

NATURA VIVA cc
Palaeontological Impact Assessments & Heritage Management,
Natural History Education, Tourism, Research

Attn: Ms Katherine Wiles
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Date: 11 November 2022

PALAEONTOLOGICAL HERITAGE COMMENT:

**PROPOSED RADIO MAST FOR THE AUTHORISED BEAUFORT WEST WIND FARM
WEST ON THE REMAINING EXTENT OF PORTION 1 OF FARM NO. 15 TRAKAS
KUILEN NEAR BEAUFORT WEST, IN THE PRINCE ALBERT LOCAL MUNICIPALITY
(CENTRAL KAROO DISTRICT MUNICIPALITY), WESTERN CAPE PROVINCE**

Beaufort West Wind Farm (Pty) Ltd is proposing to install a Radio Mast which will be placed on the authorised 132kV/400kV Linking Station (on the remaining extent of Portion 1 of Farm No. 15 of Trakas Kuilen), located 60km south of the town of Beaufort West in the Prince Albert Local Municipality, within the Central Karoo District Municipality of the Western Cape Province (Figure 1). The Radio Mast development area is underlain by potentially fossiliferous sedimentary bedrocks of the Lower Beaufort Group (Karoo Supergroup) of Middle Permian age.

Desktop and field-based fossil heritage (PIA) assessments for the Beaufort West Cluster of wind farm and grid connection projects – *including* the Linking Station development area where the proposed Radio Mast will be located – have previously been submitted by Almond (2010, 2015, 2018, 2021, 2022). Baseline descriptions and methodologies for these assessments are provided in these reports. The *status quo* regarding local palaeontological heritage resources within the development area will not have changed since the most recent study.

A map showing recorded fossil sites within the Beaufort West Cluster Wind Energy Facility project areas in relation to the Radio Mast development area is provided in Figure 2. None of the known fossil sites falls within or close to the development area and no additional mitigation is triggered in regard to them. The Site Sensitivity Verification Report for the development by the present author concludes that the Radio Mast development area is in of Low palaeosensitivity. Given, in addition, the small development footprint, anticipated impacts on local palaeontological heritage resources are anticipated to be of Very Low Significance. **Accordingly there are no objections on palaeontological heritage grounds to authorization of the proposed Radio Mast and no further specialist palaeontological assessment, monitoring or mitigation is recommended for this development.** This recommendation follows the relevant Final Response to Notification of Intent to Develop by Heritage Western Cape (HWC Case Number 22081801SB0818E, letter dated 19 October 2022).

The potential for unrecorded fossil sites of scientific and conservation value within the Linking Station and Radio Mast development area cannot be completely excluded. Any new fossil sites found during the Construction Phase of the development are best handled using the Chance Fossil Finds Protocol appended to this report (Appendix 1). The Protocol should be incorporated into the Environmental Management Programme for the Radio Mast development and consistently implemented during the construction phase.

The Environmental Control Officer (ECO) / Environmental Site Officer (ESO) responsible for the Radio Mast development should be made aware of the possibility of important fossil remains (vertebrate bones, teeth, petrified wood, plant-rich horizons *etc.*) being found or unearthed during the construction phase. Monitoring for fossil material of all major surface clearance and deeper (>1m) excavations by the Environmental Site Officer on an on-going basis during the construction phase is therefore recommended. Significant fossil finds should be safeguarded and reported at the earliest opportunity to Heritage Western Cape for recording and sampling by a professional palaeontologist (Contact details: Heritage Western Cape. 3rd Floor Protea Assurance Building, 142 Longmarket Street, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 021 483 5959 Email: ceoheritage@westerncape.gov.za).

The palaeontologist responsible for any mitigation work will need to submit a Work Plan for approval by Heritage Western Cape (HWC). All fieldwork and reporting should meet the standards of international best practice as well as those developed for PIA reports by SAHRA (2013) and Heritage Western Cape (2021). Fossil material collected must be safeguarded and curated within an approved palaeontological repository (*e.g.* museum or university collection) with full collection data.



Dr John E. Almond
Palaeontologist
Natura Viva cc

KEY REFERENCES

ALMOND, J.E. 2010. Proposed Mainstream wind farm to the south of Beaufort West, Western Cape. Palaeontological impact assessment: pre-scoping desktop study, 19 pp. *Natura Viva cc*, Cape Town.

ALMOND, J.E. 2015. Proposed Amendment to the Mainstream 280 MW Wind Farm, Beaufort West, Western Cape. Palaeontological heritage statement, 5 pp. *Natura Viva cc*, Cape Town.

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ALMOND, J.E. 2022. Authorised mainstream Beaufort West Cluster Wind Farms near Beaufort West, Central Karoo District Municipality, Western Cape Province: Beaufort West Wind Facility & Trakas Wind Facility. Palaeontological heritage overview of final project layouts, 57 pp. *Natura Viva cc*, Cape Town.

ALMOND, J.E. & PETHER, J. 2008. Palaeontological heritage of the Western Cape. Interim SAHRA technical report, 20 pp. *Natura Viva cc*, Cape Town.

HERITAGE WESTERN CAPE 2021. Guide for minimum standards for archaeology and palaeontology reports submitted to Heritage Western Cape - June 2021, 6 pp.

JOHNSON, M.R. & KEYSER, A.W. 1979. The geology of the Beaufort West area. Explanation of geological Sheet 3222, 14 pp. Council for Geoscience, Pretoria.

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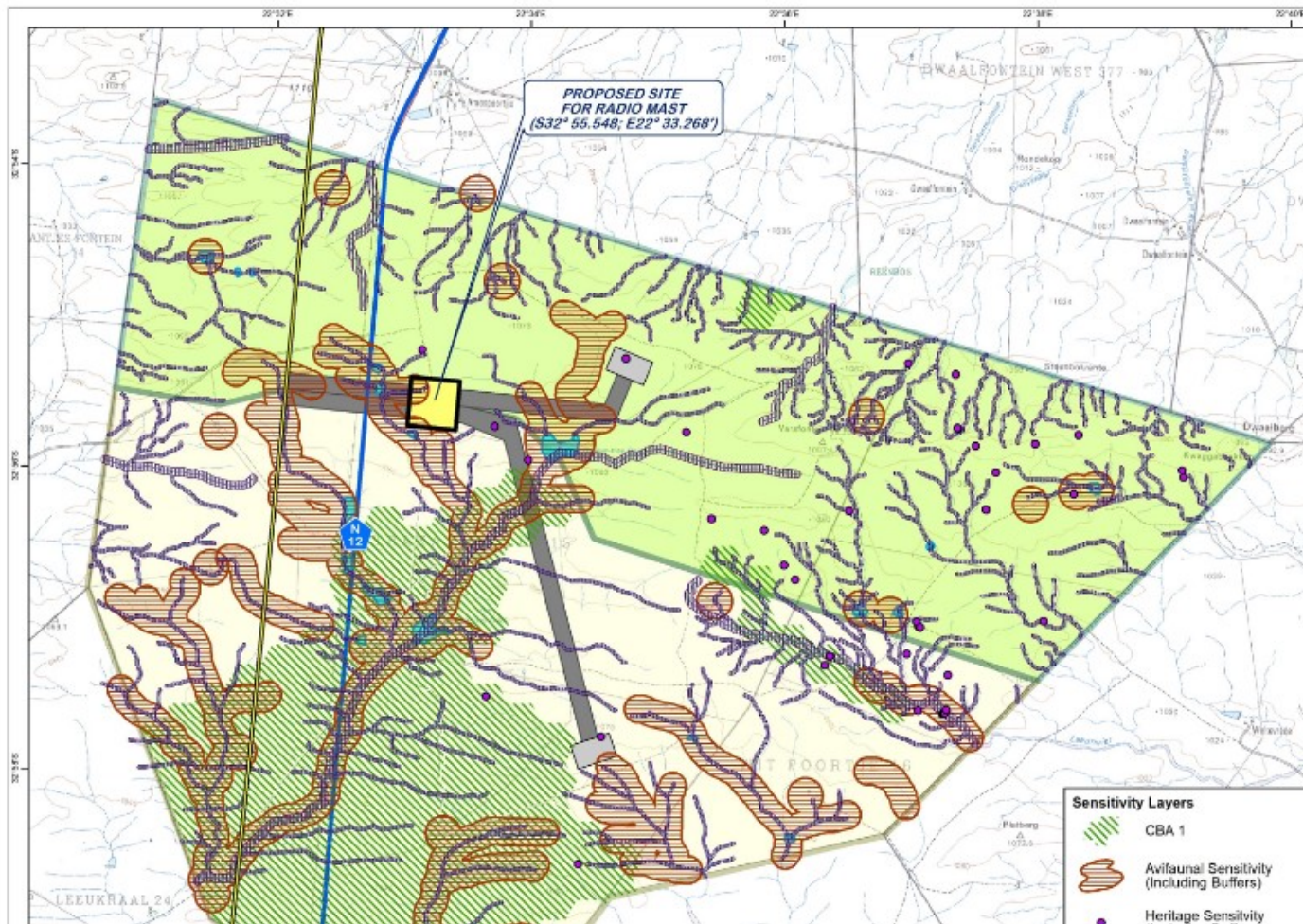


Figure 1: A map showing the proposed location of the radio mast (within the authorised Linking Station footprint) in relation to environmental sensitivities.

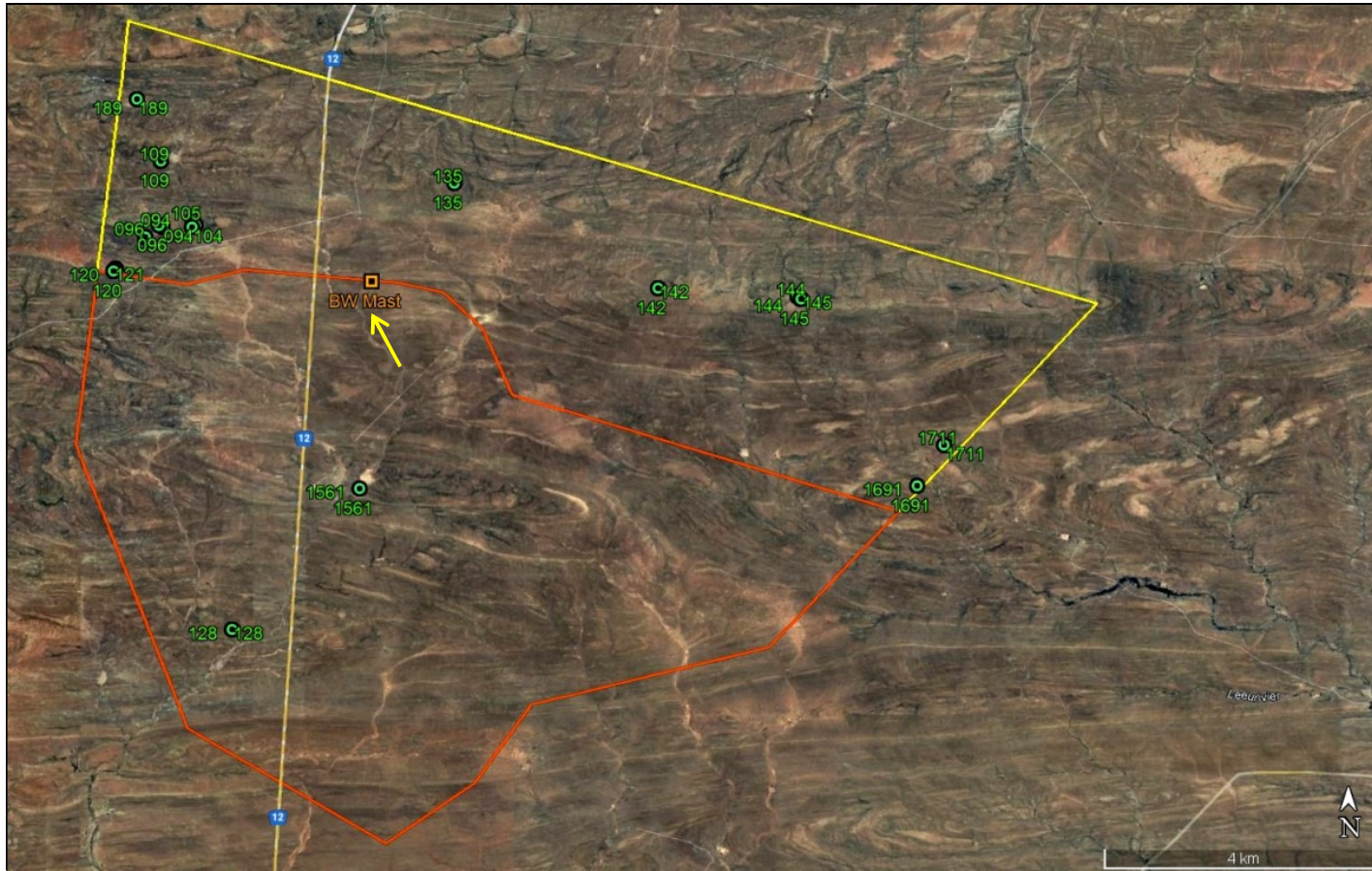


Figure 2: Google Earth© satellite image showing the adjoining project areas for the authorized Beaufort West WEF (yellow polygon to the north) and the Trakas WEF to the south (orange polygon). The location of the proposed Radio Mast development area c. 800m east of the N12 tar road is shown by the small orange square (arrowed). Also plotted here are recorded fossil sites within the WEF project areas (green numbered circles) (fossil data from Almond 2018, 2021, 2022).

APPENDIX 1: Chance Finds Protocol for the Beaufort West Cluster WEFs (Beaufort West & Trakas Wind Energy Facilities) and associated infrastructure – including Radio Mast – on Portion 1 of Farm No. 15 Trakas Kuilen near Beaufort West

Province & region:	Western Cape: Central Karoo District Municipality (Prince Albert Local Municipality)	
Responsible Heritage Resources Agency	Heritage Western Cape (3 rd Floor Protea Assurance Building, 142 Longmarket Street, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 021 483 5959 Email: ceoheritage@westerncape.gov.za)	
Rock unit(s)	Abrahamskraal Formation & Poortjie Member of Teekloof Formation (Lower Beaufort Group, Middle Permian) Late Caenozoic colluvium / alluvium / eluvium / soils.	
Potential fossils	Fossil vertebrate bones, teeth, invertebrate trace fossils, tetrapod burrows and trackways, petrified wood, plant-rich beds in the Lower Beaufort Group bedrocks. Fossil mammal bones, teeth, horn cores, freshwater molluscs, plant material, trace fossils in Late Caenozoic sediments.	
ECO protocol	1. Once alerted to fossil occurrence(s): alert site foreman, stop work in area immediately (<i>N.B.</i> safety first!), safeguard site with security tape / fence / sand bags if necessary.	
	2. Record key data while fossil remains are still <i>in situ</i> : <ul style="list-style-type: none"> • Accurate geographic location – describe and mark on site map / 1: 50 000 map / satellite image / aerial photo • Context – describe position of fossils within stratigraphy (rock layering), depth below surface • Photograph fossil(s) <i>in situ</i> with scale, from different angles, including images showing context (<i>e.g.</i> rock layering) 	
	3. If feasible to leave fossils <i>in situ</i> : <ul style="list-style-type: none"> • Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation • Ensure fossil site remains safeguarded until clearance is given by the Heritage Resources Agency for work to resume 	3. If <i>not</i> feasible to leave fossils <i>in situ</i> (emergency procedure only): <ul style="list-style-type: none"> • <i>Carefully</i> remove fossils, as far as possible still enclosed within the original sedimentary matrix (<i>e.g.</i> entire block of fossiliferous rock) • Photograph fossils against a plain, level background, with scale • Carefully wrap fossils in several layers of newspaper / tissue paper / plastic bags • Safeguard fossils together with locality and collection data (including collector and date) in a box in a safe place for examination by a palaeontologist • Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation
	4. If required by Heritage Resources Agency, ensure that a suitably-qualified specialist palaeontologist is appointed as soon as possible by the developer.	
	5. Implement any further mitigation measures proposed by the palaeontologist and Heritage Resources Agency	
Specialist palaeontologist	Submit Work Plan for approval by HWC. Record, describe and judiciously sample fossil remains together with relevant contextual data (stratigraphy / sedimentology / taphonomy). Ensure that fossils are curated in an approved repository (<i>e.g.</i> museum / university / Council for Geoscience collection) together with full collection data. Submit Palaeontological Mitigation report to Heritage Resources Agency. Adhere to best international practice for palaeontological fieldwork and Heritage Resources Agency minimum standards.	

PROPOSED RADIO MAST FOR THE AUTHORISED BEAUFORT WEST WIND FARM (12-12-20-1784-1-AM2), ON THE REMAINING EXTENT OF PORTION 1 OF FARM NO. 15 TRAKAS KUILEN, NEAR BEAUFORT WEST, IN THE PRINCE ALBERT LOCAL MUNICIPALITY (CENTRAL KAROO DISTRICT MUNICIPALITY), WESTERN CAPE PROVINCE – PALAEOLOGY SITE SENSITIVITY VERIFICATION

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November 2022

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EXECUTIVE SUMMARY

Beaufort West Wind Farm (Pty) Ltd (‘Beaufort West Wind Farm’) is proposing to install one (1) Radio Mast on the authorised 132 kilovolt (kV)/400kV Linking Station development area (authorised under DFFE reference numbers: 14-12-16-3-3-2-925-1 & 14-12-16-3-3-2-925-2) / (12-12-20-1784-2 & 12-12-20-1784-1), situated on the Remaining Extent of Portion 1 of Farm No. 15 Trakas Kuilen, located 60km south of the town of Beaufort West in the Prince Albert Local Municipality (Central Karoo District Municipality), Western Cape Province.

Based on desktop analysis as well as several recent palaeontological heritage surveys within the project area for the Beaufort West Cluster of wind farm developments by the author and colleagues (Almond 2018, 2021, 2022) – *including* the Linking Station development area where the Radio Mast which forms part of this assessment will be located – **it is concluded that the Radio Mast development area is in fact of Low palaeosensitivity. The provisional Very High sensitivity mapped here by the Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool is therefore *contested* in this report.**

Given the low palaeosensitivity of the development area as well as the anticipated Very Low impact significance of the proposed Radio Mast, no further specialist palaeontological studies are recommended for this project. The potential for unrecorded fossil sites of scientific and conservation value within the Linking Station and Radio Mast development areas cannot be completely excluded, however. Any new fossil sites found during the Construction Phase of the development are best handled using the Chance Fossil Finds Protocol appended to this report (Appendix 1). Minimum standards for palaeontological heritage reporting have been established by the South African Heritage Resources Agency (SAHRA) (2013) and Heritage Western Cape (HWC) (2021), which are relevant to this development and have been adhered to as part of this palaeontologic assessment.

1. INTRODUCTION

Beaufort West Wind Farm (Pty) Ltd ('Beaufort West Wind Farm') is proposing to install one (1) Radio Mast which will be placed on the authorised 132kV/400kV Linking Station (on the remaining extent of Portion 1 of Farm No. 15 of Trakas Kuilen - C0610000000001500001), located 60km south of the town of Beaufort West in the Prince Albert Local Municipality, within the Central Karoo District Municipality of the Western Cape Province (Refer to Figure 1-1 below).

Applicant	Project Name	Affected Property
Beaufort West Wind Farm (Pty) Ltd	Beaufort West Wind Farm Radio Mast	Portion 1 of Farm Trakas Kuilen De Braak No. 15

The radio mast is required by Eskom Holdings Ltd ('Eskom') in order for the Linking Station to be able to communicate *via* Radio frequency to other Linking stations in the area. The radio mast will consist of a tapered steel lattice structure with either a square (4 leg) or triangular (3 leg) structure. The radio mast will be up to 90 metres (m) in height and will be placed within the substation footprint for the authorised 33kV/132kV Main Transmission Substation (MTS) (i.e., will be built on top of the authorised MTS) (authorised under DFFE reference numbers: [14-12-16-3-3-2-925-1](#) & [14-12-16-3-3-2-925-2](#)) / ([12-12-20-1784-2](#) & [12-12-20-1784-1](#)).

With regards to technology alternatives, the specifications for the radio mast being proposed is based on Eskom requirements / standards. There are no technology alternatives for the radio mast, as the applicant was provided with the Scope of Works (SoW) with specifications for the radio tower from Eskom and must adhere to this. It should be noted that there is no fibre on the existing Eskom line and no fibre alternatives, and therefore the requested mast needs to be a radio mast. There will be no guy wires used and the radio mast will be a self-supporting structure. In addition, Eskom advised that the mast needs to be at least 85 m in height.

Since the proposed project involves the installation of a radio mast on an already authorised MTS, all the relevant specialist studies have been undertaken during the Environmental Impact Assessment (EIA) process for the grid connection infrastructure (substations and powerlines) in January 2017 (authorised under DFFE reference number: [14-12-16-3-3-2-925](#)). This authorisation was amended in August 2021 to split and assign each substation and powerline to each respective wind farm (Beaufort West 132KV-400KV Linking Station, 132KV Power Line and onsite 132KV Substation – [14-12-16-3-3-2-925-1](#), as amended and Trakas 132KV-400KV Linking Station, 132KV Power Line and onsite 132KV Substation – [14-12-16-3-3-2-925-2](#), as amended).

Further to the above, Beaufort West Wind Farm received Environmental Authorisations (EAs) in May 2022 for an additional 33/132kV onsite Substation, one (1) Battery Energy Storage System (BESS), one (1) laydown area and one (1) Operations & Maintenance (O&M) Building (14/12/16/3/3/1/2464, as amended), as well as one (1) 132kV switching station yard of the onsite substation and associated 132kV powerline (14/12/16/3/3/1/2465, as amended). This new substation, powerline and BESS will be constructed to service the Beaufort West and Trakas Wind Farm developments.

Regarding the above mentioned EAs, it should be noted that the Department of Forestry, Fisheries and the Environment (DFFE) authorised Alternative 2 for both respective EAs, however it was found that Alternative 1 is more technically feasible (as well as acceptable from an environmental perspective) and as such Part 2 Amendments have been submitted to the DFFE for consideration to change the authorised alternatives (from Alternative 2 to Alternative 1). These amendment applications were subjected to a 30-day Public Participation Process, **from 28 July 2022 until 29 August 2022 (excluding public holidays)** (14/12/16/3/3/1/2464/AM1 and 14/12/16/3/3/1/2465/AM1), and the final amendment reports were subsequently submitted to the DFFE for decision making on 5 October 2022.

Figure 1 below depicts the location of the proposed radio mast within the authorised linking station footprint.

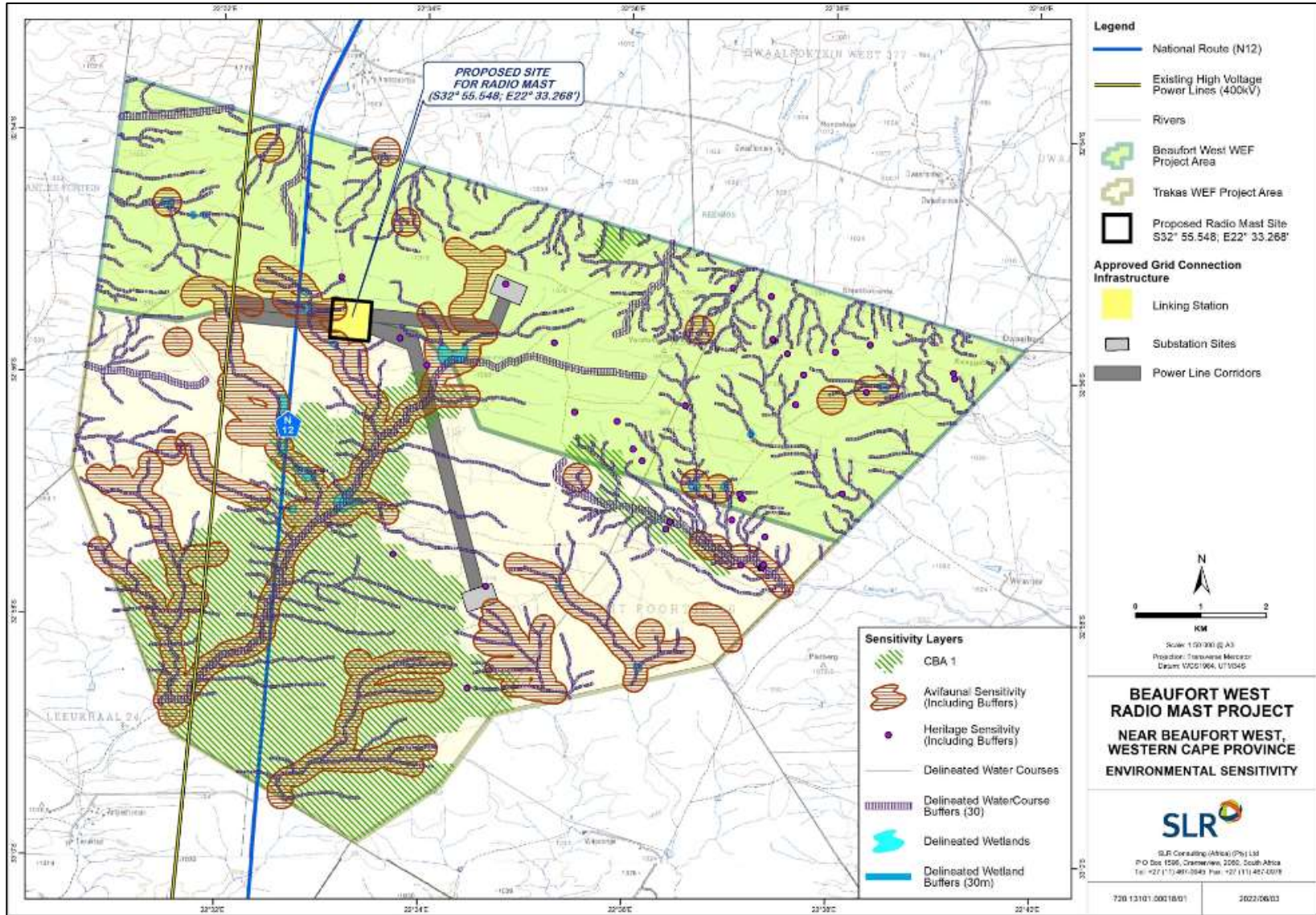


Figure 1-1: A map showing the proposed location of the radio mast (within the authorised Linking Station footprint) in relation to environmental sensitivities

2. TECHNICAL DETAILS FOR THE PROPOSED DEVELOPMENT

Technical Component	Approximate Dimensions	
Beaufort West Wind Farm Radio Mast		
Location of the site (corner point)	32°55'23.85"S	22°33'28.30"E
	32°55'22.49"S	22°33'5.43"E
	32°55'41.75"S	22°33'3.79"E
	32°5'43.33"S	22°33'26.62"E
Application site area	+/- 2 hectares	
Affected Farm Portions	Portion 1 of Farm Trakas Kuilen De Braak No. 15	
SG Codes	C0610000000001500001	
Infrastructure	No additional infrastructure services are required for the proposed radio mast, as the intention is to use the already authorised buildings for ablutions, water, electricity etc.	

In terms of the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) Environmental Impact Assessment (EIA) Regulations [4 December 2014, Government Notice (GN) R982, R983, R984 and R985, as amended], various aspects of the proposed radio mast development may have an impact on the environment and are considered to be a listed activity. This activity requires EA from the Provincial Competent Authority (CA), namely the Western Cape Department of Environmental Affairs and Development Planning (WC DEADP), prior to the commencement thereof.

One (1) application for EA for the proposed radio mast development will be submitted to the WC DEADP, in the form of a Basic Assessment (BA) process (in terms of the NEMA EIA Regulations of 2014 as amended). Dr John E. Almond (*Natura Viva* cc, Cape Town) has been commissioned to verify the palaeontological heritage sensitivity of the Beaufort West Wind Farm Radio Mast site under these specialist protocols¹.

In accordance with GN 320 and GN 1150 (20 March 2020)¹ of the NEMA EIA Regulations of 2014 (as amended), prior to commencing with a specialist assessment, a site sensitivity verification must be undertaken to confirm the current land use and environmental sensitivity of the proposed project area as identified by the National Web-Based Environmental Screening Tool (*i.e.*, Screening Tool).

3. SITE SENSITIVITY VERIFICATION METHODOLOGY

This Site Sensitivity Verification Report (SSVR) for the Radio Mast project is based on the following resources:

- A detailed project description, maps and other relevant background documentation provided by the independent Environmental Assessment Practitioner (EAP) for this BA process, SLR Consulting South Africa (Pty) Ltd, Durban (Contact details: Ms Katherine Wiles.

¹ GN 320 (20 March 2020): Procedures for The Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(A) and (H) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation

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- A desktop review of (a) 1:50 000 scale topographic map 3222DC as well as the 1:250 000 scale topographic map sheet 3222 Beaufort West; (b) Google Earth© satellite imagery; (c) published geological and palaeontological literature, including 1:250 000 geological map 3222 Beaufort West and the relevant short sheet explanation by Johnson & Keyser (1979), Google Earth© satellite imagery.
- Several previous desktop and field-based fossil heritage (PIA) assessments for the Beaufort West Cluster of wind farm and grid connection projects by Almond (2010, 2015, 2018, 2021, 2022).

4. OUTCOME OF SITE SENSITIVITY VERIFICATION

Provisional palaeosensitivity mapping of the Radio Mast development area by the DFFE Screening Tool Report suggests that the entire area is of Very High palaeosensitivity (see Figure 4-1 below). This is based on the presence here of potentially fossiliferous continental sediments of the Lower Beaufort Group (Adelaide Subgroup, Karoo Supergroup). However, combined desktop and field-based assessments of the Beaufort West Cluster of wind farm and grid connection project area by the author and colleagues (Almond 2018, 2021, 2022) – *including* the Linking Station site where the Radio Mast will be located – suggest that **most of this area is in fact of Low palaeosensitivity, with only sparse fossil sites of scientific and conservation significance. No fossil sites have been recorded hitherto within or in the vicinity of the Radio Mast development area** (see Figure 4-2 below). **The provisional DFFE sensitivity mapping is accordingly *contested* in this report.**

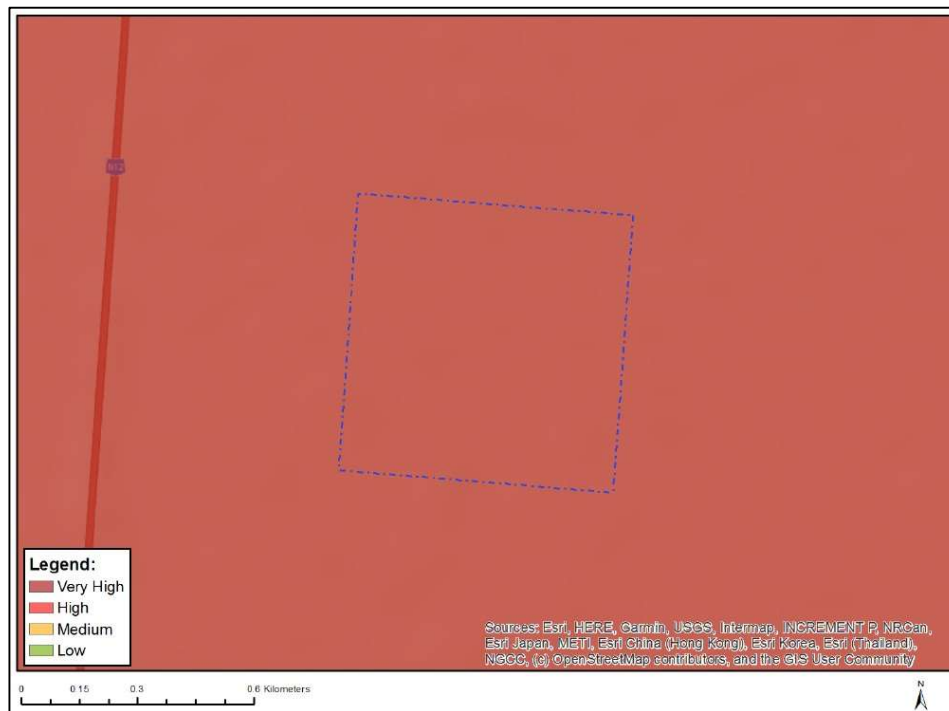


Figure 4-1: Provisional palaeosensitivity mapping of the Radio Mast development area (based on DFFE Screening Tool) suggests that the entire area is of Very High palaeosensitivity. This assessment is *contested* in this report.

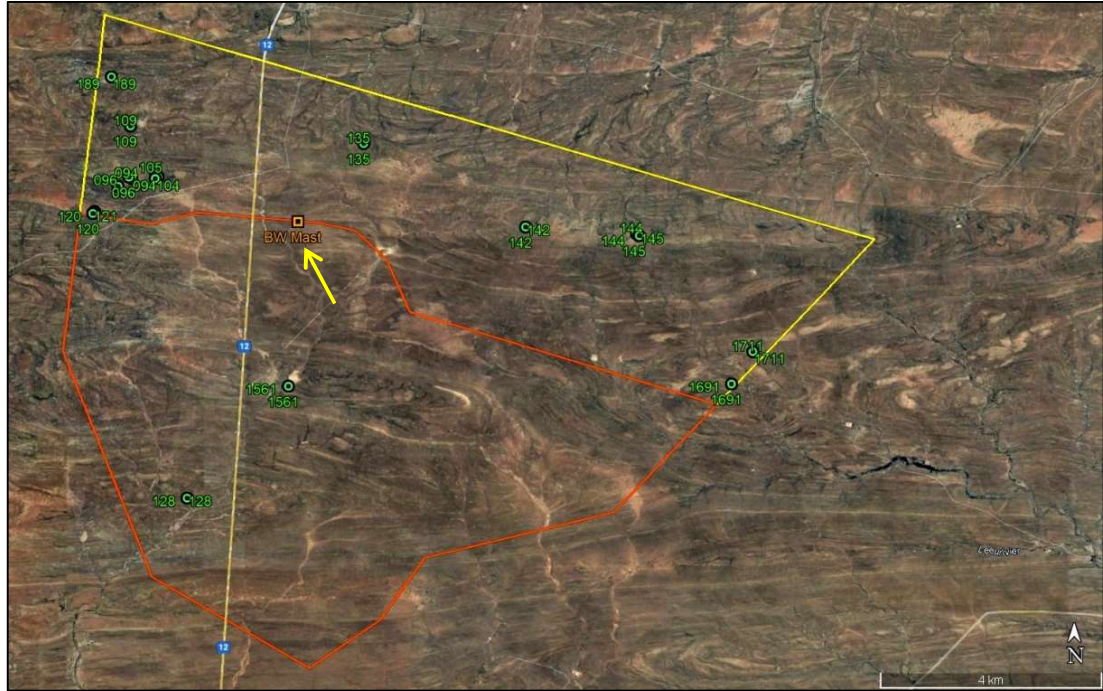


Figure 4-2: Google Earth© satellite image showing the adjoining project areas for the authorized Beaufort West WEF (yellow polygon to the north) and the Trakas WEF to the south (orange polygon). The location of the proposed Radio Mast development area c. 800m east of the N12 tar road is shown by the small orange square (arrowed). Also plotted here are recorded fossil sites within the WEF project areas (green numbered circles) (fossil data from Almond 2018, 2021, 2022).

5. CONCLUSIONS

Based on desktop analysis as well as several recent palaeontological heritage surveys within the project area for the Beaufort West Cluster of wind farm developments by the author and colleagues (Almond 2018, 2021, 2022) – including the Linking Station development area where the Radio Mast will be located – it is concluded that the **Radio Mast development area is in fact of Low palaeosensitivity. The provisional Very High sensitivity mapped here by the DFFE Screening Tool is therefore contested in this report.** No further specialist palaeontological assessment is required in this regard.

The potential for unrecorded fossil sites of scientific and conservation value within the Linking Station and Radio Mast development area cannot be completely excluded. Any new fossil sites found during the Construction Phase of the development are best handled using the Chance Fossil Finds Protocol appended to this report (Appendix 1). Minimum standards for palaeontological heritage reporting have been established by SAHRA (2013) and Heritage Western Cape (2021), which have been adhered to as part of this palaeontologic assessment.

6. KEY REFERENCES

- ALMOND, J.E. 2010. Proposed Mainstream wind farm to the south of Beaufort West, Western Cape. Palaeontological impact assessment: pre-scoping desktop study, 19 pp. Natura Viva cc., Cape Town.
- ALMOND, J.E. 2015. Proposed Amendment to the Mainstream 280 MW Wind Farm, Beaufort West, Western Cape. Palaeontological heritage statement, 5 pp. Natura Viva cc, Cape Town.
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- SAHRA 2013. Minimum standards: palaeontological component of heritage impact assessment reports, 15 pp. South African Heritage Resources Agency, Cape Town.

SHORT CV OF AUTHOR

Dr John Almond has an Honours Degree in Natural Sciences (Zoology) as well as a PhD in Palaeontology from the University of Cambridge, UK. He has been awarded post-doctoral research fellowships at Cambridge University and the University of Tübingen in Germany, and has carried out palaeontological research in Europe, North America, the Middle East as well as North and South Africa and Madagascar. For eight years he was a scientific officer (palaeontologist) for the Geological Survey / Council for Geoscience in the RSA. His current palaeontological research focuses on fossil record of the Precambrian - Cambrian boundary and the Cape Supergroup of South Africa. He has recently written palaeontological reviews for several 1: 250 000 geological maps published by the Council for Geoscience and has contributed educational material on fossils and evolution for new school textbooks in the RSA.

Since 2002 Dr Almond has also carried out numerous palaeontological impact assessments for developments and conservation areas in the Western, Eastern and Northern Cape, Limpopo, Northwest Province, Mpumalanga, Gauteng, KwaZulu-Natal and the Free State under the aegis of his Cape Town-based company *Natura Viva* cc. He has served as a member of the Archaeology, Palaeontology and Meteorites Committee for Heritage Western Cape (HWC) and an advisor on palaeontological conservation and management issues for the Palaeontological Society of South Africa (PSSA), HWC and SAHRA. He is currently compiling technical reports on the provincial palaeontological heritage of Western, Northern and Eastern Cape for SAHRA and HWC. Dr Almond is an accredited member of PSSA and APHP (Association of Professional Heritage Practitioners – Western Cape).

Declaration of Independence

I, John E. Almond, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed development project, application or appeal in respect of which I was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Dr John E. Almond
Palaeontologist
***Natura Viva* cc**

Appendix 1: Chance Finds Protocol for the Beaufort West Cluster WEFs (Beaufort West & Trakas Wind Energy Facilities) and associated infrastructure – including Radio Mast – on Portion 1 of Farm No. 15 Trakas Kuilen near Beaufort West	
Province & region:	Western Cape: Central Karoo District Municipality (Prince Albert Local Municipality)
Responsible Heritage Resources Agency	Heritage Western Cape (3 rd Floor Protea Assurance Building, 142 Longmarket Street, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 021 483 5959 Email: ceoheritage@westerncape.gov.za)
Rock unit(s)	Abrahamskraal Formation & Poortjie Member of Teekloof Formation (Lower Beaufort Group, Middle Permian) Late Caenozoic colluvium / alluvium / eluvium / soils.
Potential fossils	Fossil vertebrate bones, teeth, invertebrate trace fossils, tetrapod burrows and trackways, petrified wood, plant-rich beds in the Lower Beaufort Group bedrocks. Fossil mammal bones, teeth, horn cores, freshwater molluscs, plant material, trace fossils in Late Caenozoic sediments.
ECO protocol	1. Once alerted to fossil occurrence(s): alert site foreman, stop work in area immediately (<i>N.B.</i> safety first!), safeguard site with security tape / fence / sand bags if necessary.
	2. Record key data while fossil remains are still <i>in situ</i> : <ul style="list-style-type: none"> • Accurate geographic location – describe and mark on site map / 1: 50 000 map / satellite image / aerial photo • Context – describe position of fossils within stratigraphy (rock layering), depth below surface • Photograph fossil(s) <i>in situ</i> with scale, from different angles, including images showing context (<i>e.g.</i> rock layering)
	3. If feasible to leave fossils <i>in situ</i> : <ul style="list-style-type: none"> • Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation • Ensure fossil site remains safeguarded until clearance is given by the Heritage Resources Agency for work to resume
	3. If <i>not</i> feasible to leave fossils <i>in situ</i> (emergency procedure only): <ul style="list-style-type: none"> • <i>Carefully</i> remove fossils, as far as possible still enclosed within the original sedimentary matrix (<i>e.g.</i> entire block of fossiliferous rock) • Photograph fossils against a plain, level background, with scale • Carefully wrap fossils in several layers of newspaper / tissue paper / plastic bags • Safeguard fossils together with locality and collection data (including collector and date) in a box in a safe place for examination by a palaeontologist • Alert Heritage Resources Agency and project palaeontologist (if any) who will advise on any necessary mitigation
	4. If required by Heritage Resources Agency, ensure that a suitably-qualified specialist palaeontologist is appointed as soon as possible by the developer.
	5. Implement any further mitigation measures proposed by the palaeontologist and Heritage Resources Agency
Specialist palaeontologist	Submit Work Plan for approval by HWC. Record, describe and judiciously sample fossil remains together with relevant contextual data (stratigraphy / sedimentology / taphonomy). Ensure that fossils are curated in an approved repository (<i>e.g.</i> museum / university / Council for Geoscience collection) together with full collection data. Submit Palaeontological Mitigation report to Heritage Resources Agency. Adhere to best international practice for palaeontological fieldwork and Heritage Resources Agency minimum standards.