretoria (Johnson et al, 2006). The superficial deposits are allocated a moderate palaeontological sensitivity due to the fact that many fossiliferous rocks might be covered in a thin layer of soil, where fossils are only found where the topsoil has been removed by erosion"*. The Alluvial deposits, however, have Low palaeontological sensitivity, being *"Recent sandy and clayey deposits along water courses These sediments are known to contain a wide range of fossils possible, including mammalian bones and teeth, tortoise remains, ostrich egg etc"*.

The Vryheid Formation in the Eccu Group is the formation that has Very High palaeontological sensitivity. These deltaic sandstones, shales and coals, with minor conglomerates date to the Early to Middle Permian. It is known for its rich assemblages of plant fossils (Glossopteris Flora), including tree trunks, stumps and roots, palynomorphs, rare insects, conchostracans, and low diversity trace fossil assemblages. There are very rich and historically important plant fossil collections from the Vryheid Formation at Vereeniging.

The DFFE Screening Tool classified the site as having a 'Very High' sensitivity due to the presence of the Vryheid Formation. However, the specialist assessment disputes this classification. Field verification indicates that only small portions of the development area are underlain by this sensitive formation. As a result, the overall sensitivity of the site is more accurately rated as Medium, and the

anticipated impact of the development is expected to be ‘Low to Moderate’.

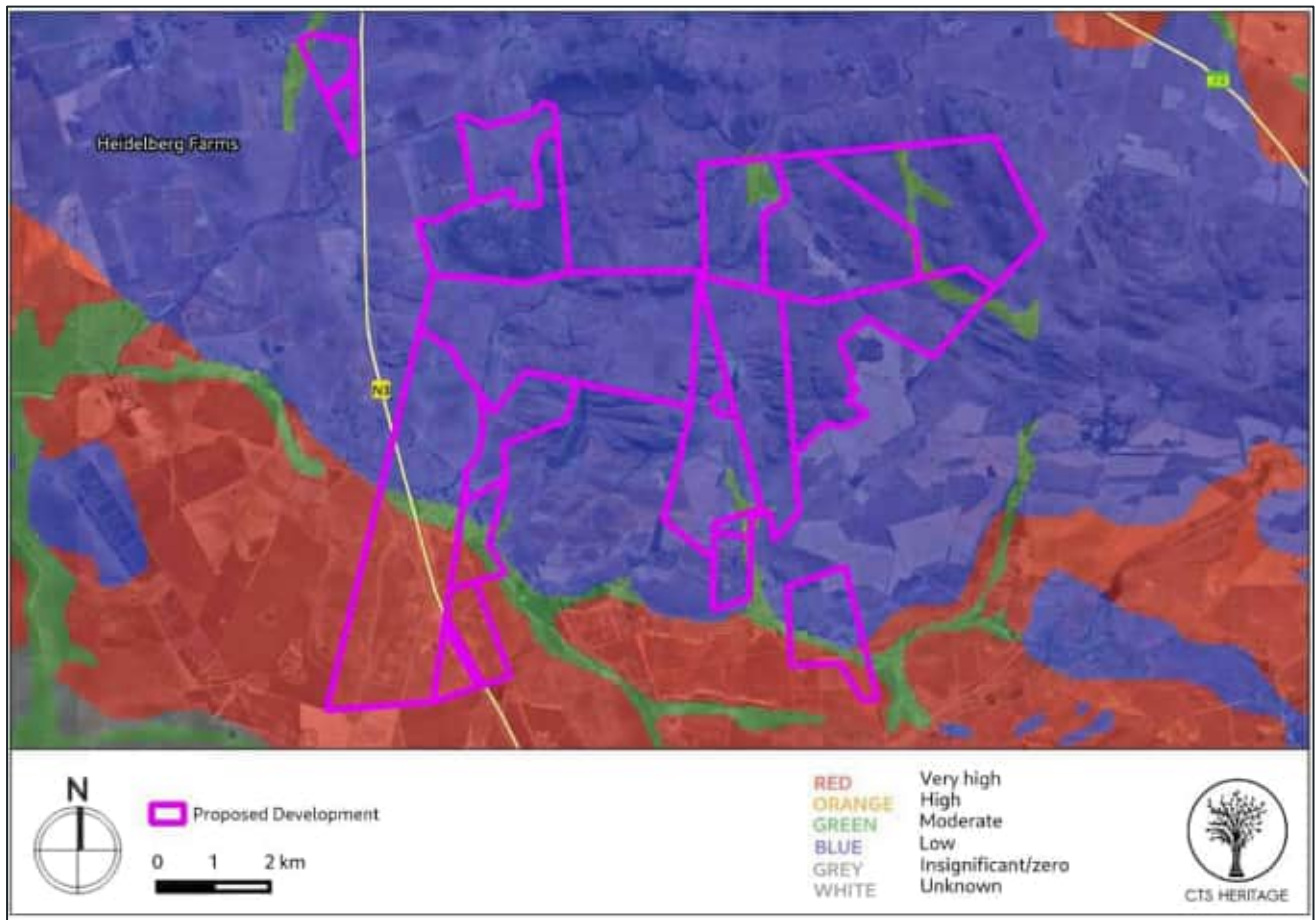


Figure 4-18 – Palaeontological sensitivity Map

4.2.1.12 Noise Assessment

The output of the DFFE Screening Tool for the Noise Theme is illustrated in **Figure 4-19** and indicates that the site is classified as ‘**Very High**’ Sensitivity. The Noise SSVR is included in **Appendix C.8**.

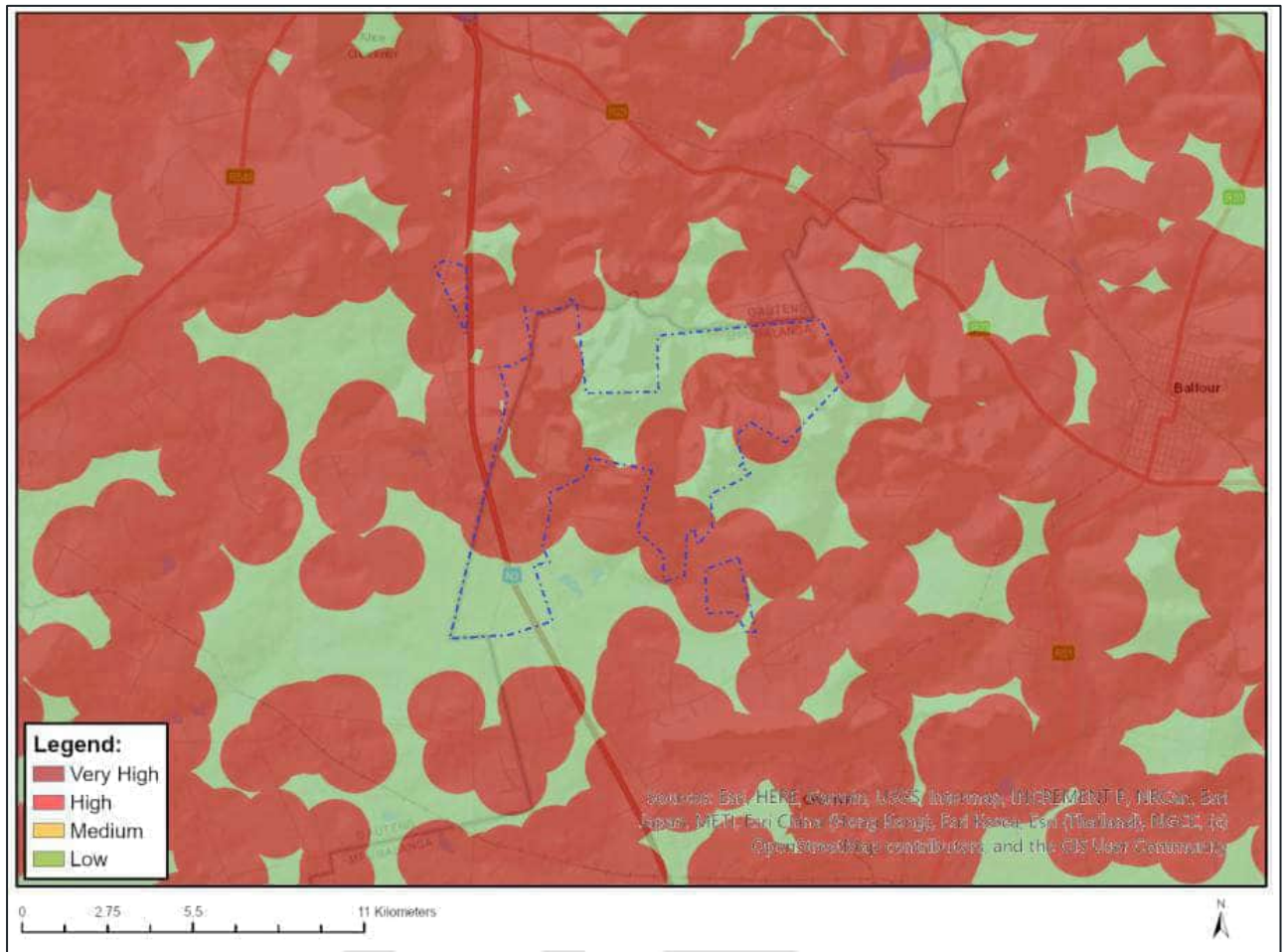


Figure 4-19 - Map of Noise Theme Sensitivity (Source: DFFE Screening Report, 2024)

There are numerous permanent or temporary residential activities within the project area (**Figure 4-20**). These residential activities are considered to be noise-sensitive, and the areas are considered to have a **“Very High” sensitivity** to noise. This report agrees with this finding of the online screening tool.

Areas with a “Very High” Sensitivity to noise are indicated on Figure 3-1. The online screening tool identified a number of areas with a “very high” sensitivity to noise in the vicinity of the proposed development.

Because a number of these structures are used for residential purposes and considered to be noise-sensitive, the potential impact from noise from the project should be assessed in a Noise Specialist Study. **Figure 4-21** illustrates generalized 500 m buffer zones around the area where wind turbines may be erected.

■ Potential noise receptors

Generally, noises from wind turbines:

- could be significant within 500 m from a wind turbine, with receptors staying within 500 m from operational wind turbines subject to noises at a potentially sufficient level to be considered disturbing. The significance from noise from a wind turbine located within this zone may be high

and the development of wind turbines in this area is not recommended. This is recommended to be a No-Go area in terms of noise, though it should be noted that this could be as high as 800m for WTG with higher SPL;

- are normally clearly audible when between 500 and 1000 m from an NSR. Depending on the layout and the sound power emission levels, the significance of the noise impact could be low to high. The wind farm layout should be carefully planned when locating wind turbines in this area, as the turbines cumulatively contribute to noise levels at the NSR. This however can only be assessed once a layout is available, together with the SPL of the selected wind turbine model. For an initial layout, it is not recommended that more than two (2) wind turbines be located closer than 1,000m from any NSR;
- may be just audible or significant, again depending on the number of wind turbines located within 2,000m from an NSR (as well as the SPL of the selected wind turbine). The significance of the noise impact could be low to medium. The wind farm layout should be carefully planned when locating wind turbines in this area, as the turbines cumulatively contribute to noise levels at the NSR. This however can only be assessed once a layout is available, together with the SPL of the selected wind turbine model. For an initial layout, it is not recommended that more than eight (8) wind turbines be located closer than 2,000 m from any NSR (inclusive of those located closer than 1,000 m)); and,
- are generally of a low significance at distanced greater than 2,000 m, although this again would depend on the layout, the SPL of the wind turbine as well as local meteorological conditions. There are a number of new wind turbines with sound power emission levels exceeding 110 dBA (re 1 pW) that does impact on the extent of noise impact.



Figure 4-20 - Aerial Image indicating closest Noise-sensitive developments to the ABO Uvemvane 1 WEF project



Figure 4-21 - Preliminary 500m no-go Buffer

4.2.1.13 Plant Species Assessment

The output of the DFFE Screening Tool for the Plant Species Theme is illustrated in **Figure 4-22** and indicates that the site is classified as **Medium Sensitivity**, due to the potential presence of the following flora SCC:

- *Khadia beswickii*;
- *Sensitive species 1252*;
- *Delosperma macellum*;
- *Cineraria longipes*;
- *Sensitive species 691*;
- *Brachycorythis conica subsp. transvaalensis*;
- *Sensitive species 1248*; and
- *Prunus africana*.

The Plant Species SSVR is included in **Appendix C.2**.

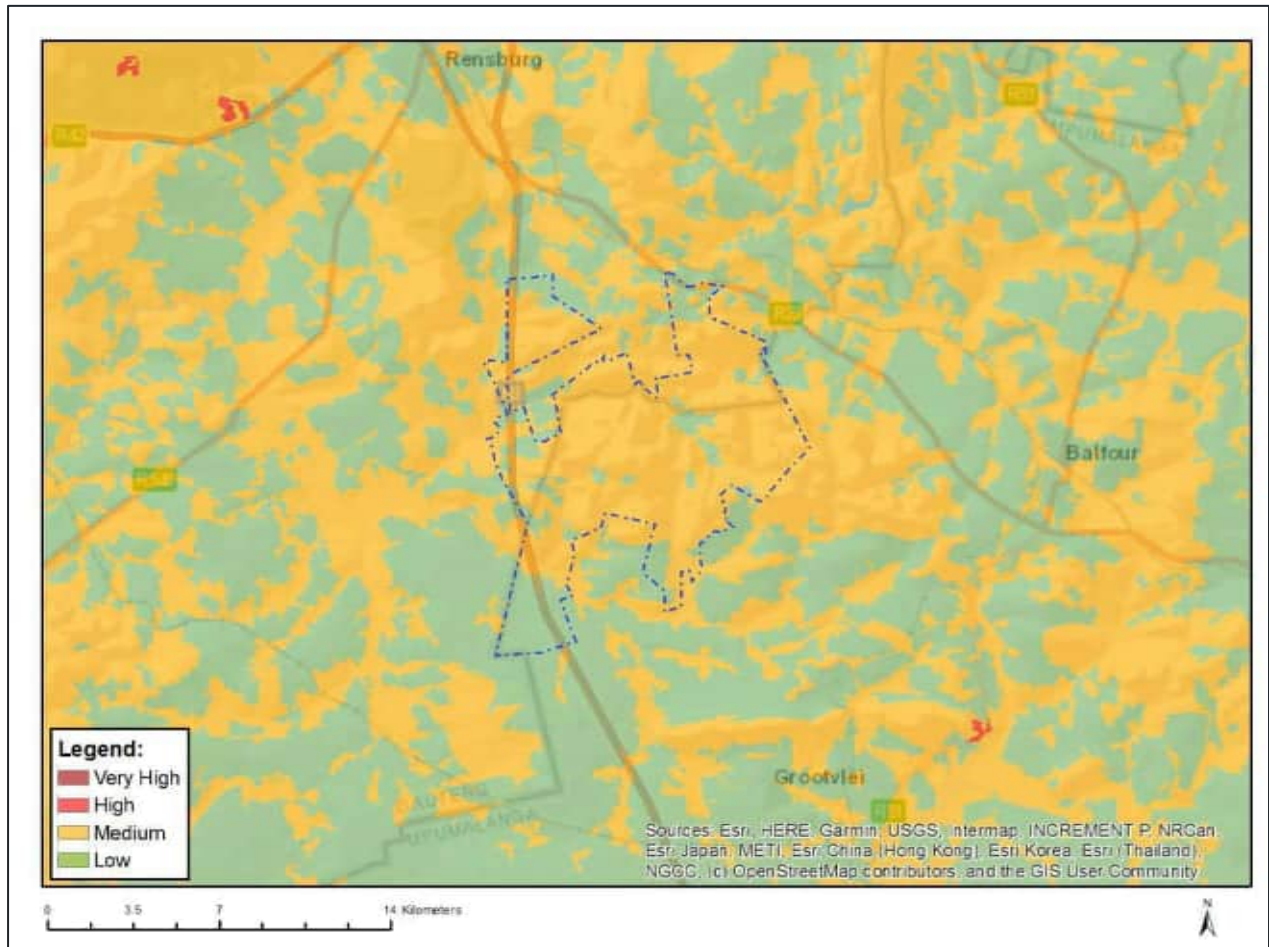


Figure 4-22 - Map of Plant Species Theme Sensitivity (Source: DFFE Screening Report, 2024)

No flora SCC were recorded on-site during the field surveys. This notwithstanding, considering the extent and diversity of natural habitat across the Project site, it is possible that several SCC may be present, including those taxa highlighted by DFFE Screening Tool.

Species like *Khadia beswickii* (Vulnerable), *Brachycorythis conica* subsp. *transvaalensis* (Critically Endangered), *Cineraria longipes* (Vulnerable), *Delosperma macellum* (Endangered), Sensitive species 1252 (Vulnerable) and Sensitive species 1248 (Vulnerable) are commonly found in diverse wooded grassland and bushveld habitats, often in rocky mountainous areas. Sensitive species 691 (Vulnerable) favours undulating grasslands in damp areas.

These habitats are present in the Project site and accordingly these flora SCC either possibly or probably occur in the Project site. All flora SCC that potentially occur in the Project site are listed in Appendix B of the study, along with a 'probability of occurrence', based on habitat suitability assessments.

The '**Medium**' sensitivity rating for the Plant Species theme is therefore confirmed for patches of natural habitat across the project site and low in areas of modified habitat (e.g., cultivated fields and stands of alien trees). A Plant Species Specialist Assessment Report will be compiled for the proposed Project, as per the applicable protocol.

4.2.1.14 RFI Assessment

The output of the DFFE Screening Tool for the RFI (Wind) Theme is illustrated in **Figure 4-23** and indicates that the site is classified as **'High' Sensitivity**.

The sensitivity is considered to be **low**, this will be confirmed during the public participation process, where, the SAWS and relevant telecommunications stakeholders will be engaged with regards to the nature of the communication towers in the vicinity of the project area.

ABO Energy South Africa (Pty) Ltd has engaged with SAWS and relevant telecommunications stakeholders prior to the S&IER application process regarding the proposed project. The Applicant received confirmation that the proposed project will not impact SAWS. All correspondence received to date for the project in **Appendix D** of this SSVR.

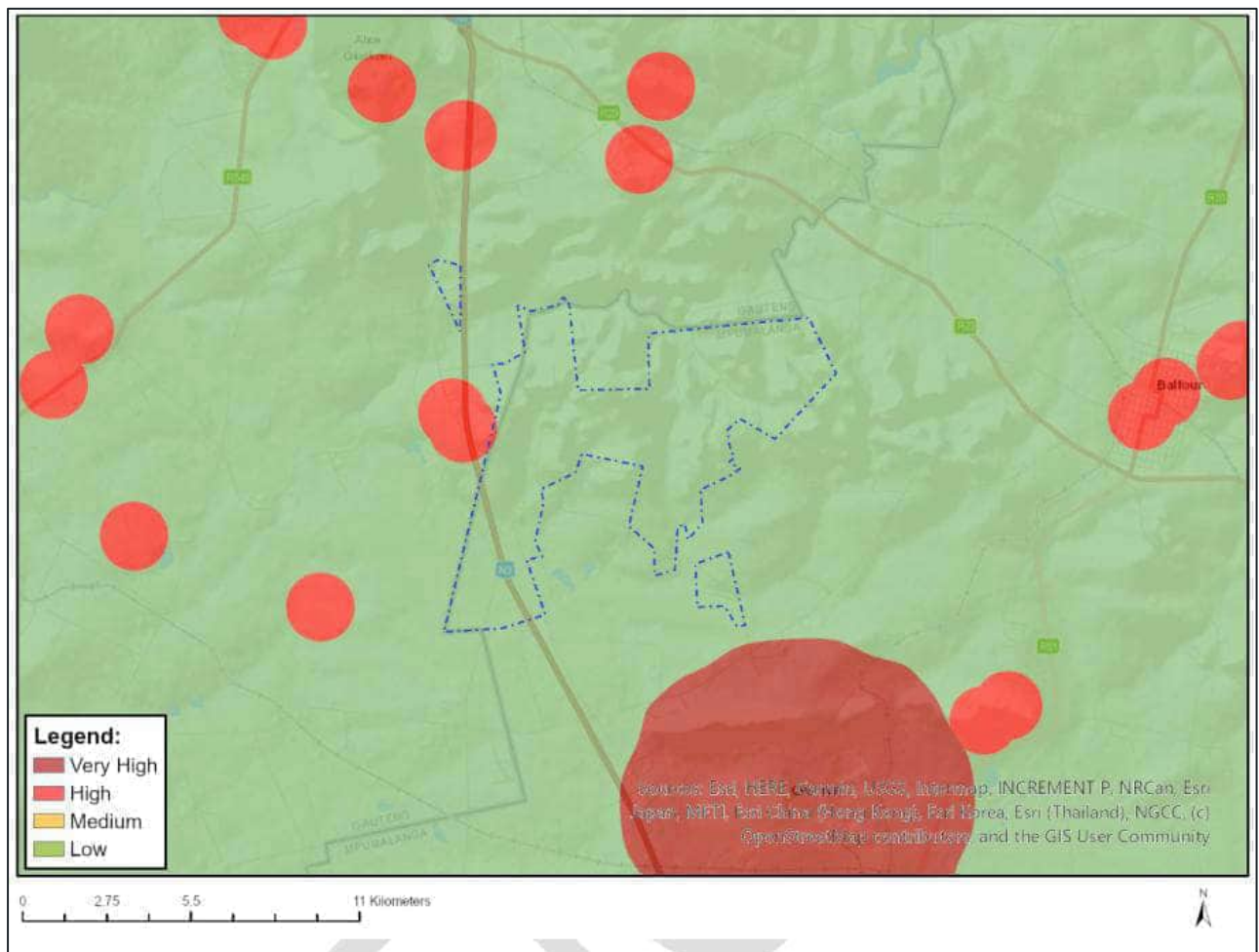


Figure 4-23 - Map of RFI Theme Sensitivity (Source: DFFE Screening Report, 2024)

4.2.1.15 Terrestrial Biodiversity Impact Assessment

The output of the DFFE Screening Tool for the Terrestrial Biodiversity Theme is illustrated in **Figure 4-24** and indicates that the site is classified as **Very High Sensitivity**, due to the following features:

- Critical Biodiversity Area (CBA) 1;

- CBA 2;
- CBA Irreplaceable;
- CBA Optimal;
- Ecological Support Areas (ESA) 1;
- ESA 2;
- ESA: Landscape corridor;
- ESA: Local corridor;
- National Protected Area Expansion Strategy (NPAES);
- Soweto Highveld Grassland – Vulnerable; and
- Tsakane Clay Grassland – Endangered.

The Terrestrial Biodiversity SSVR is included in **Appendix C.2**.

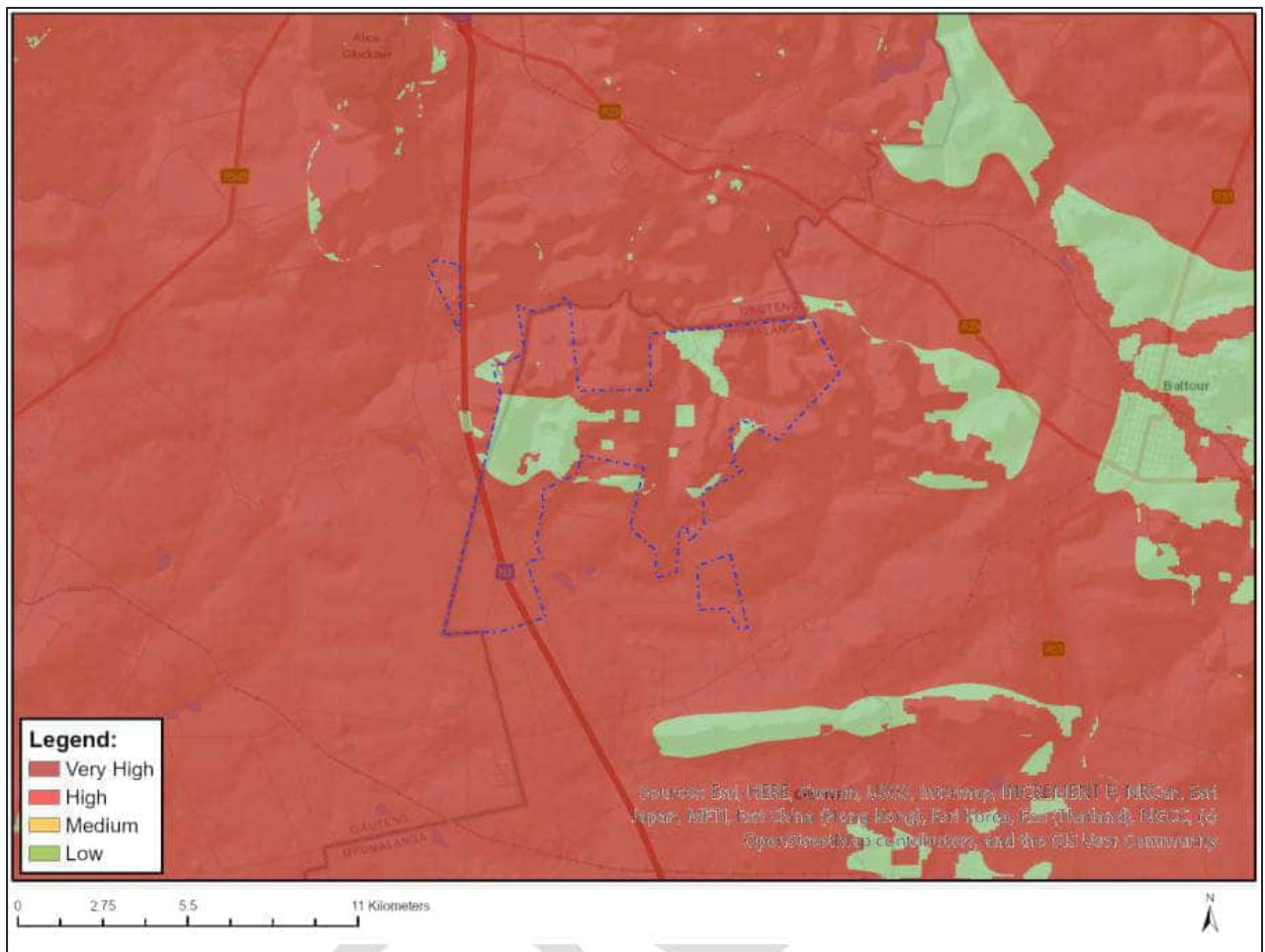


Figure 4-24 - Map of Terrestrial Biodiversity Theme Sensitivity (Source: DFFE Screening Report , 2024)

The DFFE Screening Tool's sensitivity rating for Terrestrial Biodiversity for the study area is 'Very High' due to the predicted presence of several conservation features, including the presence of CBAs and ESAs, Priority Focus Areas for protected area expansion, and the presence of threatened vegetation types. It is noted that four vegetation types are relevant to the PAOI, namely Andesite Mountain Bushveld, Gold Reef Mountain Bushveld, Tsakane Clay Grassland and Soweto Highveld

Grassland. The former two vegetation types are listed as Least Concern and dominate most of the central portion of the PAOI. The latter two vegetation types characterise natural habitat patches in the north and south of the PAOI and are threatened, with Tsakane Clay Grassland listed as Endangered and Soweto Highveld Grassland listed as Vulnerable.

Maps showing the delineation of these conservation planning features relative to the farms that comprise the ABO Uvemvane WEF 1 project are shown in **Figure 4-25** to **Figure 4-28**.

As discussed above, the findings of the verification field visit indicate that the study area comprises large tracts of undisturbed natural habitat that support various ecosystem processes and diverse flora and fauna assemblages. On-site natural habitat is thus of biodiversity conservation importance in accordance with the DFFE listed features.

The '**Very High**' **sensitivity** rating for Terrestrial Biodiversity is therefore confirmed for patches of natural habitat. In patches of modified habitat (actively cultivated fields and alien tree stands) it is considered low. A Terrestrial Biodiversity Specialist Assessment Report will therefore be compiled for the proposed Project, as per the applicable protocol.

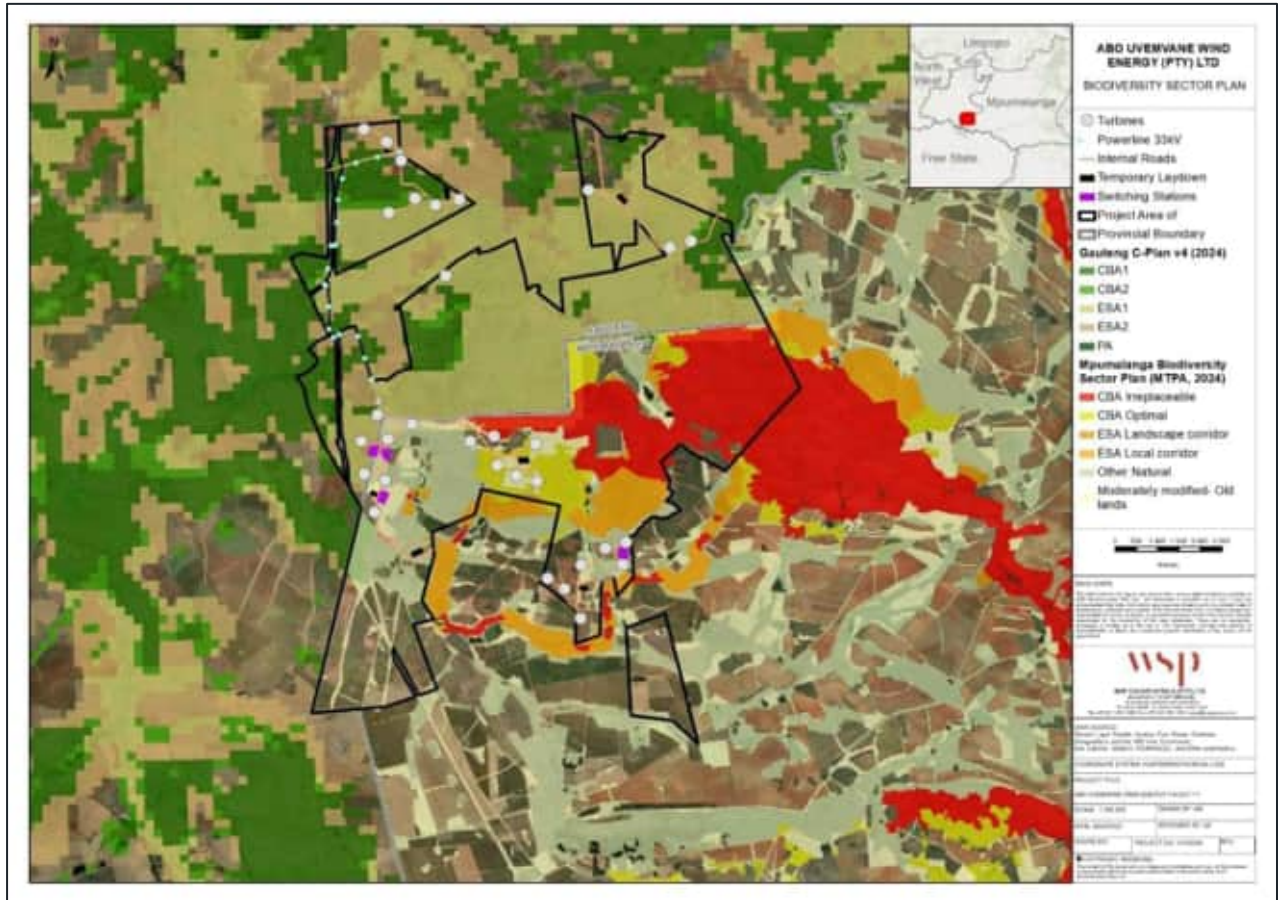
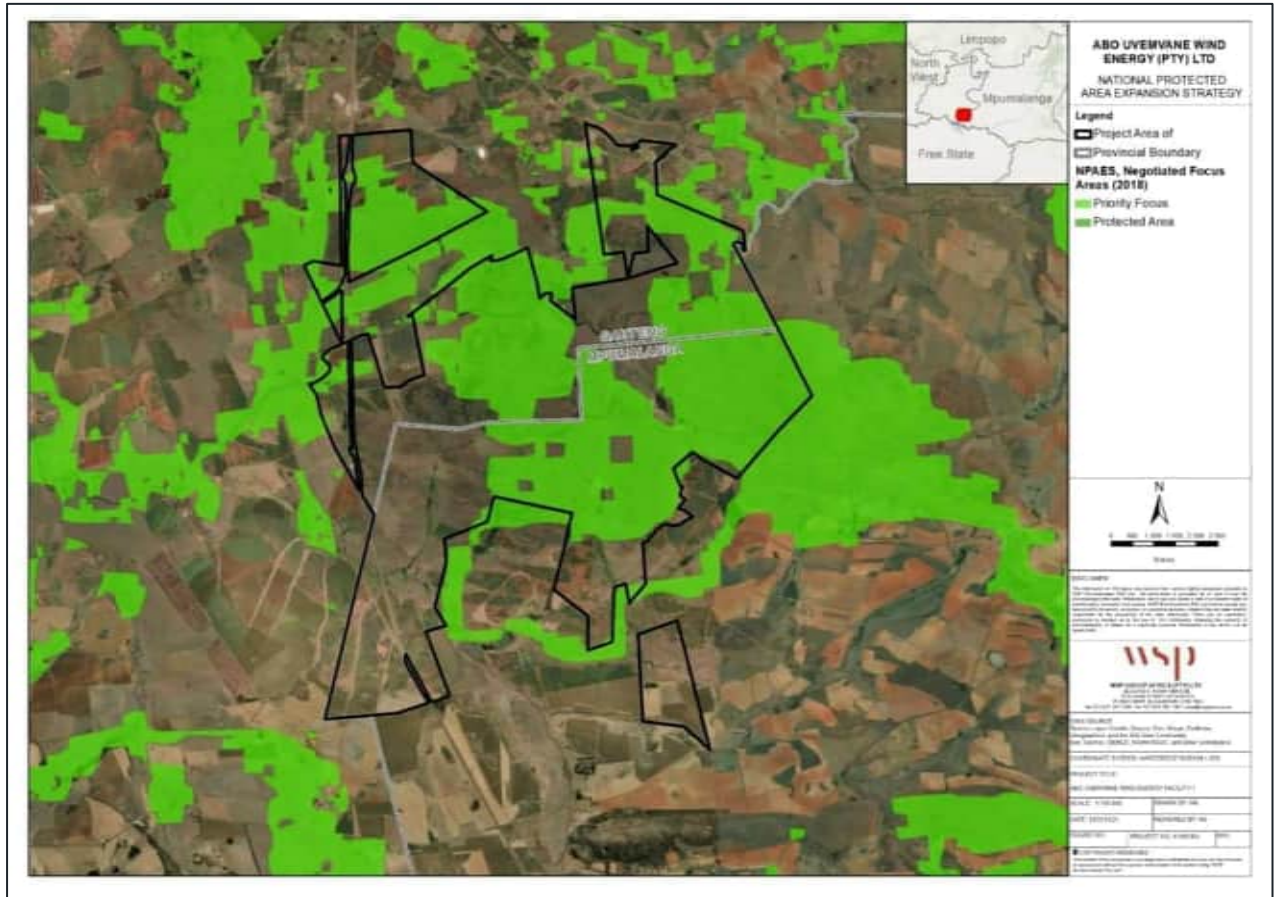


Figure 4-25 - Uvemvane WEF 1 in relation to the Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) of the Gauteng C-Plan (2011) and the MBSP (2024).



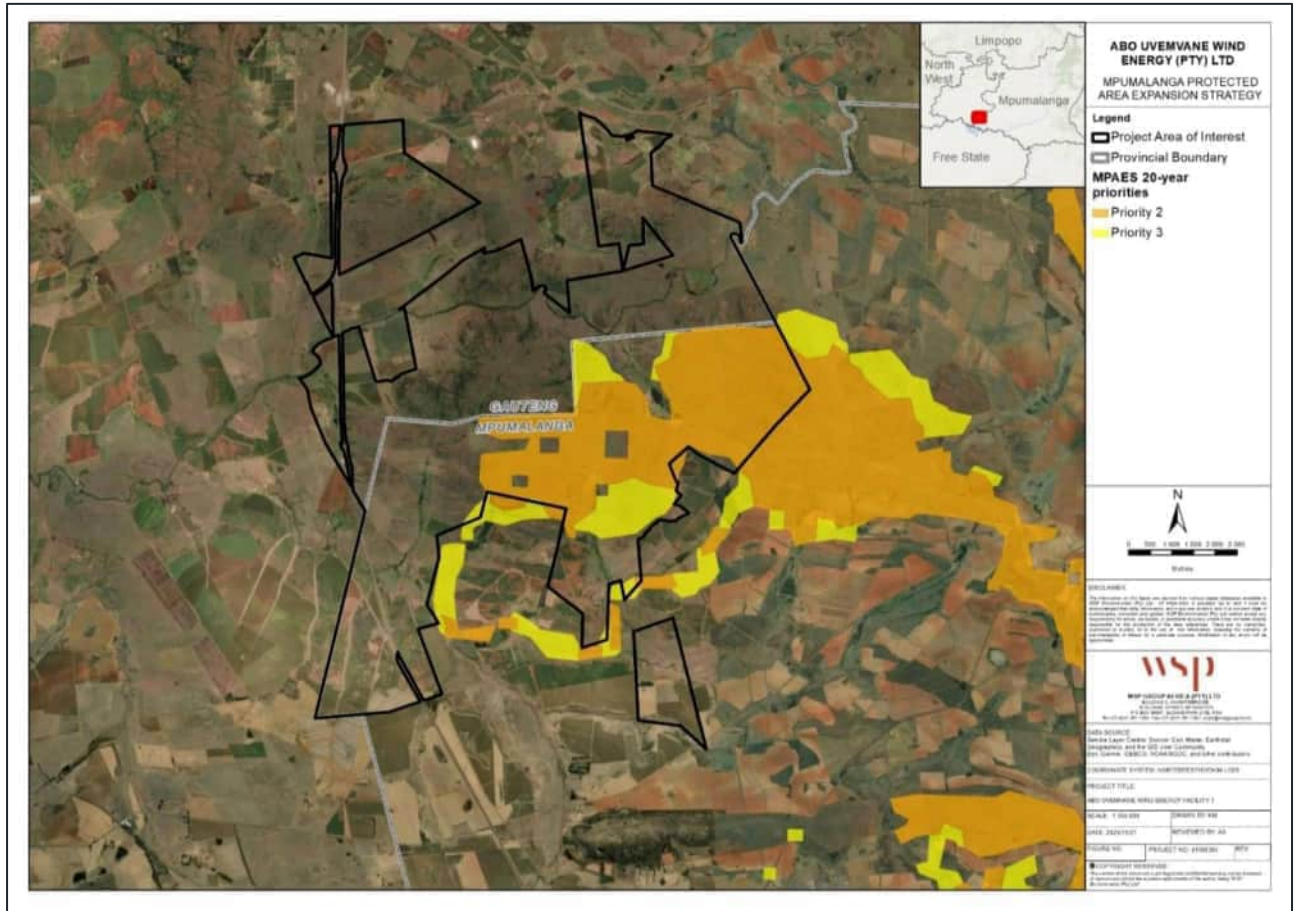


Figure 4-27 - Uvemvane WEF 1 in relation to the Priority Focus Areas of the Mpumalanga Protected Area Expansion Strategy – 20 Year Plan

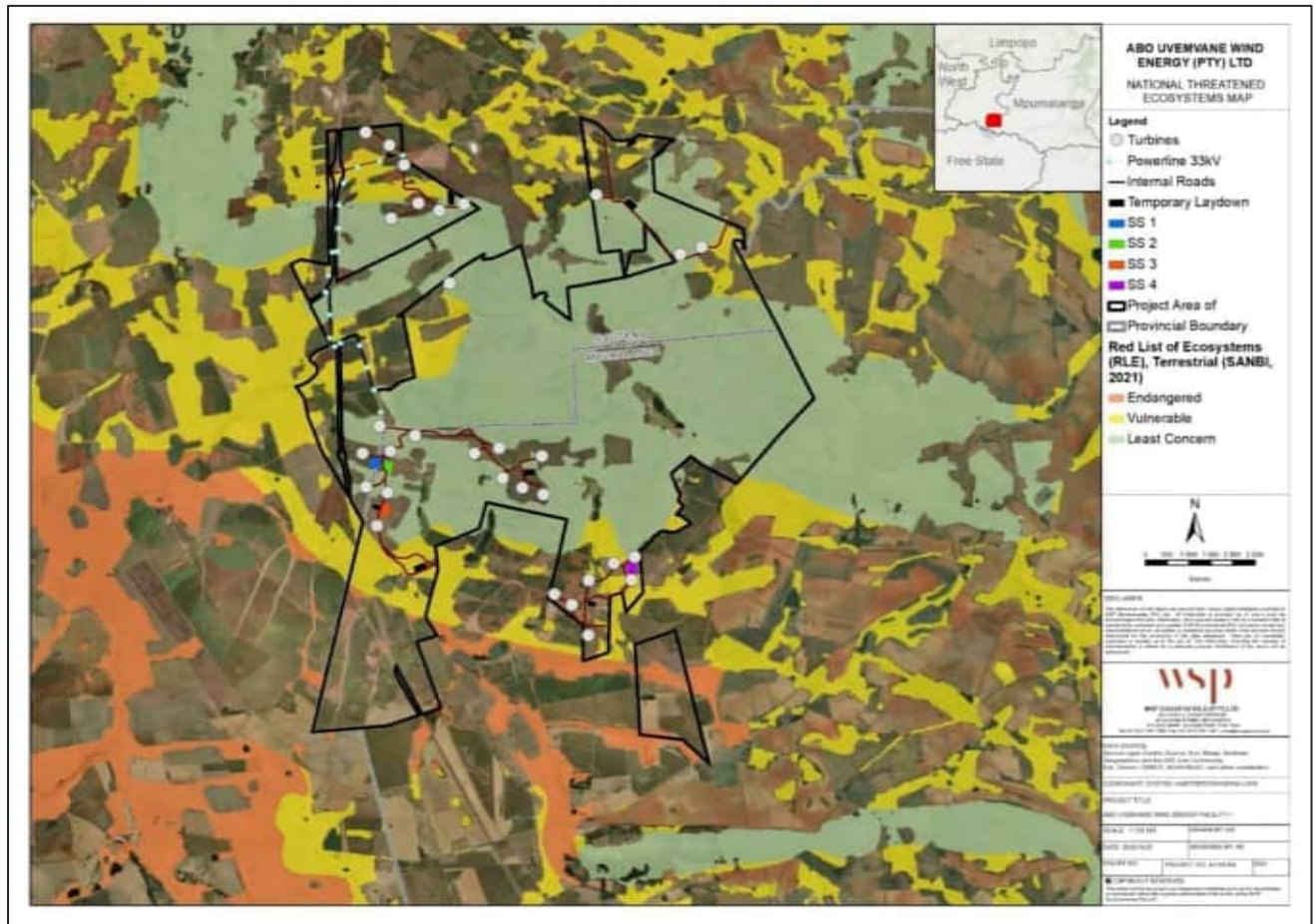


Figure 4-28 - Uvemvane WEF 1 in relation to the Red List of Threatened Ecosystems (SANBI 2021)

4.2.1.16 Vulture Species Assessment

The output of the DFFE Screening Tool for the Vulture Species Theme is illustrated in **Figure 4-29** and indicates that the site is classified as **'Medium. Sensitivity'**. The Avifauna SSVR is included in **Appendix C.5**.

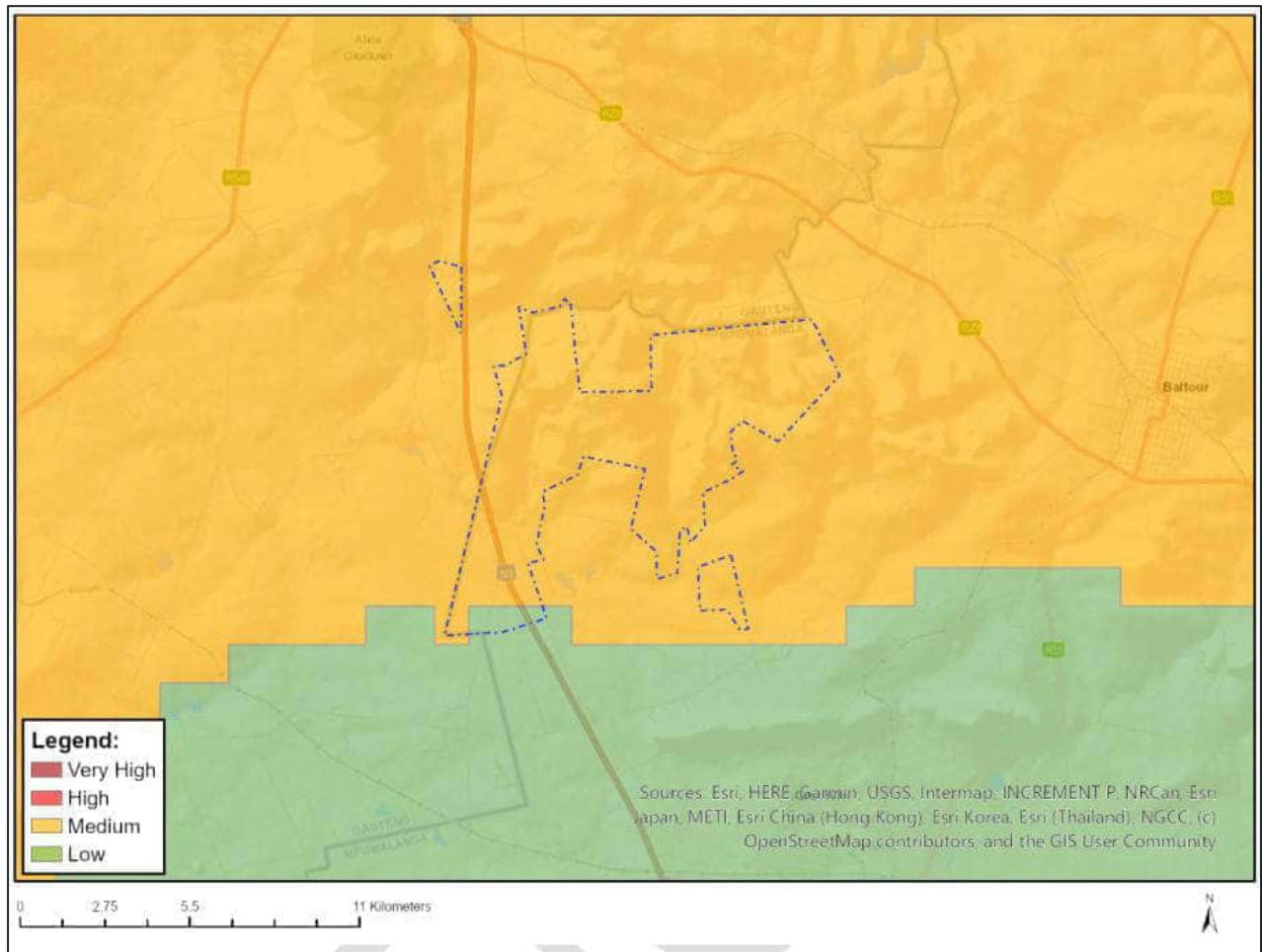


Figure 4-29 - Map of Vulture Species Theme Sensitivity WEF 1

(Source: DFFE Screening Report, 2024)

The BirdLife South Africa 'Cape Vulture and Wind Farms: Guidelines for impact assessment, monitoring and mitigation' (Pfeiffer & Ralston-Paton, 2018) were assumed to not be applicable as the Screening Tool Animal Species Theme did not identify the site as potentially suitable for Cape Vulture. However, the Screening Tool's Vulture Species Theme identified the study area as of medium sensitivity for vulture species due to the area affecting between 5% - 10% of the population. The survey effort was in line with the Cape Vulture Guidelines; therefore, the Pre-application Avifaunal Monitoring Plan did not require further revision, as the collected data is deemed sufficient to represent the majority of vulture movement on site. In addition, supplementary data from Vulpro were obtained to inform the study for an area 50 km from the site boundary.

No colonies or permanent roost sites for either White-backed Vulture or Cape Vulture are known within a 50 km radius of the WEF site as per the Vulpro tracking data. The closest breeding colonies

(Scheerpoort and Nooitgedaght) are located along the Magaliesburg Mountain Range which is approximately 115 km from the WEF site. However, two rocky ridges or trees ~45 km north-west and 11 km northeast of the WEF site have been used as occasional roosts/overnight stops by Cape Vulture.

In terms of powerline roost sites, the vulture tracking data showed that three transmission power line pylons located on the south-western edge of the 50 km buffer zone were used as overnight roost sites by both Cape Vulture and White-Backed Vulture. The tracking data shows no evidence that the pylons are being used as permanent roost sites.

No vultures were recorded during six seasonal surveys of pre-application monitoring and vultures appear to not be utilising the site on any regular basis. The sensitivity is verified as **Medium**.

4.2.2 ABO UVEMVANE WEF 2

4.2.2.1 Agricultural impact assessment

There is a direct correlation between land capability rating and the National Web-based Environmental Screening Tool's (screening tool's) agricultural sensitivity.

The screening tool rates the Agricultural Sensitivity theme as '**Very High**' citing *i.a.*: "Pivot Irrigation; Land capability;09. Moderate-High/10. Moderate-High".

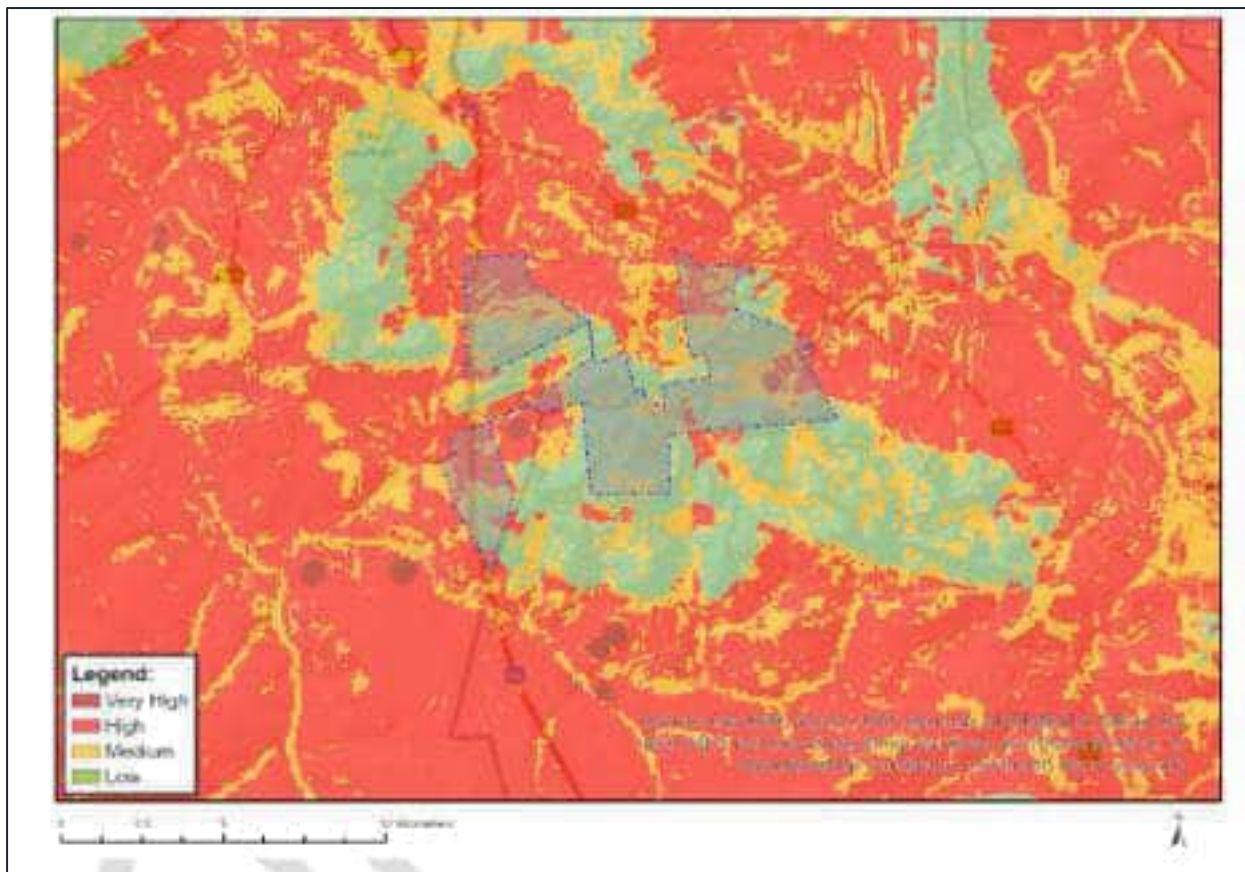


Figure 4-30 - Information obtained from the National Web-based Environmental screening Tool for the ABO Uvemvane WEF 2 project area.

From an Agricultural Theme Sensitivity point of view, the very high sensitivity classification is disputed by this assessment for all non-irrigated lands in the project area. Pivot irrigation was recorded in the proposed ABO Uvemvane WEF 2 project area on the Farm Steynskraal (Remaining Extent of Portion 1) on two center pivots of 20 and 12 ha respectively, which are irrigated from the Suikerbosrand River that drains past them. The 20-ha pivot (pivot 1), located east of the other (pivot 2), is situated on deep well drained Hutton soils (>1.8 m deep) that are ideal for irrigation cultivation. Pivot 2, on the other hand, is situated on shallower Bainsvlei (85 – 100 cm deep) and Avalon (50 – 100 cm) soils. The northern extremity of this pivot terminates against a hill where shallow Glenrosa soils (30 – 50 cm) were recorded. In conclusion, pivot 1 can be validated as having very high sensitivity but pivot 2 has medium sensitivity at best.

Generally, the rest of Category 1 soils are rated as high sensitivity by this assessment and do coincide with areas rated the same by the screening tool. However, most areas of high sensitivity according to the screening tool are also disputed due to soil potential restrictions as noted in the previous section for Category 2, 3 and 4 soils. The central and southern sections of the project area are rated as medium to low by the screening tool, which is mostly disputed from a medium sensitivity perspective and **validated as low** for most of that area.

Table 4-5 summarizes the conclusions of this sensitivity assessment, which are visually presented in **Figure 4-31**. The Agricultural SSVR is attached in **Appendix C.1**.

Table 4-5 - Summary of the screening tool vs specialist verified sensitivities.

Theme	Screening Tool	Soil Category	Specialist	Tool Validated or Disputed by Specialist - Reasoning
Agricultural Theme	Very High	Pivot 1	Very High	Validated – Pivot 1 as described in the report is a high value irrigated land on deep, well-drained Hutton soils.
	Very High	Pivot 2	Medium	Disputed – Pivot 2 is situated on moderately deep to shallow plinthic and lithic soils, which are not ideal for economic irrigation crop production.
	High	1	High	Validated – areas of category 1 soils that are rated as high sensitivity by the screening tool were found to be well suited for economically viable rainfed crop production.
	High	2	Medium	Disputed – category 2 soils have moderate restrictions in terms of soil depth and water holding capacity and will yield relatively good crops in average to above average rainfall seasons, which will not be sustained in below average seasons.
	High	3 & 4	Low	Disputed – category 3 & 4 soils have severe restrictions on water infiltration and crop available water and will not sustainably produce economically viable crops over the long term.
	Medium	2	Medium	Validated – category 2 soils have moderate restrictions in terms of soil depth and water holding

Theme	Screening Tool	Soil Category	Specialist	Tool Validated or Disputed by Specialist - Reasoning
				capacity and will yield relatively good crops in average to above average rainfall seasons.
	Medium	3, 4 & 5	Low	Disputed – category 3, 4 & 5 soils have severe restrictions on water infiltration, crop available water and soil depth for root growth and will not sustainably produce economically viable crops over the long term.
	Low	3, 4 & 5	Low	Validated – no cultivation possible due to severe restrictions on water infiltration, crop available water and soil depth.

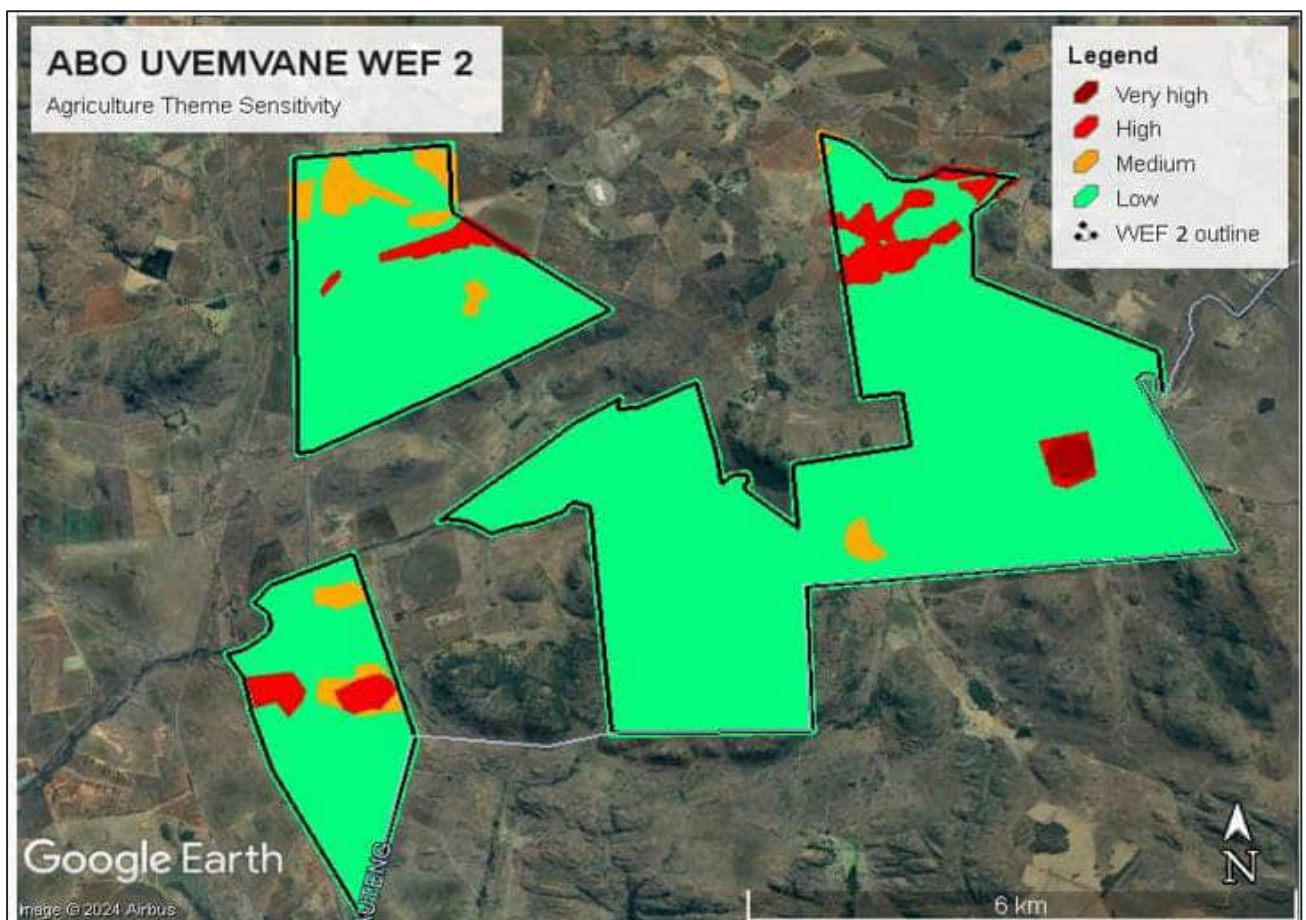


Figure 4-31 - Sensitivity rating as assigned by the specialist assessment on the agricultural sensitivity theme for the project area.

4.2.2.2 Animal species assessment

The Animal Species Theme is rated '**High**' sensitivity due to the potential presence of the following fauna SCC;

- Three mammal species:

- Spotted-necked Otter (*Hydricotis maculicollis*);
- Maquassie Musk Shrew (*Crocidura maquassiensis*);
- Oribi (*Ourebia ourebi ourebi*);
- Five bird species⁴:
 - White-bellied Bustard (*Eupodotis senegalensis*);
 - African Marsh Harrier (*Circus ranivorus*);
 - Secretarybird (*Sagittarius serpentarius*);
 - Yellow-billed Stork (*Mycteria ibis*);
 - Caspian Tern (*Hydroprogne caspia*);
- Three invertebrate species⁵:
 - Potchefstroom Blue (*Lepidochrysops procera*);
 - Mijburgh's Blue (*Orachrysops mijburghii*); and
 - Highveld Golden Opal (*Chrysoritis aureus*).

Of these, *Circus ranivorus*, *Mycteria ibis* and *Sagittarius serpentarius* are rated 'High' sensitivity. The remaining species are listed as 'Medium' sensitivity.

⁴ Bird species were assessed as part of a separate sensitivity verification process, and are therefore not considered further in this report.

⁵ Butterfly species were assessed as part of a separate sensitivity verification process, and are therefore not considered further in this report.

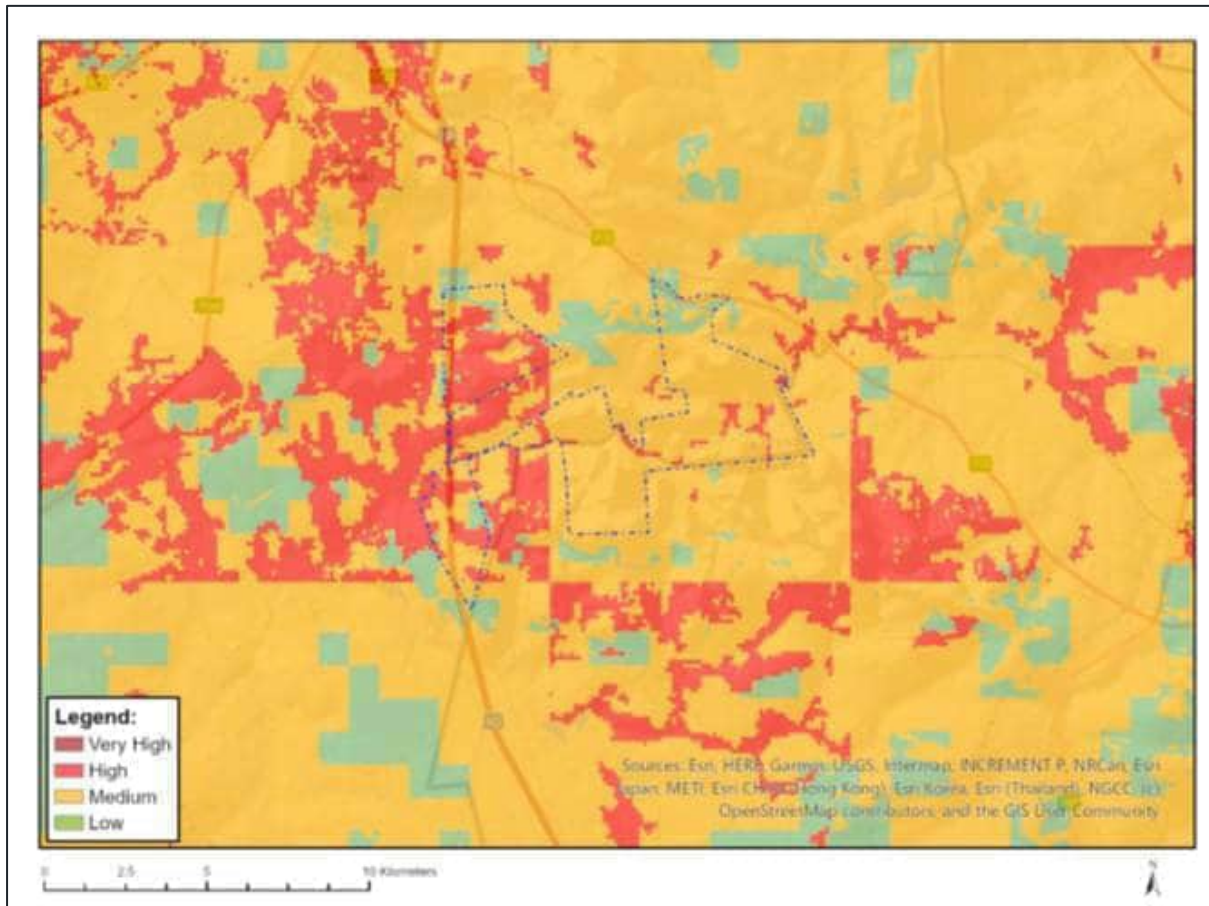


Figure 4-32 - Animal species sensitivity for the project site

(Source: DFFE Screening report, 2024)

Fauna species recorded during the field surveys are listed in Appendix C of the Terrestrial species SSVR, along with their conservation statuses, as per regional Red Lists and national/provincial legislation.

Free-roaming fauna SCC recorded for the proposed Project site included Mountain Reedbuck (*Redunca fulvorufula fulvorufula*) - Endangered, Serval (*Leptailurus serval*) – Near Threatened, Cape-clawless Otter (*Aonyx capensis*) – Near Threatened, Southern African Hedgehog (*Atelerix frontalis*) – Near Threatened, Grey Rhebok (*Pelea capreolus*) – Near Threatened and Vlei Rat (*Otomys cf. auratus*) – Near Threatened. Considering the extent and diversity of natural habitat across the Project site, it is possible that several other fauna SCC may be present, including some of those taxa highlighted by the DFFE Screening Tool. Discussion on the habitat preferences and a ‘probability of occurrence’ for the fauna SCC that are listed by the DFFE Screening Tool (excl. birds) is presented below.

The Spotted-necked Otter (Vulnerable) prefers permanent, large open-water bodies (Ponsoby, *et al.*, 2016), while the Maquassie Musk Shrew (Vulnerable) favours moist habitats (Taylor, *et al.*, 2016). Open water pools characterise a number of stretches of the Suikerbosrand River, and numerous other smaller water courses and drainage features are also present on-site. It is therefore ‘probable’ that Spotted-necked Otter present in the Project site. Although some suitable habitat is present for

Maquassie Musk Shrew, there are no post-2000 records of this species in either Gauteng or Mpumalanga Provinces. It is therefore unlikely that Maquassie Musk Shrew is present.

Oribi (Endangered) typically occur in areas with a mix of tall- and short-grassland (Shrader, *et al.*, 2016). This habitat is present in the Project site, although during informal interviews, local game farmers indicated that they were not aware of the presence of Oribi in the Project site. It is therefore 'unlikely' that Oribi is present.

With respect to the three butterfly species highlighted by the DFFE Screening Tool (*viz.* *Orachrysops mijburghii*, *Lepidochrysops procera* and *Chrysoritis aureus*), it is noted that the Project site is located 13 km from Suikerbosrand Nature Reserve and 3.2 km from Alice Glockner Nature Reserve, which are both recognised as butterfly hotspots.

Chrysoritis aureus (Endangered) is known from only six confirmed localities (Henning, 2018), including the farm Malanskraal 47 IR, which is located adjacent to the Project site (within the neighbouring WEF 1 Project site) (Mpumalanga Parks and Tourism Agency, 2024⁶); and in both Alice Glockner Nature Reserve and Suikerbosrand Nature Reserve (Terblanche, *et al.*, 2003). Habitat preferences include hills and ridges with south-facing slopes, the presence of large rocks, the host plant *Clutia pulchella*. Considering the proximity of a known location of this species and the suitability of on-site habitat with the presence of the host plant recorded, as a precaution, *Chrysoritis aureus* should be regarded as 'Recorded/Confirmed' for the proposed WEF 2 Project site.

Lepidochrysops procera (Rare) is known from only a few locations, and favours rocky areas in grassland, where it is dependent on the presence of the larval host plant *Ocimum obovatum* (Dobson and Dobson, 2018a). *Orachrysops mijburghii* (Endangered) is a butterfly species that is endemic to Gauteng and has been recorded in Suikerbosrand Nature Reserve. The preferred habitat of this species is moist habitats, along temporary streams in undulating low-lying areas (Dobson and Dobson, 2018b). These habitats are present in the Project site and considering the Project site's relatively close proximity to Alice Glockner Nature Reserve and Suikerbosrand Nature Reserve, it is 'possible' that both *Lepidochrysops procera* and *Orachrysops mijburghii* are present.

The '**High**' sensitivity rating for the Animal Species theme is therefore confirmed for patches of natural habitat and low in areas of modified habitat (e.g., cultivated fields and stands of alien trees). An Animal Species Specialist Assessment Report will be compiled for the proposed Project, as per the applicable protocol.

The Animal Species SSVR is attached in **Appendix C.2**.

4.2.2.3 Aquatic biodiversity impact assessment

The output of the DFFE Screening Tool for the Aquatic Biodiversity Theme is illustrated in **Figure 4-33** indicates the study site to be located within an area considered of '**Low**' Aquatic Biodiversity Sensitivity with areas of '**very high**' sensitivity associated with watercourses and wetlands within the site. The site does not lie within a National Freshwater Ecosystem Priority Area (FEPA) River Sub

⁶ Species status report for 2628CB received from M. Lötter.

catchment or Strategic Water Source Areas for groundwater or surface water. The Suikerbosrant riverine wetlands and some seep and valley bottom wetlands are mapped in the National Wetland Mapv5.

The Aquatic Biodiversity SSVR is included in **Appendix C.3**.

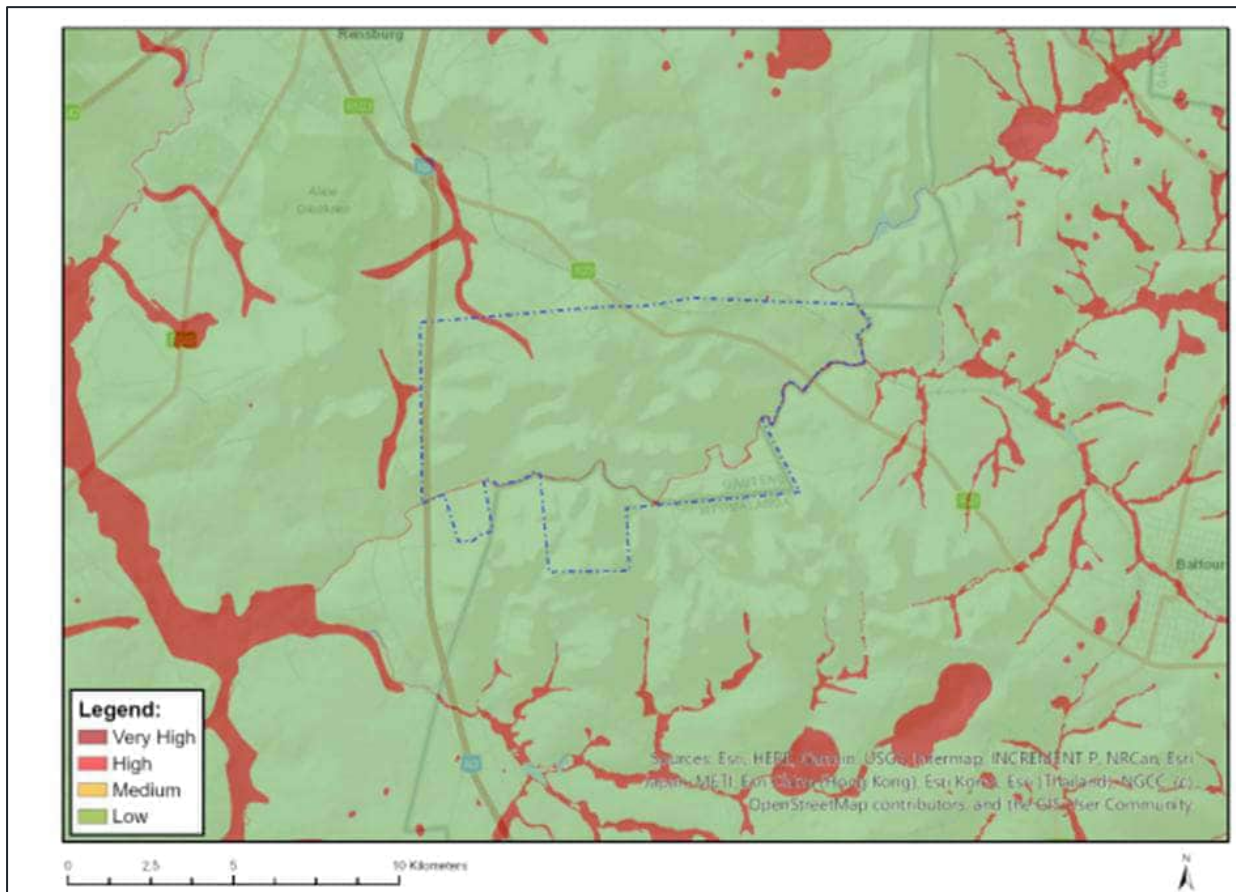


Figure 4-33 - Map of Aquatic Biodiversity theme sensitivity

(Source: DFFE Screening Report, 2024)

The aquatic features occurring within the site are the Suikerbosrant tributary of the Vaal River and its associated tributaries and wetland areas. These watercourses range from being largely natural on the higher-lying areas of the site to being moderately to largely modified ecological condition in their middle and lower reaches. The watercourses have moderate ecological importance but are of high sensitivity. They provide corridors for the movement of water and biota through the site and are particularly sensitive to flow, water quality and habitat modification due to the associated wetland habitat along many of the watercourses.

A buffer of 50m is recommended for the watercourses while the associated wetland habitats should be protected by a 100m buffer. Services could be placed through these aquatic habitats and buffer areas but must be kept to a minimum and adequately mitigated.

The findings of this assessment thus largely agree with the DFFE screening tool for aquatic biodiversity sensitivity mapping in that most of the site is of **low aquatic sensitivity**. The watercourses

are however considered to be of **high sensitivity** and should be avoided by the proposed WEF facilities, as recommended above.

If the above-recommended buffers and the proposed mitigation measures in the impact assessment are implemented, the risk to the aquatic ecosystems is likely to be low such that the General Authorisations for Section 21(c) and (i) water uses under the National Water Act (Act 36 of 1998) would apply.

Aquatic mapping

Watercourses have been mapped as being of 'high' sensitivity, with restrictions as mentioned for infrastructure components. In addition, to protect the aquatic habitats, the buffer zones of 50m on either side of the watercourses and 100m from the wetland areas have been mapped as being of 'medium' sensitivity.

Figure 4-34 shows the mapped aquatic features together with the recommended buffers for the 3 proposed sites (initial screening phase has 3 proposed site alternatives) and **Figure 4-35** shows the sensitivity mapping within the site.

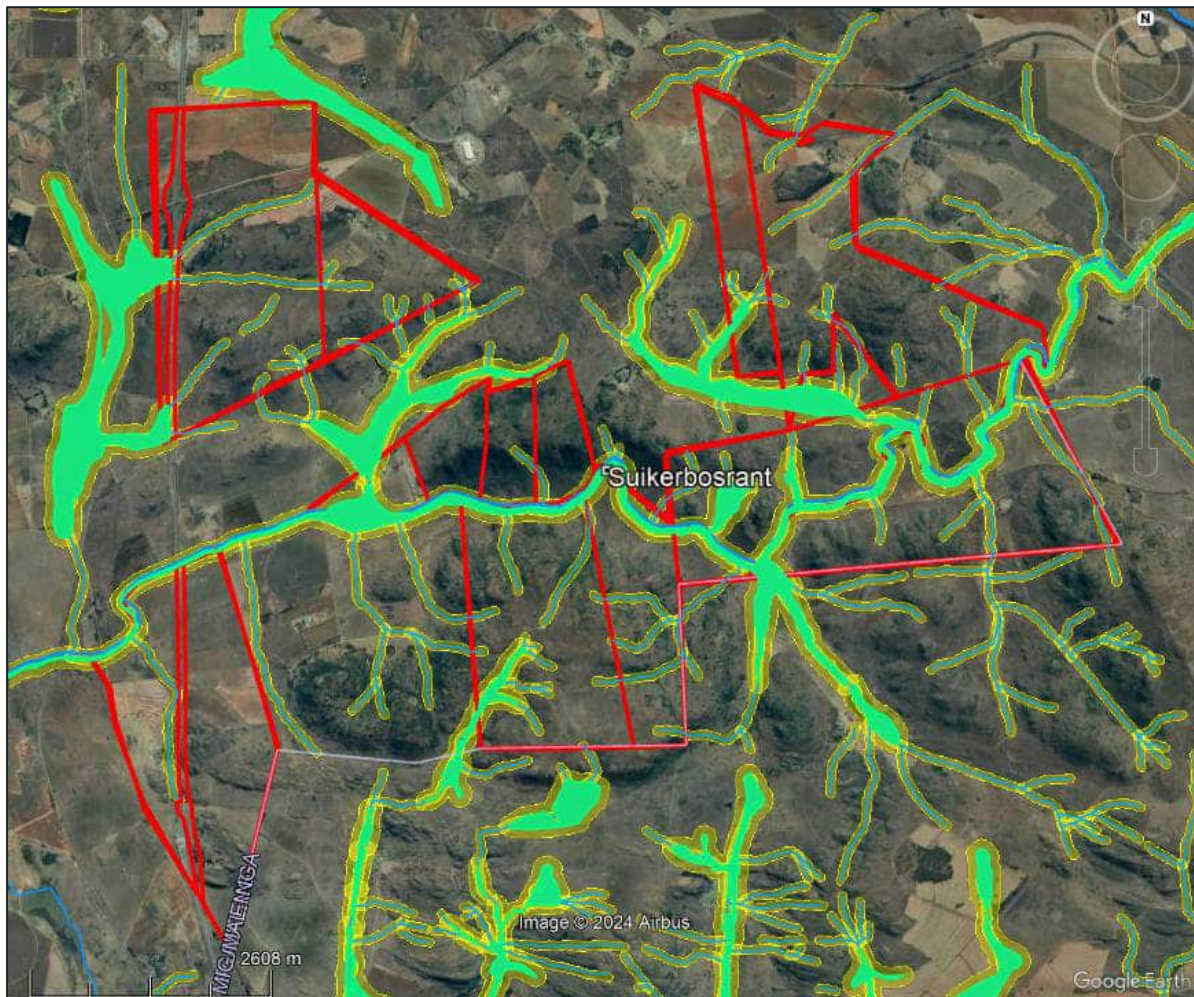


Figure 4-34 - Mapped aquatic features within the project area (red polygons), shown in Google Earth. The recommended buffer or development setback areas are indicated by the yellow areas.

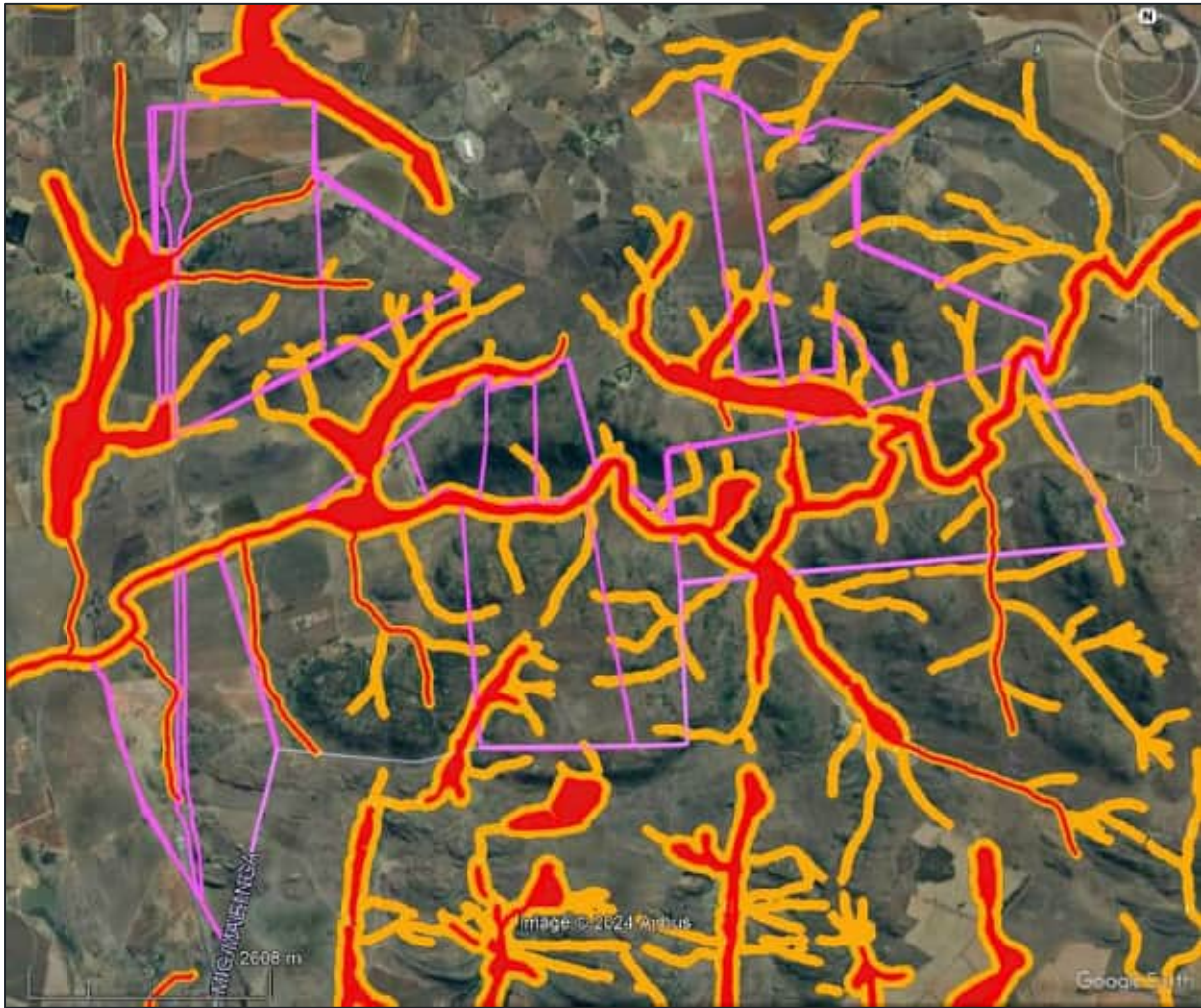


Figure 4-35 - Mapped sensitivity of aquatic features within the project area (pink polygon), shown in Google Earth.

4.2.2.4 Archaeological and cultural heritage impact assessment

The output of the DFFE Screening Tool for the Archaeological and Cultural Heritage Theme is illustrated in **Figure 4-36**. The site is classified as **'Very high' sensitivity** due to being located within 2km of a Grade ii Heritage site.

The Archaeological and Cultural Heritage SSVR is included in **Appendix C.4**.

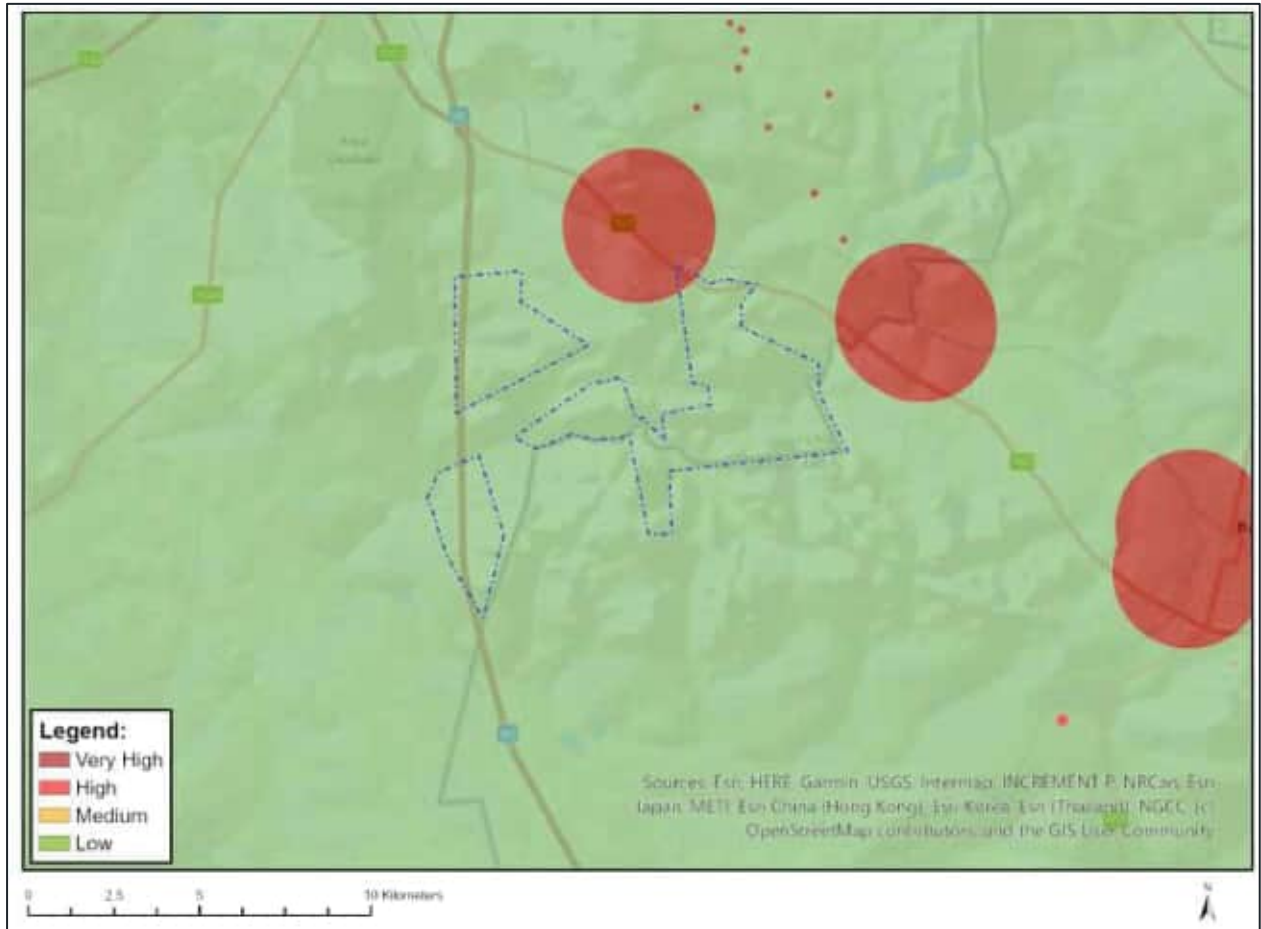


Figure 4-36 - Map of archaeological and cultural heritage theme sensitivity

(Source: DFFE Screening report, 2024)

Cultural Landscape

The proposed development is situated within a mountainous landscape bisected by the Suikerbosrandrivier, with several historic farm werfs located inside the study area. Some of these werfs contain historic burial grounds recorded on early 1:50 000 topographic maps. Although the N3 has been realigned from earlier transport corridors, the R23 continues to follow a historic route, and portions of this route may be visually or physically affected by the proposed development.

Several heritage sites recorded on SAHRIS within the broader region relate to NZASM-built railway infrastructure, documented under the “Footsteps Along the Tracks (FAT)” project. While these structures hold high regional significance (Grade II), they are not formally protected under section 27 of the NHRA. Furthermore, the actual cultural value of these sites is likely to be of high or moderate local significance (Grade IIIA or IIIB). Due to the location of these structures being located outside of the area proposed for development, no impact to these resources is anticipated from this proposed development.

The field assessment noted the scenic and historic value of the R23 and the R103 and as such, a no development buffer of 1km is recommended on either side of these historic scenic routes for turbines, and a 500m buffer on either side for associated WEF infrastructure. Further, in order to avoid a canyon

effect, It is therefore recommended that turbines are therefore limited to the eastern side of these roads.

Archaeology

Previous studies have already highlighted the high archaeological sensitivity of the proposed development area. This was confirmed through the archaeological field assessment for the current project, which identified several archaeological features within the development footprint. Similar to WEF 1 project area, the most dominant archaeological signature within this landscape (over 100 observations noted) relates to the Iron Age occupation of this landscape and the remnants of Iron Age settlements. These sites represent the ruins of stone-walled structures and central kraals that conform to a particular pattern of Iron Age settlement. The age of these settlements is unknown at this stage, however the scientific value of the buried archaeological material associated with these settlements is high and is therefore graded IIIA. As such, a no development buffer of 100m is recommended around each observed feature.

The field assessment identified a number of 20th Century farm werfs that have historic contextual value and are graded IIIC. These sites include the Steynskraal farm werf, the Klipplaatdrift farm werf, the Laagerspoort farm werf and the Driefontein farm werf. The Malanskraal farm werf is represented by two site recordings. The Malanskraal structures located at Site 065 have higher levels of historic value and as such are graded IIIB. In order to retain the sense of place associated with these historic farm werfs, a no development buffer of 500m is recommended around each of these sites.

The field assessment also identified a number of historic structures and ruins of structures that have been determined to have lower levels of historic contextual value. These observations include the ruins of historical farm werfs and a number of stone kraals. All of these sites with contextual historic value are graded IIIC and as such, a no development buffer of 50m is recommended around each of these sites. This buffer is recommended in order to ensure that no buried archaeology associated with these resources are accidentally impacted by construction activities associated with this proposed development.

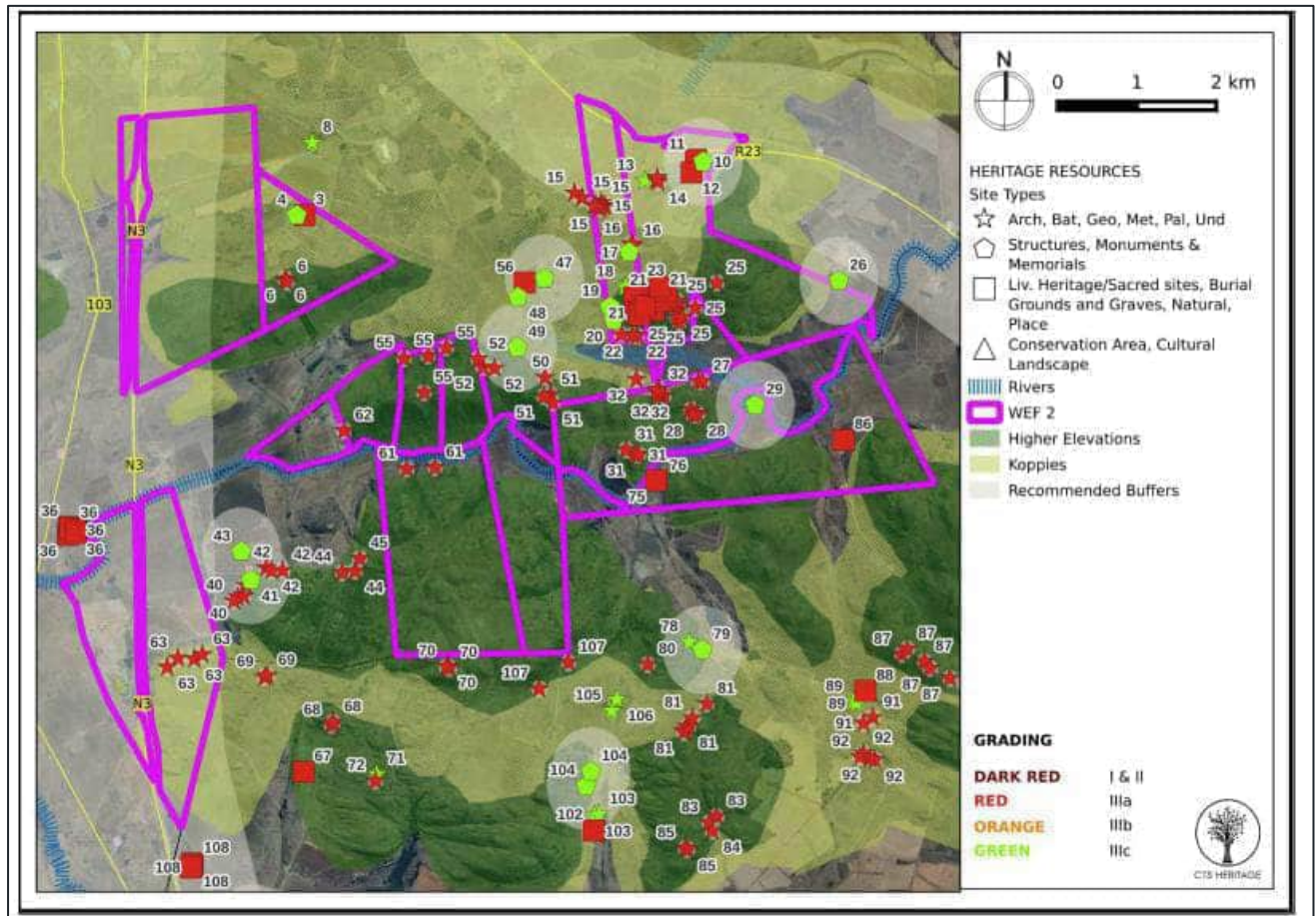


Figure 4-37 - All heritage resources within proximity to the development area with recommended mitigation measures.

4.2.2.5 Avifaunal assessment

The output of the DFFE Screening Tool for the Avian (Wind) Theme is illustrated **Figure 4-43** and indicates that the site is classified as '**Low**' Sensitivity.

The Avifauna SSVR is included in **Appendix C.5**.

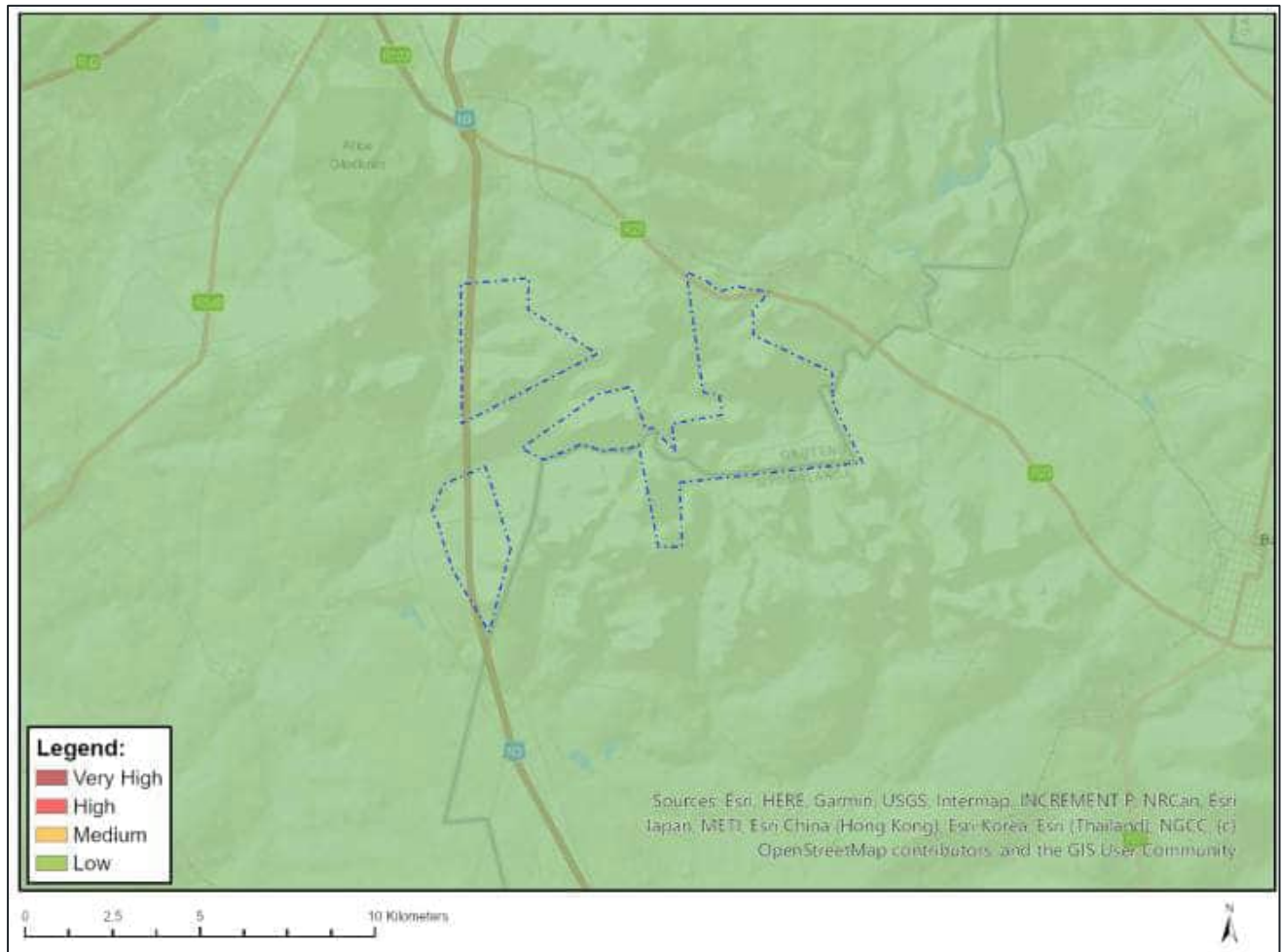


Figure 4-38 - Map of Avian (Wind) theme sensitivity

(source: DFFE Screening report, 2024)

The Screening Tool Report identified the area within 5 km of the project site as of high sensitivity for the avian species of conservation concern (SCC) African Marsh Harrier (*Circus ranivorus*), Secretarybird (*Sagittarius serpentarius*), Lanner Falcon (*Falco biarmicus*), White-bellied Bustard (*Eupodotis senegalensis*) and Yellow-billed Stork (*Mycteria ibis*) in terms of the animal species theme, that could be affected by the proposed development. Therefore, according to the Screening Tool Report, an avifaunal specialist impact assessment and an avian species specialist impact assessment is required, unless the land use or sensitivity identified by the Screening Tool is disputed.

The Site Inspection and one year of avifaunal pre-application/pre-construction monitoring confirmed that the site is of high sensitivity for 12 SCC as listed in section 4.7 of the specialist report (**Appendix C.5**), in terms of the National Web-based Screening Tool classification, and that an Animal Species Specialist Assessment must be conducted by a specialist registered with SACNASP with a field of practice relevant to the taxonomic group (in this case Aves – Birds), for which the assessment is being undertaken. The assessment must be undertaken following the Species Environmental Assessment Guideline (SANBI, 2022).

The DFFE sensitivity is **disputed and considered High Sensitivity**.

The total number of bird species that has been recorded at the WEF and Control site to date is 219 species (Appendix I of the specialist report). This includes twelve Species of Conservation Concern (Red Data listed as Near-threatened, Vulnerable, Endangered or Critically Endangered): African Marsh-Harrier, Black Harrier, Secretarybird and Yellow-billed Stork listed as Endangered, Black Stork, Lanner Falcon, Southern Blad Ibis and Verreaux's Eagle listed as Vulnerable, and Black-winged Pratincole, Greater Flamingo, Lesser Flamingo and Red-footed Falcon listed as Near Threatened. Overall, the species abundance is relatively moderate compared to other areas proposed for wind energy developments in South Africa, with a moderate number of potentially occurring SCC.

An avifaunal sensitivity map (**Figure 4-39**) has been developed which considers the following features:

- NFEPA rivers by 200 m
- NFEPA wetlands (artificial and natural) by 100 m
- Critical Biodiversity Areas (CBAs)
- Nests and roosts
- Areas of high flight activity including rocky ridges, scarps and steep slopes

Turbines are not supported within river and wetland buffers, but linear infrastructure such as powerlines or roads may be acceptable with mitigations.

It must be noted that large areas of the site fall within areas mapped as irreplaceable and important CBAs. It is generally recommended to avoid all CBAs by development planning as far as possible and to exclude the irreplaceable CBAs from the proposed development footprint, even though it does not appear that these areas are irreplaceable for avifauna in particular. The footprint of a wind energy facility is relatively small compared to the size of a wind energy facility development site, and therefore the loss of avifaunal habitat is relatively small compared to other types of development. Therefore, minimised wind energy facility development within a CBA may be found acceptable from an avifaunal perspective.

Due to the presence of Verreaux's Eagle in the area, development on steep slopes (> 1:4) and on scarps, ridges and rocky outcrops is not recommended. These areas should be avoided by development as far as possible. Should turbine placement be proposed in these areas, then additional mitigation measures on these turbines will be required, such as blade pattering, and potentially shut-down-on-demand or other adaptive measures

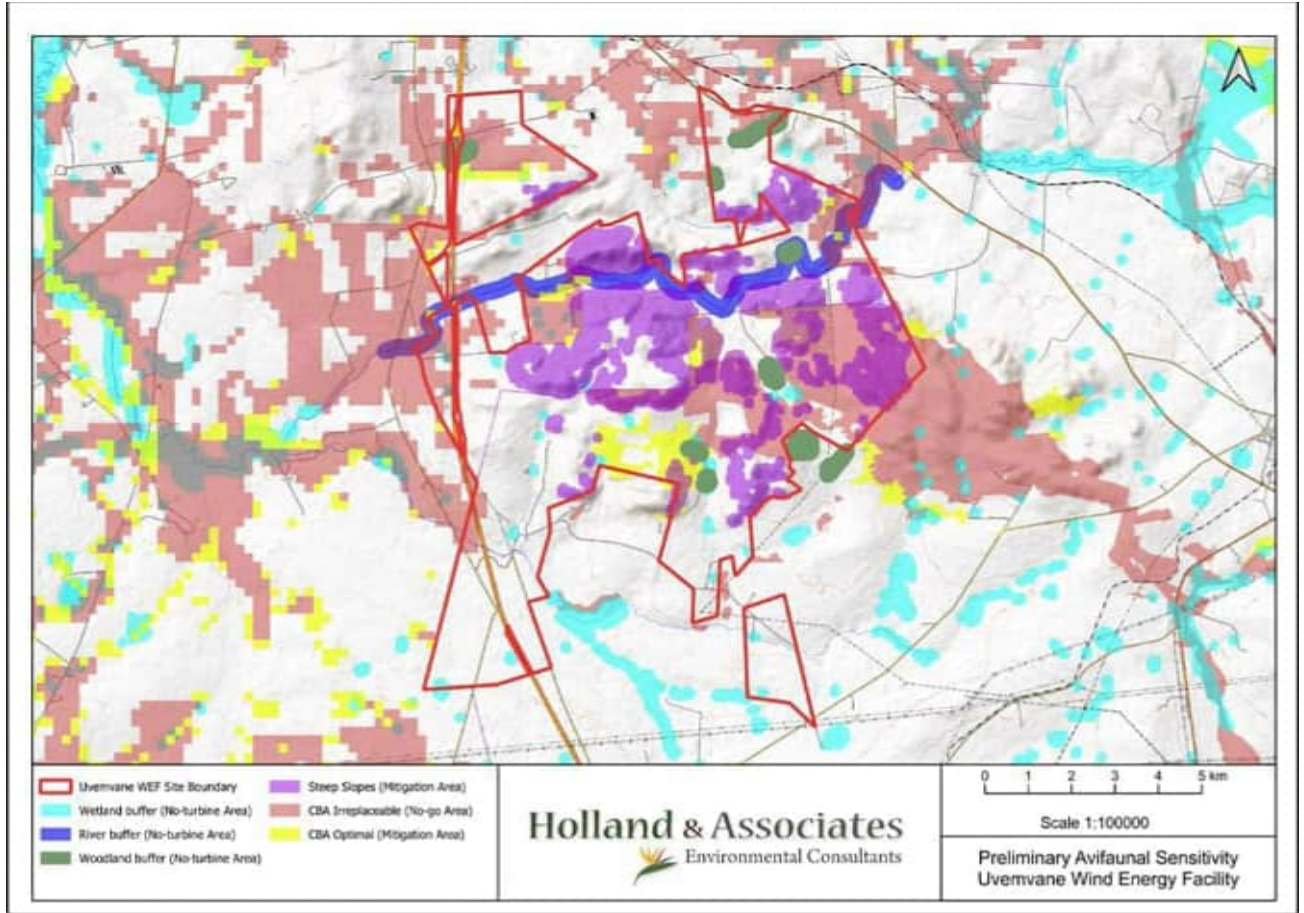


Figure 4-39 - Avifaunal Constraints Map

4.2.2.6 Bat assessment

The output of the DFFE Screening Tool for the Bat (Wind) Theme is illustrated in **Figure 4-40** and indicates that the site is classified as **High Sensitivity** to bats due to the rivers and numerous wetlands present on site. Croplands have been given a Medium sensitivity rating, but no buffers are required. The Bat SSVR is included in **Appendix C.6**.

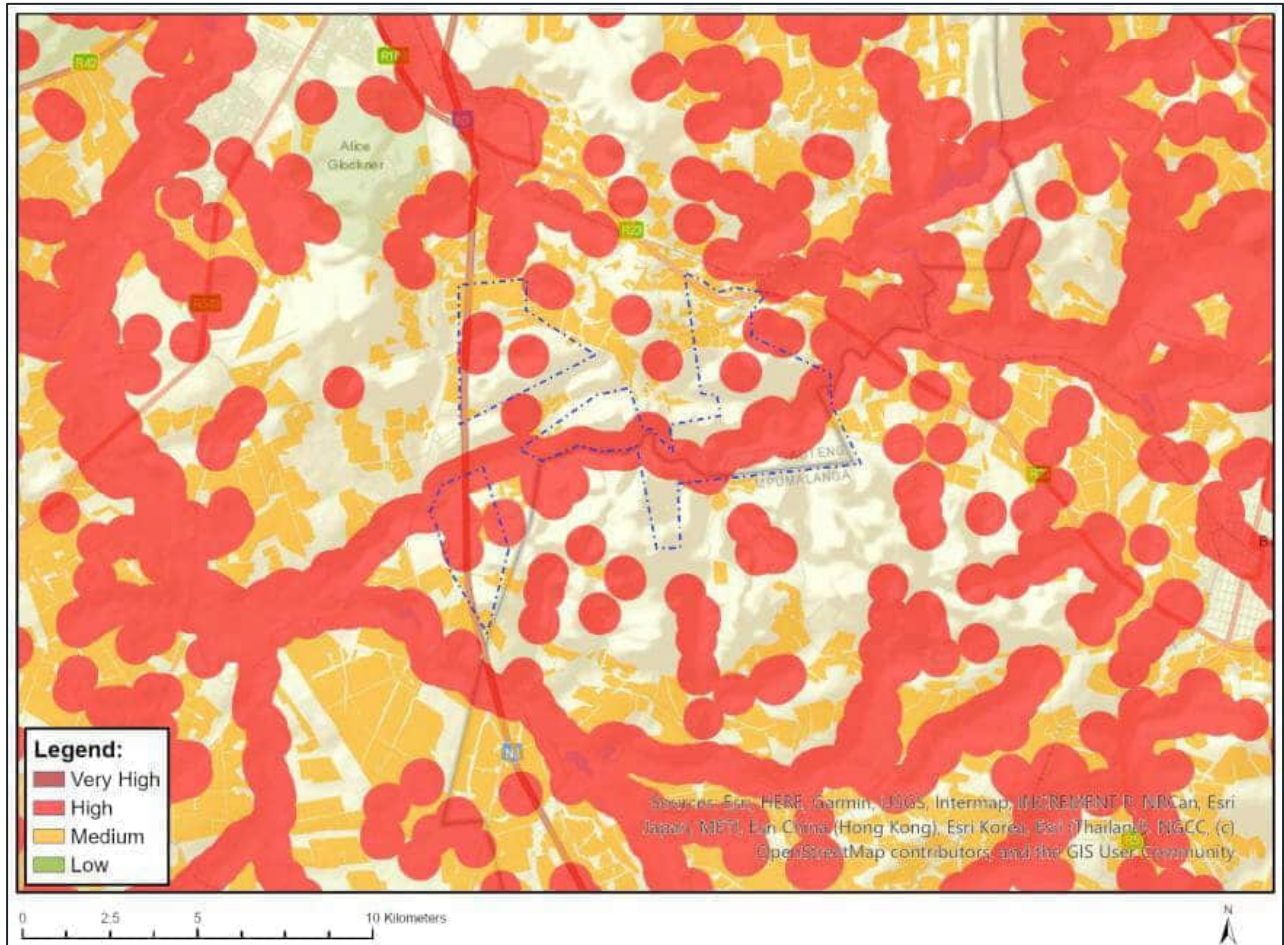


Figure 4-40 - Map of Bat (Wind) Theme Sensitivity

(Source: DFFE Screening report, 2024)

A Site Sensitivity Verification survey (26-29 August 2024) and the first three months of the full twelve-month pre-construction bat monitoring was conducted on the proposed Wind Energy Facility development.

Work on-site has produced the following findings thus far:

- A total of four species of bats were recorded on-site during our screening and pre-construction bat monitoring surveys which is on par for this region and habitat.
- Numerous active roosts were found
- No fatal flaws have been identified.

The Screening Tool classified the area as a 'High' Sensitive area for bats, but based on our desktop survey, ground truth and data obtained we refute this result and deem the area to be of **'Medium' Sensitivity** to bats. The rivers, open water and wetlands are highly sensitive areas but are few and far between. While mitigation measures will be required for the ABO Uvemvane WEF 2 most sensitive areas can be easily avoided if the needed buffers and No-Go areas are observed and respected.

4.2.2.7 Civil aviation assessment

The output of the DFFE Screening Tool for the Civil Aviation (Wind) Theme is illustrated in **Figure 4-41** and indicates that the site is classified as '**Medium**' Sensitivity. The Screening Tool indicates that there is a civil aviation aerodrome within 8-15km of the site.

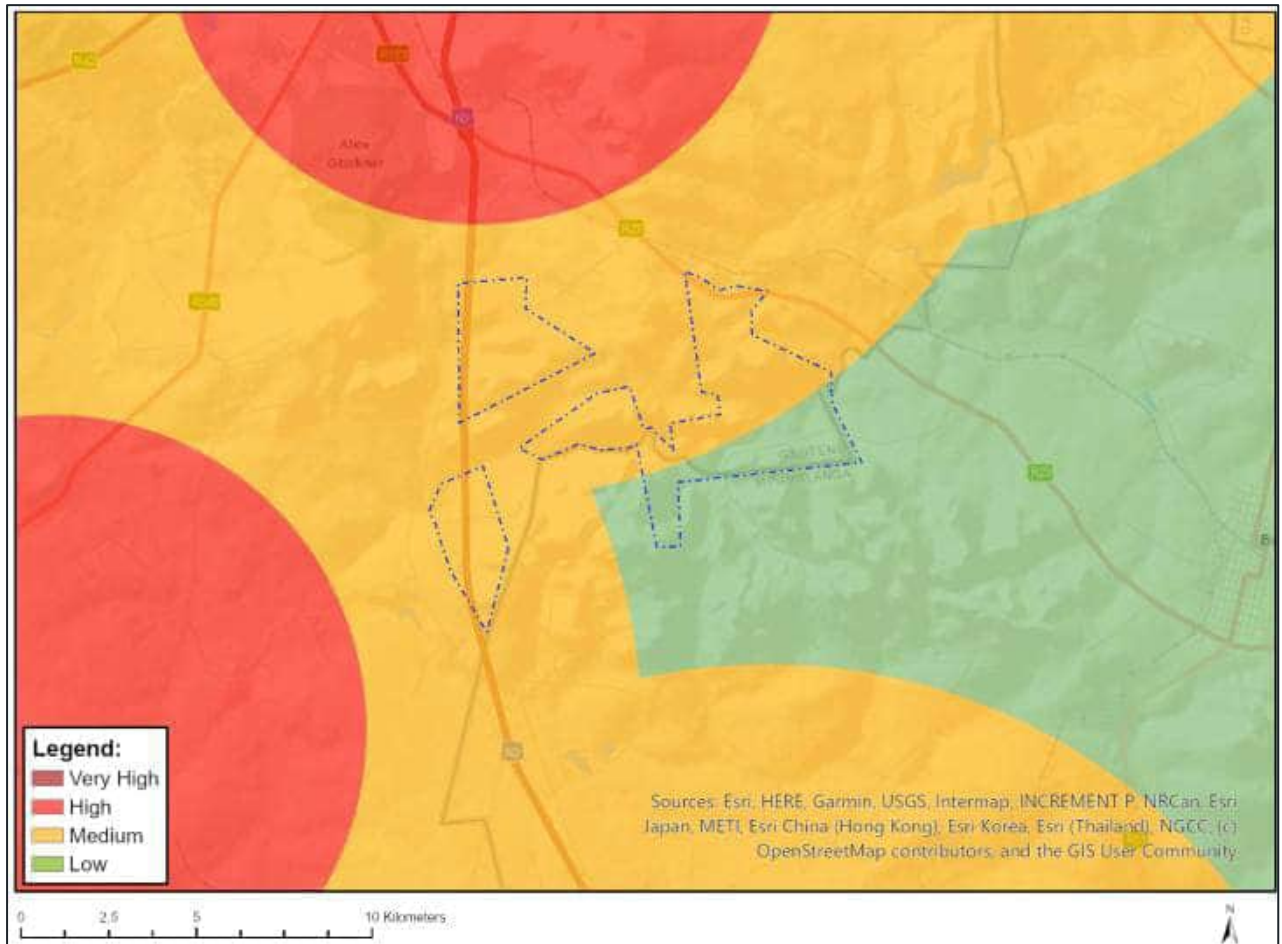


Figure 4-41 - Map of Civil Aviation Theme sensitivity

(Source: DFFE Screening report, 2024)



Figure 4-42 - Map of Civil Aviation (Wind) Theme Sensitivity

(Source: Google Earth, 2026)

The sensitivity of the civil aviation theme can be seen as **Low** due to the nature of the civil aviation aerodrome in the area. As per **Figure 4-44** above, the Ermelo Airfield – FAEO, is a 10m wide asphalt landing strip, which will caters for small scale aircraft. The nearest Airport, the Heidelberg Airport is 25km away from WEF 1. The nearest landing strip is a smaller landing strip flagged within 3km of the WEF.

The relevant Authorities have been included on the project stakeholder database. A wind turbine Obstacles application has been submitted to ATNS for the project and the required permits will be obtained prior to the development of the project. The SACAA has been included on the project stakeholder database. They will be informed of the proposed Project, and comment will be sought. Their responsibility would pertain to the assessments, maintenance, and all other related matters in respect to Windfarms, as this grid connection is associated with a proposed wind farm.

Proof of notification of the stakeholder is included in the SER (**Appendix E** of the DEIR). Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.

4.2.2.8 Defence

The output of the DFFE Screening Tool for the Defence (Wind) Theme is illustrated in **Figure 4-43** and indicates that the site is classified as **'Medium' Sensitivity**. ABO Energy South Africa (Pty) Ltd has submitted a wayleave request in terms of Section 29 of the Electronic Communications Act (Act 36 of 2005) to SANDF on 16/02/2026. Any comments received will be included in the Final Scoping Report and updated throughout S&EIR process. The sensitivity is therefore verified as **low**. Proof of notification of the stakeholder is included in the SER (**Appendix E** of the DEIR).

Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.



Figure 4-43 - Map of Defence (Wind) Theme sensitivity

(Source: DFFE screening report, 2024)

4.2.2.9 Flicker assessment

The output of the DFFE Screening Tool for the Flicker Theme is illustrated in **Figure 4-44** and indicates that the site is classified as **'Very High' Sensitivity**, due to the visual aspects of Flicker Theme Sensitivity (potential temporarily or permanently inhabited residence).

The Landscape (Visual) SSVR which includes the Flicker Theme, is included in **Appendix C.7**.

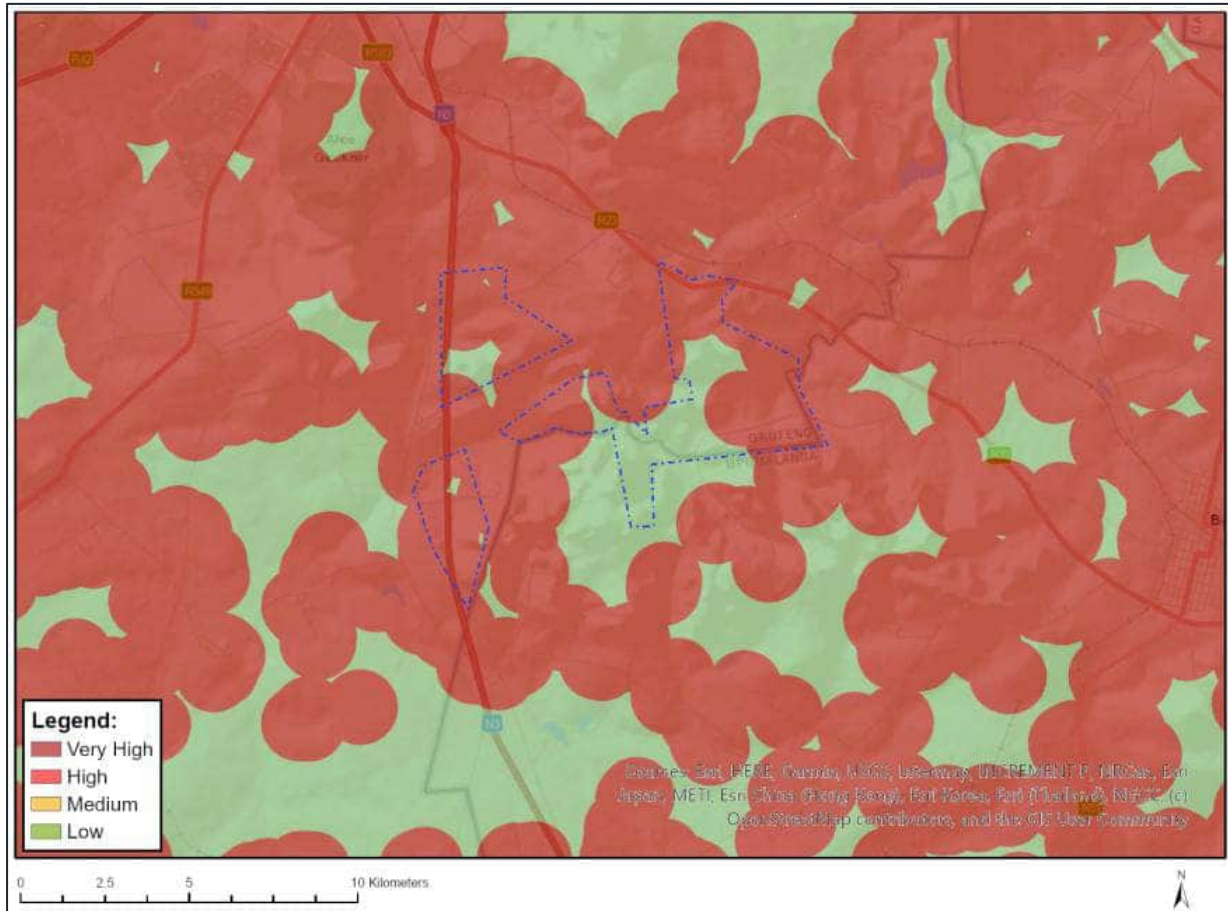


Figure 4-44 - Map of Flicker Theme Sensitivity

(Source: DFFE Screening Report, 2024)

Based on the results of the sensitivity risk matrix as well as the site visit undertaken, it can be found that the sensitivity of the visual receiving environment for the proposed ABO Uvemvane WEF 2 and associated infrastructure is 'high'. This assessment therefore disputes some of the visual sensitivity classification identified by the Screening Tool with regards to Flicker theme sensitivities. Additionally, this assessment confirms that where the occupation of the homesteads within the study area was verified, the visual aspects of Flicker Theme Sensitivity for the proposed ABO Uvemvane WEF 2 is confirmed to be **'very high'**.

4.2.2.10 Landscape assessment

The output of the DFFE Screening Tool for the Landscape (Wind) Theme is illustrated in **Figure 4-45**, which indicates that the site is classified as **'Very High' Sensitivity**. Additional site sensitivity features contributing to this classification include the presence of mountain tops and high ridges, slopes exceeding 1:4 and areas within 250 m of a river, as listed in **Table 4-6**. The Landscape (Visual) SSVR is included in **Appendix C.7**.

The sensitivity of the visual receiving environment for the proposed Uvemvane WEF 2 is high due to the following features (see **Figure 4-46**):

- The presence of pockets of steep slopes on the proposed site.
- Low to moderate VAC of the receiving environment.
- Location of the site outside of a REDZ.
- Potential shadow flicker as a result of the numerous homesteads located within and adjacent to the site.
- High visual quality of the receiving environment.
- Mountains and tall hills located within the site extent.
- Proximity to a protected area.
- Location of the N3 national and R103 arterial / main roads directly adjacent to the site.

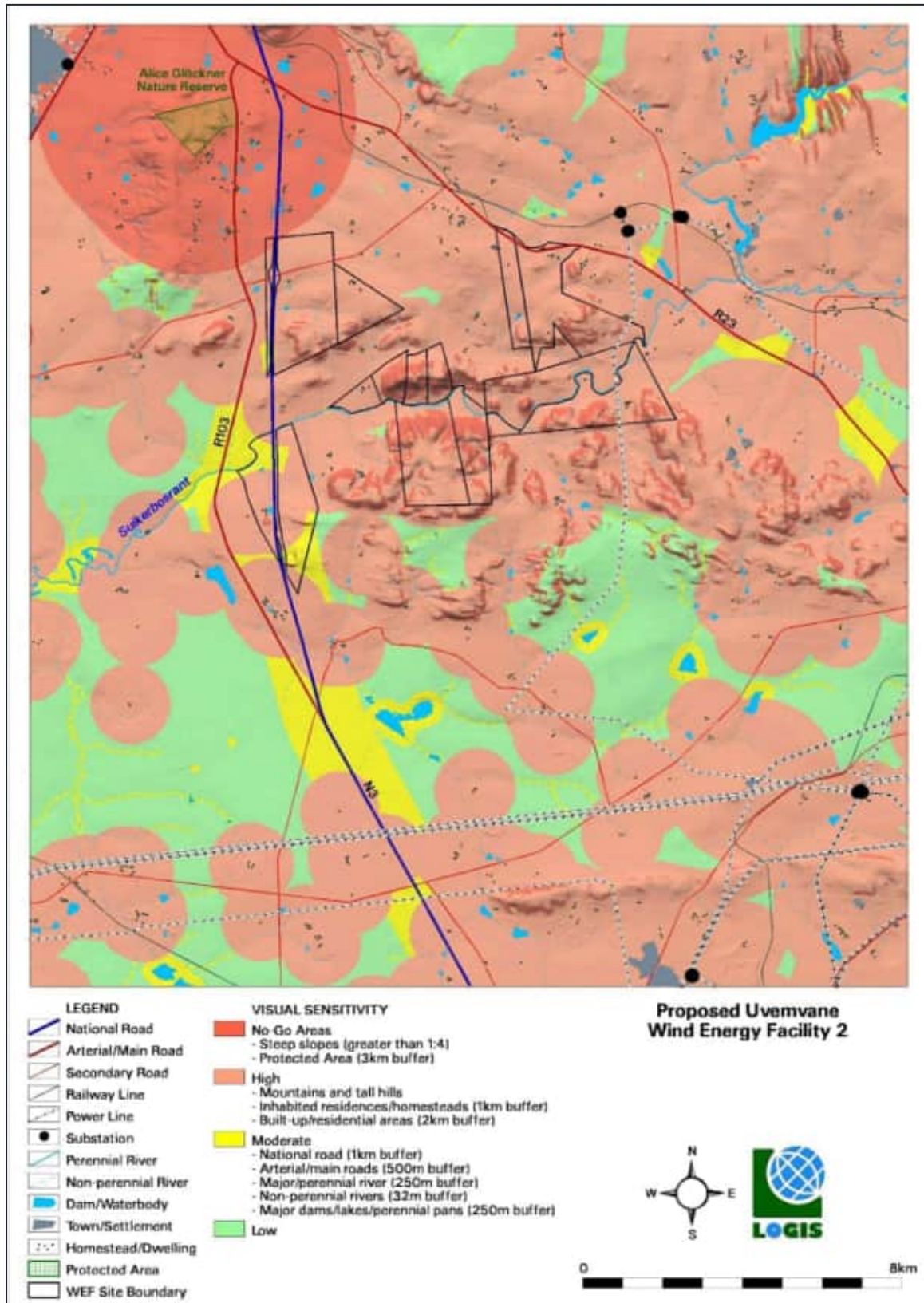


Figure 4-46 - Overall visual sensitivity of the proposed ABO Uvemvane WEF 2

Based on the results of the sensitivity risk matrix as well as the site visit undertaken, it can be found that the sensitivity of the visual receiving environment for the proposed ABO Uvemvane WEF 2 and associated infrastructure is 'high'. This assessment therefore disputes some of the visual sensitivity classification identified by the Screening Tool with regards to landscape theme sensitivities. Overall, the sensitivity rating in terms of the Landscape Theme Sensitivity of the entire site can be considered as high - as opposed to very high - as is mapped in the Screening Tool.

4.2.2.11 Palaeontology impact assessment

The output of the DFFE Screening Tool for the Palaeontology Theme indicates that the site is classified as **'Medium' Sensitivity**. The Palaeontological SSVR is included in **Appendix C.4**.

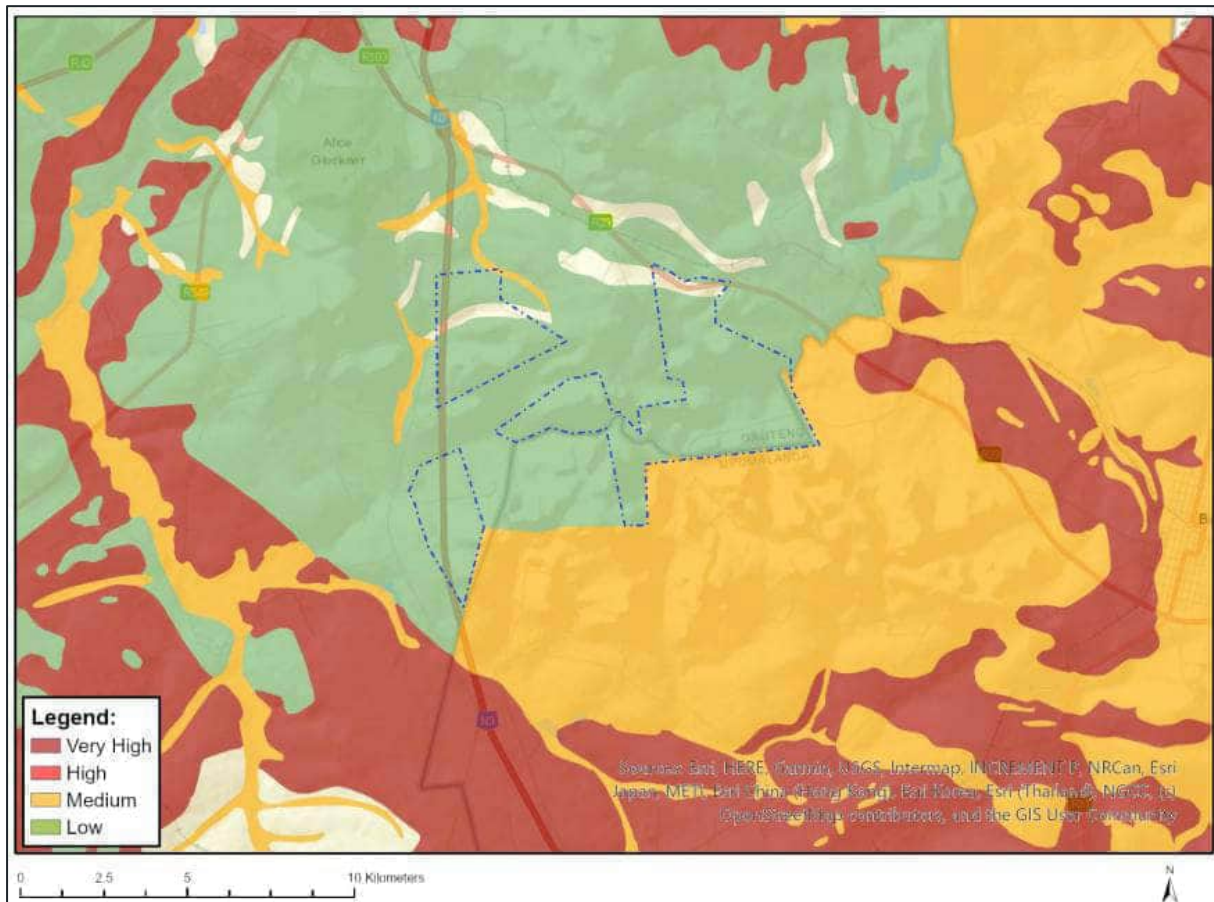


Figure 4-47 - Map of Palaeontology Theme Sensitivity

(Source: DFFE Screening report, 2024)

According to the SAHRIS Palaeosensitivity Map, the proposed development is mostly underlain by sediments of **'Low' palaeontological sensitivity**, with some small areas underlain with 'Moderate' fossil sensitivity. According to the extract from the CGS 2628 East Rand Geology Map, the development area is underlain by Pv: Vryheid Formation in the Eccia Group, Ra: Alberton, and Rw: Westonaria, both in the Rk: Klipriviersberg Group, Rb: Booyens, Rjo: Johannesburg, and Rt: Turffontein Formations in the Central Rand Group, Rg: Government, and Rj: Jeppestown Formations in the West Rand Group, Q-a: Quaternary Alluvium and V-di: Diabase.

The 'Medium' sensitivity indicated by the DFFE Screening Tool was disputed after the site visit. While the regional geological map suggests the presence of the sensitive Vryheid Formation, the site-specific verification confirmed that none of the actual development footprint is underlain by this formation. Therefore, it is anticipated that the impact of the development will mainly be LOW as none of the development area is underlain by the sensitive Vryheid Formation which was shown by the CGS 2628 East Rand Geology Map.

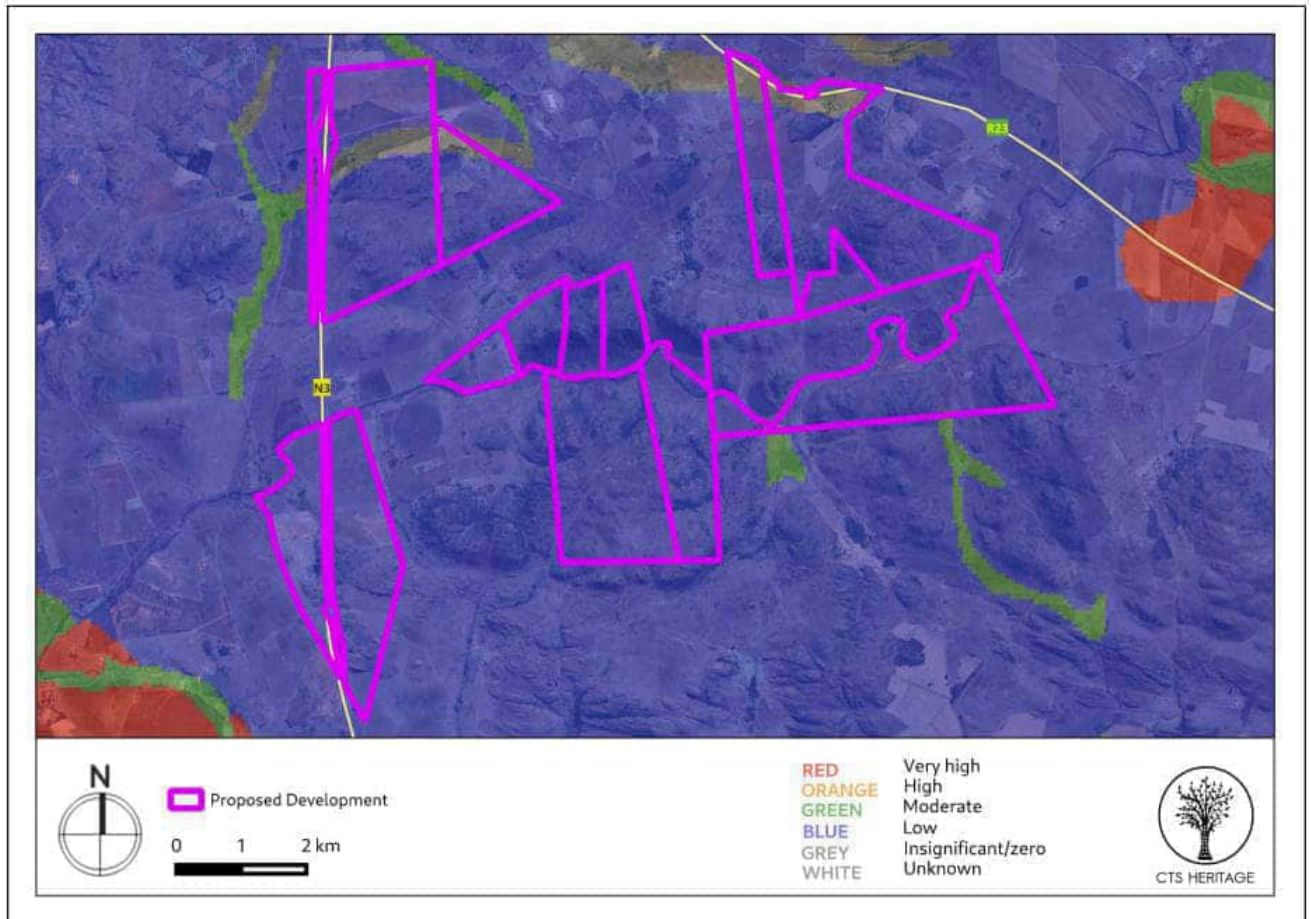


Figure 4-48 - Palaeontological sensitivity of the development area from SAHRIS.

4.2.2.12 Noise assessment

The output of the DFFE Screening Tool for the Noise Theme is illustrated in **Figure 4-49** and indicates that the site is classified as **'Very High' Sensitivity** due to potential inhabited residence (temporarily or permanently). The Noise SSVR is included in **Appendix C.8**.



Figure 4-49 - Map of Noise Theme Sensitivity

(Source: DFFE Screening report, 2024)

There are also numerous permanent or temporary residential activities within the project area. These residential activities are considered to be noise-sensitive and the areas are considered to have a **'Very High' sensitivity** to noise. This report agrees with this finding of the online screening tool. Because a number of these structures are used for residential purposes and considered to be noise-sensitive, the potential impact from noise from the project should be assessed in a Noise Specialist Study. **Figure 4-50** illustrates closest Noise-sensitive developments the project site.

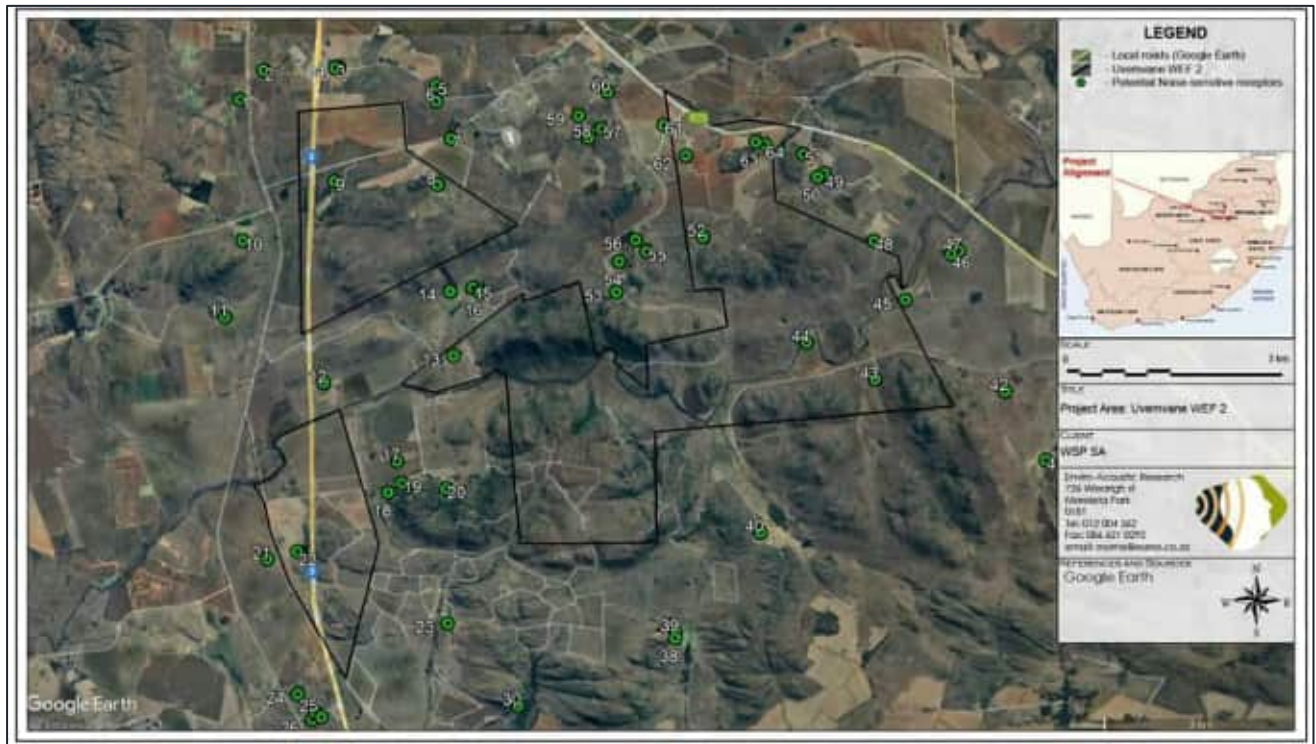


Figure 4-50 - Aerial Image indicating closest Noise-sensitive developments to the Uvemvane WEF 2 project

4.2.2.13 Plant species

The output of the DFFE Screening Tool for the Plant Species Theme is illustrated in **Figure 4-51** and indicates that the site is classified as **'Medium' Sensitivity**, due to the potential presence of the following flora SCC:

- *Khadia beswickii*;
- Sensitive species 1252;
- *Delosperma macellum*;
- *Cineraria longipes*;
- Sensitive species 691;
- *Brachycorythis conica* subsp. *transvaalensis*;
- Sensitive species 1248; and
- *Prunus africana*.

The Plant Species SSVR is included in **Appendix C.2**.

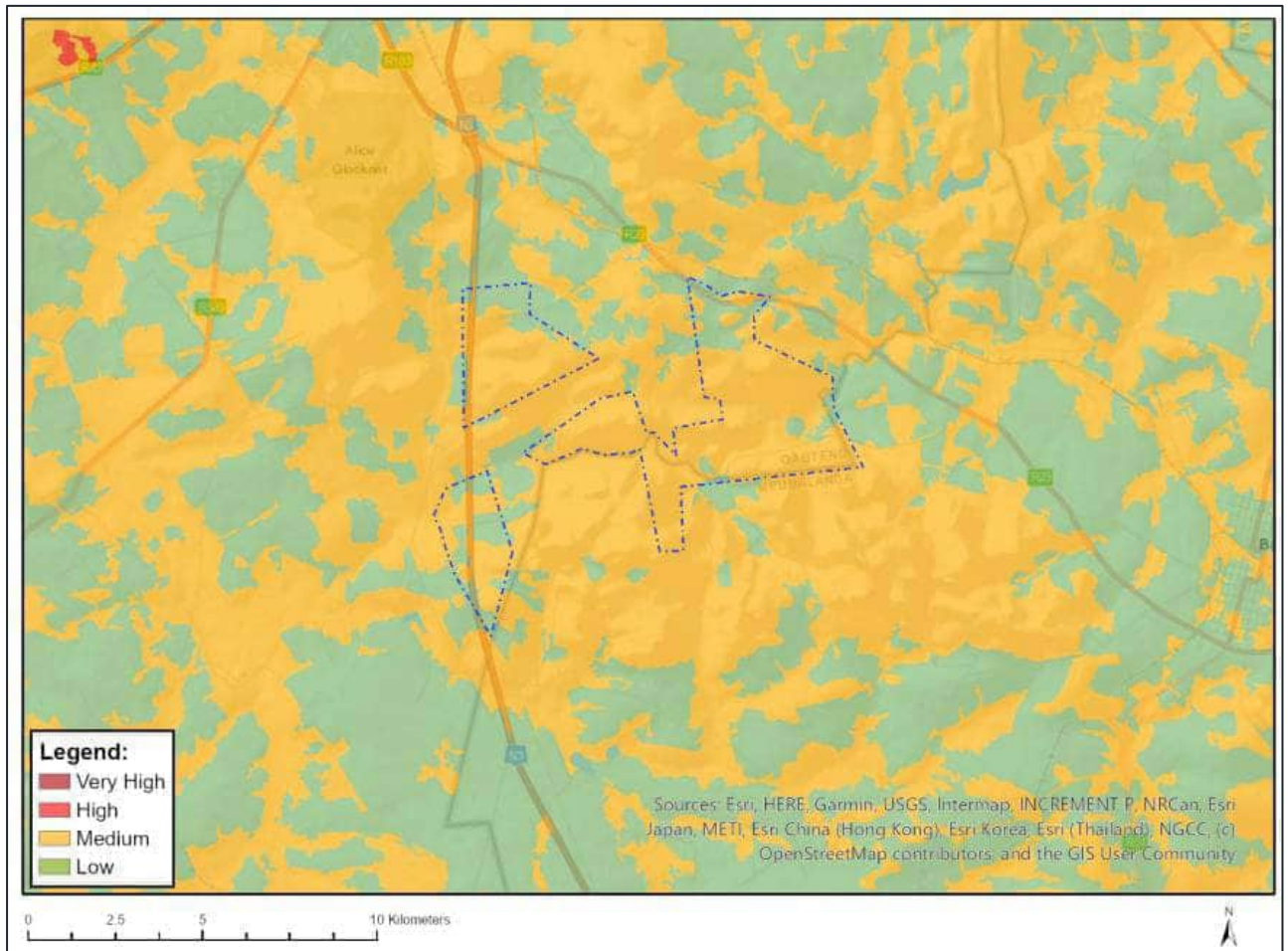


Figure 4-51 - Map of plant species theme sensitivity

(Source: DFFE Screening report, 2024)

No flora SCC were recorded on-site during the field surveys. This notwithstanding, considering the extent and diversity of natural habitat across the Project site, it is possible that several SCC may be present, including those taxa highlighted by DFFE Screening Tool. Species like *Khadia beswickii* (Vulnerable), *Brachycorythis conica* subsp. *transvaalensis* (Critically Endangered), *Cineraria longipes* (Vulnerable), *Delosperma macellum* (Endangered), Sensitive species 1252 (Vulnerable) and Sensitive species 1248 (Vulnerable) are commonly found in diverse wooded grassland and bushveld habitats, often in rocky mountainous areas. Sensitive species 691 (Vulnerable) favours undulating grasslands in damp areas. These habitats are present in the Project site and accordingly a number of these SCC either possibly or probably occur in the Project site. All flora SCC that potentially occur in the Project site are listed in Appendix B of the specialist report, along with a 'probability of occurrence', based on habitat suitability assessments.

The '**Medium**' sensitivity rating for the Plant Species theme is therefore confirmed for patches of natural habitat across the Project site. A Plant Species Specialist Assessment Report will be compiled for the proposed Project, as per the applicable protocol.

4.2.2.14 RFI assessment

The output of the DFFE Screening Tool for the RFI (Wind) Theme is illustrated in **Figure 4-52** and indicates that the site is classified as **High Sensitivity**. The Screening Tool indicates that there is a telecommunication facility within 1 km of the project site.

The sensitivity is considered to be low, this will be confirmed during the public participation process, where, the SAWS and relevant telecommunications stakeholders will be engaged with regards to the nature of the communication towers in the vicinity of the project area.

ABO Energy South Africa (Pty) Ltd has engaged with SAWS and relevant telecommunications stakeholders prior to the S&IER application process regarding the proposed project. The Applicant received confirmation that the proposed project will not impact SAWS. All correspondence received to date for the project in **Appendix D** of this SSVR.

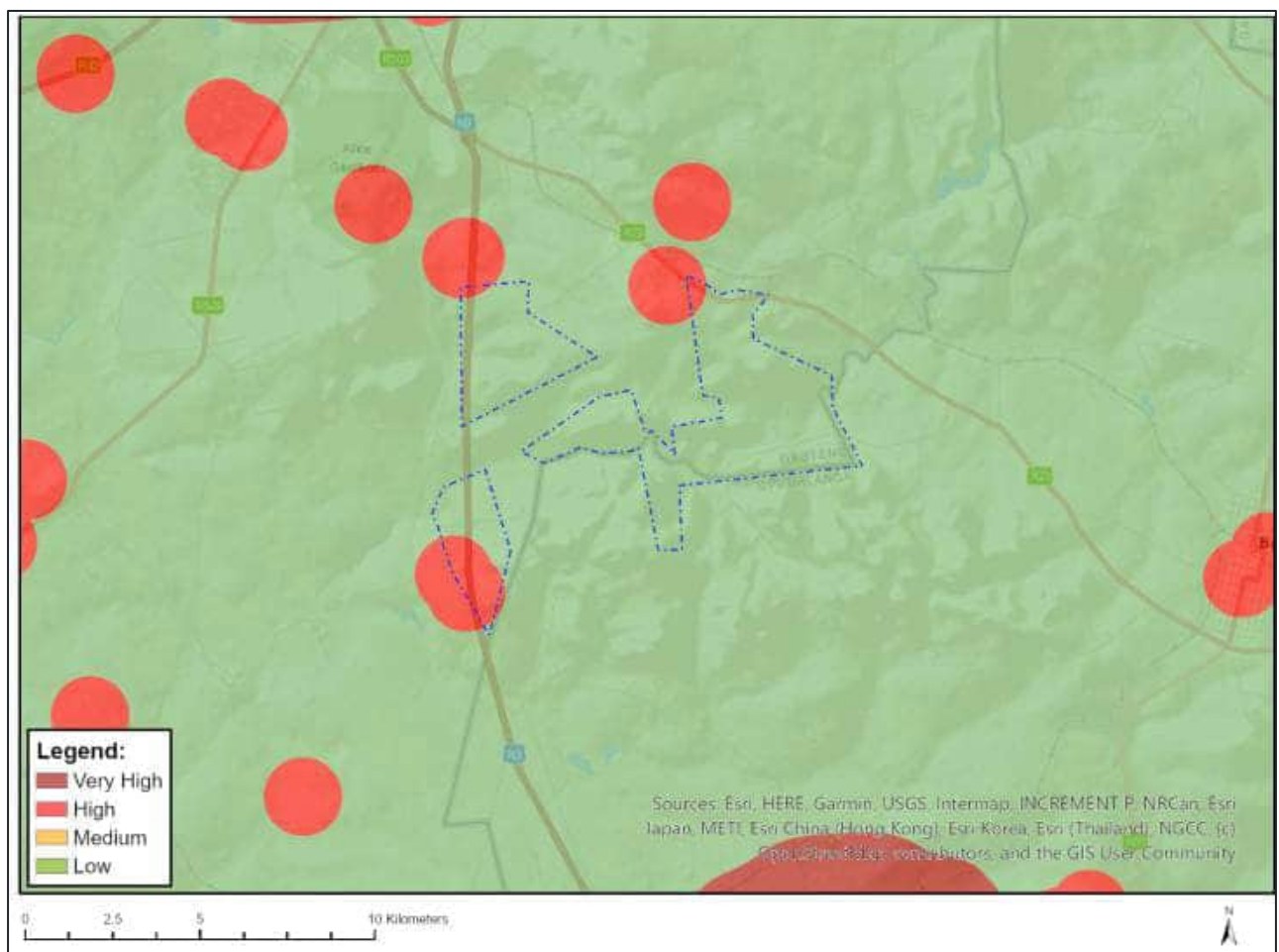


Figure 4-52 - Map of RFI theme sensitivity WEF 2 (source: DFE screening report ,2024)

4.2.2.15 Terrestrial biodiversity impact assessment

The output of the DFFE Screening Tool for the Terrestrial Biodiversity Theme is illustrated in **Figure 4-53** and indicates that the site is classified as **'Very High' Sensitivity**, due Critical the presence of the following features:

- Biodiversity Area (CBA) 1;
- CBA 2;
- CBA Irreplaceable;
- CBA Optimal;
- Ecological Support Areas (ESA) 1;
- ESA 2;
- National Protected Area Expansion Strategy (NPAES); and
- Soweto Highveld Grassland – Vulnerable.

The Terrestrial Biodiversity SSVR is included in **Appendix C.2** .

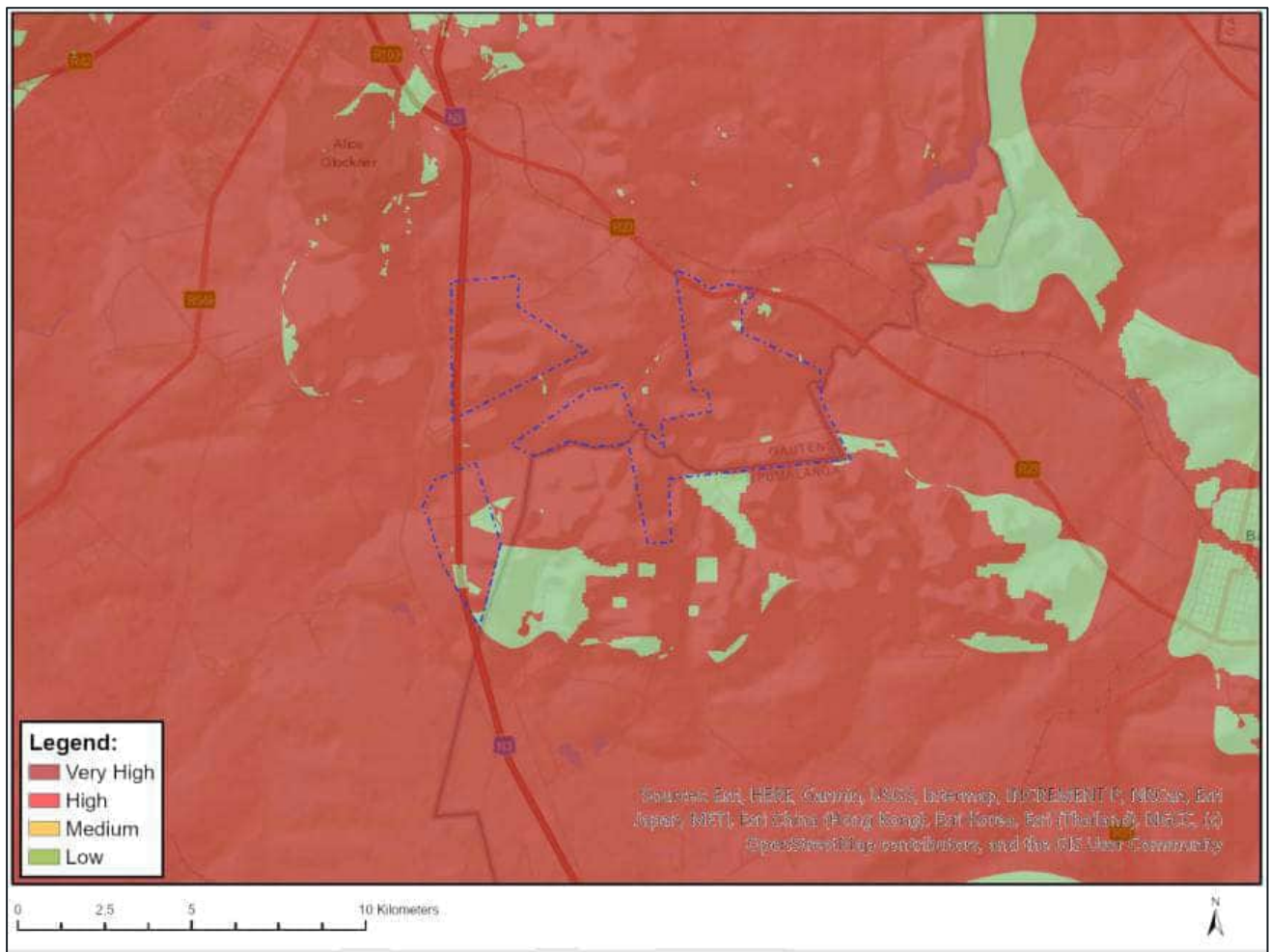


Figure 4-53 - Map of Terrestrial Biodiversity Theme Sensitivity

(Source: DFFE Screening Report, 2024)

The DFFE Screening Tool's sensitivity rating for Terrestrial Biodiversity for the Project site is 'Very High'. This is predicated on several conservation features, including the presence of CBAs and ESAs, Priority Focus Areas for protected area expansion, and the presence of a threatened vegetation type, namely Soweto Highveld Grassland (Vulnerable). Maps showing the delineation of these conservation planning features relative to the Uvemvane WEF 2 project site are shown in **Figure 4-54** , **Figure 4-55** and **Figure 4-56** below.

The findings of the verification field visit indicate that the Project site comprises large tracts of undisturbed natural habitat that support various ecosystem processes and diverse flora and fauna assemblages. On-site natural habitat is thus of biodiversity conservation importance, in accordance with the DFFE listed sensitivity features.

The **'Very High' sensitivity** rating for Terrestrial Biodiversity is therefore confirmed for patches of natural habitat. In patches of modified habitat (actively cultivated fields and alien tree stands) it is considered low. A Terrestrial Biodiversity Specialist Assessment Report will therefore be compiled for the proposed Project, as per the applicable protocol.

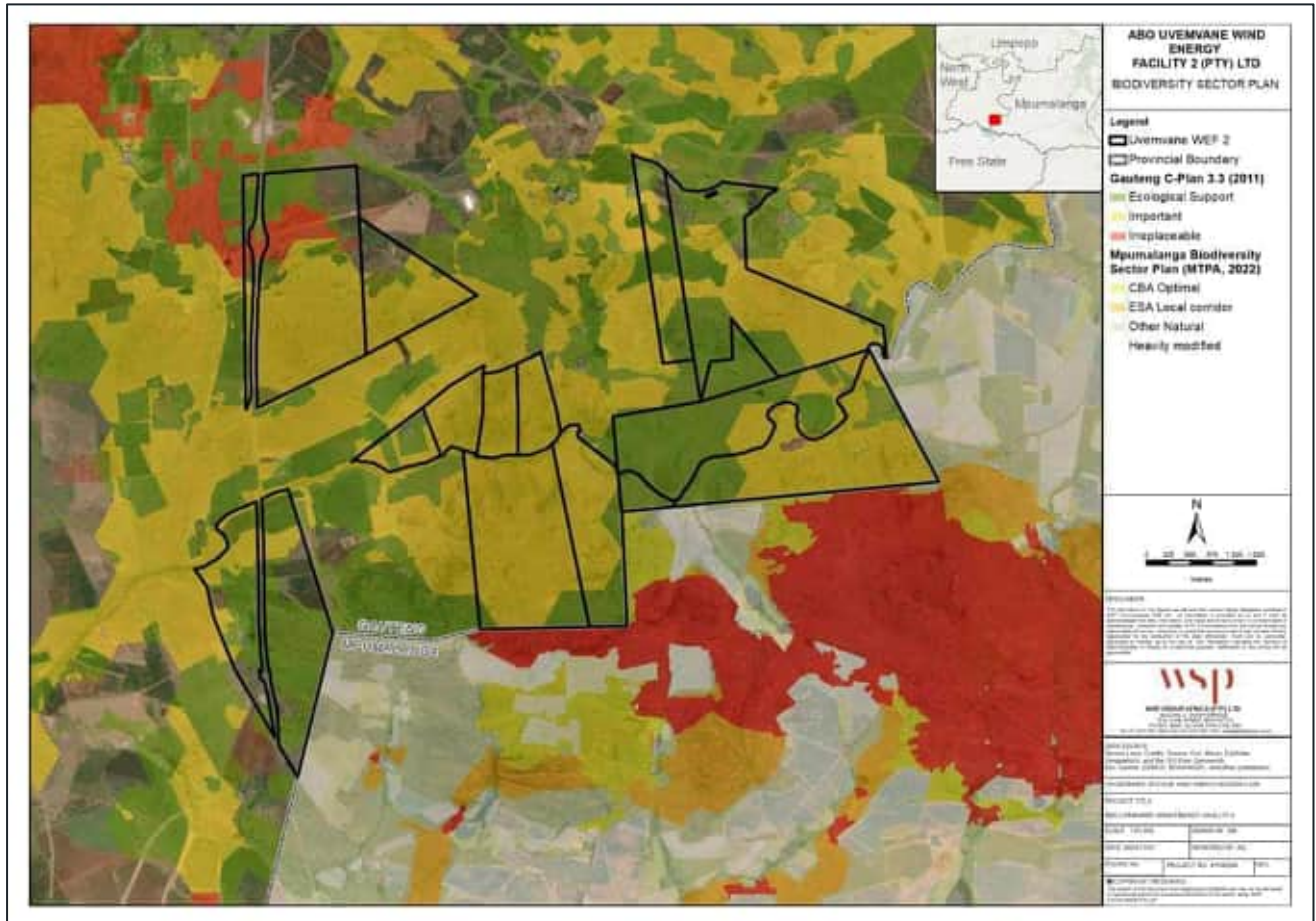


Figure 4-54 - Uvemvane WEF 2 in relation to the Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) of the Gauteng C-Plan (2011) and the adjacent MBSP (2022).

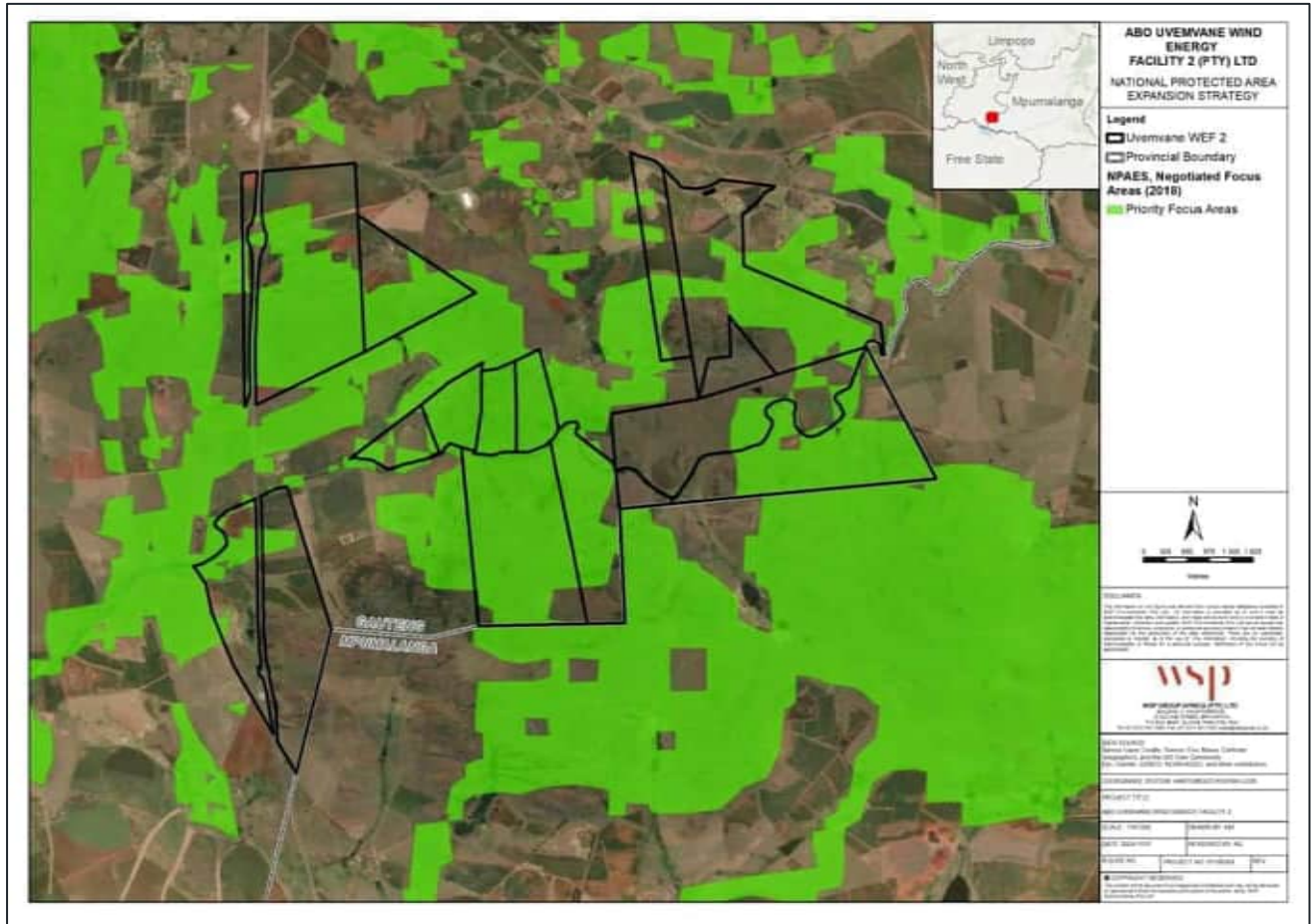


Figure 4-55 - Uvemvane WEF 2 in relation to the Priority Focus Areas of the National Protected Area Expansion Strategy (2018).

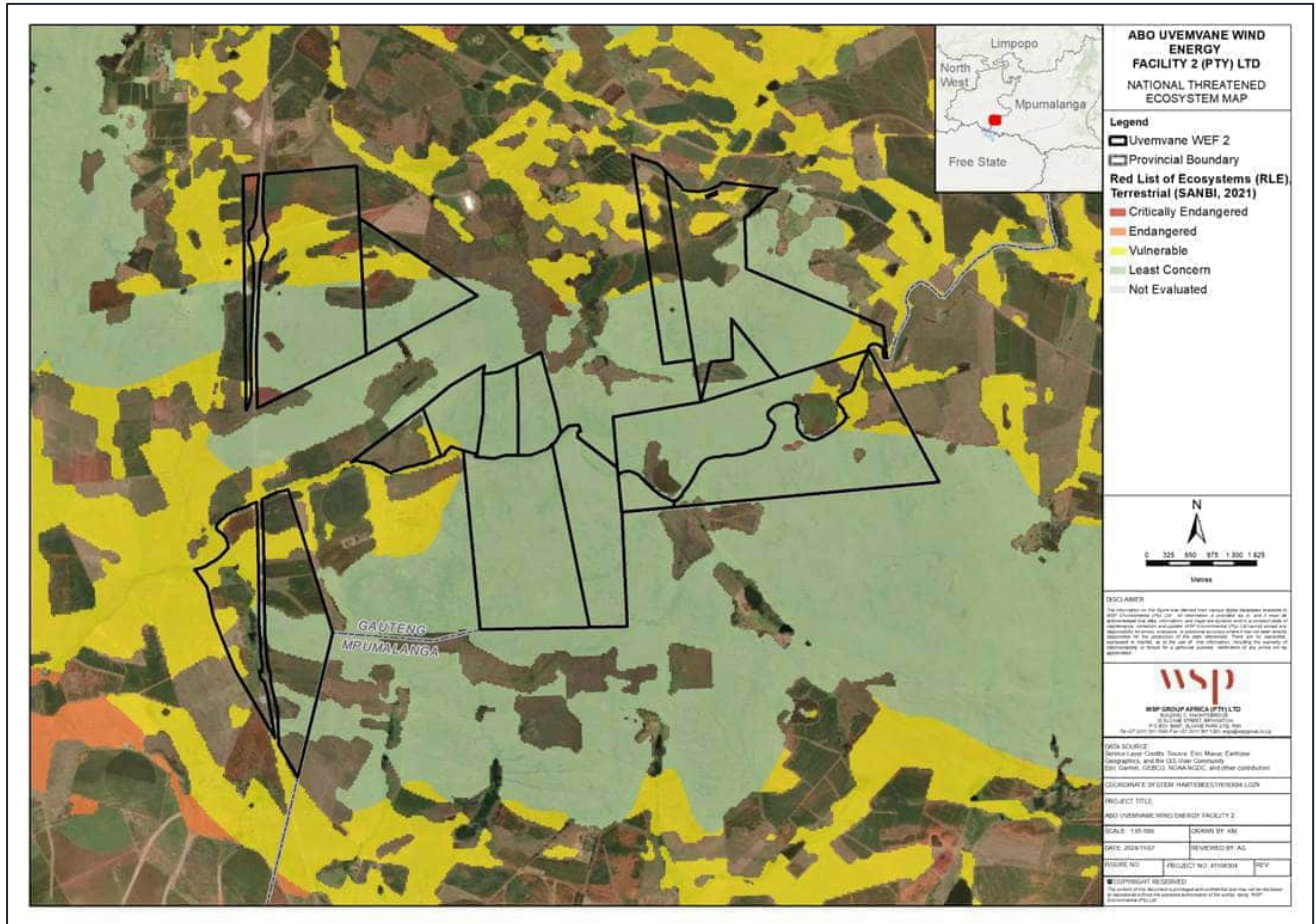


Figure 4-56 - Uvemvane WEF 2 in relation to the Red List of Threatened Ecosystems (SANBI 2021).

4.2.2.16 Vulture species assessment

The output of the DFFE Screening Tool for the Vulture Species Theme is illustrated in **Figure 4-57** and indicates that the site is classified as **'Medium' Sensitivity**. The Avifauna SSVR is included in **Appendix C.5**.

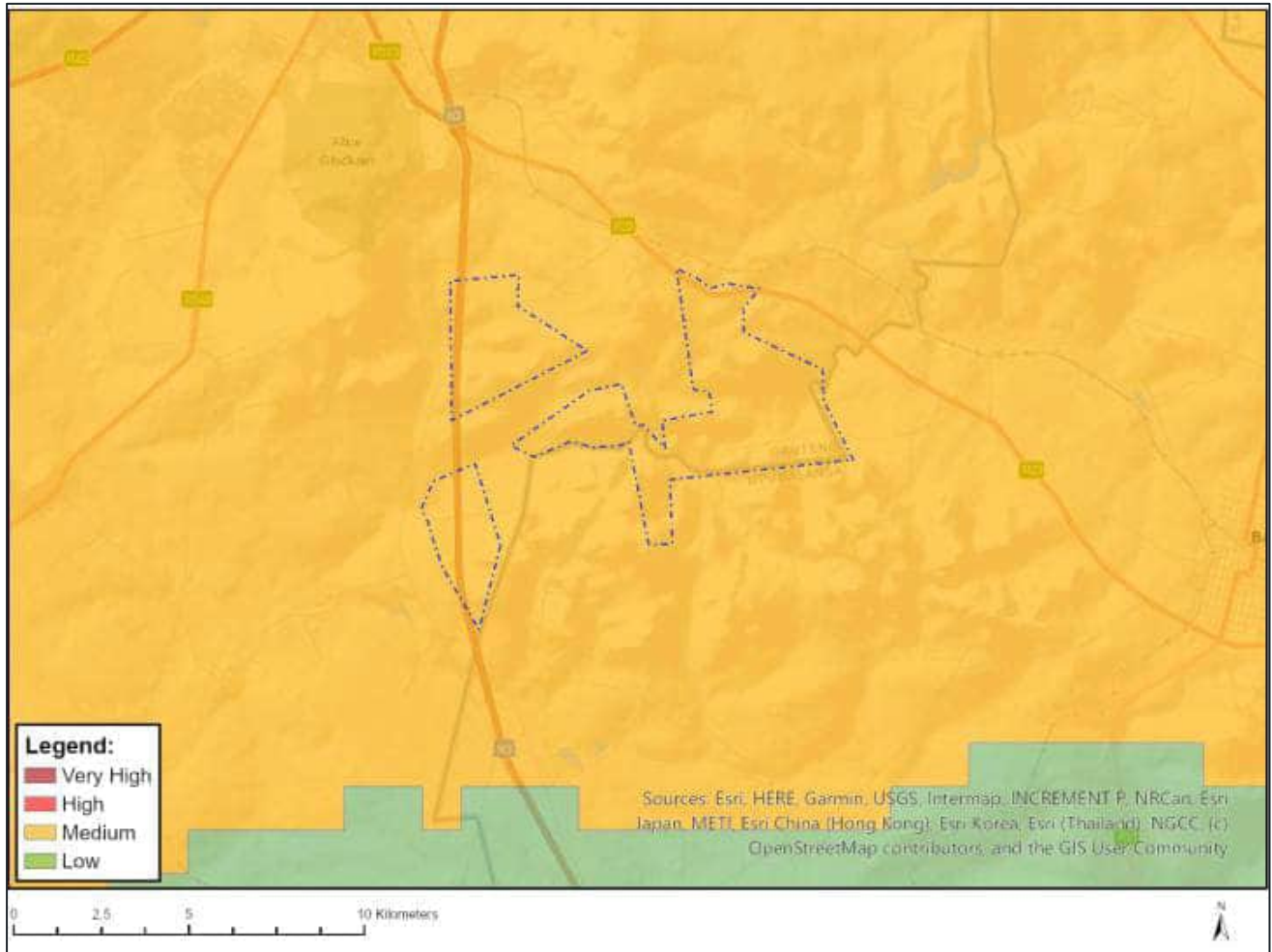


Figure 4-57 - Map of Vulture Species Theme Sensitivity WEF 2

(Source: DFFE Screening Report, 2024)

The BirdLife South Africa 'Cape Vulture and Wind Farms: Guidelines for impact assessment, monitoring and mitigation' (Pfeiffer & Ralston-Paton, 2018) were assumed to not be applicable as the Screening Tool Animal Species Theme did not identify the site as potentially suitable for Cape Vulture. However, the Screening Tool's Vulture Species Theme identified the study area as of 'medium' sensitivity for vulture species due to the area affecting between 5% - 10% of the population. The survey effort was in line with the Cape Vulture Guidelines; therefore, the Pre-application Avifaunal Monitoring Plan did not require further revision, as the collected data is deemed sufficient to represent the majority of vulture movement on site. In addition, supplementary data from Vulpro were obtained to inform the study for an area 50 km from the site boundary. The sensitivity is verified as **Medium**

4.3 SITE SENSITIVITY VERIFICATION SUMMARY

A summary of the DFFE screening tool, the applicable legislation as well as the specialist sensitivity verification for both ABO Uvemvane WEF 1 and ABO Uvemvane WEF 2 are detailed in **Table 4-7** and **Table 4-8** below. respectively.

4.3.1 ABO UVEMVANE WEF 1

Table 4-7 - Assessment Protocols and Site Sensitivity Verifications for ABO Uvemvane WEF 1

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
Agricultural Impact Assessment	Protocol for the specialist assessment and minimum report content requirements of environmental impacts on agricultural resources by onshore wind and/or solar photovoltaic energy generation facilities where the electricity output is 20 megawatts or more	High Sensitivity	<p>Medium to Low</p> <p>The information received from the screening tool rates the Agricultural Sensitivity theme as 'Very High' citing "Pivot Irrigation; Land capability;09. Moderate-High/10. Moderate-High" as the main reason for the very high sensitivity. This rating is disputed by this assessment due to no evidence of pivot irrigation directly in the proposed WF 1 project area. Such cultivation does, however, occur in areas adjacent to the WEF 1 area.</p> <p>Areas of high sensitivity rating by the screening tool are validated for category 1 soils but disputed for the other categories due to the mentioned restrictions to sustainable crop cultivation. The low sensitivity of the mountainous terrain in the central to northern parts of the project area is validated.</p>
Animal Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species	High Sensitivity	<p>Low to High Sensitivity</p> <p>High in areas of undisturbed natural habitat. Low in areas of modified habitat (e.g., cultivated fields and stands of alien trees).</p>
Aquatic Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for	Very High Sensitivity	<p>Low to High Sensitivity</p> <p>The Screening Tool indicated the site to be in an</p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
	Environmental Impacts on Aquatic Biodiversity		<p>area mapped as being of Low Aquatic Biodiversity Sensitivity but with the aquatic features mapped as very high sensitivity. This assessment found the watercourses and wetlands on the site to be of high sensitivity. Buffer zones of 50m on either side of the watercourses and 100m from the wetlands are deemed sufficient to protect these aquatic ecosystems from any impact arising from the proposed WEF.</p> <p>Low for the widespread area and High for the watercourses and wetlands within the site. A medium sensitivity has been applied to the adjacent buffers.</p>
Archaeological and Cultural Heritage Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	Low Sensitivity	<p>Very High Sensitivity</p> <p>The cultural value of the broader area has significance in terms of its settler and agricultural history, with intact cultural landscape resources located within the development area. Furthermore, Significant Iron Age archaeological heritage was identified within the development area.</p>
Avifauna Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Avifaunal Species by Onshore Wind Energy Generation Facilities where the Electricity Output is 20 Megawatts or more	Low Sensitivity	<p>High Sensitivity</p> <p>The Site Inspection and one year of avifaunal pre-application/pre-construction monitoring confirmed that the site is of high sensitivity for 12 SCC. No nests or breeding sites of SCC were identified on the site.</p>
Bat Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no	High Sensitivity	<p>High Sensitivity</p> <p>The DFFE Screening Tool classified the area as a High Sensitive area for bats, and</p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
	Specific Assessment Protocol has been prescribed		<p>based on the desktop survey, ground truth and data obtained, the result could not be refuted.</p> <p>The rivers, open water and wetlands alone are highly sensitive areas, but there are also a large number of roosts in the area and mine shafts. These factors are the likely causes for the large number of bats recorded thus far during the monitoring period.</p>
Civil Aviation Assessment	Protocol For The Specialist Assessment And Minimum Report Content Requirements For Environmental Impacts On Civil Aviation Installations	Medium Sensitivity	<p>Low Sensitivity</p> <p>According to the DFFE Screening Tool Report, civil aviation is regarded as having medium sensitivity. due to the project being located between 8 and 15 km of other civil aviation aerodrome Therefore, a compliance statement is required as per the protocol specifications.</p> <p>The relevant Authorities have been included in the project stakeholder database including the Air Traffic and Navigation Services (ATNS) and the South African Civil Aviation Authority (SACAA). These stakeholders have been informed of the proposed Project, and comments have been sought from these authorities as applicable. <u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR) and no comments were received to date.</u></p> <p><u>Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.</u></p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
Defence Assessment	Protocol For The Specialist Assessment And Minimum Report Content Requirements For Environmental Impacts On Defence installations	Medium Sensitivity	<p>Low Sensitivity</p> <p>ABO Energy South Africa (Pty) Ltd has submitted a wayleave request in terms of Section 29 of the Electronic Communications Act (Act 36 of 2005) to SANDF on 16/02/2026. <u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR), and no comments were received to date.</u></p> <p><u>Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.</u></p>
Flicker Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	Very Sensitivity High	<p>Very High Sensitivity</p> <p>Development is located in close proximity to verified inhabited residences / homesteads and built-up / residential areas within the study area.</p>
Landscape/Visual Impact Assessment		Very Sensitivity High	<p>High Sensitivity</p> <p>Development is located within the buffer of a national road and on a topographical feature. In addition, numerous inhabited homesteads, hydrological features, as well as mountains and tall hills are situated in close proximity to the project site.</p>
Palaeontology Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	Very Sensitivity High	<p>Medium Sensitivity</p> <p>It is anticipated that the impact of the development will mainly be Low to Moderate as only small sections of the development area are underlain by the sensitive Vryheid Formation.</p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
Noise Assessment	Protocol for Specialist Assessment and Minimum Report Content Requirements for Noise Impacts	Very High Sensitivity	Very High Sensitivity There are numerous permanent or temporary residential activities within the project area. These residential activities are considered to be noise-sensitive, and the areas are considered to have a "Very High" sensitivity to noise.
Plant Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Plant Species	Medium Sensitivity	Medium Sensitivity Medium in areas of undisturbed natural habitat. Low in areas of modified habitat (e.g., cultivated fields and stands of alien trees).
RFI Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	High Sensitivity	Low Sensitivity <u>ABO Energy South Africa (Pty) Ltd has engaged with SAWS and relevant telecommunications stakeholders prior to the S&IER application process regarding the proposed project. The Applicant received confirmation that the proposed project will not impact SAWS. All correspondence received to date for the project in Appendix D of this SSVR.</u>
Terrestrial Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity	Very High Sensitivity	Very High Sensitivity <u>The DFFE screening tool rated the Terrestrial Biodiversity Theme for the PAOI as 'Very High' sensitivity, and the findings of this study confirm this sensitivity rating for patches of natural habitat. With the implementation of the required mitigation measures this impact can be reduced to a low magnitude.</u>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
Vulture Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Cape Vultures by Onshore Wind Energy Generation Facilities where the Electricity Output is 20 Megawatts or more	Medium Sensitivity	Medium Sensitivity. The Screening Tool's Vulture Species Theme identified the study area as of medium sensitivity for vulture species due to the area affecting between 5% - 10% of the population. The survey effort was in line with the Cape Vulture Guidelines; therefore, the Pre-application Avifaunal Monitoring Plan did not require further revision, as the collected data is deemed sufficient to represent the majority of vulture movement on site.
Traffic Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A
Geotechnical Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A
Socio Economic Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A

4.3.2 ABO UVEMVANE WEF 2

Table 4-8 - Assessment Protocols and Site Sensitivity Verifications for ABO Uvemvane WEF 2

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
Agricultural Impact Assessment	Protocol for the specialist assessment and minimum report content requirements of environmental impacts on agricultural resources by onshore wind and/or solar photovoltaic energy generation facilities where the electricity output is 20 megawatts or more	Very High Sensitivity	<p>High to Low sensitivity</p> <p>The information received from the screening tool rates the Agricultural Sensitivity theme as 'Very High' citing "Pivot Irrigation; Land capability;09. Moderate-High/10. Moderate-High" as the main reason for the very high sensitivity. Two center pivots were indeed recorded in the proposed ABO Uvemvane WEF 2 project area on the farm Steynskraal on the banks of the Suikerbosrand River from which they are irrigated.</p> <p>One of these, is situated on deep well-drained Hutton soils, which is ideal for irrigation cultivation and is validated at a very high sensitivity rating. The second, however, lays on moderately deep to shallow plinthic and lithic soils and the cultivated area of this second pivot has medium sensitivity at best.</p> <p>Areas of high sensitivity rating by the screening tool are validated for most areas of Category 1 soils but disputed for the other categories due to the mentioned restrictions to sustainable crop cultivation. The low sensitivity of the mountainous terrain in the central to northern parts of the project area is validated.</p>
Animal Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for	High Sensitivity	<p>High sensitivity</p> <p>High in areas of undisturbed natural habitat. Low in areas</p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
	Environmental Impacts on Terrestrial Animal Species		of modified habitat (e.g., cultivated fields and stands of alien trees).
Aquatic Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity	Very High Sensitivity	<p>Low to High sensitivity</p> <p>The Screening Tool indicated the site to be in an area mapped as being of Low Aquatic Biodiversity Sensitivity but with the aquatic features mapped as very high sensitivity. The specialist assessment found the watercourses and wetlands on the site to be of high sensitivity. Buffer zones of 50m on either side of the watercourses and 100m from the wetlands are deemed sufficient to protect these aquatic ecosystems from any impact arising from proposed WEF 2.</p> <p>Low for the widespread area and High for the watercourses and wetlands within the site. A medium sensitivity has been applied to the adjacent buffers.</p>
Archaeological and Cultural Heritage Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	Very High Sensitivity	<p>Very High sensitivity</p> <p>The cultural value of the broader area has significance in terms of its settler and agricultural history, with intact cultural landscape resources located within the development area.</p> <p>Significant Iron Age archaeological heritage was identified within the development area.</p>
Avifauna Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Avifaunal Species by Onshore Wind Energy Generation Facilities where the Electricity Output is 20 Megawatts or more	Low Sensitivity	<p>High Sensitivity</p> <p>The Site Inspection and one year of avifaunal pre-application/pre-construction monitoring confirmed that the site is of high sensitivity for 12 SCC. No nests or</p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
			breeding sites of SCC were identified on the site.
Bat Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	High Sensitivity	<p>Medium Sensitivity</p> <p>The Screening Tool classified the area as a High Sensitive area for bats, but based on desktop survey, ground truth and data obtained, the result is disputed.</p> <p>The area is of Medium Sensitivity to bats. The rivers, open water and wetlands are highly sensitive areas but are few and far between.</p>
Civil Aviation Assessment	Protocol For The Specialist Assessment And Minimum Report Content Requirements For Environmental Impacts On Civil Aviation Installations	Medium Sensitivity	<p>Low Sensitivity</p> <p>According to the DFFE Screening Tool Report, civil aviation is regarded as having medium sensitivity. due to the project being located between 8 and 15 km of other civil aviation aerodrome Therefore, a compliance statement is required as per the protocol specifications.</p> <p>The relevant Authorities have been included in the project stakeholder database including the Air Traffic and Navigation Services (ATNS) and the South African Civil Aviation Authority (SACAA). These stakeholders have been informed of the proposed Project, and comments have been sought from these authorities as applicable. <u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR) and no comments were received to date.</u></p> <p><u>Any comments received during the public review</u></p>

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
			<u>period for the DEIR will be included in the Final EIR for the project.</u>
Defence Assessment	Protocol For The Specialist Assessment And Minimum Report Content Requirements For Environmental Impacts On Defence installations	Medium Sensitivity	<p>Low Sensitivity</p> <p>ABO Energy South Africa (Pty) Ltd has submitted a wayleave request in terms of Section 29 of the Electronic Communications Act (Act 36 of 2005) to SANDF on 16/02/2026. Any comments received will be included in the Final Scoping Report and updated throughout S&EIR process.</p> <p><u>Proof of notification of the stakeholder is included in the SER (Appendix E of the DEIR), and no comments were received to date.</u></p> <p><u>Any comments received during the public review period for the DEIR will be included in the Final EIR for the project.</u></p>
Flicker Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	Very Sensitivity High	<p>Very High Sensitivity</p> <p>Development is located in proximity to verified inhabited residences / homesteads and built-up / residential areas within the study area.</p>
Landscape/Visual Impact Assessment		Very Sensitivity High	<p>High Sensitivity</p> <p>Development is located within the buffer of a national road and on a topographical feature. In addition, numerous inhabited homesteads, hydrological features, as well as mountains and tall hills are situated in close proximity to the project site.</p>
Palaeontology Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no	Medium Sensitivity	<p>Low Sensitivity</p>

Specialist Assessment	Assessment Protocol	DDFE Screening Tool Sensitivity	Specialist Sensitivity Verification
	Specific Assessment Protocol has been prescribed		It is anticipated that the impact of the development will mainly be LOW as none of the development area is underlain by the sensitive Vryheid Formation.
Noise Assessment	Protocol for Specialist Assessment and Minimum Report Content Requirements for Noise Impacts	Very High Sensitivity	Very High Sensitivity There are numerous permanent or temporary residential activities within the project area. These residential activities are considered to be noise-sensitive, and the areas are considered to have a “Very High” sensitivity to noise.
Plant Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Plant Species	Medium Sensitivity	Medium sensitivity The ‘Medium’ sensitivity rating for the Plant Species theme is therefore confirmed for patches of natural habitat across the Project site.
RFI Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	High Sensitivity	Low Sensitivity <u>ABO Energy South Africa (Pty) Ltd has engaged with SAWS and relevant telecommunications stakeholders prior to the S&IER application process regarding the proposed project. The Applicant received confirmation that the proposed project will not impact SAWS. All correspondence received to date for the project in Appendix D of this SSVR.</u>
Terrestrial Biodiversity Impact Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity	Very High Sensitivity	Very High Sensitivity Large areas of natural habitat are present on-site, and these maintain important ecosystem processes and support many indigenous flora and fauna species. For natural habitat patches, the ‘Very

Specialist Assessment	Assessment Protocol	DFFE Screening Tool Sensitivity	Specialist Sensitivity Verification
			High' sensitivity rating for Terrestrial Biodiversity therefore is confirmed. For patches of modified habitat (cultivated fields and stands of alien trees), the sensitivity rating is considered Low
Vulture Species Assessment	Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Cape Vultures by Onshore Wind Energy Generation Facilities where the Electricity Output is 20 Megawatts or more	Medium Sensitivity	Medium Sensitivity. The Screening Tool's Vulture Species Theme identified the study area as of medium sensitivity for vulture species due to the area affecting between 5% - 10% of the population. The survey effort was in line with the Cape Vulture Guidelines; therefore, the Pre-application Avifaunal Monitoring Plan did not require further revision, as the collected data is deemed sufficient to represent the majority of vulture movement on site.
Traffic Impact Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A
Geotechnical Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A
Socio Economic Assessment	Site Sensitivity Verification Requirements where a specialist Assessment is required but no Specific Assessment Protocol has been prescribed	No sensitivity identified by the screening tool	N/A

4.4 CONSOLIDATED SITE SENSITIVITY

Figure 4-58 and **Figure 4-59** below shows the consolidated site sensitivities for the original ABO Uvemvane WEF 1 and ABO Uvemvane WEF 2 layouts (66 Turbines combined). The sensitivity inputs and findings from all the appointed specialists have been combined and utilised to prepare this preliminary layout.

Due to the environmental sensitivities identified, the project configuration and layouts were revisited during the Scoping Phase. It was subsequently decided that only ABO Uvemvane WEF 1 would proceed to the Environmental Assessment (EA) phase. The Scoping Phase layout for ABO Uvemvane WEF 1 comprised 31 turbines (**Figure 4-60**). During the Draft EIA Phase, the layout was further refined to avoid and minimise specialist sensitivities identified through the impact assessment process. As a result, the number of turbines was reduced to 20. The final proposed layout is presented in **Figure 4-61**.

These sensitive areas identified will be utilised going forward into the EIA phase in order avoid sensitive areas as buffered by specialists and to minimise the impacts of the proposed project on in the area.

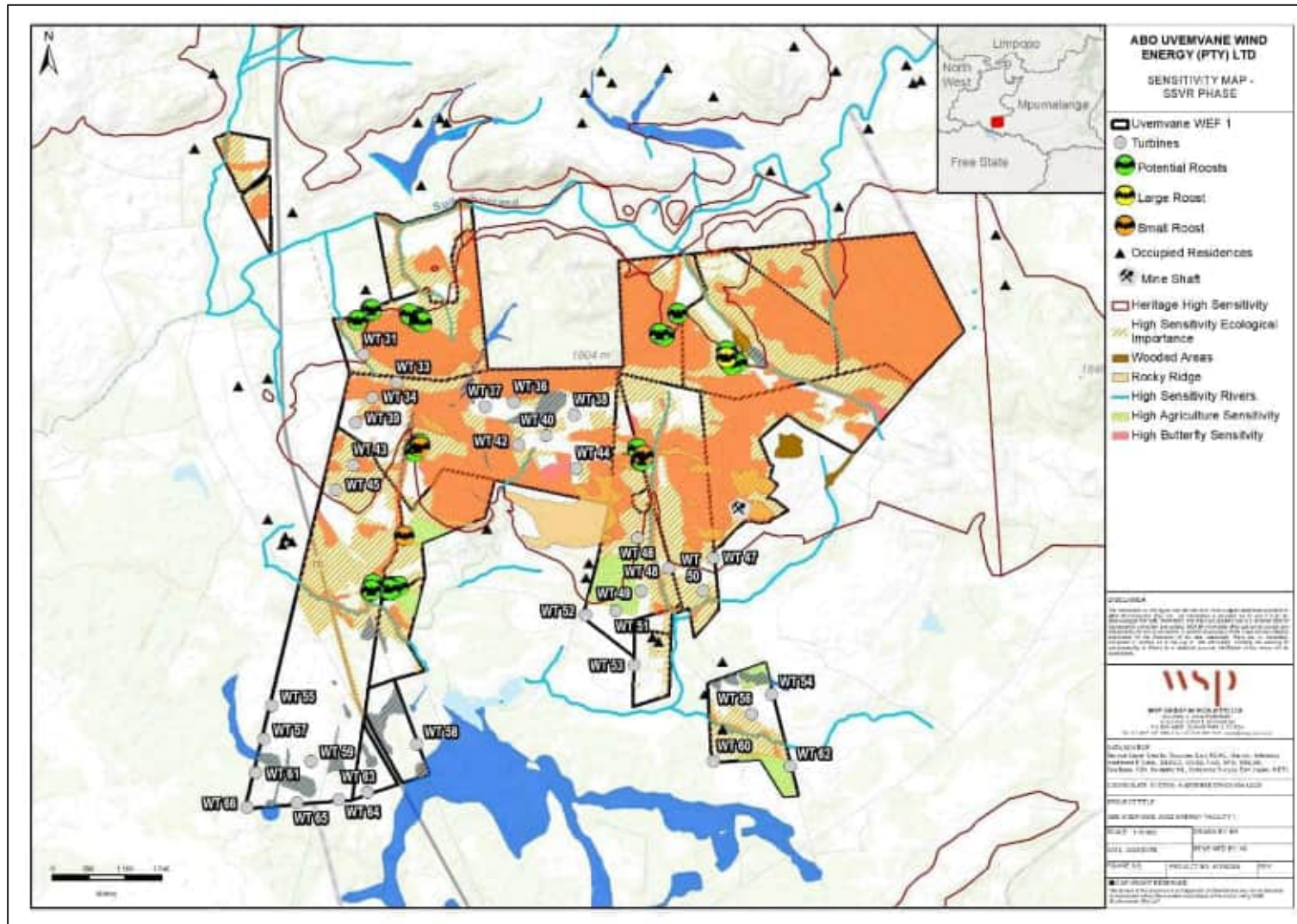


Figure 4-58 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Original Layout)

ABO UVMVANE WIND ENERGY FACILITY 1 & 2, NEAR BALFOUR IN THE MPUMALANGA PROVINCE AND HEIDELBERG IN THE GAUTENG PROVINCE

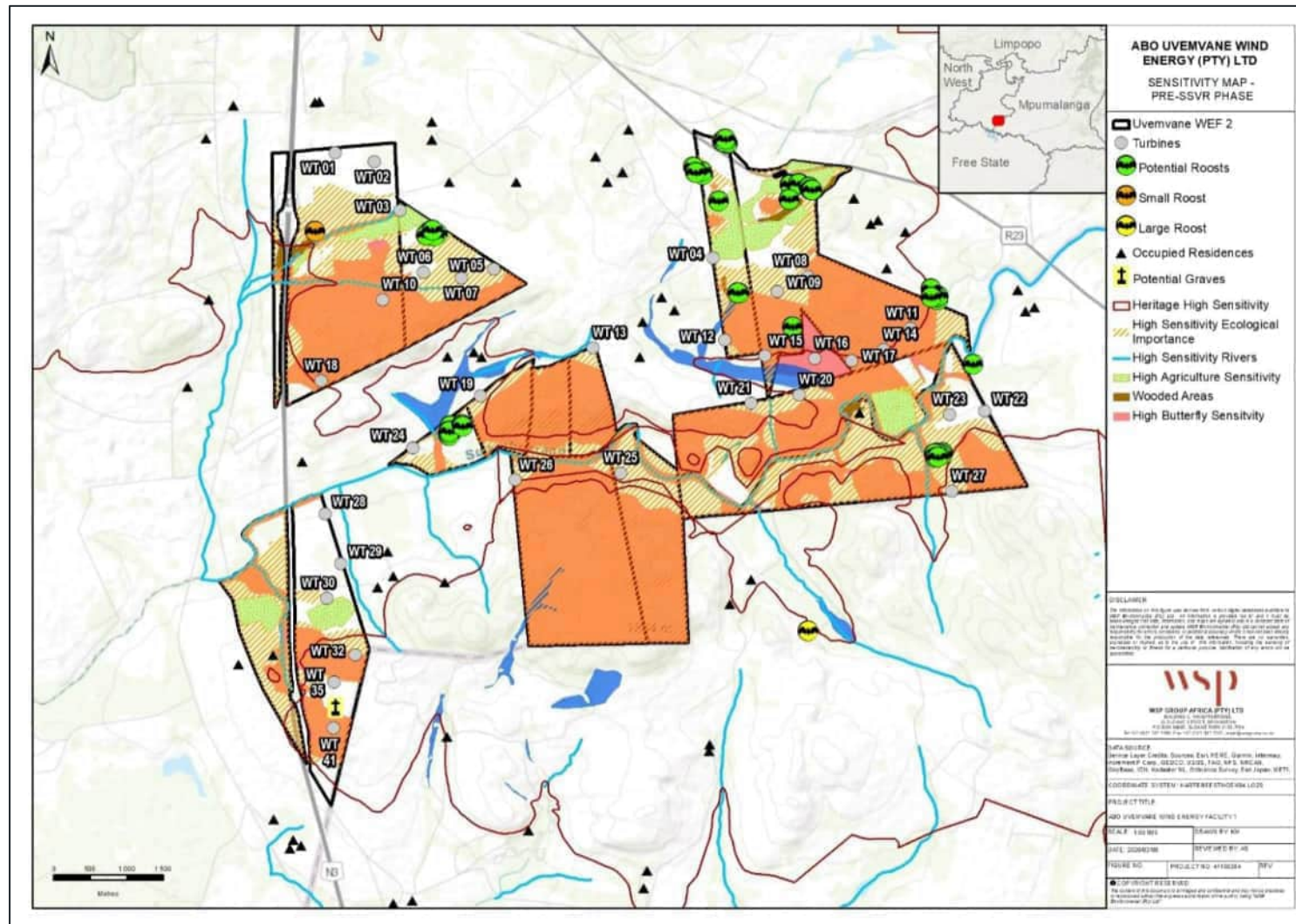


Figure 4-59 - Consolidated site sensitivity map for ABO Uvemvane WEF 2 (Original Layout)

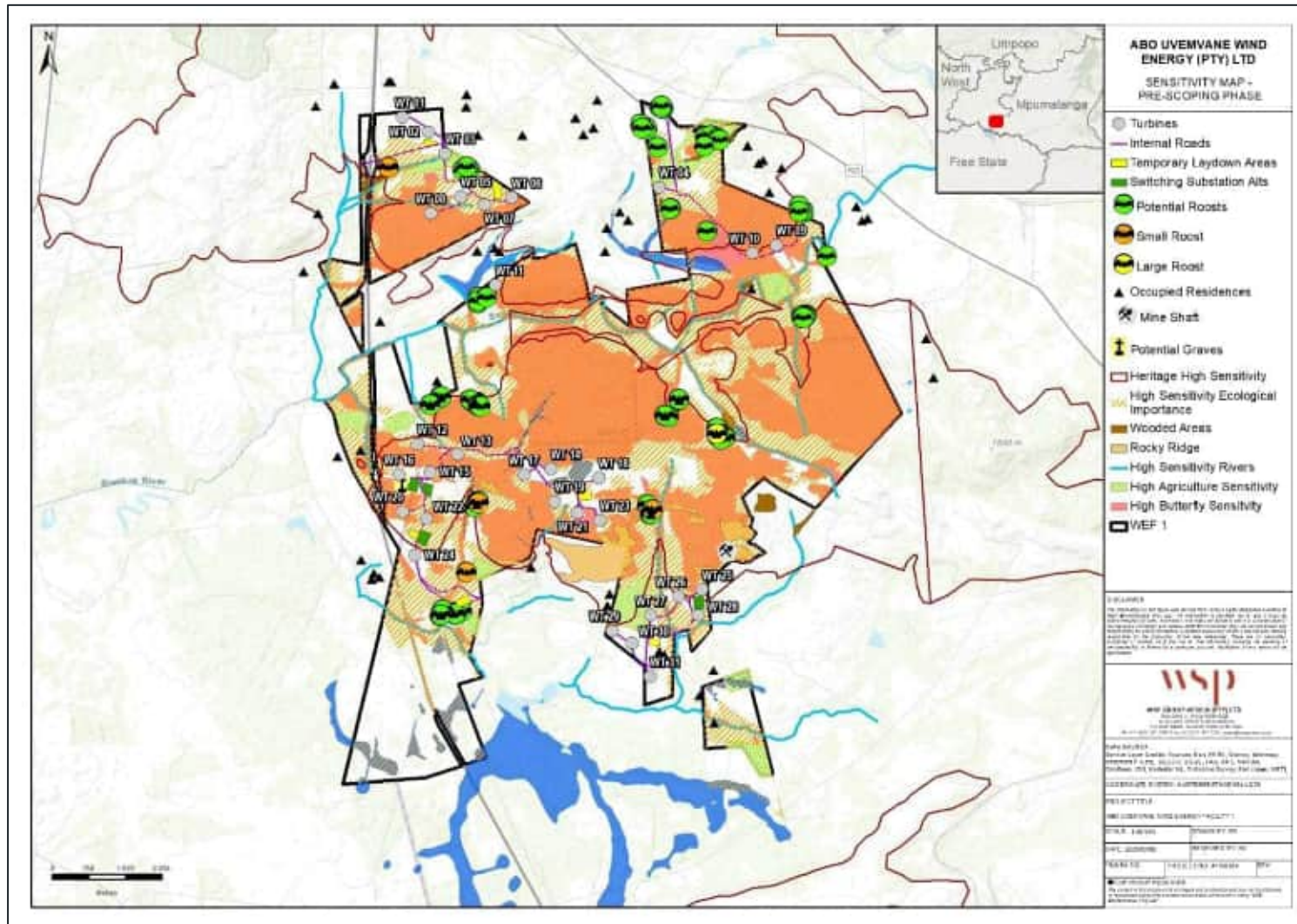


Figure 4-60 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Revised Layout – Scoping Phase)

ABO Uvemvane Wind Energy Facility 1 & 2, near Balfour in the Mpumalanga Province and Heidelberg in the Gauteng Province

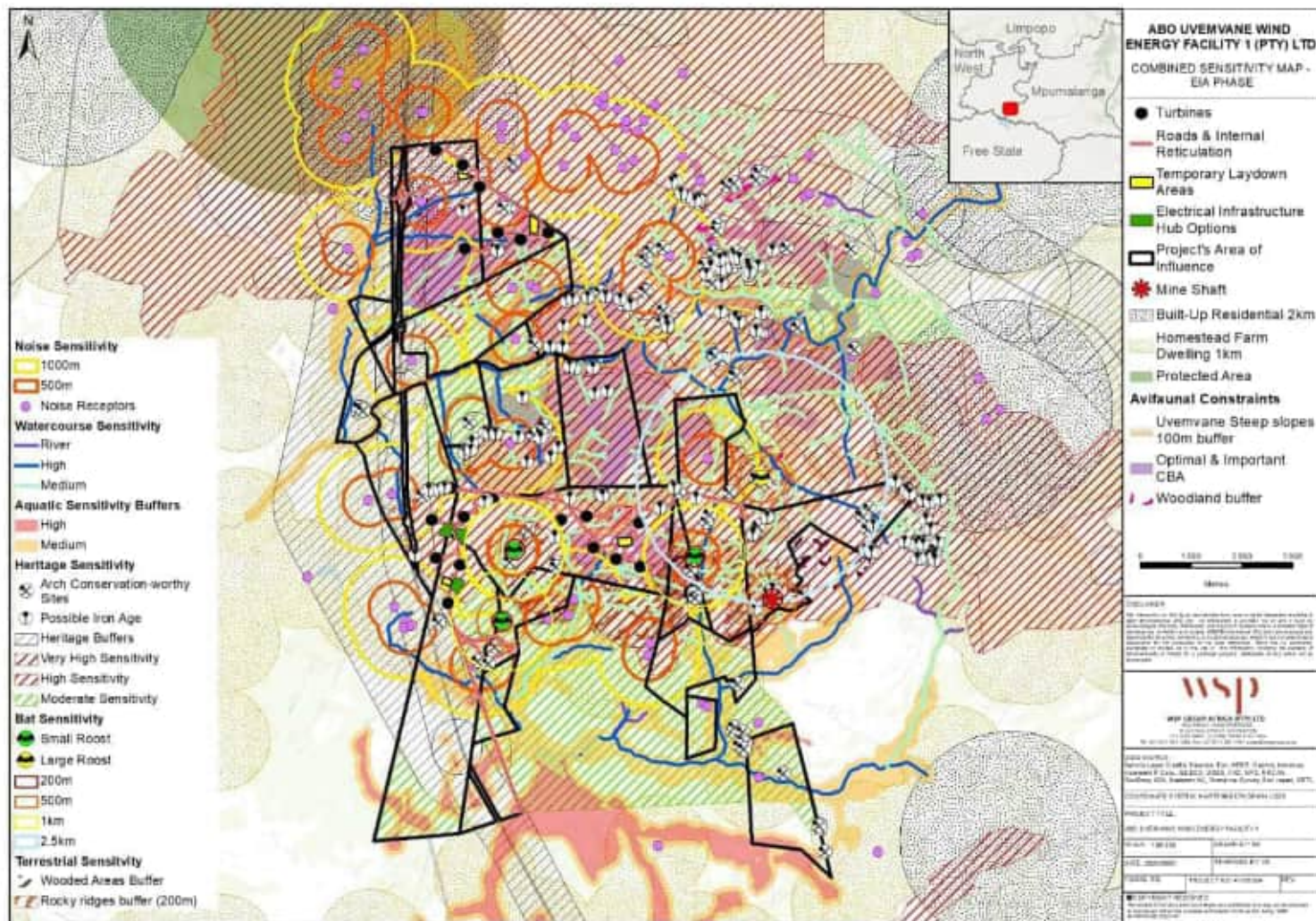


Figure 4-61 - Consolidated site sensitivity map for ABO Uvemvane WEF 1 (Final Layout –DEIR Phase)

5 CONCLUSION

The EAP hereby confirms the following environmental themes where sensitivity was confirmed to coincide with the DFFE Screening Tool Rating:

- Flicker (Very High Sensitivity)
- Noise (Very High Sensitivity)
- Plant Species (Medium Sensitivity)
- Terrestrial Biodiversity (Very High Sensitivity)
- Vulture Species (Medium Sensitivity)

The following environmental themes were disputed against the DFFE Screening Tool Rating, and found to be a lower sensitivity than what was identified by the DFFE Screening Tool:

- Agricultural Impact (Medium to Low Sensitivity)
- Aquatic Biodiversity (Low to High Sensitivity)
- Landscape/Visual (High Sensitivity)
- Palaeontology (Low to Medium Sensitivity)
- Animal Species (Low to High Sensitivity)
- Bat (Medium to High Sensitivity)
- Civil Aviation (Low Sensitivity)
- Defence (Low Sensitivity)
- RFI (Low Sensitivity)

The following environmental themes were disputed against the DFFE Screening Tool Rating, and found to be a higher sensitivity than what was identified by the DFFE Screening Tool:

- Archaeological and Cultural Heritage (Very High Sensitivity)
- Avifauna (High Sensitivity)

As mentioned earlier, WEF 1 was previously proposed as part of a WEF Cluster, comprising of ABO Uvemvane Wind Energy Facility 1 and ABO Uvemvane Wind Energy Facility 2. However, the verified sensitivities as detailed in this report resulted in significant changes to the original layouts and resulted in a layout that would be suitable for the development of a single WEF.

Therefore, ABO Uvemvane WEF 1 project site is the sole focus of the EIA application process.

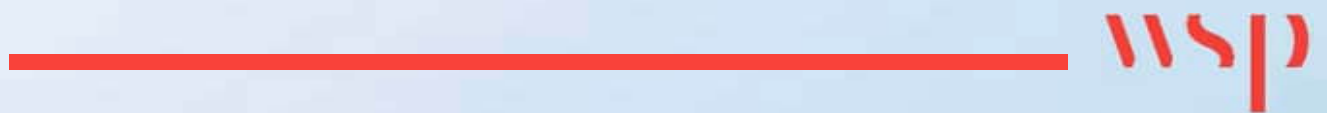
Signed:

EAP – Ashlea Strong

(2019/1005)

Appendix A

DFFE SCREENING TOOL REPORT



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

EIA Reference number: TBC

Project name: ABO Uvemvane Wind Energy Facility 1

Project title: ABO Uvemvane Wind Energy Facility 1

Date screening report generated: 28/11/2025 12:54:48

Applicant: ABO Uvemvane Wind Energy Facility (Pty) Ltd

Compiler: WSP Group Africa (Pty) Ltd

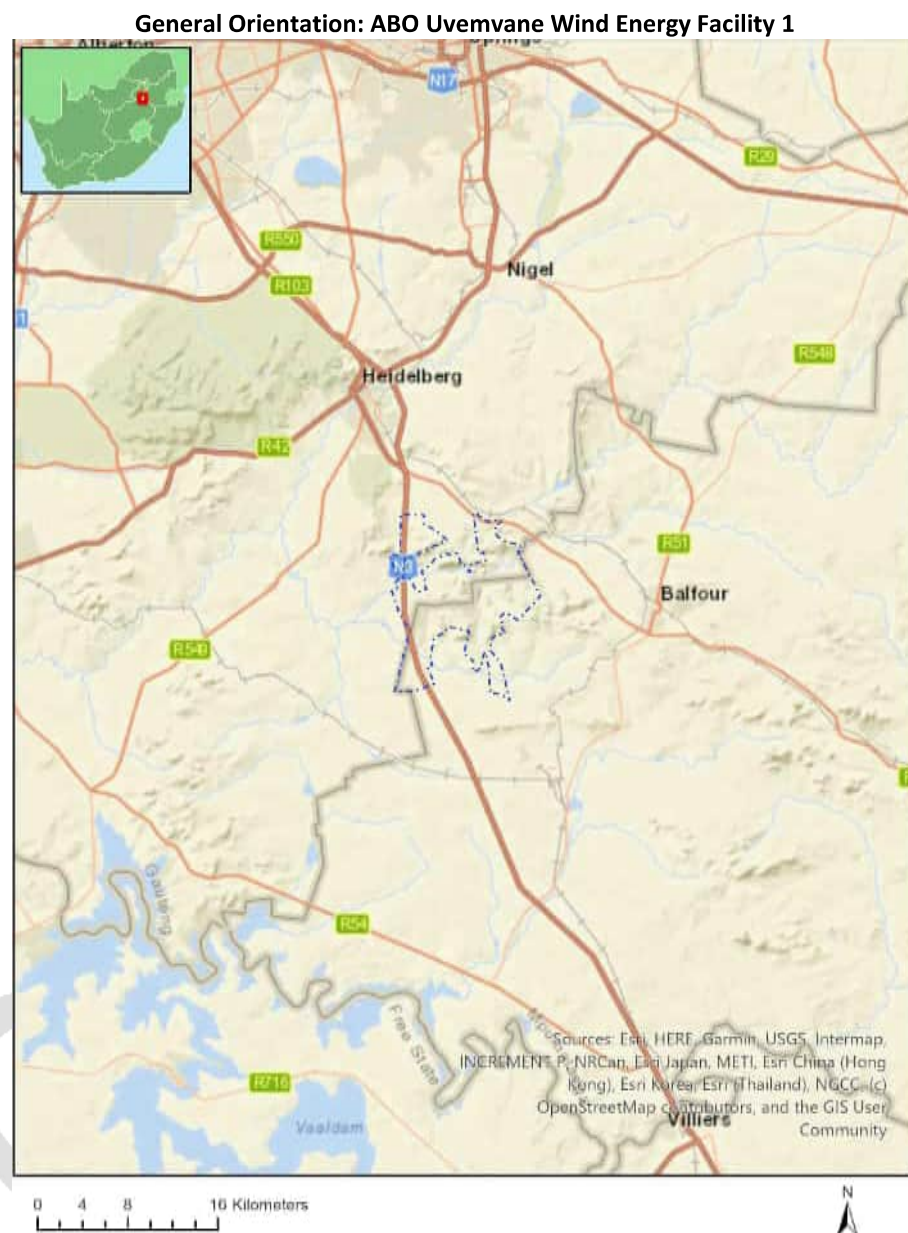
Compiler signature:  Digitally signed by
Maharaj, Jashmika
(ZAJM05082)

Application Category: Utilities Infrastructure | Electricity | Generation | Renewable | Wind

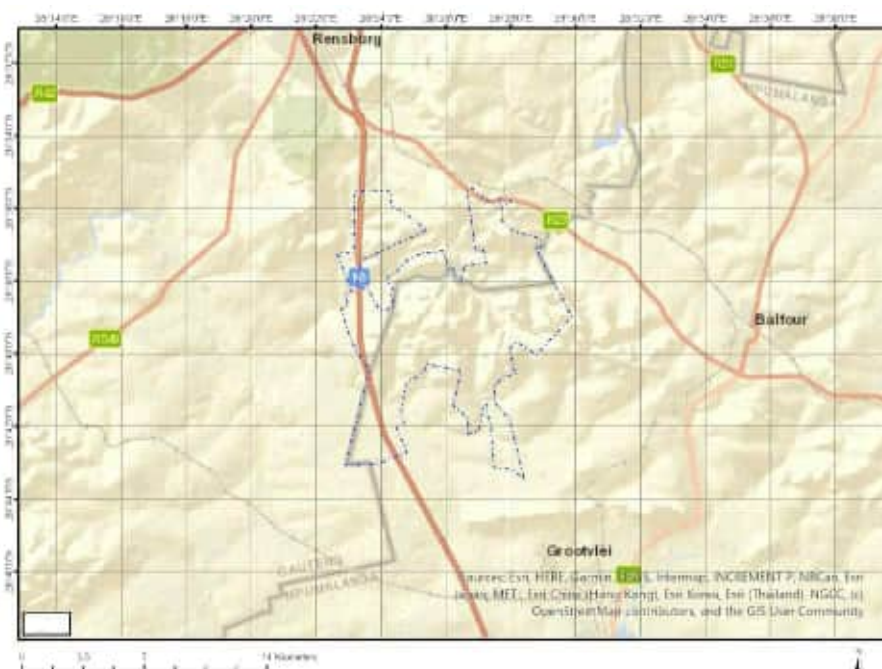
Table of Contents

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	6
Environmental Management Frameworks relevant to the application	7
Environmental screening results and assessment outcomes	7
Relevant development incentives, restrictions, exclusions or prohibitions	7
Proposed Development Area Environmental Sensitivity	8
Specialist assessments identified	8
Results of the environmental sensitivity of the proposed area	10
MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY	10
MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY	11
MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY	12
MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY	13
MAP OF RELATIVE AVIAN (WIND) THEME SENSITIVITY	14
MAP OF RELATIVE BATS (WIND) THEME SENSITIVITY	15
MAP OF RELATIVE CIVIL AVIATION (WIND) THEME SENSITIVITY	16
MAP OF RELATIVE DEFENCE (WIND) THEME SENSITIVITY	17
MAP OF RELATIVE FLICKER THEME SENSITIVITY	18
MAP OF RELATIVE LANDSCAPE (WIND) THEME SENSITIVITY	19
MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY	20
MAP OF RELATIVE NOISE THEME SENSITIVITY	21
MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY	22
MAP OF RELATIVE RFI (WIND) THEME SENSITIVITY	23
MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY	24
MAP OF RELATIVE VULTURE SPECIES THEME SENSITIVITY	25

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	WAVESIDE	2	0	26°36'20.61S	28°25'35.17E	Erven
2		448	0	26°44'27.21S	28°26'22.96E	Farm
3		449	0	26°42'35.06S	28°27'41.86E	Farm
4		392	0	26°32'51.93S	28°22'47.48E	Farm
5		451	0	26°41'46.64S	28°27'34.36E	Farm
6		410	0	26°40'34.55S	28°22'22.58E	Farm
7		409	0	26°40'5.88S	28°26'57.46E	Farm
8		413	0	26°38'42.3S	28°24'46.15E	Farm
9		405	0	26°39'11.56S	28°28'2.7E	Farm
10		406	0	26°36'54.64S	28°24'33.42E	Farm
11		560	0	26°41'20.76S	28°30'7.01E	Farm
12		404	0	26°41'7.52S	28°26'54.95E	Farm
13		407	0	26°41'7.49S	28°25'9.68E	Farm
14		403	0	26°36'34.53S	28°26'29.17E	Farm
15		693	0	26°40'33.18S	28°28'24.2E	Farm
16		399	0	26°37'18.75S	28°27'54.29E	Farm
17		559	0	26°38'0.67S	28°30'34.98E	Farm
18		411	0	26°37'39.87S	28°21'57.62E	Farm
19		446	0	26°44'11.65S	28°23'24.59E	Farm
20	WELTEVREDEN	449	0	26°42'22.85S	28°27'18.19E	Farm Portion
21	VLAKFONTEIN	448	2	26°42'36.08S	28°26'36.45E	Farm Portion
22	WELTEVREDEN	449	1	26°42'20.99S	28°27'49.1E	Farm Portion
23	WELTEVREDEN	449	3	26°42'55.42S	28°27'17.18E	Farm Portion
24	MALANSKRAAL	407	3	26°41'40.56S	28°25'25.4E	Farm Portion
25	MALANSKRAAL	407	16	26°41'34.58S	28°24'25.97E	Farm Portion
26	WELTEVREDEN	449	2	26°42'57.98S	28°27'53.14E	Farm Portion
27	DRIEFONTEIN	405	5	26°38'43.16S	28°29'0.04E	Farm Portion

28	LAGERSPOORT	406	39	26°37'36.74S	28°23'15.94E	Farm Portion
29	LAGERSPOORT	406	43	26°37'60S	28°23'30.69E	Farm Portion
30	LAGERSPOORT	406	32	26°38'25.05S	28°26'19.28E	Farm Portion
31	LAGERSPOORT	406	19	26°35'42.16S	28°24'37.49E	Farm Portion
32	STEYNSKRAAL	399	6	26°37'12.43S	28°27'37.32E	Farm Portion
33	STEYNSKRAAL	399	12	26°37'21.15S	28°26'52.21E	Farm Portion
34	STEYNSKRAAL	399	14	26°35'48.71S	28°27'23.98E	Farm Portion
35	STEYNSKRAAL	399	25	26°38'12.5S	28°26'44.78E	Farm Portion
36	STEYNSKRAAL	399	15	26°36'2.78S	28°28'18.43E	Farm Portion
37	MODDERFONTEIN	410	7	26°41'51.06S	28°22'37.72E	Farm Portion
38	STEYNSKRAAL	403	0	26°36'34.53S	28°26'29.17E	Farm Portion
39	LAGERSPOORT	406	37	26°37'42.97S	28°23'19.32E	Farm Portion
40	ORION	413	0	26°38'39.41S	28°24'44.97E	Farm Portion
41	LAGERSPOORT	406	30	26°37'36.15S	28°23'14.85E	Farm Portion
42	LAGERSPOORT	406	40	26°36'9.46S	28°23'21.31E	Farm Portion
43	LAGERSPOORT	406	2	26°36'27.1S	28°23'46.99E	Farm Portion
44	MODDERFONTEIN	410	2	26°39'10.11S	28°23'40.44E	Farm Portion
45	MODDERFONTEIN	410	9	26°39'14.06S	28°23'22.69E	Farm Portion
46	HOUTPOORT	392	145	26°35'32.91S	28°23'28.63E	Farm Portion
47	HOUTPOORT	392	63	26°35'29.32S	28°23'14.64E	Farm Portion
48	HOUTPOORT	392	142	26°35'22.41S	28°23'20.23E	Farm Portion
49	DE HOEK	411	16	26°37'46.29S	28°22'56.09E	Farm Portion
50	DE HOEK	411	18	26°37'39.48S	28°22'51.96E	Farm Portion
51	DE HOEK	411	10	26°37'36.71S	28°22'53.71E	Farm Portion
52	MODDERFONTEIN	410	10	26°40'26.39S	28°23'37.39E	Farm Portion
53	MODDERFONTEIN	410	1	26°40'25.94S	28°23'16.78E	Farm Portion
54	DE HOEK	411	13	26°37'34.85S	28°22'24.47E	Farm Portion
55	MODDERFONTEIN	410	3	26°39'44.08S	28°22'45.91E	Farm Portion
56	LAGERSPOORT	406	42	26°36'14.82S	28°25'13.9E	Farm Portion
57	LAGERSPOORT	406	41	26°37'35.47S	28°23'19.55E	Farm Portion
58	LAGERSPOORT	406	45	26°37'32.82S	28°24'10.22E	Farm Portion
59	STEYNSKRAAL	399	4	26°36'38.25S	28°27'26.21E	Farm Portion
60	DE HOEK	411	14	26°37'51.73S	28°22'50.02E	Farm Portion
61	LAGERSPOORT	406	7	26°37'48.71S	28°24'39.05E	Farm Portion
62	LAGERSPOORT	406	6	26°37'32.73S	28°26'20.51E	Farm Portion
63	STEYNSKRAAL	399	17	26°35'28.3S	28°26'49.5E	Farm Portion
64	STEYNSKRAAL	399	11	26°37'53S	28°28'22.21E	Farm Portion
65	LAGERSPOORT	406	13	26°37'20.06S	28°26'0.42E	Farm Portion
66	LAGERSPOORT	406	12	26°37'2.22S	28°25'45.84E	Farm Portion
67	LAGERSPOORT	406	11	26°37'33.74S	28°25'7.94E	Farm Portion
68	LAGERSPOORT	406	21	26°38'2.16S	28°23'16.55E	Farm Portion
69	LAGERSPOORT	406	35	26°37'34.04S	28°25'30.17E	Farm Portion
70	LAGERSPOORT	406	36	26°38'1.89S	28°23'20.4E	Farm Portion
71	HOUTPOORT	392	66	26°35'29S	28°24'13.04E	Farm Portion
72	HOUTPOORT	392	62	26°35'24.29S	28°23'40.59E	Farm Portion
73	DE HOEK	411	4	26°37'26.13S	28°22'59.54E	Farm Portion
74	DE HOEK	411	1	26°36'24.38S	28°22'36.65E	Farm Portion
75	STEYNSKRAAL	399	24	26°36'21S	28°26'58.02E	Farm Portion
76	STEYNSKRAAL	399	23	26°35'52.17S	28°26'29.79E	Farm Portion
77	KLEINFONTEIN	446	1	26°43'31.46S	28°23'2.11E	Farm Portion
78	HOUTPOORT	392	109	26°35'29.21S	28°23'23.87E	Farm Portion
79	STEYNSKRAAL	399	1	26°37'39.02S	28°27'32.72E	Farm Portion
80	STEYNSKRAAL	399	0	26°36'43.29S	28°28'52.26E	Farm Portion
81	LAGERSPOORT	406	17	26°36'33.57S	28°24'37.7E	Farm Portion
82	LAGERSPOORT	406	15	26°37'30.76S	28°25'49.38E	Farm Portion
83	STEYNSKRAAL	399	10	26°35'35.02S	28°27'19.39E	Farm Portion
84	LAGERSPOORT	406	5	26°38'39.88S	28°25'42.6E	Farm Portion
85	LAGERSPOORT	406	8	26°38'26.48S	28°24'0.84E	Farm Portion
86	DE HOEK	411	11	26°37'35.59S	28°23'14.11E	Farm Portion
87	DE HOEK	411	19	26°38'18.54S	28°22'52.66E	Farm Portion

88	DE HOEK	411	15	26°37'39.89S	28°23'6.74E	Farm Portion
89	DRIEFONTEIN	405	0	26°40'1.45S	28°27'40.66E	Farm Portion
90	POTGIETERSRUS	693	0	26°40'36.52S	28°28'24.13E	Farm Portion
91	WILDEBEESTFONTEIN	559	15	26°37'6.69S	28°29'5.69E	Farm Portion
92	VLAKFONTEIN	448	21	26°44'26.18S	28°26'50.44E	Farm Portion
93	MALANSKRAAL	407	18	26°42'22.84S	28°24'25.52E	Farm Portion
94	MALANSKRAAL	407	23	26°42'32.91S	28°24'17.85E	Farm Portion
95	MALANSKRAAL	407	17	26°40'35.88S	28°24'48.46E	Farm Portion
96	WILDEBEESTFONTEIN	559	11	26°38'51.05S	28°30'5.23E	Farm Portion
97	TWEEFONTEIN	560	7	26°41'53.65S	28°28'29.16E	Farm Portion
98	MALANSKRAAL	407	6	26°42'8.7S	28°23'39.3E	Farm Portion
99	VLAKFONTEIN	448	19	26°43'54.94S	28°24'30.59E	Farm Portion
100	MALANSKRAAL	407	5	26°41'55.85S	28°27'9.72E	Farm Portion
101	TWEEFONTEIN	560	1	26°39'55.49S	28°29'31.32E	Farm Portion
102	MALANSKRAAL	407	20	26°41'27.3S	28°26'56.56E	Farm Portion
103	MALANSKRAAL	407	19	26°42'5.41S	28°25'31.95E	Farm Portion
104	MALANSKRAAL	407	15	26°40'41.08S	28°25'48.32E	Farm Portion
105	MALANSKRAAL	407	13	26°41'50.33S	28°26'52.66E	Farm Portion
106	MALANSKRAAL	407	9	26°39'47.16S	28°25'20.58E	Farm Portion
107	MALANSKRAAL	407	4	26°41'20.53S	28°25'5.15E	Farm Portion
108	MALANSKRAAL	407	8	26°40'39.54S	28°25'11.66E	Farm Portion
109	DRIEFONTEIN	405	7	26°38'54.16S	28°26'52.9E	Farm Portion
110	DRIEFONTEIN	405	1	26°38'52.61S	28°27'52.28E	Farm Portion
111	ZANDHOEK	451	0	26°41'48.96S	28°27'33.11E	Farm Portion
112	BOTHAS SPRUIT	404	0	26°41'9.86S	28°26'53.01E	Farm Portion
113	SHILOH KLOOF	409	0	26°40'10.02S	28°26'56.56E	Farm Portion
114	MALANSKRAAL	407	22	26°41'55.95S	28°26'22.99E	Farm Portion
115	MALANSKRAAL	407	27	26°42'19.27S	28°24'33.77E	Farm Portion
116	MALANSKRAAL	407	28	26°41'43.37S	28°24'19.62E	Farm Portion
117	VLAKFONTEIN	448	4	26°43'21.96S	28°26'49.68E	Farm Portion
118	MALANSKRAAL	407	26	26°41'31.36S	28°24'6.15E	Farm Portion
119	MALANSKRAAL	407	25	26°41'27.66S	28°23'43.94E	Farm Portion
120	MALANSKRAAL	407	24	26°41'14.73S	28°23'47.32E	Farm Portion

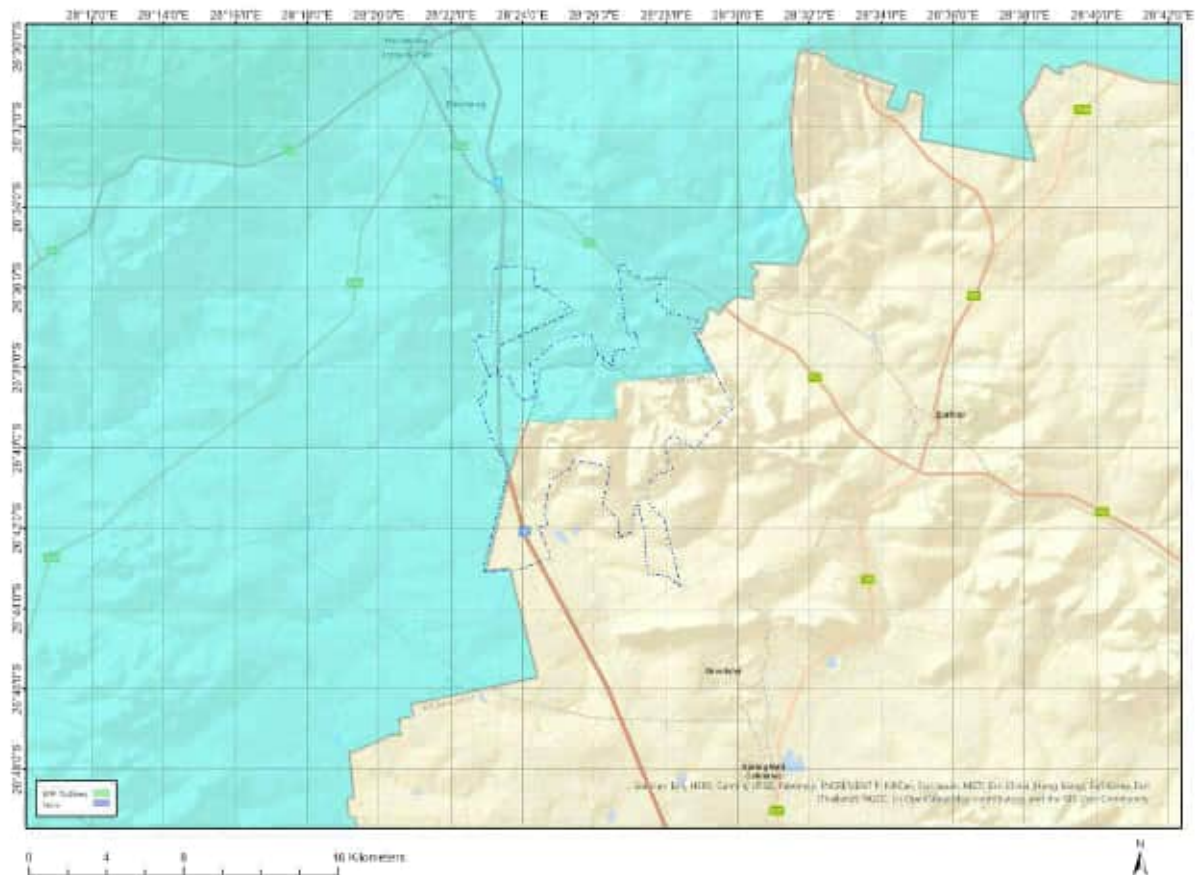
Development footprint¹ vertices:
No development footprint(s) specified.

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	12/12/20/2060	Solar PV	Approved	3.7
2	14/12/16/3/3/2/2599	Solar PV	Approved	28.9

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.

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Gauteng EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/GPEMF_2021_Gazette_and_summary.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 | Wind.

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
Air Quality-Vaal Triangle Airshed Priority Area	https://screening.environment.gov.za/ScreeningDownloads/Developmen

	tZones/Final VTAPA AQMP 20090408 -15 April 2009.pdf
Air Quality-Highveld Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/HIGHVELD_PRIORITY_AREA_AQMP.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined GAS.pdf
Gauteng EMF-Urban development zone 1	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Zone1_2021.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			
Avian (Wind) Theme				X
Bats (Wind) Theme		X		
Civil Aviation (Wind) Theme			X	
Defence (Wind) Theme			X	
Flicker Theme	X			
Landscape (Wind) Theme	X			
Paleontology Theme	X			
Noise Theme	X			
Plant Species Theme			X	
RFI (Wind) Theme	X			
Terrestrial Biodiversity Theme	X			
Vulture Species 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.

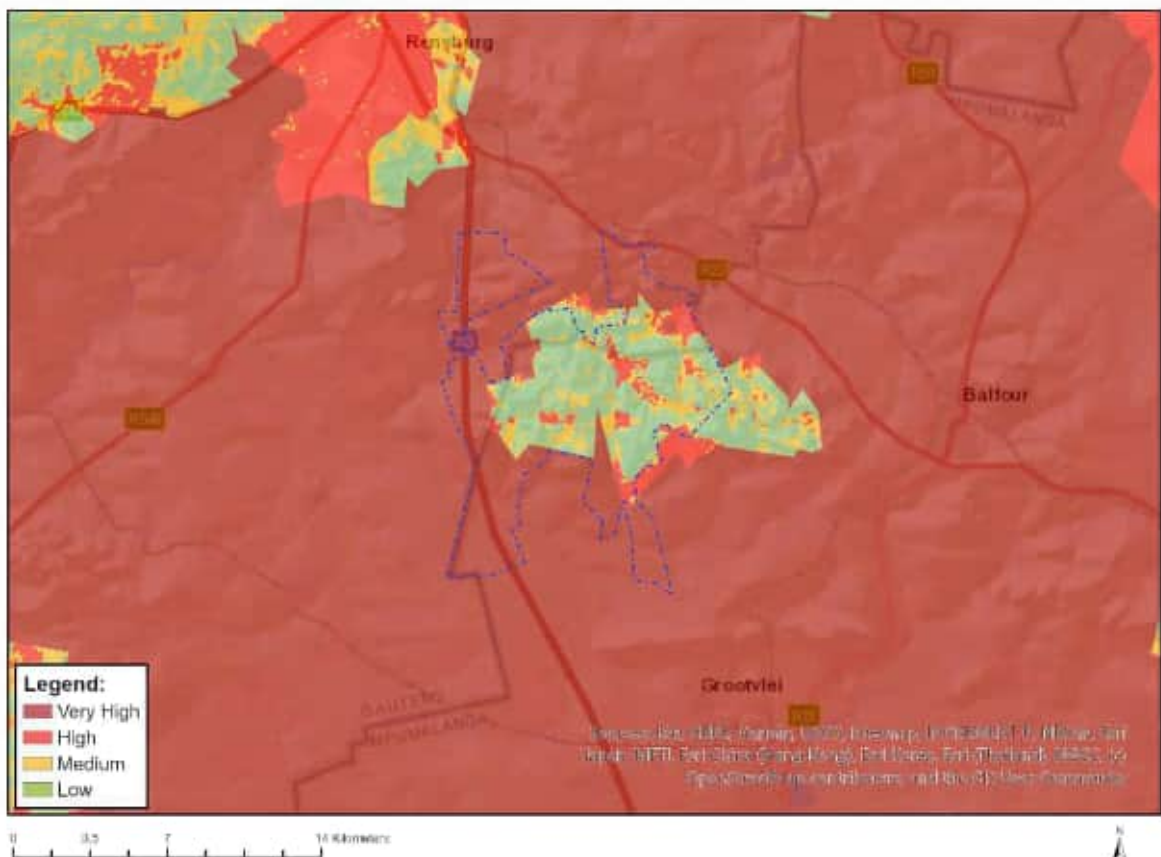
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_WindAndSolar_Agriculture_Assessment_Protocols.pdf
2	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf

3	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/GuidanceforHIA.pdf
4	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/GuidanceforPIA.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	Avian Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Avifauna Assessment Protocols.pdf
8	Civil Aviation Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Civil Aviation Installations Assessment Protocols.pdf
9	Defense Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Defence Installations Assessment Protocols.pdf
10	RFI Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
11	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Noise Impacts Assessment Protocol.pdf
12	Flicker Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
13	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
14	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
15	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
16	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf
17	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



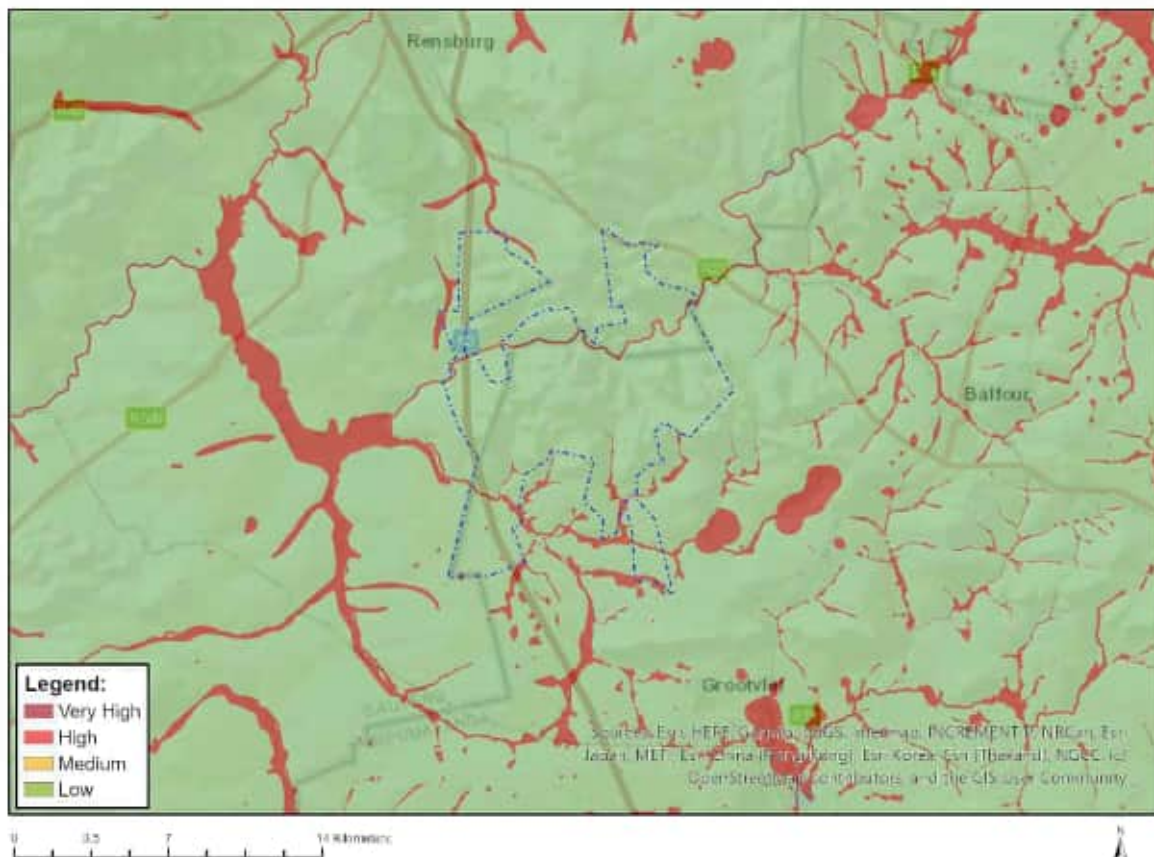
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Old_Fields
High	Rainfed Annual Crop Cultivation / Planted Pastures
High	08. Moderate
High	10. Moderate-High
High	09. Moderate-High
Low	05. Low
Low	04. Low-Very low
Low	03. Low-Very low
Low	02. Very low
Medium	07. Low-Moderate

Medium	Insecta-Chrysoritis aureus
Medium	Insecta-Lepidochrysops procera
Medium	Insecta-Orachrysops mijburghi
Medium	Mammalia-Crociodura maquassiensis
Medium	Mammalia-Hydricitis maculicollis
Medium	Mammalia-Ourebia ourebi ourebi

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

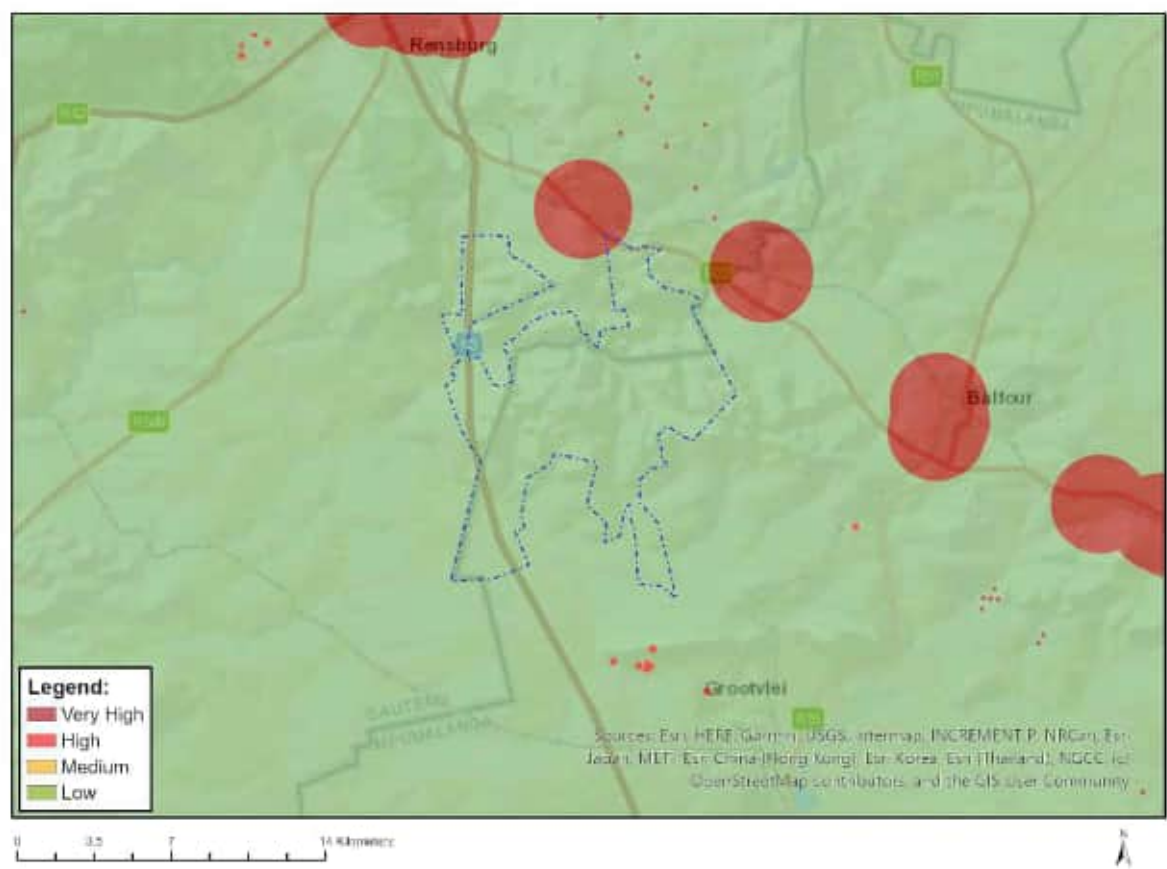


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	CBA: Wetlands
Very High	ESA: Wetlands
Very High	Wetlands_Channelled valley-bottom
Very High	Wetlands_Depression
Very High	Wetlands_Floodplain
Very High	Wetlands_Seep
Very High	Wetlands_Unchannelled valley-bottom
Very High	Rivers

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

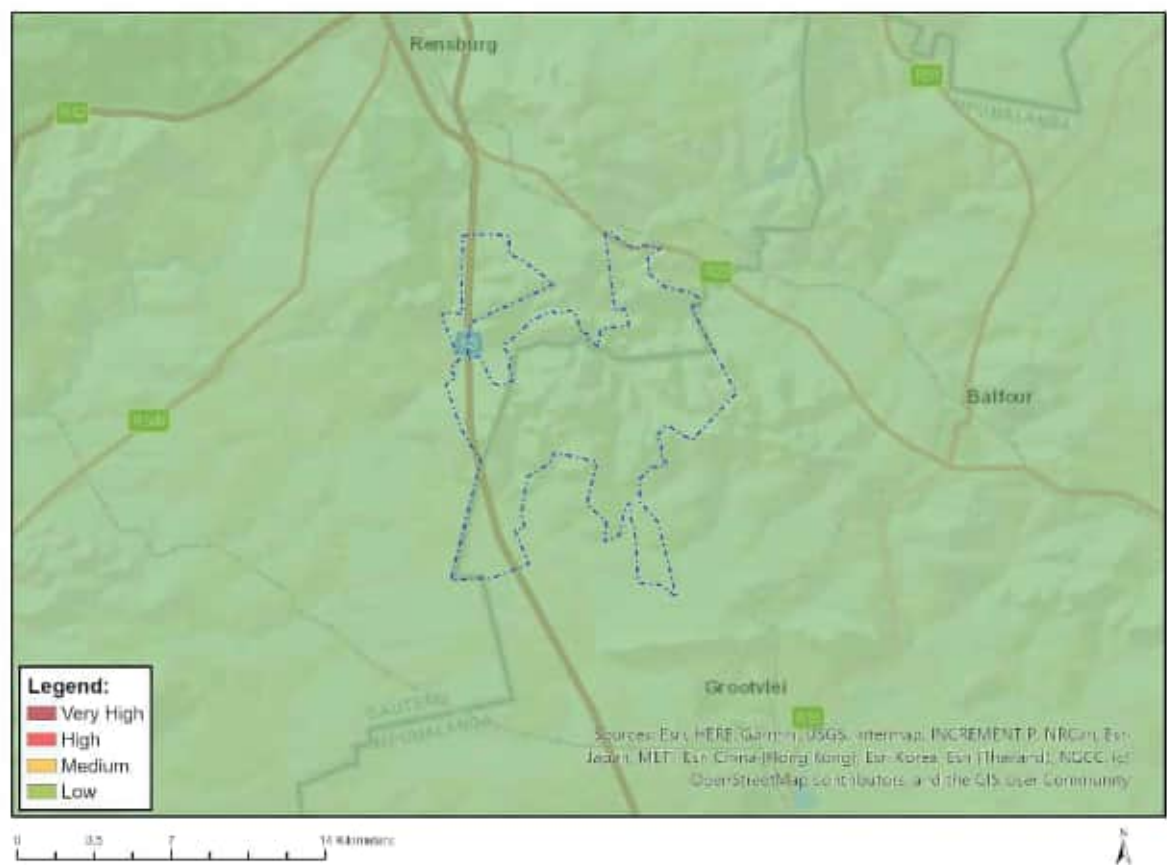


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	Within 2km of a Grade II Heritage site

MAP OF RELATIVE AVIAN (WIND) THEME SENSITIVITY

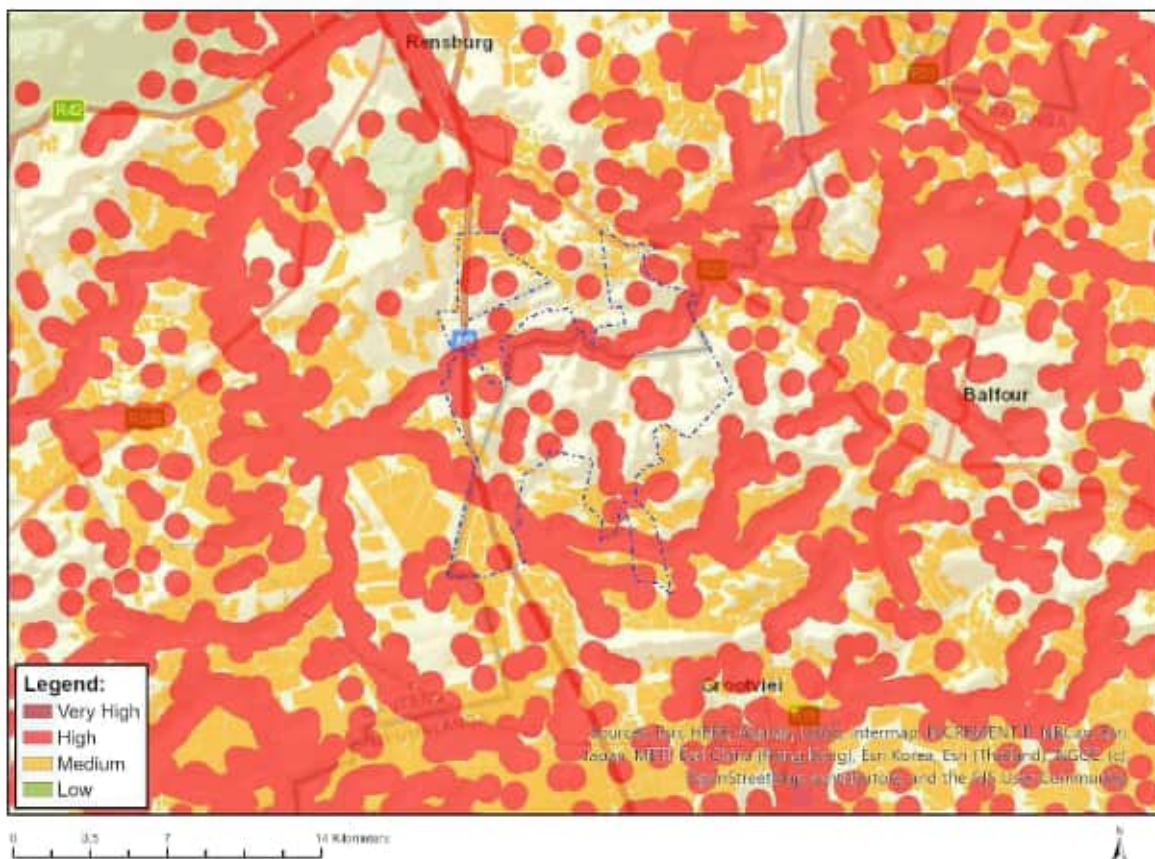


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Area Outside Sensitivities

MAP OF RELATIVE BATS (WIND) THEME SENSITIVITY

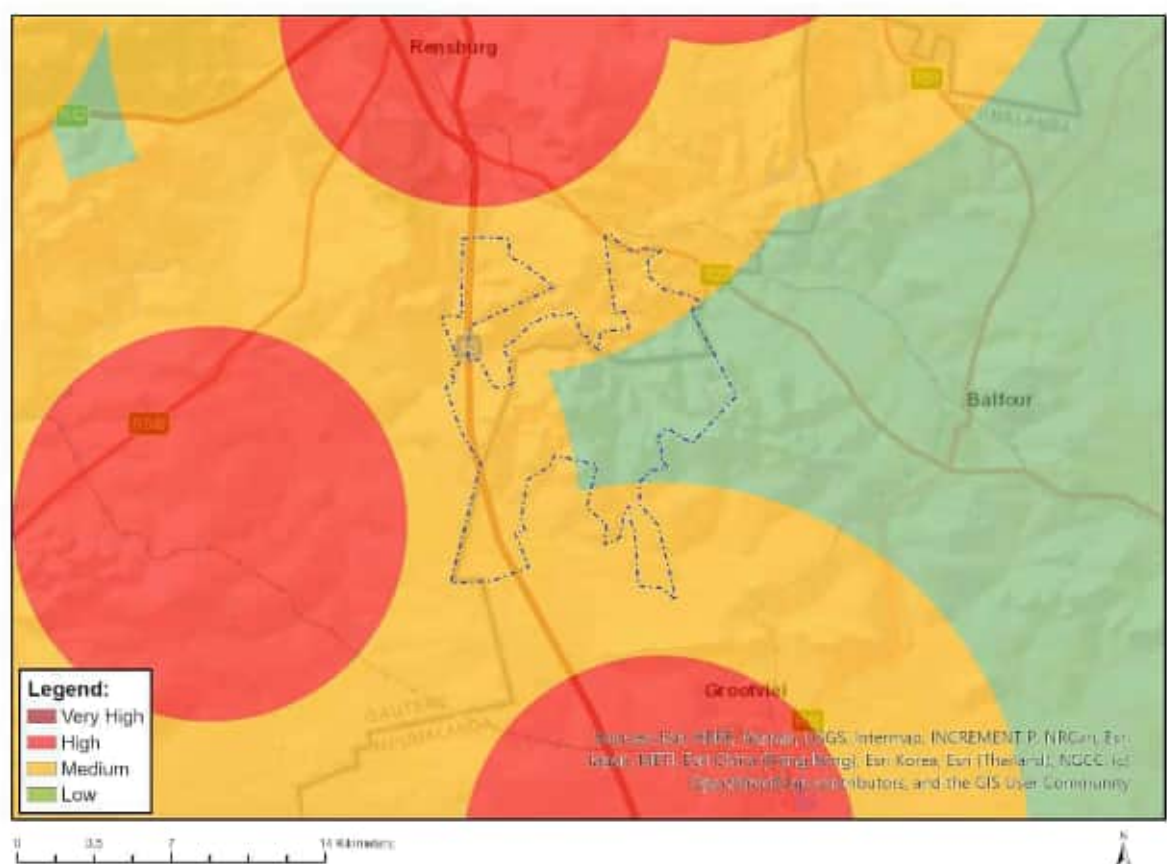


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 500 m of a river
High	Wetland
High	Within 500 m of a wetland
Medium	Croplands

MAP OF RELATIVE CIVIL AVIATION (WIND) THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

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

MAP OF RELATIVE DEFENCE (WIND) THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Defence Site

MAP OF RELATIVE FLICKER THEME SENSITIVITY

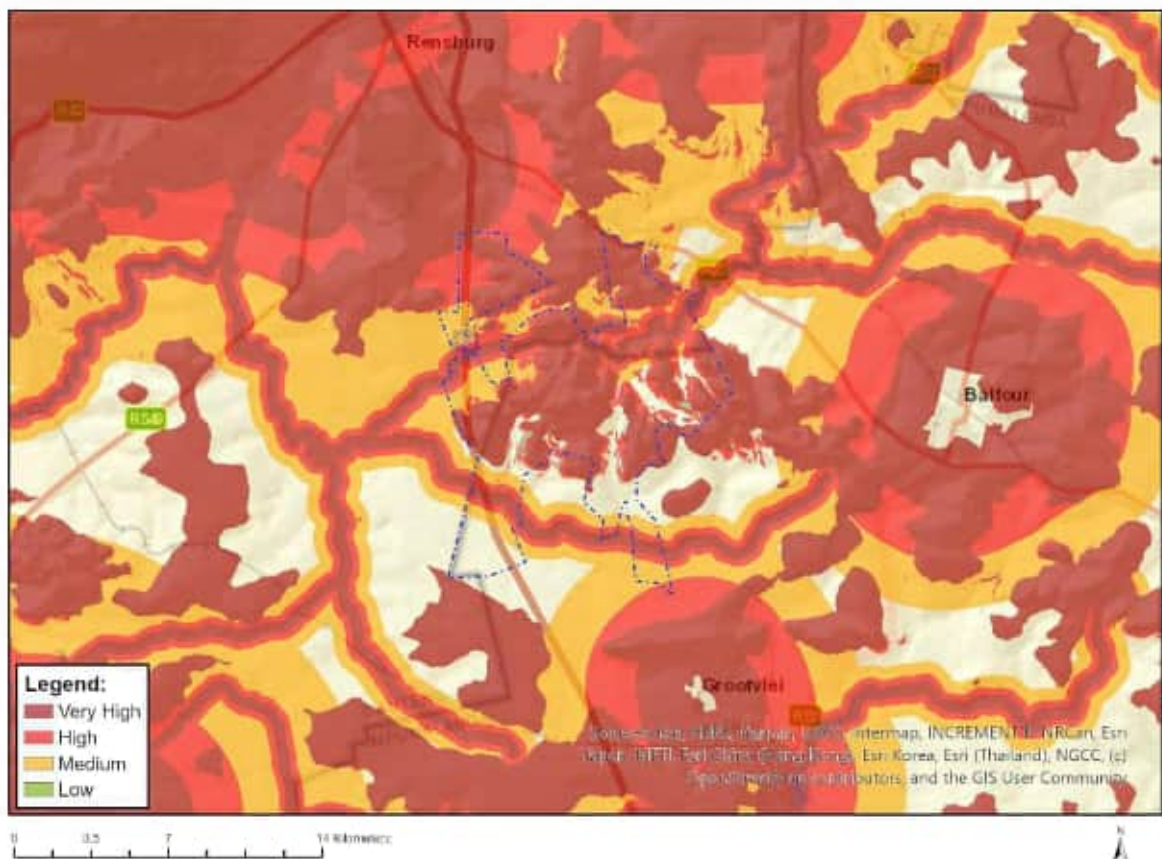


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Area of low sensitivity
Very High	Potential temporarily or permanently inhabited residence

MAP OF RELATIVE LANDSCAPE (WIND) THEME SENSITIVITY

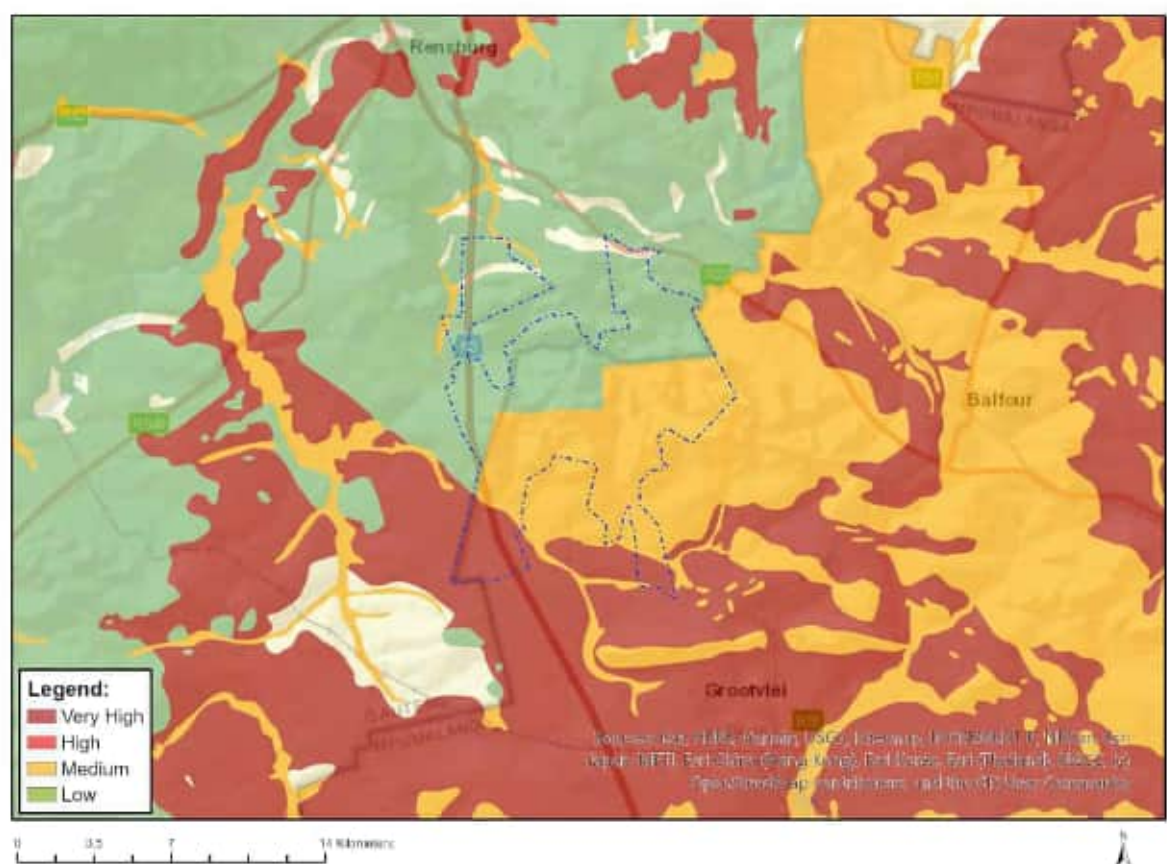


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Between 2 and 4 km of a town or village
High	Slope between 1:4 and 1:10
High	Between 3 and 5 km of a nature reserve, botanical garden or other protected area
High	Within 500 m of a river
Low	Slope less than 1:10
Medium	Between 4 and 6 km of a town or village
Medium	Between 5 and 10 km of a nature reserve, botanical garden or other protected area
Medium	Within 1000 m of a wetland
Very High	Mountain tops and high ridges
Very High	Slope more than 1:4
Very High	Within 3 km of a nature reserve, botanical garden or other protected area
Very High	Within 250 m of a river

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
Very High	Features with a Very High paleontological sensitivity

MAP OF RELATIVE NOISE THEME SENSITIVITY

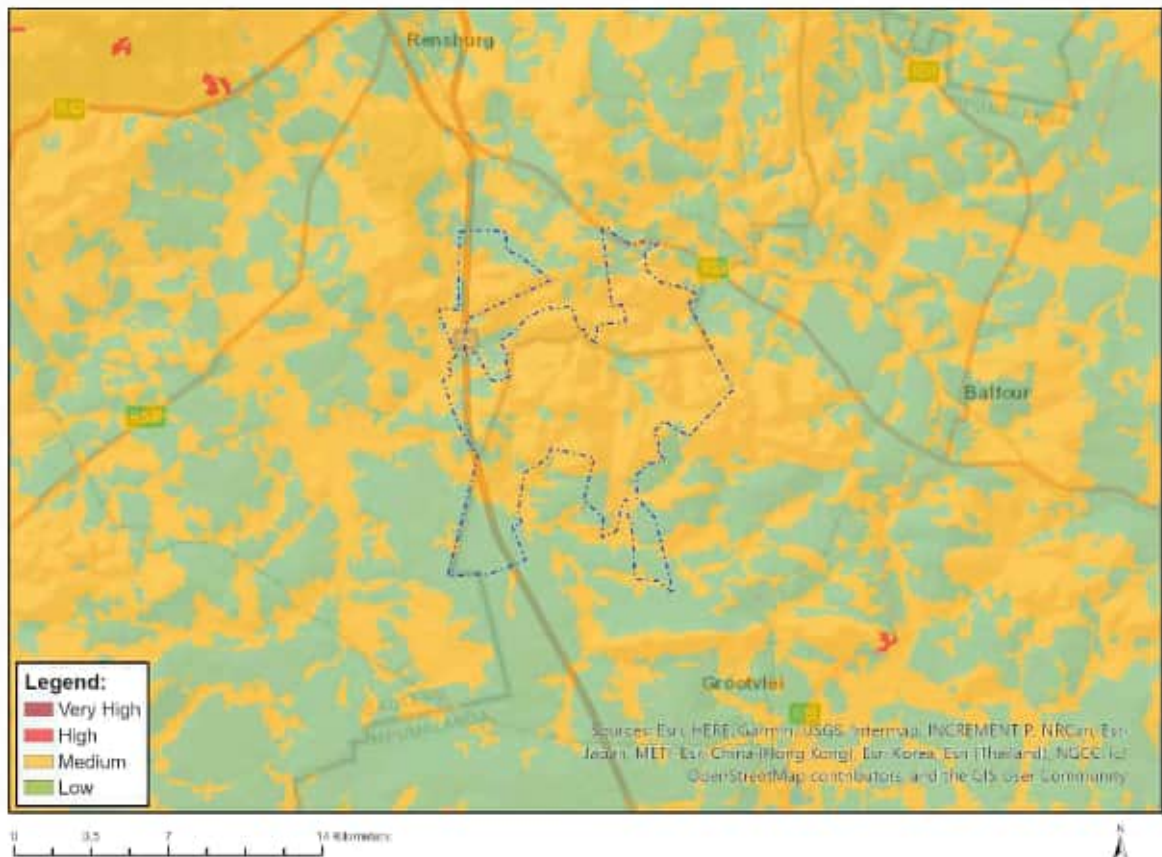


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Area of low sensitivity
Very High	Potential temporarily or permanently inhabited residence

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



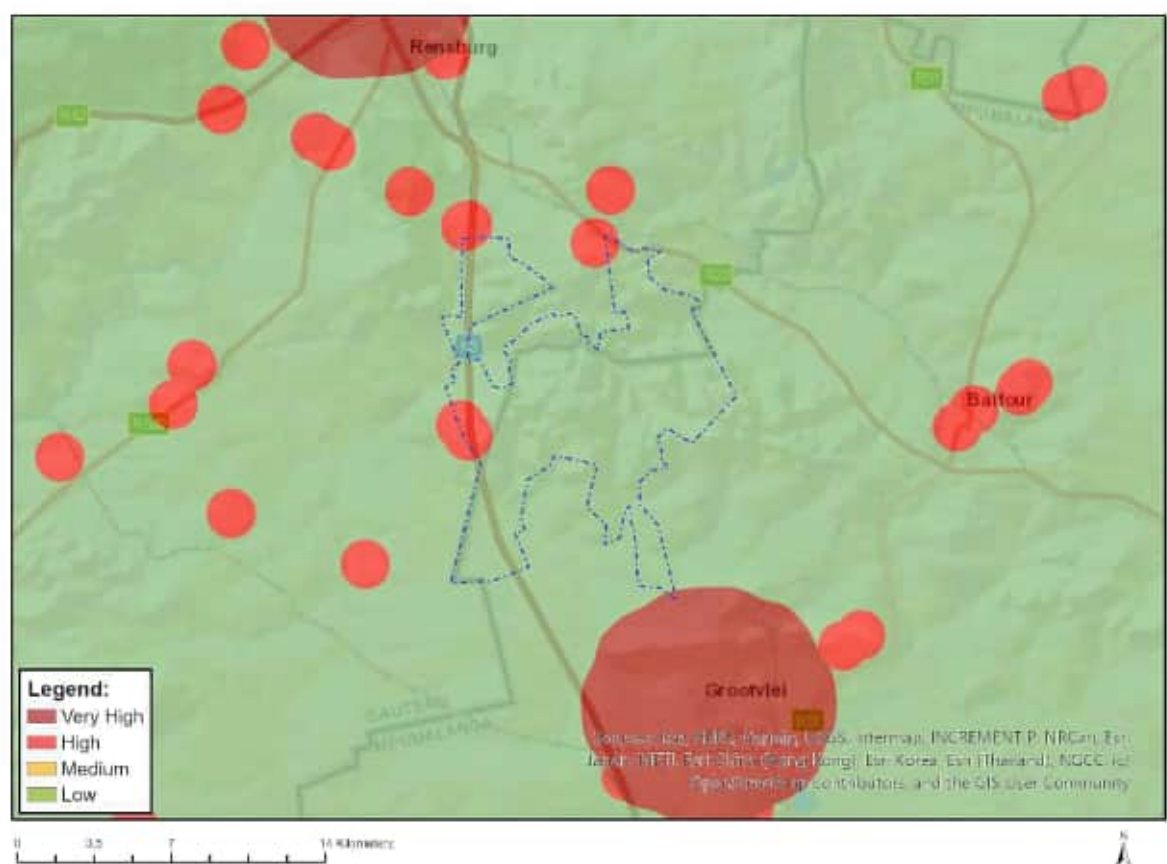
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their 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	Sensitive species 1252
Medium	<i>Khadia beswickii</i>
Medium	<i>Delosperma macellum</i>
Medium	<i>Cineraria longipes</i>
Medium	Sensitive species 691
Medium	<i>Brachycorythis conica</i> subsp. <i>transvaalensis</i>
Medium	Sensitive species 1248
Medium	<i>Prunus africana</i>

MAP OF RELATIVE RFI (WIND) THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 1 km of a telecommunication facility;None;More than 60 km from a Weather Radar installation
Low	Low sensitivity for telecommunications;None;More than 60 km from a Weather Radar installation
Very High	Within 5 km of a Sentech High Power Terrestrial Broadcasting Facility;None;More than 60 km from a Weather Radar installation

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

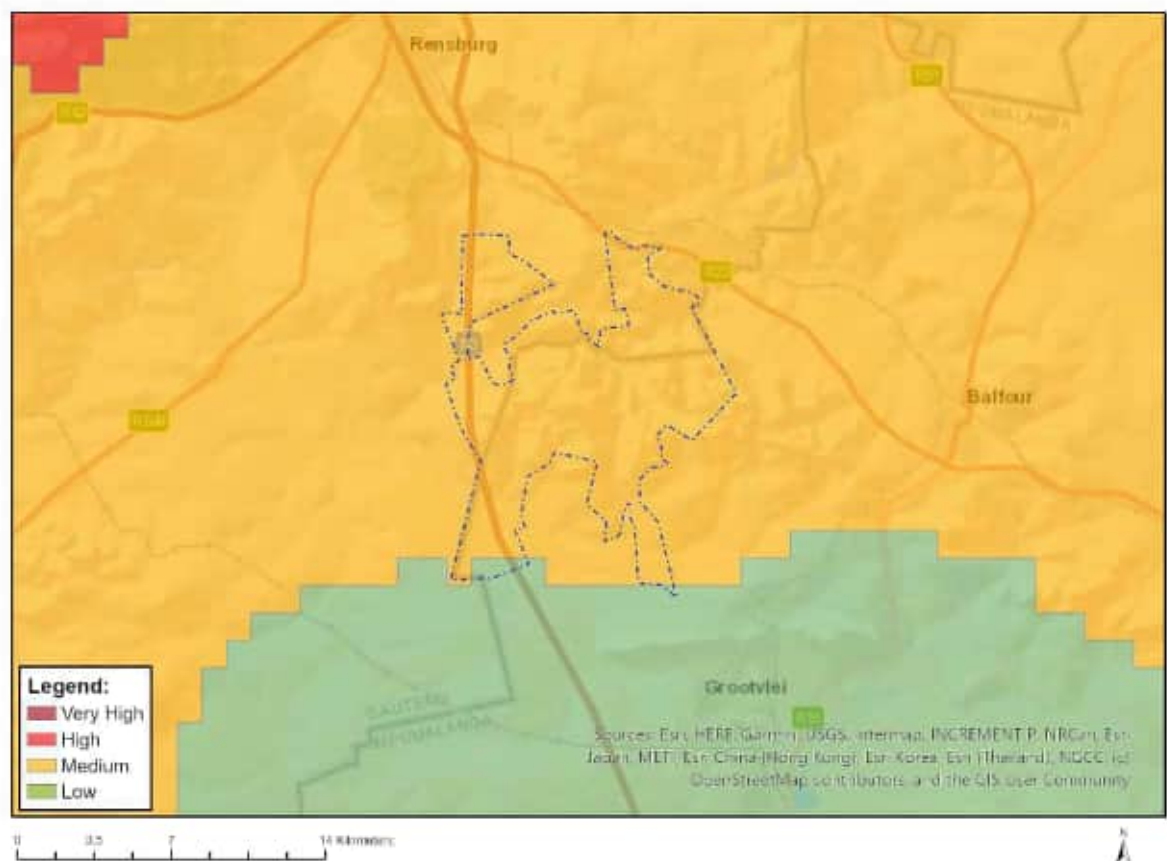


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	CBA 1
Very High	CBA 2
Very High	CBA Irreplaceable
Very High	CBA Optimal
Very High	ESA 1
Very High	ESA 2
Very High	ESA Landscape corridor
Very High	ESA Local corridor
Very High	National Protected Area Expansion Strategy (NPAES)
Very High	EN_Tsakane Clay Grassland
Very High	VU_Soweto Highveld Grassland

MAP OF RELATIVE VULTURE SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	affecting an area <1% of the population
Medium	affecting an area between 5% - 10% of the population

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

EIA Reference number: TBC

Project name: ABO Uvemvane Wind Energy Facility

Project title: ABO Uvemvane Wind Energy Facility

Date screening report generated: 06/11/2024 10:53:24

Applicant: ABO Wind Renewable Energies (Pty) Ltd

Compiler: WSP Group Africa (Pty) Ltd

Compiler signature:  Digitally signed by
Maharaj, Jashmika
(ZAJM05082)

Application Category: Utilities Infrastructure | Electricity | Generation | Renewable | Wind