NATURA VIVA cc

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

Attention: Ms Franci Gresse Zutari Aurecon Centre, 1 Century City Drive, Waterford Precinct, Century City South Africa 7441 PO Box 494, Cape Town 8000

Date: 2 September 2020

PALAEONTOLOGICAL HERITAGE COMMENT:

Amended proposal for the Umsinde Emoyeni Wind Energy Facility near Murraysburg, Western and Northern Cape Provinces

1. Outline of palaeontological heritage context

Sectors of the adjoining project areas for Phase 1of the authorised Umsinde Emoyeni Wind Energy Facility near Murraysburg, Western and Northern Cape, including the associated grid connections, overlie continental (fluvial and lacustrine) sediments of the Lower Beaufort Group (Karoo Supergroup). These Permian bedrocks have yielded a wealth of important fossil remains from the Murraysburg region over the past century or more and yet remain largely unstudied. On the other hand, much of the WEF infrastructure will be located in upland areas of Karoo dolerite that are unfossiliferous.

An initial combined desktop and field-based reconnaissance palaeontological heritage study for the original, authorised Umsinde Emoyeni Wind Energy Facility (WEF) and associated grid connection, to be situated near Murraysburg within the Western and Northern Cape, was conducted by the author (Almond 2015). This included Phase 2 of the Umsinde Emoyeni Wind Energy Facility (now Khangela Emoyeni WEF). This study confirmed the high palaeontological sensitivity of the Beaufort Group bedrocks within the project area and was incorporated into the over-arching Heritage Impact Assessment for this development by Hart & Almond (2015). These studies inferred that the palaeontological heritage impact significance of the proposed WEF was MEDIUM (-ve) without mitigation, falling to LOW (+ve and –ve) following proposed mitigation (Tables 1 & 2).

In terms of palaeontological heritage mitigation within the original Umsinde Emoyeni project area it was recommended by Almond (2105) that:

• Once the final layout of the WEF and associated transmission line is determined, a preconstruction palaeontological study be undertaken of those limited sectors of the footprint that overlie potentially-fossiliferous sediments (*i.e.* Lower Beaufort Group bedrocks, older consolidated alluvium). The study should be carried out by a suitably qualified palaeontologist and would involve (a) recording of near-surface fossil material, including relevant geological data (*e.g.* stratigraphy, sedimentology, taphonomy), (b) judicious sampling of scientifically-valuable fossils as well as (c) making recommendations regarding further mitigation or conservation of specific fossil sites for the construction phase of the WEF and transmission line.

- During the construction phase a **chance-finds procedure** should be applied, should substantial fossil remains such as vertebrate bones, teeth or trackways, plant-rich fossil lenses or dense fossil burrow assemblages be exposed by excavation or discovered within the development footprint. The responsible Environmental Control Officer should safeguard the fossils, preferably *in situ*, and alert the responsible heritage management authority (Heritage Western Cape for the Western Cape, SAHRA for the Northern Cape) so that appropriate action can be taken by a professional palaeontologist, at the developer's expense. Mitigation would normally involve the scientific recording and judicious sampling or collection of fossil material as well as associated geological data (*e.g.* stratigraphy, sedimentology, taphonomy) by a professional palaeontologist.
- Palaeontological mitigation recommendations should be incorporated into the Construction Environmental Management Plan (EMP) for the Umsinde Emoyeni Wind Energy Facility and associated transmission line. *Provided that* the recommended mitigation measures are carried through, it is likely that any potentially negative impacts of the proposed developments on local fossil resources will be substantially reduced. Furthermore, they will be partially offset by the *positive* impact represented by our increased understanding of the palaeontological heritage of the Great Karoo region.

Impact	Consequence	Probability	Significance	Status	Confidence
Impact 1: Disturbance,	High	Possible	MEDIUM	-ve	Medium
damage or destruction of					
well-preserved fossils at or					
beneath the ground surface					
during the construction phase					
(especially due to bedrock					
excavations, ground					
clearance)					
XX7',1 X #',' ,'				0	
With Mitigation	Medium	Possible	LOW	-ve & +ve	Medium

Table 1: Summary of palaeontological impact significance ratings for the original Umsinde Emoyeni WEF (Almond 2015)

Hart & Almond (2015) reiterated the mitigation measures regarding palaeontological heritage proposed by Almond (2015) and also referred to additional Best Practice mitigation measures (Table 2), viz:

• The employment of a palaeontologist during the construction phase, establishment of on-site curation facilities and identification of a repository for specimens.

 Table 2: Summary of impact assessment and recommendations regarding palaeontological heritage for the original Umsinde Emoyeni WEF provided by Hart & Almond (2015)

Impact	Consequence	Probability	Significance	Status	Confidence
Impact 1: Disturbance, damage or destruction of well-preserved fossils at or beneath the ground surface during the construction phase (especially due to bedrock excavations, ground clearance).	High	Possible	MEDIUM	-ve	Medium
 Essential Mitigation measures: Conduct a pre-disturbance inspection of any infrastructure that is to be positioned on sensitive geology. Sensitive specimens will need to be recorded and removed. Best Practice mitigation: The employment of a palaeontologist during the construction phase, establishment of on-site curation facilities and identification of a repository for specimens. 					

In 2018 proposed changes in layout, numbers and technology of wind turbines for Phase 1 and Phase 2 of the proposed Umsinde Emoyeni WEF were addressed from a heritage viewpoint (including palaeontological heritage implications) by Hart (2018) who found that the original assessment of 2015 continued to apply, with some minor changes. The original mitigation recommendations were reiterated.

Responding to the heritage documents enumerated above, SAHRA in their Final Comment for the proposed Umsinde Emoyeni Wind Energy Facility (Phases 1 and 2) and associated transmission line made the following recommendations pertaining to palaeontological heritage resources within the Northern Cape sector of the development footprint (SAHRA Case ID: 6021, Letter of 16 March 2018):

- A Walk-Down of the final positions of the turbines and access road routes must be completed prior to construction by a qualified palaeontologist. The locations of construction camps and laydown yards must also be assessed as part of the walk-down report. The report must CLEARLY state which heritage resources are located within the Northern Cape and Western Cape Provinces to allow the relevant Heritage Resource Authority (HRA) to provide comments. The report must also clearly state the distance between each proposed project activity and identified resources *via* detailed descriptions, photographs and a map;
- A buffer zone of 50 m must be maintained from all identified heritage resources;
- A Conservation Management Plan (CMP) must be developed for all heritage resources that are to be retained *in-situ*. This CMP must be submitted to SAHRA for comment;
- Turbine placements must avoid areas underlain by the Lower Beaufort Group rocks. Should this not be possible, a Watching Brief must be conducted during the construction phase of the project. This must include the on-site presence of a qualified palaeontologist who will monitor excavations for turbine foundations, access roads and underground cables within the Lower Beaufort Group rocks. A Watching Brief Report detailing the results of the monitoring must be submitted to SAHRA for comment;

- Chance Finds and Fossil Finds Procedures must be developed and implemented for the project. These procedures must include standard protocol, steps and reporting structures to be followed should any heritage and/or fossil heritage is uncovered during all phases of development;
- If any evidence of fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted. A professional palaeontologist must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.

These recommendations were not accurately reflected in the Environmental Management Programme Reports incorporated within the Revised Final EIA Reports for the Umsindi Emoyeni Phase 1 and Phase 2 WEFs prepared by Arcus Consultancy Services Ltd (ARCUS January 2018a, 2018b) where the involvement of a qualified specialist palaeontologist in the pre-construction survey is not specified (See Table 3).

Table 3: Extract from the Environmental Management Programme Report for the Umsindi Emoyeni Phase 2 WEF (Conditions in the Phase 1 EMPr are identical).

Disturbance, damage or destruction of well-preserved fo bedrock excavations, ground clearance)	sils at or beneath the ground surface duri	ng the construction phase (especially due to
Conduct a pre-disturbance inspection of any infrastructure that	ECO to monitor	During site establishment
is to be positioned on sensitive geology. Sensitive specimens will need to be recorded and removed.	Site engineer/site manager	Monthly thereafter.
Emoyeni Wind Farm Project (Pty) Ltd January 2018		Arcus Consultancy Services Lt Page 3
Jmsinde Emoyeni WEF Phase 2 EMP		5
Jmsinde Emoyeni wer Phase 2 Emp		ARCUS
Mitigation Measure	Responsibility	Frequency
The employment of a palaeontologist during the construction	ECO to monitor	During site establishment
phase establishment of on-site curation facilities and	C11 1 1 1	

phase, establishment of a palaeontologist during the construction phase, establishment of on-site curation facilities and identification of a repository for specimens.	Site engineer/site manager	When required during construction.
During the construction phase a chance-finds procedure should be applied should substantial fossil remains such as vertebrate bones, teeth or trackways, plant-rich fossil lenses or dense fossil burrow assemblages be exposed by excavation or discovered within the development footprint.	Environmental Control Officer should safeguard the fossils, preferably <i>in situ</i> , and alert the responsible heritage management authority (Heritage Western Cape for the Western Cape, SAHRA for the Northern Cape) so that appropriate action can be taken by a professional palaeontologist	When required during construction.

In their subsequent Letter of October 3, 2018 SAHRA reiterated their original comments regarding palaeontological heritage for these renewable energy projects and noted that the conditions contained within the Final Comment issued by SAHRA were *not* included within the conditions for Environmental Authorisation for sectors of the proposed WEF and transmission line connections in the Northern Cape. Although this is the case, the DEA Environmental Authorisation documents for Phase 1 (DEA Ref: 14/12/16/3/3/2/686) and Phase 2 (DEA Ref: 14/12/16/3/3/2/687) of the Umsinde Emoyeni WEF did *not* approve the original Environmental Management Programmes submitted for these developments and required their amendment to "include all recommendations and mitigation measures recorded in the EIArs and specialist studies attached as part of the EIArs".

It is noted that comments (if any) on palaeontological heritage issues from Heritage Western Cape (HWC) regarding those sectors of the WEFs and transmission line falling within the Western Cape Province have not been made available for this review as a final comment was never issued.

2. Palaeontological heritage comments on the proposed amended Umsinde Emoyeni Wind Energy Facility

Amended plans for the Umsinde Emoyeni Wind Energy Facility (previously the authorised Phase 1 of the Umsinde Emoyeni Wind Energy Facility) have now been proposed. A tabulated summary of the proposed amendments (provided by Zutari) is shown in Table 4 while the principal infrastructural components of palaeontological heritage relevance are shown in satellite images below (Figures 1 and 2).

Umsinde Emoyeni Component Authorised **Proposed Amendment** Holder of Emoyeni Wind Farm Project (Pty) Emoyeni Wind Farm Project (Pty) authorisation Ltd Ltd Phase 1 of the Umsinde Emoyeni Umsinde Emoyeni Wind Energy Project name Wind Energy Facility Facility Remainder of Farm 28; Portion 1 of Remainder and remainder of Portion Farm 29; Remainder, Portion 2, 3, 4 1 of Farm De Hoop 30; Portion 3, 7, and remainder of Portion 1 of Farm 10 and Remainder of Portion 2, of De Hoop 30; Portion 1 of the Farm Farm Driefontein 26; Portion 1 and Matjeskloof 27; The Farm Voetpad Remainder of the Farm Klein 51; Portion 3, 4, 7, 10 and Driefontein 152: Portion 2 of Farm Remainder of Portion 2, of Farm Witteklip 32; Beaufort West Municipality Western Cape Province Driefontein 26; Portion 1 of the Farm Middelvaly 52; Portion 1 and Project location Remainder of the Farm Klein Driefontein 152; Portion 2 and 7 of Farm Witteklip 32: Portion 2 of Farm Swavel Kranse 28; Remainder, Portion 1, 3, 4, 6, 7 and Remainder of Portion 2 of Farm Klipplaat 109; Beaufort West and Ubuntu Local Municipalities Northern and Western Cape Provinces • Hardstanding area: Up to 45 Hardstanding area: Up to 55 • m x 25 m m x 35 m Facility area Turbine foundation: 30 m x Turbine foundation: 30 m x 30 m, with a depth of 3 m 30 m, with a depth of 3 m Onsite office compound, Onsite office compound, •

Table 4: Tabulated comparison of the authorised and amended proposals for the UmsindeEmoyeni Wind Energy Facility (Provided by Zutari, 2020).

Umsinde Emoyeni		
Component	Authorised	Proposed Amendment
	 including site offices, parking, an operation and maintenance facility and a control room: Anemometer masts CCTV monitoring towers 	 including site offices, parking, an operation and maintenance facility and a control room: Anemometer masts CCTV monitoring towers
Site access	 Existing farm access tracks and watercourse crossing will be upgraded. Internal roads: 9 m width during construction. Reduced to 4 - 6 m during operations. Internal road length: 35.8 km 	 Existing farm access tracks and watercourse crossing will be upgraded. Internal roads: 12 m width during construction; Reduced to 4 - 6 m width during operations Internal road length: 30.7 km
Export capacity	147 MW	147 MW
Number of turbines	Up to a maximum of 35	Up to Max 33
Turbine generation capacity	1.5 – 4.5 MW	Up to 10 MW
Hub height from ground level	Up to 135 m	Up to 160 m
Rotor diameter	Up to 150 m	Up to 180 m
Blade length	75 m	Up to 90 m
Blade tip height	210 m	Up to 250 m
Area occupied by substations	200 x 250 m single storey substation compound	No amendment required.
Capacity of substation	33/132 kV	No amendment required.
Area temporarily occupied by crane boom at each turbine (turbine laydown areas)	60 x 30 m	95 x 23 m
Crane pad	14,000 m ²	(Included in the above)
Area occupied by both permanent and construction laydown areas	Temporary laydown area: Up to three laydown areas of 9 000 m ² each (150 m x 60 m)	No amendment required.
Location of construction camps/ laydown areas	As per layout map included in the Final EIA Report.	No amendment required.
Area occupied by buildings	200 x 250 m	No amendment required.

Umsinde Emoyeni								
Component	Authorised	Proposed Amendment						
Internal powerline/cables	All power lines linking wind turbines to each other and to the internal substation must be buried (Condition 35 of the EA)	Condition remains applicable. No amendment required.						
Height of fencing	2 – 2.5 m	No amendment required.						
Type of fencing	Steel palisade fencing around construction camp. Concrete palisade around substation.	No amendment required.						
Validity extension	5 years from 6 September 2018	10 years from 6 September 2018.						

Table 5: Turbine scenarios for the amendment showing increase in authorised footprints for Umsinde Emoyeni WEF (areas include permanent and temporary hardstand areas and laydown areas, temporary and permanent roads, and substation) (as supplied by Zutari, 2020)

Turbine size (MW)	Number of turbines	Total footprint (construction and operation) (ha)	Increase/ reduction of disturbance footprint (ha)
10	15	51.90	-2.80
8	18	52.96	-1.74
6.5	23	51.84	-2.87
4.5	33	55.36	0.66

• Revised palaeontological impact significance rating for amended WEFs

Compared to the large area originally assessed superficially by Almond (2015), the project areas for the two amended WEFs are considerably smaller and exclude extensive areas underlain by potentially fossiliferous bedrocks. Most of the core infrastructure (turbine locations, access roads, substation sites and laydown areas) will now be situated within palaeontologically insensitive areas underlain by Karoo dolerite as shown on Fig 2. These changes since the 2015 study, together with the slightly reduced number of turbines compared to the 2018 authorised layout, tend to reduce the palaeontological impact significance of the WEFs but are at least partially offset by the anticipated larger volume of bedrock excavations for the turbine footings as well as a slight increase in total area of surface clearance only in the case of the 4.5 MW scenario (*e.g.* wider access roads, larger hard standing areas) as shown in Table 5. Using the same impact assessment of ARCUS that was applied for the original Almond (2015) study, the impact significance for the construction phase of the amended WEF when considered individually falls to LOW (-ve) without mitigation and VERY LOW (-ve & +ve) with mitigation (Table 6). No significant further impacts are anticipated for the operational and decommissioning phases of the WEF.

• Cumulative impacts

Anticipated cumulative impacts on palaeontological heritage were not considered or assessed in the original palaeontological study by Almond (2015). No authorised renewable energy projects are highlighted within a 30-50 km radius of the project areas for the amended Umsinde Emoyeni Wind

NATURA VIVA cc (Reg. No. 2000/019296/23) Members: Dr J.E. Almond (British)(Managing), M.L. Tusenius P.O. Box 12410 Mill Street, CAPE TOWN 8010, RSA Tel / Fax: +27 (21) 462 3622 E-mail: naturaviva@universe.co.za Energy Facility and Khangela Emoyeni Wind Energy Facility on the original map developed by Gibb (2018) Fig. 3.

Given the revised LOW (-ve) impact significance assigned to the amended WEF here (in combination with the LOW (-ve) impact significance for the Khangela Emoyeni WEF assessed separately), it is concluded that cumulative impacts on local palaeontological heritage resources posed by the developments in concert are also likely to be LOW (-ve), falling to VERY LOW (-ve & +ve) after mitigation.

In terms of palaeontological heritage resources, the amended proposals for the Umsinde Emoyeni Wind Energy Facility near Murraysburg does not contain any Fatal Flaws. There is no objection on palaeontological heritage grounds to authorisation of either of the WEFs, *provided that* the mitigation measures discussed below are fully implemented.

• Recommended mitigation measures

Applying the precautionary principle, it is recommended here that the detailed conditions regarding palaeontological heritage conservation and management specified in the Final Comment of SAHRA regarding the original Umsinde Emoyeni WEF (SAHRA Case ID: 6021, Letter of 16 March 2018) should be applied to the amended Umsinde Emoyeni Wind Energy Facility (despite its location entirely within the Western Cape).

This is because:

- Sectors of the WEF footprints overlie potentially-fossiliferous Lower Beaufort Group bedrocks;
- The Beaufort Group in this region is known to be locally very fossil-rich but is largely unstudied;
- The original palaeontological survey for Umsinde Emoyeni was necessarily superficial, given the scale of the project area;
- Specific palaeontological heritage comments and recommendations from HWC regarding the Umsinde Emoyeni projects are not available. However, the SAHRA recommendations can, in essence, be reasonably extended to include sectors of the amended WEFs that lie within the Western Cape (*i.e.* outside SAHRA'S jurisdiction) since the geological and palaeontological settings here are very similar to those in the adjoining Northern Cape.

These recommendations should be incorporated into the revised EMPr for the amended WEF and implemented in full, *with the possible exception* of the need for a 50 m-radius buffer zone around ALL identified fossil heritage resources. In my view, only fossil sites of high scientific / educational / cultural or other conservation significance that cannot be effectively mitigated through professional palaeontological recording and collection require buffer zones (Most recorded fossil finds are of low scientific / conservation value and can be effectively mitigated in the pre-construction or construction phase). This caveat would need to be approved by the responsible heritage regulatory authorities, *viz.* Heritage Western Cape.

Then E. Almond

Dr John E. Almond Palaeontologist *Natura Viva* cc

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REFERENCES

ALMOND, J.E. 2015. Umsinde Emoyeni Wind Energy Facility near Murraysburg, Western and Northern Cape. Palaeontological specialist assessment: combined desktop and field-based reconnaissance study, 61 pp. Natura Viva cc, Cape Town.

ARCUS 2018a. Revised final Environmental Impact Assessment Report for the proposed Umsinde Emoyeni Wind Energy Facility Phase One, Western and Northern Cape Provinces, DEA REF: 14/12/16/3/3/2/686. Appendix B: Environmental Management Programme Report, 83 pp. Arcus Consultance Services Ltd.

ARCUS 2018b. Revised final Environmental Impact Assessment Report for the proposed Umsinde Emoyeni Wind Energy Facility Phase Two, Western and Northern Cape Provinces, DEA REF: 14/12/16/3/3/2/687. Appendix B: Environmental Management Programme Report, 83 pp. Arcus Consultance Services Ltd.

HART, T.J.G. 2018. Project addendum: UmSinde Emoyeni Wind Farm Project, Heritage Component of EIA process, 7 pp. ACO Associates, Cape Town.

HART, T.J.G. & ALMOND, J.E. 2015. Heritage Impact Assessment for the proposed Umsinde Emoyeni Wind Energy Facility, 149 pp. ACO Associates, Cape Town.

Table 6: Revised palaeontological heritage impact assessment table for the construction phase of the amended Umsinde Emoyeni WEF (using ARCUS impact rating system)

	Extent	Intensity	Duration	Consequence	Probability	Significance	Status	Confidence	
Without	Local	Medium	Long-term	Medium					
mitigation	n 1	2	3	6	Possible	LOW	– ve	Medium	
Essential mitigation measures:									
• R	ecording and ju	dicious samplin	ng of well-preserv	ved fossil remains with	nin the final develop	ment footprint by a p	rofessional pa	laeontologist during the	
pi	pre-construction phase. Fossils collected to be curated in an approved depository (e.g. museum, university). Phase 2 report to be submitted to								
responsible heritage management authority (Heritage Western Cape / SAHRA).									
• A	pplication of a c	chance-finds pro	ocedure by the E	CO during the constr	uction phase (<i>i.e</i> safe	eguarding of signific	cant new foss	il finds and reporting to	

the relevant heritage management authority for appropriate professional recording and mitigation)

With	Local	Low	Long-term	Low				
mitigation	1	1	3	5	Possible	VERY LOW	– ve & +ve	Medium

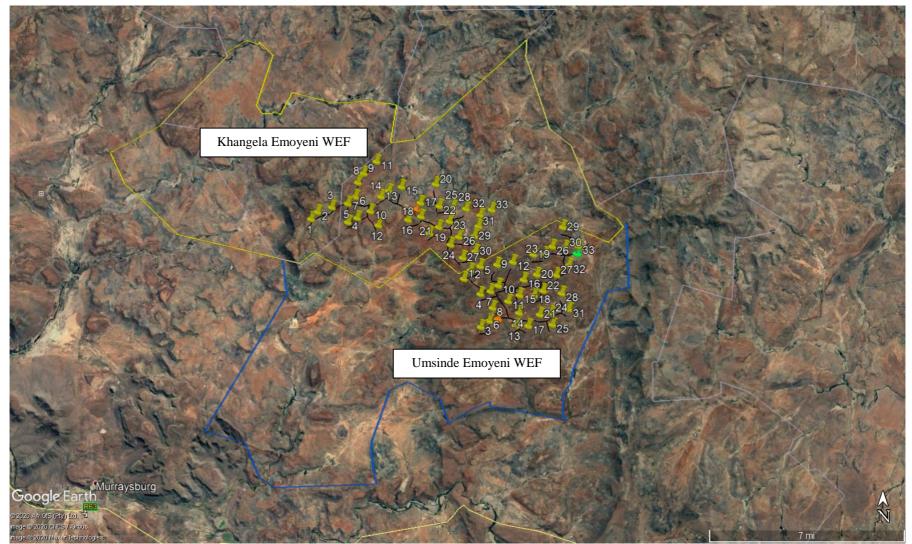


Figure 1: Google Earth© satellite image of the project areas for the amended Umsinde Emoyeni Wind Energy Facility (south) and Khangela Emoyeni Wind Energy Facility (north) near Murraysburg, Western and Northern Cape. Shown here are the revised turbine positions (yellow placemarks), existing and new access roads (black), laydown areas (green placemark) and substations (orange placemarks).

NATURA VIVA cc (Reg. No. 2000/019296/23) Members: Dr J.E. Almond (British)(Managing), M.L. Tusenius P.O. Box 12410 Mill Street, CAPE TOWN 8010, RSA Tel / Fax: +27 (21) 462 3622 E-mail: naturaviva@universe.co.za

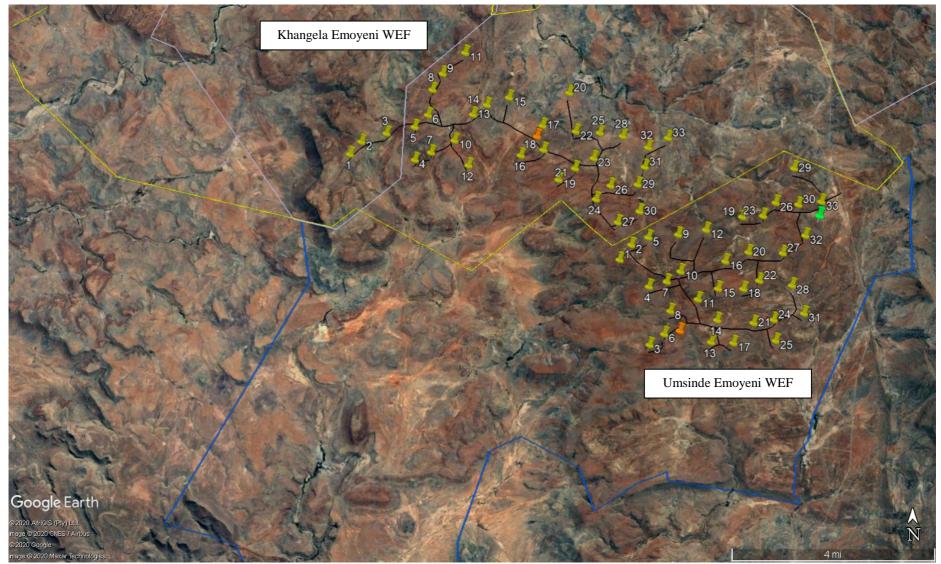


Figure 2: Portion of the satellite image above showing the proposed layouts of the two amended WEFs in more detail. Rusty-brown areas on satellite images are largely underlain by unfossiliferous dolerite. Beaufort Group bedrocks are greyish, but may also appear rusty-brown due to a veneer of doleritic colluvium.

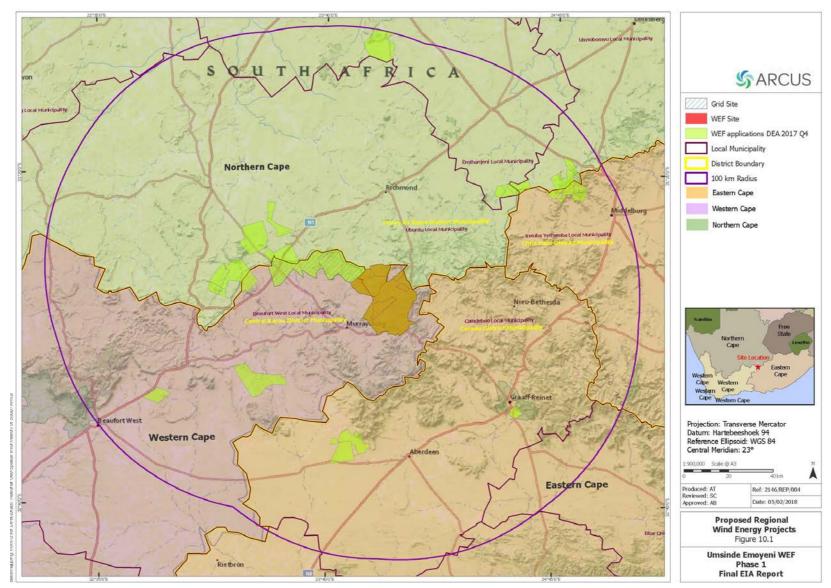


Figure 3: Other WEFs considered for cumulative impact assessment (Arcus, 2018). The purple circle has a radius of 100 km.



environmental affairs

Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

(For official use only)

File Reference Number: NEAS Reference Number: Date Received:

DEA/EIA/

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Proposed Amendment of the Phase 1 Umsinde Emoyeni Wind Energy Facility near Murraysburg, Western Cape Province

Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- 3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- 4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- 5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address: Department of Environmental Affairs Attention: Chief Director: Integrated Environmental Authorisations Private Bag X447 Pretoria 0001

Physical address: Department of Environmental Affairs Attention: Chief Director: Integrated Environmental Authorisations Environment House 473 Steve Biko Road Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at: Email: EIAAdmin@environment.gov.za

1. SPECIALIST INFORMATION

Specialist Company Name:	NATURA VIVA CC								
B-BBEE	Contribution level (indicate 1	4	Percentage		100				
	to 8 or non-compliant)		Pr	ocurement					
			ree	cognition					
Specialist name:	Dr John Edward Almond	Dr John Edward Almond							
Specialist Qualifications:	PhD (palaeontology)								
Professional	Palaeontolgical Society of S	Southern	n Africa,	Association of	of Professional	Heritage			
affiliation/registration:	Practitioners (W Cape)		10			· · · · ·			
Physical address:	76 Breda Park, Breda Street, C	Dranjezio	cht, CAPE	TOWN					
Postal address:	PO Box 12410 Mill Street, Cap	e Town							
Postal code:	8010		Cell:	n/a					
Telephone:	021 462 3622		Fax:	n/a					
E-mail:	naturaviva@universe.co.za								

2. DECLARATION BY THE SPECIALIST

I, Dr John Edward Almond, declare that -

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that
 reasonably has or may have the potential of influencing any decision to be taken with respect to the application by
 the competent authority; and the objectivity of any report, plan or document to be prepared by myself for
 submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

John E Minad

Signature of the Specialist

NATURA VIVA CC

Name of Company:

2311 Jus 2020

Date

Details of Specialist, Declaration and Undertaking Under Oath

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Dr John Edward Almond, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

That Alman

Signature of the Specialist

NATURA VIVA CC

Name of Company

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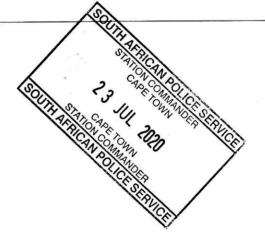
Date

188JUL

Signature of the Commissioner of Oaths

-23 2020-07

Date



Details of Specialist, Declaration and Undertaking Under Oath