



ARCUS

VOLUME I

**THE PROPOSED AMENDMENT AND SPLIT OF THE
AUTHORISED SAN KRAAL WIND ENERGY FACILITY,
NORTHERN AND EASTERN CAPE PROVINCES
(HARTEBEESTHOEK EAST WEF)**

On behalf of

HARTEBEESTHOEK WIND POWER (PTY) LTD

DECEMBER 2019

**DEA Ref. No. 14/12/16/3/3/2/1029,
14/12/16/3/3/2/1029/AM1, and
14/12/16/3/3/2/1029/2/AM1**



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PROJECT DETAILS

DEA Reference Number: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 and
14/12/16/3/3/2/1029/2/AM1

Arcus Reference No: 3329 Hartebeesthoek East WEF

Title: Amendment Report for the Proposed Hartebeesthoek East Wind Energy Facility, Northern and Eastern Cape Provinces

EAP: Ashlin Bodasing - Arcus Consultancy Services South Africa (Pty) Ltd

Project Applicant: Hartebeesthoek Wind Power (Pty) Ltd

Report Status: Final Amendment Report – For Authorisation

Changes made from Draft to Final Report	Section
Date changed from September 2019 to December 2019	Volume I: Section 1 to 10
Section 9: Public Participation was updated to reflect process completed to date and summary of issues raised.	Volume I: Section 8
Added details regarding the conditions of authorisation to be retained.	Volume I: Section 2
The word "draft" was change to "final" throughout the document where applicable.	Volume I: Section 1 to 10
Typographical and grammatical errors were corrected and minor clarifications were made throughout the document.	Volume I: Section 1 to 10
The Comments & Responses Table was collated to present the PPP conducted to date, as well as all comments received and responses given.	Appendix H: Comments & Response Table

Note: No changes were made to Volume II: Specialist Assessment Reports / Letters from the draft to final stage of the application process.

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1 INTRODUCTION

San Kraal Wind Power (Pty) Ltd was granted environmental authorisation for the 390 MW San Kraal Wind Energy Facility (WEF) and 132 kV grid connection on 28 June 2018 by the Department of Environmental Affairs (DEA) (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) (Figure 1.1). San Kraal Wind Power (Pty) Ltd is now seeking to amend and split the authorised San Kraal WEF. As the proposed amendments require authorisation from the DEA, EDF Renewables (Pty) Ltd (previously InnoWind) ('EDF'), appointed Arcus Consultancy Services South Africa (Pty) Ltd ('Arcus'), as the Environmental Assessment Practitioner (EAP) to submit the required amendment applications and updated assessments to DEA for approval. The proposed development site is located south-east of the town of Noupoort in the Umsobomvu Local Municipality (ULM) which forms part of the Pixley ka Seme District in the Northern Cape Province. A small portion of the development site falls within the Inxuba Yethemba Local Municipality, within the Chris Hani District of the Eastern Cape Province. The town of Middelburg and Colesberg are located approximately 25 km and 58 km to the south and north-east of the site, respectively (Figure 1.2).

Two amendment applications for Environmental Authorisation (EA) have been submitted to the DEA as each WEF will be required to have its own environmental authorisation. The number of turbines and the generation capacity which are being applied for with each application is defined below:

- **Hartebeesthoek East (up to 124 MW) consisting of up to 20 turbines with a generating capacity of up to 6.2 MW each (The Proposed Project) (DEA Reference Number 14/12/16/3/3/2/1029/2/AM1);** and
- San Kraal WEF (up to 217 MW) consisting of up to 35 turbines with a generating capacity of up to 6.2 MW each (subject to a separate report, assessment and application, DEA Reference Number 14/12/16/3/3/2/1029/1/AM1).

The focus of this amendment report is on the Hartebeesthoek East WEF consisting of up to 20 turbines.

1.1 The Authorised San Kraal WEF

On 28 June 2018, the DEA approved the following infrastructure as part of the San Kraal WEF (Figure 1.1).

Table 1.1: Co-ordinates, as per the EA, of the Authorised WEF Site and Associated Infrastructure

	Authorised Latitude	Authorised Longitude
Alternative (preferred site)		
North-West Corner	-31.2063	24.9859
North-East Corner	-31.2071	25.1307
South-West Corner	-31.3137	24.9994
South-East Corner	-31.2463	25.11517
Substation location (centre point)	-31.2485	25.0171

	Authorised Latitude	Authorised Longitude
Construction camp laydown area	-31.22331	24.04544
Construction camp laydown area	-31.20918	25.05522
Preferred powerline route (Preferred Alternative)		
Start	-31.24968	25.015103
Middle	-31.28241	24.908770
End	-31.3550	24.825598
Access to Site	-31.20165	25.043173
Access to site	-31.195366	24.961452

For the authorised 390MW San Kraal WEF and associated infrastructure including electrical grid connection located south-east of the town of Noupoort, the following project descriptions apply:

- A maximum generating capacity of 390MW in total;
- 78 turbines with a generation capacity between 3 - 5 MW and a rotor diameter of 150 m, a hub height of 150 m and a blade length of 75 m (all maximums);
- Foundations (25 m x 25 m) and hardstands associated with the wind turbines;
- Internal access roads of between 8 m (during operation) and 14 m (during construction) wide to each turbine;
- Medium voltage cabling between turbines and the on-site switching station (10000 m²), to be laid underground where technically feasible;
- Overhead medium voltage cables between the on-site switching station and on-site substation (approximately 4 km in length) and between turbine rows where necessary;
- An on-site substation & OMS complex (180000 m²) to facilitate stepping up the voltage from medium to high voltage (132 kV) to enable the connection of the WEF to the national grid;
- A 25 km 132 kV high voltage overhead powerline from the on-site substation to the proposed Umsobomvu Substation to the national grid;
- Temporary infrastructure including a construction camp with batching plant (40000 m²); and
- A laydown area approximately 7500 m² in extent, per turbine.

Table 1.2: Technical Details of the Authorised WEF and Grid Connection

Component	Description / Dimensions
WEF	
Location of the Site	Approximately 6km south-east of the town of Noupoort

Component	Description / Dimensions
Farm and SG Codes	RE 181 Holbrook: C02100000000018100000 1/11 Beskuitfontein: C04800000000001100001 RE/13 Beskuitfontein: C04800000000001300000 15/182 Hartebeeshoek: C02100000000018200000 3/182 Hartebeeshoek: C02100000000018200003 14 Hartebeeshoek: C04800000000001400000 46/182 Hartebeeshoek: C02100000000018200046
Site Access	An existing public gravel road (the Oorlogpoort Road) will be used to access the site. The road is situated off the N9 south of the town of Noupoort, to the north of the site.
Export Capacity	390 MW
Proposed Technology	Wind Turbines
Number of Turbines	78
Hub Height from Ground Level	150 m
Rotor Diameter	150 m
Width and Length of Internal Roads	Internal roads width: Up to 14m during construction and up to 8m during operation Internal roads length: Approximately 53km
Powerline (Grid Connection)	
Location of the Site	Approximately 9km south of Noupoort
Length	Approximately 25km
Farm and SG Codes	15/182 C02100000000018200000 47/182 C02100000000018200047 RE/13 C04800000000001300000 3/1 C04800000000000100003 RE/11/1 C0480000000000100011 18/1 C0480000000000100018 RE/1/1 C0480000000000100001 RE/118 C03000000000011800000 RE/136 C03000000000013600000 RE/135 C03000000000013500000 Farm 2 C0480000000000200000 RE/13/1 C0480000000000100013 8/3 C0480000000000300008 14 C04800000000001400000
Preferred Access	Existing gravel road on Farm Hartebeeshoek (owned by Umsobomvu Municipality) off N9 at - 31.195366°; 24.961452°

Component	Description / Dimensions
Export Capacity	132 kV
Proposed Technology	Eskom specifications (concrete or steel monopole or lattice towers)
Height of Poles	A max of 45m
Width and Length of Servitude	34m in width and 25 in length

1.1 Aim and Purpose of this Report

This report highlights the proposed amendments to the authorised San Kraal WEF and associated grid connection. The report aims to comply with the relevant National Environmental Management Act, 1998 (Act 107 of 1998 - NEMA) EIA Regulations, 2014, as amended. The report further aims to provide the updated assessment of the specialist's studies conducted for the authorised San Kraal WEF and provide an opinion if the proposed amendments that should be granted by the DEA.

2 DETAILS OF THE PROPOSED AMENDMENTS

The amendment being applied for is to split the authorised San Kraal Wind Energy Facility (WEF) into two separate wind energy facilities, namely San Kraal WEF (Split 1) and Hartebeesthoek East WEF ('Split 2') ('HBH East') (Figure 2.1). San Kraal WEF (Split 1) is subject to a separate amendment application process. This report focuses on the amendments relating to the HBH East WEF application only. The proposed components requiring amendments are detailed below for the Hartebeesthoek East WEF.

Table 2.1: Changes to the Holder of the Authorisation

	Authorised	Amendment
Holder of Authorisation	San Kraal Wind Power (Pty) Ltd	Hartebeesthoek Wind Power (Pty) Ltd
Company Representative	Louis Dewavrin	Sheldon Vandrey
Name of Development	The 390MW San Kraal Wind Energy Facility (WEF) and associated 132kV grid connection transmission line south-east of the town of Noupoort within the Umsobomvu Local Municipality In the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province.	The 124 MW Hartebeesthoek East Wind Energy Facility south-east of the town of Noupoort within the Umsobomvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province.

Table 2.2: Co-ordinates of the Amended WEF Site

	Proposed Latitude	Proposed Longitude
Alternative (preferred site)		
North-West Corner	31° 14' 48.3813" S	25° 00' 47.0361" E
North-East Corner	31° 15' 13.5878" S	25° 04' 23.8153" E
South-West Corner	31° 17' 40.4183" S	24° 58' 35.1404" E
South-East Corner	31° 17' 39.9187" S	25° 02' 53.8629" E
Substation location (centre point)	31° 15' 55.44" S	25° 2' 1" E
Construction camp laydown area	31° 13' 23.92" S	24° 2' 43.58" E
Construction camp laydown area	31° 12' 33.05"S	25° 3' 18.79" E

Table 2.3: Technical Details of the Amended WEF

Component	Description / Dimensions
WEF	
Location of the Site	Approximately 6km south-east of the town of Noupoort
Farm and SG Codes	RE 181 Holbrook: C02100000000018100000 15/182 Hartebeeshoek: C02100000000018200000 14 Hartebeeshoek: C04800000000001400000 RE/13 Beskuitfontein: C04800000000001300000 1/11 Beskuitfontein: C04800000000001100001
Site Access	An existing public gravel road (the Oorlogpoort Road) will be used to access the site. The road is situated off the N9 south of the town of Noupoort, to the north of the site.
Export Capacity	124 MW
Proposed Technology	Wind Turbines
Number of Turbines	20
Hub Height from Ground Level	137 m
Rotor Diameter	175 m
Width and Length of Internal Roads	Internal roads width: Up to 14m during construction and up to 8m during operation Internal roads length: Approximately 50 km

For the proposed 124 MW Hartebeesthoek East WEF and associated infrastructure located south-east of the town of Noupoort, within the Umsobomvu Local Municipality in the Northern Cape Province, and a small portion within the Inxuba Yethemba Local Municipality in the Eastern Cape Province.

The facility will comprise the following:

- A maximum generating capacity of 124 MW in total (below the authorised 390 MW);
- 20 turbines with a generation capacity of up to 6.2 MW and a rotor diameter of 175 m, a hub height of 137 m and a blade length of 87.5 m (all maximums) *(changing from authorised)*;
- Foundations (25 m x 25 m) and hardstands associated with the wind turbines *(not changing from authorised)*;
- Internal access roads of between 8 m (during operation) and 14 m (during construction) wide to each turbine *(not changing from authorised)*;
- Medium voltage cabling between turbines and the on-site switching station (approximately 10000 m²), to be laid underground where technically feasible *(not changing from authorised)*;
- Overhead medium voltage cables between the on-site switching station and San Kraal substation and between turbine rows where necessary *(be removed or amended)*,
 - Amendment to read: "Overhead medium voltage cables between the on-site substation and San Kraal substation and between turbine rows where necessary;
- An on-site substation & OMS complex to facilitate stepping up the voltage from medium to high voltage (132 kV) to enable the connection of the WEF to the national grid *(not changing from authorised and can be removed for this amendment)*;
- A 25 km 132 kV high voltage overhead powerline from the on-site substation to the proposed Umsobomvu Substation to the national grid *(not changing from authorised)*;
 - Note: This overhead powerline is applicable to this proposed development, however, as part of a separate basic assessment application process, Hartebeesthoek East are applying for three grid connection options to connect to the proposed Umsobomvu Substation and to the national grid.¹
- Temporary infrastructure including a construction camp with batching plant (40000 m²) *(not changing from authorised)*; and
- A laydown area approximately 7500 m² in extent, per turbine *(not changing from authorised)*.

The proposed HBH East WEF will comprise 20 wind turbines with a generation capacity of 6.2 MW each for a total WEF output of 124 MW. The wind farm will connect to the SK-PH collector substation via medium voltage lines, which will, in turn, connect to the Umsobomvu Substation via an approved 132 kV transmission line. The new on-site substation, collector substation and other associated infrastructure are subject to a separate Basic Assessment Process.

2.1 Conditions of Authorisation to be Retained or Changed

Condition in EA	Amend, Retained or Removed	Amended Condition
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¹ The three grid connection options is: electricity is transferred via a proposed 132 kV OHL from the proposed HBH East on-site substation (1) to the San Kraal substation and via the HBH Corridor to the Umsobomvu substation OR (2) to the Phezukomoya substation and via the Phezukomoya corridor to the Umsobomvu substation OR (3) to the San Kraal substation and via the San Kraal corridor to the Umsobomvu substation. From either of these substations electricity is transferred to the proposed SK-PH Collector substation OR directly to the proposed Umsobomvu substation via one of three corridor options, i.e. San Kraal Corridor, Phezukomoya Corridor or the proposed HBH Corridor.

1.	Slight change.	The 390-MW 124 MW Hartebeesthoek East Wind Energy Facility and one on-site substation south east of the town of Noupoort within the Umsobombvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province as described above is approved.
2-36.	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
37.	Slight changes.	Up to 78 20 wind turbines are approved.
38-43.	No changes. To be retained as it in new EA.	The conditions and wording as per the original EA to be retained as is.
44.	Slight changes.	A 2.5km 3 km no-go buffer must be implemented around the Verreaux's Eagle <u>nests</u> .
45 – 139.	No changes. To be retained as it in new EA.	The conditions and wording as per the original EA to be retained as is.
140.	Slight changes.	The recommendations of the EAP in the EIAR dated March 2018 and the specialist studies attached must be adhered to, <u>this includes the recommendations of the EAP in the Amendment Report dated December 2019 and the specialist studies attached</u> . In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
141-142.	No changes. To be retained as it in new EA.	The conditions and wording as per the original EA to be retained as is.

3 LEGISLATIVE REQUIREMENTS

The Amendment Report has been compiled in compliance with the National Environmental Management Act No. 107 of 1998 (NEMA) EIA Regulations 2014, as amended. Hartebeesthoek Wind Power (Pty) Ltd are applying for an amendment and split of the EA issued by the DEA (DEA Reference No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) in terms of Regulation 31 and 32 of the NEMA EIA Regulations. Regulation 31 of the NEMA EIA Regulations 2014, as amended states that:

'An environmental authorisation may be amended by following the process prescribed in this Part if the amendment will result in a change to the scope of a valid environmental authorisation where such change will result in an increased level or change in the nature of impact where such level or change in nature of impact was not-

(a) assessed and included in the initial application for environmental authorisation; or

(b) taken into consideration in the initial environmental authorisation;

and the change does not, on its own, constitute a listed or specified activity.'

In compliance with Regulation 32 of the NEMA EIA Regulations 2014, as amended the specialists assessed the proposed changes to the approved project description and highlighted the advantages and disadvantages of the proposed amendments, and finally provided further recommendations or mitigation measures if necessary.

Table 3.1: Legislative Requirements of the Amendment Report

Contents of the Amendment Report	Reference
32 (1) The applicant must within 90 days of receipt by the competent authority of the application made in terms of regulation 31, submit to the competent authority –	
(a) A report, reflecting –	

An assessment of all impacts related to the proposed change	Section 6: Specialist Assessment of the Proposed Amendments Volume II – Specialist Reports
Advantages and disadvantages associated with the proposed change;	Section 7: Advantages and Disadvantages of the Proposed Amendments
Measures to ensure avoidance, management and mitigation of impacts associated with such proposed change; and	Section 10: Recommendations and Conclusion
Any changes to the EMP.	Appendix B: EMPr
aa. Had been subjected to a Public Participation Process (PPP), which had been agreed to by the competent authority, and which was appropriate to bring the proposed change to the attention of potential and registered interested and affected parties, including organs of state, which have jurisdiction in respect of any aspect of the relevant activity, and the competent authority, and	Section 8: Public Participation
bb. Reflects the incorporation of comments received, including any comments of the competent authority.	Section 8: Public Participation

3.1 Authorised Listed Activities

The following listed activities were applied for and approved by the DEA. The listed activities will not change based on the amendments being applied for.

LISTING NOTICE	ACTIVITIES
LN 1 GN R327 ²	11(i); 14, 19 (i); 24 (ii); 56 (ii)
LN 2 GN R325 ³	1; 6; 9; 15.
LN 3 GN R324 ⁴	4 (a)(i)(bb) & (g)(bb)(ee); 12(g)(ii); 18 (a)(i)(bb)

3.2 DEA Comments on Draft Amendment Report

On 28 October 2019 the DEA submitted comments on the amendment report. The table below reflect the responses to the comments submitted by the DEA and also highlights the sections in the report, where these have been addressed.

No.	Comment from DEA	EAP Response	Section in Report
	The Environmental Authorisation (EA) issued for the above application by this Department on 28 June 2018 (14/12/16/3/3/2/1029); the Application for Environmental Authorisation (EA) and Draft Amendment report received by the Department on 26 September 2019 and the acknowledgement letter from the Department dated 15 October 2019, refer.		
	The application for amendment of the EA addresses the following:		
i.	The applicant, San Kraal Wind Power (Pty) Ltd intends to split the EA for 14/12/16/3/3/2/1029 into two smaller projects within the authorised boundary.		
ii.	In addition, the applicant intends to amend the following		
	a) Split of the authorised San Kraal WEF into two smaller projects within the authorised boundary i.e. San Kraal Split 1 and Hartebeesthoek East WEF Split 2;		
	b) Change the name and coordinates of the development;		
	c) Change to the holder of the Hartebeesthoek East WEF Split 2 to Hartebeesthoek Wind Power (Pty) Ltd;		
	d) Change Hub Height up to 137m, rotor diameter of 175m and turbine output of up to 6.2 MW;		
e)	Project output of up to 74.4MW;	The project output of the Hartebeesthoek East WEF is 124 MW. Comment (e) must be corrected to state the following: "Project output of up to 124 MW"	

² "Listing Notice 1 of the EIA Regulations, promulgated under Government Notice R983 of 4 December 2014, as amended by Government Notice R327 of 7 April 2017."

³ "Listing Notice 2 of the EIA Regulations, promulgated under Government Notice R984 of 4 December 2014, as amended by Government Notice R325 of 7 April 2017."

⁴ "Listing Notice 3 of the EIA Regulations, promulgated under Government Notice R985 of 4 December 2014, as amended by Government Notice R324 of 7 April 2017."

No.	Comment from DEA	EAP Response	Section in Report
	f) Turbine numbers reduced to 35 turbines and	The turbine number for the Hartebeesthoek East WEF was reduced to 20 turbines. Comment (f) must be corrected to state the following: "Turbine numbers is reduced to 20 turbines for Hartebeesthoek East WEF"	
	g) A new final layout.		
iii	The amendment is requested as the authorised technology is no longer the most efficient turbine model and it will ensure their project is amongst the forefront of technological advancements. The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 275 MW. The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 275 MW. Comment (iii) must be corrected to state the following: "The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 390 MW".	
iv.	There are no amendments being applied for in terms of the grid connection and associated infrastructure related to the original EA with reference number 14/12/16/3/3/2/1029.		
v.	Two Separate amendment applications and reports have been submitted to the Department in order to facilitate the split of the EA. The applications are currently registered with the Department as 14/12/16/3/3/2/1029/1/AM1 and 14/12/16/3/3/2/1029/2/AM1.		
<u>The Department has the following comments on the abovementioned application (14/12/16/3/3/2/1029/2/AM1):</u>			
a.	Please ensure that the following information as a minimum in terms of Regulation 32(1)(a) of the EIA Regulations, 2014:		
	<ul style="list-style-type: none"> an assessment of all impacts related to the proposed changes 	Specialists were requested to identify changes, if any, to the impact significance ratings, recommendations and mitigation measures contained in the previous EIA. These were assessed and provided in a report or letter by each specialist.	Section 6 and Volume II
	<ul style="list-style-type: none"> advantages and disadvantages associated with the proposed changes; 	Based on specialist assessments, the advantages and disadvantages is provided in a table.	Section 7 and Volume II
	<ul style="list-style-type: none"> measures to ensure avoidance, management and mitigation of impacts associated with such proposed change in turbine specification and any other components proposed for amendment; 	Revised mitigation measures was recommended by the Heritage and Avifauna specialist, this was considered and changes was implemented before drafting the Draft Amendment Report.	Section 6.5 and Section 6.7.
	<ul style="list-style-type: none"> any changes to the EMPr subsequent to additional mitigation recommendations by the specialist studies for the proposed project specifications. 	Changes to the EMPr was based on revised mitigation measures from the Avifauna and Heritage specialist report.	Section 9 and Appendix B

No.	Comment from DEA	EAP Response	Section in Report
b.	Please ensure that you submit a Layout Plan as authorised with the EA, as well as the Layout Plan for the proposed amendments.	Layout plan as authorised with the EA and the layout plan for the proposed amendments is presented in figures attached to this report.	Figure 1.1; Figure 2.1; Figure 5.1.
c.	Please ensure that the final reports must include a motivation specific to the proposed amendment. The report must contain all necessary that is relevant to the changes applied for.	A descriptive motivation is provided in the Amendment Report.	Section 5
d.	The EAP must provide confirmation that the proposed amendment or and the changes does not, on its own, constitute a listed or specified activity in terms of the EIA Regulations, 2014 as amended;	No further listed activity is triggered by the proposed amendments. The listed activities as provided in this report are those activities already authorised.	Section 3.1
e.	Please ensure that a list of registered interested and affected parties as per Regulation 42 of the NEMA EIA Regulations, 2014, as amended is provided;	The list of registered interested and affected parties has been updated and is included as per Regulation 42 of the NEMA EIA Regulations, 2014, as amended.	Appendix D
f.	Please ensure that copies of original comments received from I&APs and organs of state, which have jurisdiction in respect of the proposed activity are submitted to the Department with the final Amendment Report. Kindly ensure that the Square Kilometer Array (SKA) comments and comments from this Departments Biodiversity and Conservation Directorate are included in the document.	All original comments received from organs of state and from I&APs in respect of the proposed activity have been included in this final submission for authorisation. Where comments were not received from an organ of state within the comment period, the EAP followed up to request comment. Proof of this correspondence is also included in this final submission.	Appendix G and Appendix H
g.	Proof of correspondence with the various stakeholders, including organs of state which have jurisdiction in respect of the proposed activity, must be included in the final Amendment Report. Should you be unable to obtain such comments, proof should be submitted to the Department of the attempts that were made to obtain the comments.	Proof of all correspondence during the amendment application process is included in this final amendment report submission.	Appendix G and Appendix H
h.	All issues raised and comments received during the circulation of the draft Amendment Report from I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final amendment report, including comments from this Department, and must be incorporated into a Comments and Response Report;	All issues raised and comments received during the comment period have been included in this report and responded to where applicable. The comments and response table has been updated to reflect this.	Appendix H

No.	Comment from DEA	EAP Response	Section in Report
i.	All comments from I&APs must be adequately responded. Please note that a response such as "noted" is not regarded as an adequate response to an I&AP's comments	The EAP has not summarised any comments received. All comments included in the comments and response table, are included as they were received. Copies of the comments received have also been included to ensure that nothing has been misrepresented.	Appendix G and Appendix H
j.	The requirements of the acknowledgement letter 15 October 2019 must also be fulfilled.	The requirements included in the acknowledgement letter dated 15 October 2019 have been fulfilled.	
k.	The Department requires that you clearly indicate which conditions in the EA are applicable to the above project i.e. 14/12/16/3/3/2/1029/2/AM1. Ensure that the Environmental Management Programme (EMPr) has mitigations and measures applicable only to the abovementioned project as well.	The EAP has indicated which condition in the original EA are applicable to this project. The EMPr contained the mitigation measures applicable to this project.	Section 2.1
l.	Please ensure that confirmation must be obtained from all the specialists that undertook studies from the original EIA process that there will be no new impacts that will arise from the proposed amendments. The specialists used as part of the original EIA process must provide comment.	The team of specialists to support the project team are the same as the original specialists. The only new specialist is the bat specialist. Each specialist reviewed the amendments to the authorised development and provided an opinion and assessment of the changes. Where necessary, additional site work was conducted in order to assess the potential impacts of the proposed amendments.	Section 6 and Volume II
m.	Further, clearly indicate whether conditions for the grid infrastructure are to be removed in entirety or retained to some extent. It would be best to list which conditions of the EA are relevant to amendment process.	Clarification is provided within this Final Amendment Report.	Section 2.1
n.	You are requested to submit one (1) unprotected electronic copy (1 USB) and one (1) hard copy of the final Amendment Report to the Department. Please ensure that this copy contains an electronic version of the amendment application form.	One USB and one hard copy of the final report is submitted. The amendment application form has been included as requested.	
You are also advised to comply with the requirements of the Regulations 32 of the EIA Regulations 2014, as amended.		The EAP has complied with the requirements of the Regulations 32 of the EIA Regulations 2014, as amended.	

No.	Comment from DEA	EAP Response	Section in Report
	Further note that in terms of Regulation 45 of the EIA Regulations 2014, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of these Regulations, unless an extension has been granted in terms of Regulation 3(7).	This is acknowledged and the EAP will ensure that the final report is submitted within the regulated timeframes.	
	You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.	The applicant has been made aware of the Section 24F of NEMA, 1998, as amended.	

4 THE PROJECT TEAM

The coordination and management of this amendment application process is being conducted by Arcus Consultancy Services South Africa (Pty) Ltd ('Arcus') with the lead EAP being Ashlin Bodasing. Refer to Appendix A for the EAP's Declaration of Interest and Curriculum Vitae.

Ashlin Bodasing

Qualifications Bachelor of Social Science (Geography and Environmental Management)

Experience 14
in Years

Experience Ashlin Bodasing is the Technical Director at Arcus, located in Cape Town. Having obtained her Bachelor of Social Science Degree from the University of Kwa-Zulu Natal; she has over 14 years' experience in the environmental consulting industry in southern Africa. She has gained extensive experience in the field of Integrated Environmental Management, environmental impact assessments and public participation. She has also been actively involved in a number of industrial and infrastructural projects, including electricity power lines and substations; road and water infrastructure upgrades and the installation of telecommunication equipment, greenfield coal mines, as well as renewable energy facilities, both wind and solar. Ashlin has major project experience in the development of Environmental Impact Assessments, Environmental Management Plans and the monitoring of construction activities. Her areas of expertise include project management, environmental scoping and impact assessments, environmental management plans, environmental compliance monitoring and environmental feasibility studies. Experience also includes International Finance Corporation Performance Standards and World Bank Environmental Guidelines environmental reviews. She has worked in Mozambique, Botswana, Lesotho and Zimbabwe.

Aneesah Alwie

Qualifications Bachelor of Science (Environmental and Water Science)

Experience 6
in Years

Experience Aneesah Alwie is a Junior Environmental Consultant at Arcus. Having obtained her Bachelor of Science Degree (Environmental and Water Science) from the University of the Western Cape; she has over 8 years public relations experience in conjunction with 6 years' experience as support to a technical team. Aneesah offers administrative and technical support to ensure that projects are completed in time and within budget. Key qualifications as the administrative assistant is that she excels in multitasking, data capturing, GIS assistance, communication and organizational skills, problem-solving and attention to detail. Her excellent organisational skills and extensive experience in support

to project managers enables smooth flow of the assigned project duties and meeting project deadlines. Aneesah now also manages assistance in the concise and accurate operation of the public participation processes for projects.

Arcus is a specialist environmental consultancy providing environmental services to the renewable energy market. Arcus has advised on over 150 renewable energy projects with in-house specialist services and environmental management, in South Africa and the United Kingdom.

4.1 Specialist Input

The team of specialists to support the project team are the same as the original specialists (see Table 4.1 below). The only new specialist is the bat specialist⁵. Each specialist reviewed the amendments to the authorised development and provided an opinion and assessment of the changes. Where necessary additional site work was conducted in order to assess the potential impacts of the proposed amendments.

Table 4.1: Specialist Team

Technical Discipline	Specialist Organisation	Lead Specialist
Aquatic / Freshwater	Enviro Sci	Brian Colloty ⁶
Bats	Arcus	Jonathan Aronson
Bats External Review	Private Consultant	Monika Moir
Avifauna	Chris van Rooyen Consulting	Chris van Rooyen
Ecology (Fauna and Flora)	3foxes	Simon Todd
Cultural Heritage	ACO Associates cc	Tim Hart
Noise	Enviro Acoustic Research cc	Morné de Jager
Social	Tony Barbour	Tony Barbour
Agriculture and Soils	Agricultural Research Council – Soil, Climate and Water	Garry Paterson
Traffic	SMEC South Africa (Pty) Ltd	Charlotte Xhobiso
Visual Impact	SiVEst	Andrea Gibb

5 MOTIVATION FOR THE PROPOSED AMENDMENT

The authorised turbine model with specifications of 150 m hub height and 150 m rotor diameter is no longer the preferred wind turbine technology. The applicant, therefore, wants to amend the authorised turbine specifications to reduce the number of turbines and to change the hub height to up to 137 m and the rotor diameter to up to 175 m to facilitate the most efficient turbine model and to further future proof the project amidst rapid technology developments.

From the authorised application, Hartebeesthoek Wind Power (Pty) Ltd intended to bid and develop the Hartebeesthoek East WEF under the Department of Energy's REIPPPP. For Hartebeesthoek to meet the bidding requirements, the applicant proposed to split the authorised San Kraal WEF into two smaller wind farms (namely San Kraal Split 1 WEF and Hartebeesthoek East WEF).

⁵ The original specialist, Animalia (Werner Marais) no longer conducts bat assessments and therefore a new specialist was appointed.

⁶ Brian Colloty was the original specialist, but this was under another company, he no longer works for that company.

The split of the authorised San Kraal WEF will see fewer turbines being erected and the maximum authorised capacity (390 MW) will not be exceeded. The MW per WTG of the authorised San Kraal WEF would be increased, and fewer turbines will be built (fewer turbines with increased MW would be less than or equal to the overall authorised 390 MW).

The authorised layout has been updated due to the project split and reduction in the number of proposed wind turbines, from 78 to 20 turbines, for the Hartebeesthoek East WEF (Figure 5.1).

The findings and assessment of the authorised San Kraal WEF (Arcus, 2018) indicated that renewable energy is strongly supported at a national, provincial and local level. Therefore, the need and desirability of the authorised San Kraal WEF (Arcus, 2018) remain valid.

The development of and investment in renewable energy is supported by the National Development Plan (NDP), New Growth Path Framework and National Infrastructure Plan, which all make reference to renewable energy. At a provincial level, the development of renewable energy is supported by the Northern Cape Provincial Growth and Development Strategy and Northern Cape Provincial Spatial Development Framework, as well as the Eastern Cape Provincial Development Plan (2014) and the Eastern Cape Climate Change Response Strategy.

The establishment of the proposed WEF and the other renewable energy facilities in the Umsobomvu Local Municipality (ULM) and Inxuba Yethemba Local Municipality (IYLM) may place pressure on local services, specifically medical, education and accommodation. This pressure will be associated with the potential influx of workers to the area associated with the construction and operational phases of renewable energy projects proposed in the area, including the proposed WEF. The potential impact on local services can be mitigated by employing local community members.

In addition, as indicated below, this impact should also be viewed within the context of the potential positive cumulative impacts for the local economy associated with the establishment of renewable energy as an economic driver in the area.

The establishment of the proposed WEF and other renewable energy projects in the area also has the potential to create a number of socio-economic opportunities for the ULM and IYLM, which, in turn, will result in a positive social benefit. Figure 5.2 shows the WEF site and a 35km radius and reflect any renewable energy projects within this radius. The positive cumulative impacts include the creation of employment, skills development and training opportunities, creation of downstream business opportunities. The Community Trusts associated with each project will also create significant socio-economic benefits.

6 SPECIALIST ASSESSMENT OF THE PROPOSED AMENDMENTS

The previous EIA conducted by Arcus in 2018 assessed the potential impacts of developing the original San Kraal WEF using specialist input. The same methodology was utilised during this EA Amendment process.

The San Kraal WEF Final EIA Report (Arcus, March 2018) concluded that there are no negative high residual impacts, including potential cumulative impacts associated with the proposed development.

During the current EA Amendment application process specialists were requested to identify changes, if any, to the impact significance ratings, recommendations and mitigation measures contained in the previous EIA. Extracts and summaries from specialist letters and reports provided during this EA Amendment application process are provided below. Specialist EA Amendment letters and reports are provided in Volume II.

6.1 Agricultural Potential and Soils

The original soil specialist study was completed in 2016, and for that study, a single larger study area was assessed.

The proposed amendments to the turbine specifications, layout, and the proposed HBH East study area falls within the area originally assessed area. Therefore, the findings of the original report on soils and agricultural potential will remain **unchanged**, specifically:

- The impacts that were identified and the significance ratings assessed as Medium to Low; and
- The impact management and/or mitigation measures.

The likelihood of cumulative impacts is small. Only if other developments (whether wind farms or not) were to occur, using the same access roads and thereby increasing potential soil erosion aspects, would cumulative impacts need to be considered.

Table 6.1: Agricultural Potential and Soils Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Loss of Agricultural land	Low	Low	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Neutral	Medium	High	High
Increased soil erosion hazard	Low	Medium	Medium	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Neutral	Medium	High	High
Operational Phase							
Loss of Agricultural land	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Neutral	Low	Low	High
Increased soil erosion hazard	Low	Medium	Medium	Negative	Medium	Medium	High
With Mitigation	Low	Low	Low	Neutral	Low	Low	High

No further recommendations were provided regarding soil impacts of the proposed development.

6.2 Aquatic

When considering the authorised development and the proposed amendment, the amendment will make use of an existing track/road network, and any new watercourse crossings will be subject to a separate basic assessment process. The original aquatic impact assessment for the San Kraal project was submitted in 2016 and will remain **unchanged**, although the amendment review was conducted with the following requirement updates, post-2016.

- Macfarlane *et al.*, (2017) Wetland and Rivers Buffers model was utilised in this assessment/review of the proposed amendments. Using this new buffer model, a buffer of 18m was determined for all the watercourses, but the 32m indicated in the 2016 report was retained; and
- Cumulative impact assessment.

With these in mind, the findings of the aquatic assessment can be upheld, especially considering that the modelled buffers are less than those originally prescribed. The final impact of the proposed layout on the aquatic environment with suitable stormwater

management and improvement of current water courses crossings will remain low for all impacts assessed.

Table 6.2: Aquatic Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Loss of riparian systems and watercourses during	Low	Medium	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Increase in sedimentation and erosion within the development footprint during the construction phase and to a lesser degree the operational phase	Low	Medium	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Impact on localised surface water quality	Low	Low	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Operation Phase							
Impact on riparian systems through the possible increase in surface water runoff from hard surfaces and or new road crossings on riparian form and function	Low	Low	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Increase in sedimentation and erosion within the development footprint during the construction phase and to a lesser degree the operational phase	Low	Medium	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Cumulative Phase							
Overall cumulative impact during the construction and operational phases	Low	Medium	Low	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High

In the updated assessment of potential cumulative impacts, no additional impacts or changes to the previously assessed impacts would be required due to the proposed amendment. This is also based on the consideration that the number of roads has been consolidated in this application while keeping the new watercourse crossings away from wide/main stem watercourses, and well away from any known wetlands within the region (closest 1.1 km away). Lastly, there are no changes to the original mitigations or EMP considerations required.

6.3 Ecology

In terms of a comparative assessment of the approved layout and the current amended layout, there are no differences in impact associated with the proposed change. The original extent of new access roads is estimated at 52.7 km, and the combined length of the access roads required on the new amended layout, of San Kraal Split 1 and Hartebeesthoek East WEF, is 57.6 km. The total extent of the roads required for the combined layouts is estimated to increase by less than 10%. Furthermore, the larger turbines are expected to require somewhat larger hardstands and laydown areas, with the result that the footprint of each turbine could potentially increase. However, the total number of turbines would decrease from 78 to 20, with the result that this is likely to offset any increase in the required footprint and the total extent of habitat loss. Therefore impacts resulting from the turbines would remain similar. The assessed impacts are considered robust and conservatively assessed, with the result that the increase is not substantive and would not increase any of the assessed impacts to a higher significance. As such, there are no changes in the assessed impacts associated with the split of the San Kraal project into the two projects as proposed.

In terms of impact on CBAs, the original layout had a total of 8 turbines within CBAs, whereas under the amended layout, only 5 turbines are within the CBA, none which falls in the Hartebeesthoek East site boundary. The impact of the amendment on CBAs would be similar or lower than the original approved layout. The lower number of turbines in the CBA is seen as a positive, albeit minor improvement of the amendment over the original layout with regards to the potential impact on CBAs. As such, no increase in impacts on CBAs associated with the amendment can be expected (Figure 6.1).

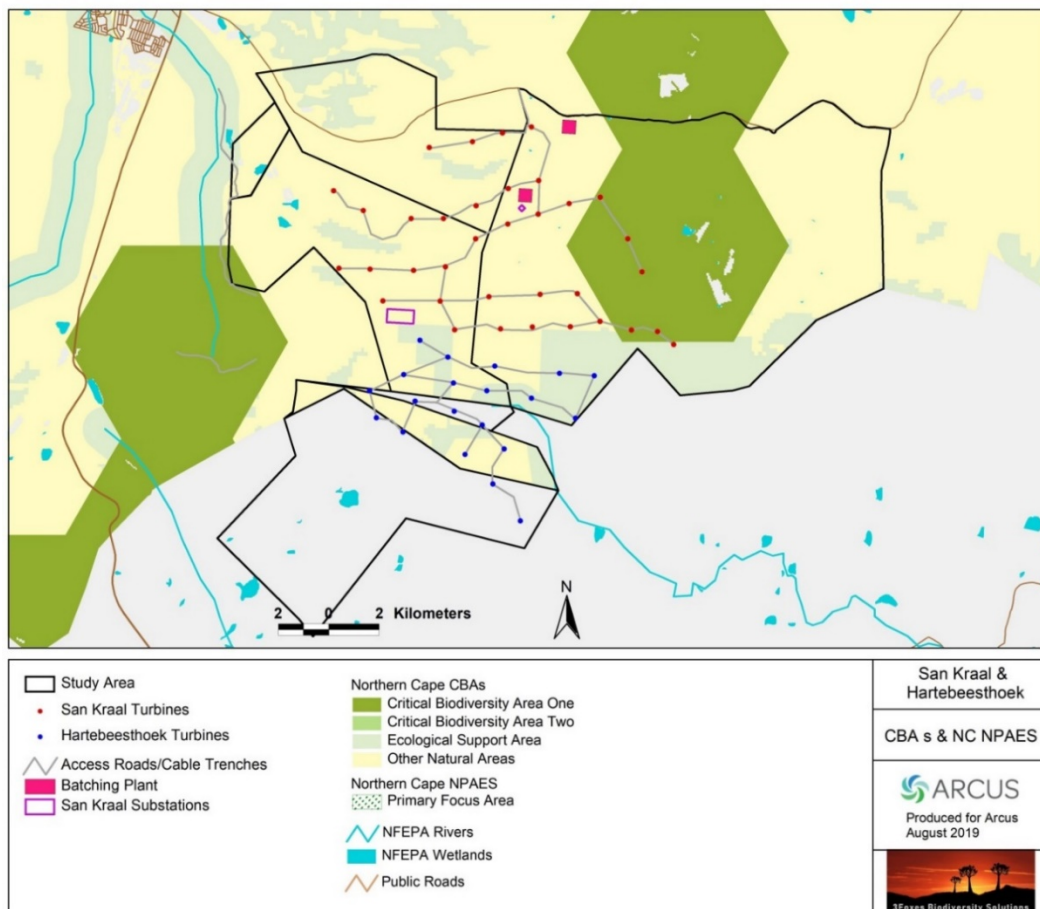


Figure 6.1: Hartebeesthoek East and San Kraal Split 1 Ecological Sensitivity

The assessed impacts following the split of San Kraal WEF are similar, and there are no significant differences in impact between the authorised 78 turbine facility and the proposed amendment. The assessment for the San Kraal Wind Energy Facility, before and after mitigation, and the amended turbine layout **remains the same** before and after mitigation (Table 6.3).

Table 6.3: Ecological Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Impacts on vegetation and listed or protected plant species resulting from construction activities	Low	High	High	Negative	High	High	High
With Mitigation	Low	Medium	Low	Negative	Medium	High	High
Faunal impacts due to construction-phase noise and physical disturbance	Low	Medium	High	Negative	Medium	High	High
With Mitigation	Low	Medium	Low	Negative	Medium	High	Medium
Operation Phase							
Faunal impacts due to operational activities	Low	Medium	Medium	Negative	Medium	High	High
With Mitigation	Low	Medium	Low	Negative	Low	Low	Medium
Soil Erosion Risk	Low	High	High	Negative	High	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Alien Plant Invasion	Low	High	Medium	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Impact on Critical Biodiversity Areas and Broad-Scale Ecological Processes	Medium	High	Medium	Negative	High	High	High
With Mitigation	Low	High	Medium	Negative	Medium	High	High
Decommissioning Phase							
Faunal impacts due to decommissioning phase activities	Medium	Low	High	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Medium	High
Following decommissioning, the site will be highly vulnerable to soil erosion	Medium	High	Medium	Negative	High	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Faunal impacts due to decommissioning phase activities	Medium	Low	High	Negative	Medium	High	High
With Mitigation	Low	Low	Low	Negative	Low	Medium	High

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Alien Plant Invasion following decommissioning	Medium	High	Medium	Negative	High	High	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High

From an ecological perspective, the changes associated with the amendment, as increasing the impact associated with the development. In addition, cumulative impacts associated with the amendment would be similar to the assessed impacts and are considered acceptable.

The original conclusions regarding the positive acceptability of the development are therefore also upheld for the amendment, and no additional mitigation or avoidance measures are required for the amended layout.

6.4 Bats

The newly appointed bat specialist for the amendment assessment conducted a literature review on bats and wind energy impacts with a focus on the relationship between turbine size and bat fatality. In addition, the pre-construction bat monitoring report for the original San Kraal WEF was reviewed, along with the current bat sensitivity buffers. The original monitoring was conducted between July 2015 and September 2016.

Of the impacts identified in the EIA, only mortality of species due to collision with turbine blades or due to barotrauma, and cumulative impacts are relevant to this amendment. The significance of all other identified impacts on bats associated with the development will remain the same as per the original bat assessment report for San Kraal WEF. The potential collision impact to bats, as well as the potential cumulative impacts, are currently rated as high before, and medium after mitigation. The primary mitigation measures are avoiding sensitive areas for bats and curtailment. However, even though changes to the turbine dimensions are proposed, which may impact bats, the impact ratings **will not change** from high before mitigation and medium after mitigation. The only change required is to update the sensitivity map, which has been done. Sensitive areas were defined as either high (with a 200 m buffer) or moderate (with a 100 m buffer). The current turbine layout adheres to these buffers, with no turbines located within them.

No bat activity data are available in the area between the heights of 10 m and 80 m or over 80 m, because activity at these heights was not monitored. Despite the available pre-construction monitoring data showing that bat activity at 80 m is low, it would be preferential to maximise the distance between the ground and blade tips by using turbines with the shortest possible blades and the highest possible hub height. This would reduce the number of species potentially impacted upon by turbine blades during the operation phase. It would also be preferential to use shorter blades so that they don't intrude into higher airspaces and in doing so reduces the potential impact to high flying species such as free-tailed bats. Despite the low activity at height, increasing evidence suggests that bats actively forage around wind turbines (Cryan et al. 2014; Foo et al. 2017), so the installation of turbines in the landscape may alter bat activity patterns, either by increasing activity at height and/or increasing the diversity of species making use of higher airspaces.

No additional mitigation measures are required, and as such, no changes to the EMPr are required either.

Table 6.4: Bat Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Destruction of bat roosts due to earthworks and blasting	Medium	Low	High	Negative	Medium	Medium	High
With Mitigation	Low	Low	Medium	Negative	Low	Low	High
Loss of foraging habitat	Low	High	Low	Negative	Medium	Medium	High
With Mitigation	Low	Medium	Low	Negative	Low	Low	High
Operation Phase							
Bat mortalities due to direct blade impact or barotrauma during foraging activities (not migration)	Low	High	High	Negative	High	High	High
With Mitigation	Low	High	Low	Negative	Medium	Medium	High
Artificial Lighting	Low	High	Medium	Negative	Medium	High	High
With Mitigation	Low	High	Low	Negative	Low	Low	High

6.5 Avifauna

A re-assessment of the potential turbine collision impact was carried out given the potential changes to the turbine specifications, in light of the proposed amendment and in order to establish if the original pre-mitigation assessment by Van Rooyen *et al.* (2017) and the original mitigation measures need to be revised.

While the increase of 36.11 % in rotor swept area per turbine (from ~17 671 m² to ~24 052 m²) was considered significant, it was also recognised that the 29 % reduction in the planned maximum number of turbines (from 75 to 55) for the combined area reduces the potential impact of the larger turbines significantly, given the fact that fewer, larger turbines are preferable to more, smaller turbines. It is therefore concluded that the original pre-mitigation impact significance ratings are not affected by the proposed changes in the turbine numbers and dimensions.

The mitigation measures originally proposed for the San Kraal WEF by Van Rooyen *et al.* (2017) needed to be revisited, based on the "Best Practice Guidelines for Avian Monitoring and Impact Mitigation at Proposed Wind Energy Development Sites in Southern Africa", (Jenkins *et al.* 2011 as revised in 2015). This re-assessment was necessary in order to take cognisance of any changes in the environment, which may affect the risk to avifauna and to incorporate the latest available knowledge into the assessment of the risks. In order to give effect to this requirement, nest searches were repeated in June 2019 to ensure up to date information on the breeding status of priority species at the proposed Hartebeesthoek East WEF. However, no nests were discovered, which will be directly impacted by the proposed WEF.

Given the proposed changes to the turbine specifications and numbers, a re-assessment of the potential collision impact was carried out for the proposed amendment, in order to establish if the original pre-mitigation significance rating proposed by Van Rooyen (2017) should be revised. While the increase of 36.11% in rotor swept area per turbine was considered significant, it was also recognised that the 29% reduction in the planned maximum number of turbines for the combined area reduces the potential impact of the larger turbines significantly, given the fact that fewer, larger turbines are preferable to more, smaller turbines.

It is therefore concluded that the original pre-mitigation impact significance ratings are not affected by the proposed changes in the turbine numbers and dimensions and will remain **unchanged**. No new mitigation measures are required in addition to the mitigation originally proposed by Van Rooyen et al. 2017.

Table 6.5: Avifaunal Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Displacement of priority species due to construction activities at the wind development area	Low	Low	Medium	Negative	Medium	High	Medium
With Mitigation	Low	Low	Low	Negative	Medium	Medium	Medium
Operation Phase							
Direct mortality of priority species due to electrocution associated with the internal medium voltage MV powerline at the wind development area	Low	Medium	Medium	Negative	Medium	High	High
With Mitigation	Low	Medium	Medium	Negative	Low	Low	High
Displacement of priority species due to habitat destruction at the wind development site	Low	High	Low	Negative	Medium	Medium	Medium
With Mitigation	Low	High	Low	Negative	Low	Low	Medium
Direct mortality of priority species due to collisions with the turbines at the wind development area	Low	Medium	Medium	Negative	Medium	High	Medium
With Mitigation	Low	Medium	Low	Negative	Low	Low	Low
Decommission Phase							
Displacement of priority species due to dismantling activities at the wind development area	Low	Low	Medium	Negative	Medium	High	Medium
With Mitigation	Low	Low	Low	Negative	Medium	Medium	Medium
Cumulative Phase							
Overall Impacts	Medium	Medium	Medium	Negative	Medium	High	High
With Mitigation	Medium	Medium	Low	Negative	Low	Low	Medium

6.6 Noise

The environmental noise impact assessment (ENIA) indicated that the noise impact would remain of medium significance on one potential noise-sensitive development (NSD) in the area during the construction phase, mainly due to night-time construction of the Option 1

overhead line, and of low significance on all the potential noise-sensitive developments (NSDs) in the area during the operational phase, using the Acciona AW125/3000 wind turbine for all operational wind speeds (generating 108.4 dBA) – maximum noise level less than 38.1 dBA at all NSDs.

The applicant is proposing the split of the San Kraal WEF into two smaller wind farms, namely the San Kraal Split 1 and Hartbeesthoek East wind farms (separate amendment application process). The ENIA for the split specifically addressed the following proposed changes in the wind turbine details, including:

- A hub height of 137 m with a rotor diameter of 175 m; and
- Increasing the turbine output to 6.2 MW per turbine.

The change, however, does not move any wind turbines closer than 1,000 m to any identified NSDs and will reduce the number of wind turbines. Considering the proposed changes to the layout, wind turbine specifications and the turbine output, it is the specialists' opinion that the change will not increase or change the significance of the noise impact.

A full noise impact assessment with new modelling was not required, and the recommendations as contained in the previous document are valid. This recommendation is based on the outcome of the report, which indicated that the extent of the potential impact is limited to 1, 000 m from the closest wind turbines.

The impacts, significance, findings and the recommendations of the ENIA report, 2017 will **remain the same**, i.e. medium significance during the construction phase, with mitigation measures to minimise impact and low during the operation phase. While this project will have a very slight noise impact at a number of the closest noise-sensitive receptors, these impacts are of low significance (including the construction of OHL with mitigation) and can be considered insignificant. Similarly, there is no risk of a cumulative noise impact. Furthermore, it was not required to do any additional, or other acoustic studies for the proposed changes and no mitigation measures are recommended for inclusion in the EMPr and conditions to be included in the EA remains as per the 2017 report.

Table 6.6: Noise Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Daytime construction of the Access Roads	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Night-time construction of the Access Roads	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Noise from daytime construction traffic	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Noise from night-time construction traffic	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Daytime construction of Wind Turbines	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Night-time construction of Wind Turbines	Low	Low	Low	Negative	Low	Low	High
With Mitigation	Low	Low	Low	Negative	Low	Low	High
Operation Phase							
Daytime operation of Wind Turbines	Low	Medium	Low	Negative	Low	Low	High
With Mitigation	Low	Medium	Low	Negative	Low	Low	High
Night-time operation of Wind Turbines	Medium	Medium	Low	Negative	Low	Low	High
With Mitigation	Medium	Medium	Low	Negative	Low	Low	High
Cumulative Phase							
Daytime operation of Wind Turbines	Low	Medium	Low	Negative	Low	Low	High
With Mitigation	Low	Medium	Low	Negative	Low	Low	High
Night-time operation of Wind Turbines	Medium	Medium	Low	Negative	Low	Low	High
With Mitigation	Medium	Medium	Low	Negative	Low	Low	High

6.7 Heritage

A site visit was conducted by ACO from the 8 - 11 April 2019 to assess the new WTG layout and cable/road alignment for heritage impacts. Time constraints meant that only the north-eastern portion of the Hartebeesthoek East WEF could be revisited to assess the WTG layout and cable/road alignment for heritage impacts. While it was not possible to survey all project components within the study area, the combined overall coverage of the 2017 and 2019 surveys was good. The 2017 ACO survey for the original San Kraal WEF covered most of the footprint of the Hartebeesthoek East WEF and provided a good baseline understanding of the archaeological potential of the affected area, which is generally very low. The confidence in the findings is thus high.

The proposed amendments of the Hartebeesthoek East WEF relevant to archaeological resources are a reduction in the number of wind turbine generators (WTG) from the authorised 78 to 20 for this proposed development; and the adjustment of turbine, network cable and road layout within the WEF.

The 2017 survey of the San Kraal WEF indicated that there were very few archaeological sites on the Kikvorsberge. This tends to confirm what has proved to be the case across the Karoo: that high ridges, which are dry, windswept and very cold in winter, seldom attracted more than passing prehistoric human occupation. Unless there is a rock shelter, a source of water or of stone raw material, these areas are not likely to be archaeologically sensitive.

The 2017 archaeological field survey identified 11 sites within the proposed footprint of the Hartebeesthoek East WEF, all of which are historical period buildings, kraals and ruins. These sites fall into two main clusters: a large historical kraal complex (JR008-012, JG013-014) and a smaller kraal complex (JR013-015). JG015 is a rough stone cairn, possibly a boundary marker. No pre-colonial sites were identified within the Hartebeesthoek East WEF.

After consultation with the South African Heritage Resources Agency (SAHRA) case officer, the intention of the 2019 field survey for the Hartebeesthoek East WEF was to concentrate

on visiting new WTG locations that were more than 150 m from any position covered by the 2017 survey. The 2019 field survey found no archaeological sites located in that portion of the Hartebeesthoek East WEF. None of the sites now within the Hartebeesthoek East WEF and identified by the 2017 San Kraal HIA were assessed as likely to be impacted by the construction of that WEF.

An assessment of the impact of the proposed amendments to palaeontological resources was not conducted as part of the EA Amendment applications as the existing study, done by Dr. John Almond, October 2017, for the authorised San Kraal WEF is still considered to be valid. Dr. John Almond ('Almond') has taken impact assessments in the area for the Noupport Wind Farm to the East and bordering directly on the San Kraal parcel. The specialists also undertook the San Kraal and Phezukomoya assessment, all of which involved broad field work components prospecting any likely areas outside and within the land parcels involved. This is undertaken to find locales where the underlying palaeontology may be exposed and visible which is not always the case in the actual project areas themselves. Almonds conclusions were therefore based on a solid desktop knowledge of the local geology and palaeontology, reinforced by field observation. The palaeontological finds on the three large land parcels that was surveyed are minimal due to the depleted nature of the mountain-top Katberg deposits, and all the finds made have been on the sides of slopes and gullies where mud strata are exposed. It is based on the general geology of the area that Almonds recommendations and conclusions are derived. The geology throughout the original and amended project areas are similar – the same formations are involved. The land parcels have been well-covered and considered in the original project areas and therefore the original conclusions and recommendations for the authorised San Kraal WEF should continue to stand and be adhered to for the amendment process.

Table 6.7: Heritage Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Impacts to Archaeological Heritage	Low	High	Low	Negative – Neutral	Low	Low	High
With Mitigation	Low	High	Low	Negative – Neutral	Low	Low	High
Impacts to Colonial Period Heritage	Low	Low	Low	Negative – Neutral	Low	Low	High
With Mitigation	Low	Low	Low	Negative – Neutral	Low	Low	High
Impacts to cultural landscape and setting	Low	Medium	Medium	Negative	Medium	Medium	High
With Mitigation	Low	Medium	Medium	Negative	Medium	Medium	High
Palaeontological Heritage Impact							
Impacts to Palaeontology	Low	High	Medium	Negative	Medium	Medium	High
With Mitigation	Low	High	Low	Neutral – Pos	Low	Low	High
Operation Phase							
Impacts to cultural landscape and setting	Low	Medium	Medium	Negative	Medium	Medium	High

With Mitigation	Low	Medium	Medium	Negative	Medium	Medium	High
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Possible impacts of the proposed WEF on archaeological heritage resources were determined to be of tolerable and generally of low significance and does not change from the original assessment. Based on the comparative assessment of impacts, the cumulative impact assessment made in the 2017 HIA (Hart *et al*, 2017a) remains valid for the revised Hartebeesthoek East WEF: cumulative impacts will be of low consequence for WEFs and tolerable for solar PV facilities with their more intensive impacts on the land within their footprints.

The overall impact of the construction of the Hartebeesthoek East WEF is tolerable and generally of low significance and, from a heritage perspective, the proposed amendments are considered acceptable.

6.8 Visual

Baseline information for this amendment report is largely drawn from the original VIA which was based on a desktop-level assessment supported by field-based observation.

Given that the proposed Hartebeesthoek East WEF is located within the project area already assessed for the original San Kraal WEF, it was not considered necessary to undertake any additional fieldwork. Only one of the twenty (20) turbines proposed for the Hartebeesthoek East WEF is located within the zone of 'medium-high sensitivity', and as such the proposed amended layout for the Hartebeesthoek East WEF is considered to be acceptable from a visual perspective.

Table 6.8: Visual Impact Assessment of the Original Application

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Impact on access roads	Medium	Low	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Low	Medium	Negative	Medium	Medium	Medium
Impact on cabling	Medium	Low	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Low	Medium	Negative	Medium	Medium	Medium
Operation Phase							
Impact on access roads	Medium	Medium	High	Negative	Medium	High	Medium
With Mitigation	Medium	Medium	Medium	Negative	Medium	High	Medium
Impact on cabling	Medium	Medium	Medium	Negative	Medium	High	Medium
With Mitigation	Medium	Medium	Medium	Negative	Medium	High	Medium
Cumulative Phase							
Construction Phase	Medium	Medium	High	Negative	Medium	High	Medium
With Mitigation	Medium	Medium	Medium	Negative	Medium	Medium	Medium
Operation Phase	Medium	Medium	Medium	Negative	Medium	High	Medium
With Mitigation	Medium	Medium	Medium	Negative	Medium	High	Medium

Table 6.9: Updated Visual Impact Assessment based on the Amendments

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Impact on access roads	Medium	Low	Medium	Negative	Medium	Medium	Medium

With Mitigation	Medium	Low	Low	Negative	Low	Medium	Medium
Impact on cabling	Medium	Low	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Low	Low	Negative	Low	Medium	Medium
Operation Phase							
Impact on cabling	Low	Medium	Low	Negative	Low	Low	Medium
With Mitigation	Low	Medium	Low	Negative	Low	Low	Medium

The assessment revealed that impacts associated with the proposed Hartebeesthoek East WEF would be of moderate significance during both construction and decommissioning phases. This could, however, be reduced to low with the implementation of mitigation measures. During operation, visual impacts from the WEF would be of moderate significance with relatively few mitigation measures available to reduce the visual impact. Visual impacts associated with the WEF on-site infrastructure during operation would be of low significance, and cumulative impacts have been rated as medium.

Proposed changes to the authorised WEF development do not give rise to additional visual impacts or exacerbate the impacts previously identified in respect of the original San Kraal WEF.

6.9 Social

From a social perspective, the only material change to the previous project design is the reduction in the number of wind turbines from 78 to 20 and the changes to the technical specifications for the wind turbines. The relocation of some wind turbines to ensure that they fall outside of the constraints areas will not impact on the findings of the SIA undertaken in 2017-2018.

The wind turbines are located on properties owned by three landowners, namely:

- Umsobomvu Local Municipality - 9 wind turbines;
- Mr Erasmus - 6 wind turbines; and
- Mr Taljard - 5 wind turbines.

The findings of the 2018 SIA indicated that the development of the proposed San Kraal WEF would create employment and business opportunities for locals during both the construction and operational phase of the project. The establishment of a Community Trust will also benefit the local community. The potential negative social impacts could also be effectively mitigated. The proposed development also represented an investment in clean, renewable energy infrastructure, which, given the negative environmental and socio-economic impacts associated with a coal-based energy economy and the challenges created by climate change, represents a significant positive social benefit for society as a whole. The findings of the SIA also indicated that the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) has resulted in significant socio-economic benefits, both at a national level and at a local, community level. These benefits are linked to Foreign Direct Investment, local employment and procurement and investment in local community initiatives.

The significance ratings for the cumulative impacts associated with the Part 2 Amendment Hartebeesthoek East are the same as those for the original San Kraal WEF (SIA January 2018), namely:

- Cumulative impact on sense of place - Medium Negative;
- Cumulative impact on services - Low Negative; and
- Cumulative impact on local economies - High Positive.

The Hartebeesthoek East WEF is located in a proven high wind resource area. The project is needed and desirable for the following reasons:

- Positive impact on climate change;
- Overcoming the country's energy constraints;
- Diversification and decentralisation of supply;
- Reduced costs of energy; and
- Positive economic development, including job creation.

Based on the findings of the SIA, the establishment of the proposed Hartebeesthoek East WEF is supported. In this regard, the project will create significant socio-economic opportunities for the area and have limited potential negative social impacts.

Table 6.10: Social Impact Assessment (Unchanged from the Original Assessment)

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction Phase							
Creation of local employment, training and business opportunities	Medium	Low	Medium	Positive	Medium	Medium	High
With Enhancement	High	Low	High	Positive	High	High	High
Impact of construction workers on local communities	Medium	Low	Medium	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Low	Medium	High
Influx of job seekers	Medium	Low	Low	Negative	Low	Medium	Medium
With Mitigation	Medium	Low	Low	Negative	Low	Medium	Medium
Risk to safety, livestock, farm infrastructure and farming operations	Medium	Low	Medium	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Low	Medium	High
Increased fire risk	Medium	Low	Medium	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Low	Medium	High
Impacts associated with construction vehicles	Medium	Low	Medium	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Low	Medium	High
Impact associated with loss of farmland	Medium	Low	Low	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Medium	Medium	High
Operation Phase							
Development of renewable energy infrastructure	Medium	High	Medium	Positive	Medium	Medium	High
With Enhancement	Medium	High	High	Positive	High	High	High
Creation of employment and business opportunities and support for local economic development	Medium	Medium	Low	Positive	Low	Medium	High

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
With Enhancement	Medium	Medium	Medium	Positive	Medium	High	High
Benefits associated with the establishment of a Community Trust	Medium	High	Medium	Positive	Medium	Medium	High
With Enhancement	Medium	High	High	Positive	High	High	High
Generate income for affected landowners	Medium	Medium	Low	Positive	Low	Medium	High
With Enhancement	Medium	Medium	Medium	Positive	Medium	High	High
Impact on sense of place and rural character of the landscape based on findings of VIA	Medium	Medium	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Medium	Medium – Low	Negative	Medium – Low	Medium	Medium
Potential impact on property values	Medium	Medium	Medium	Negative	Medium	Medium	Medium
With Mitigation	Medium	Medium	Low	Negative	Low	Medium	Medium
Potential impact on tourism	Medium	Medium	Low	Negative	Low	Medium	High
With Mitigation	Medium	Medium	Low	Negative	Low	Medium	High
Decommission Phase							
Loss of jobs and associated income	Medium	Medium	Medium	Negative	Medium	Medium	High
With Mitigation	Medium	Low	Low	Negative	Low	Medium	High

6.10 Traffic

The amendment report was produced to assess the proposed amendments and their potential to have a significant change in impact on the traffic and surrounding transportation network. The proposed changes that have the most impact on traffic generated are the number of wind turbines. This will decrease and increase trips generated to the site, respectively. The extent of impact caused by this amendment will be quantified in the capacity and safety analysis.

Two site access point options and 3 intersections have been identified to provide access to the Hartebeesthoek East WEF. Through site visits and desktop studies, each access point was evaluated for its suitability to serve the WEF, taking into consideration site distance lines, intersection/access spacing requirements, speed limits and road surface conditions. Based on the assessment, both Access F and G have the potential to be acceptable access point. Access F will provide access to the portion north of Murray Street, and Access G will provide access to the portion south of Murray Street.

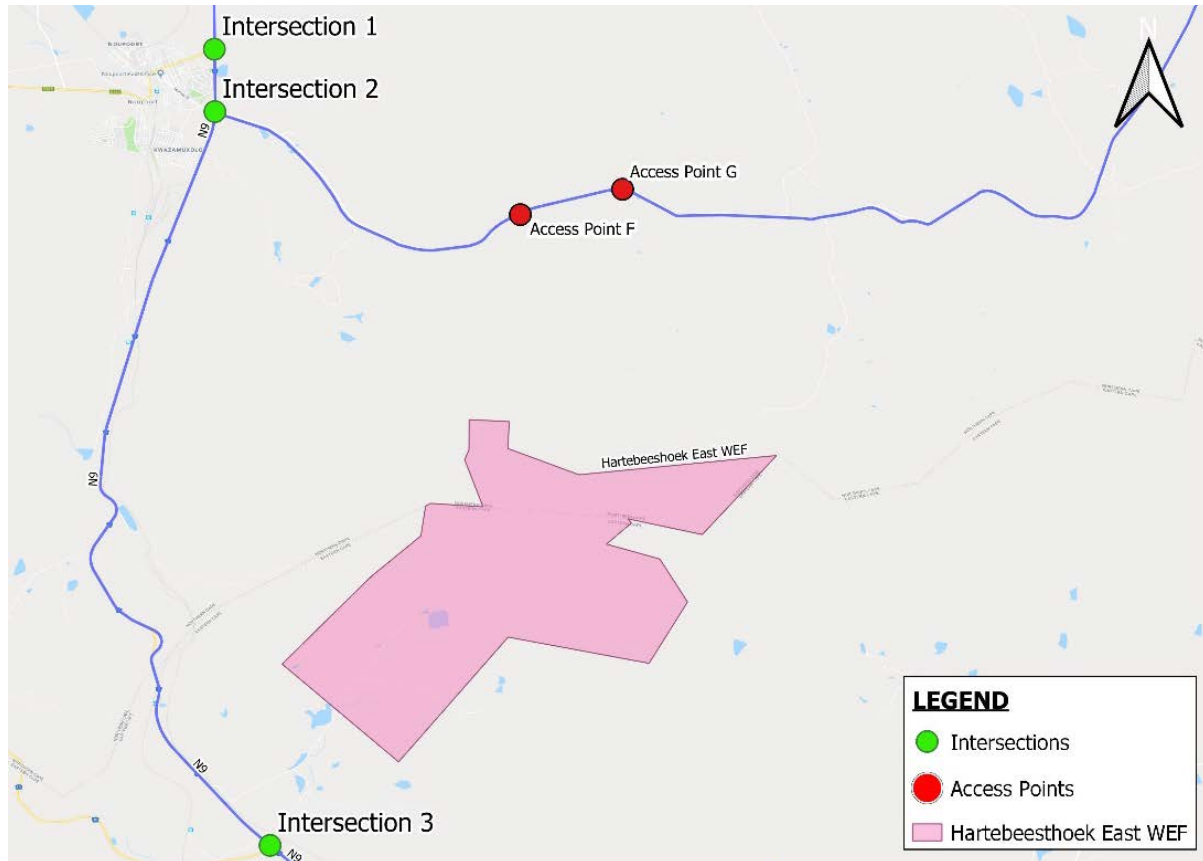


Figure 6.2 Site Access Points and Intersections

Table 6.11: Traffic Impact Assessment based on the Amendments

	Extent	Duration	Intensity	Status	Significance	Probability	Confidence
Construction / Decommissioning Phase							
Impact on increased traffic on the route and access points to the site	Low	Low	Medium	Negative	Low	High	High
With Mitigation	Low	Low	Low	Negative	Very Low	High	High

Based on the information detailed in the TIA report, the base year and forecast year road capacity has indicated that the proposed development and proposed amendments will have no significant change in impact on the existing road network capacity and the project will maintain acceptable levels of service. Further, the safety assessment has indicated that the proposed development will have some impact at proposed access points. Providing access from national roads will impact the mobility of the road. Therefore adequate traffic control and clear road markings and warnings signs must be provided.

6.11 Wake Effect

A wake effect analysis study was commissioned by EDF (previously InnoWind), to determine, what effect, if any, the proposed San Kraal development will have on the operational Noupoot Wind Farm. The study concluded that the operation of the San Kraal WEF would potentially result in a 0.96 % loss for the Noupoot Wind Farm (under certain wind flow, speed and wind turbine specifications). EDF has previously engaged and will continue to engage, with Mainstream regarding the wake effect that will have a potential impact on the Noupoot Wind Farm's energy production once the San Kraal WEF Spilt 1 becomes operational. The total number of turbines used for the study was 78 turbines. The total combined number of turbines with the split of the San Kraal WEF into two smaller wind farms will decrease to a combined 55 turbines.

7 ADVANTAGES AND DISADVANTAGES OF THE PROPOSED AMENDMENT

Specialists were requested to provide an opinion on the advantages and disadvantages of the proposed amendment application. Table 7.1 below provides a comparative assessment of the advantages and disadvantages of the proposed amendment to the authorised San Kraal WEF.

Table 7.1 Advantages and Disadvantages of the Amendment

Advantages	Disadvantages
A reduction in the number of turbines means a smaller footprint is required and therefore less vegetation clearance and habitat loss.	It is possible that some bat species, particularly those not adapted to use open-air spaces, are being killed at the lower sweep of the turbine blades so increasing the blade length and having a shorter distance between the ground and the lowest rotor point may have a negative impact and potentially place a greater diversity of species at risk.
The original layout had a total of 8 turbines within CBAs, whereas under the amended layout, none which falls in the Hartebeesthoek East site boundary.	A marginal disadvantage could possibly arise from the split of the authorised San Kraal WEF if the two projects are not constructed concurrently as prolonged construction periods would exacerbate visual impacts associated with construction.
It is likely that splitting the authorised San Kraal WEF into two WEFs, will lead to long term job opportunities, especially if the construction of the WEFs are phased.	The reduced number of turbines and the associated implications in terms of capital expenditure, employment (construction and operational phase), and the impact of construction workers.
All turbines are located away from highly sensitive areas, and no turbines are located in no-go areas or buffers.	In terms of the Community Trust, the potential changes would be linked to the reduced revenue associated with the lower generation capacity (MWs).
Bat activity and species diversity are greater at ground level than at height. Therefore, even though bats are recorded at heights that would put them at risk from taller turbines, the proportion of bats that would be at risk might be less.	
The number of bat species that might be impacted would decrease because not all bat species use the airspace congruent with the rotor swept area of modern turbines owing to morphological adaptations related to flight and echolocation.	
The reduction in the number of WTGs from that proposed for this portion of the authorised San Kraal WEF is an advantage of the Hartebeesthoek East layout as it reduces the potential for impacts on archaeological sites and material.	

Advantages	Disadvantages
The revised layout of the WEF has the advantage of generally increasing the distance between the identified heritage sites and WEF infrastructure, thereby ensuring that no impacts will occur.	
Fewer larger turbines are preferable from an avifaunal perspective.	
A reduction in the number of turbines will reduce the overall visual impact to identified sensitive receptors.	
A reduction in the number of trips to site, therefore decrease in the impacts to traffic.	

8 PUBLIC PARTICIPATION

The I&AP database of the authorised San Kraal WEF EIA (Arcus, 2018) process was used as a baseline for this amendment application. The Socio-economic specialist study for this amendment included consultation and interviews with Interested and Affected Parties (I&APs) and other key informants and stakeholders as necessary in order to assess social impacts.

All I&APs were notified of the intention to submit the Amendment Report via the placement of adverts in the same newspapers utilised during the previous EIA, i.e. The Herald and Graaff Reinet Advertiser. Site notices were placed along the boundary of the site to inform I&APs of the amendment application (Appendix C).

Notification letters via email and registered mail was sent to all I&APs informing them of the availability of the amendment report for review and comment, from the 26 September 2019 to the 25 October 2019 (Volume I: Appendix E). The report was made available at the Noupoot Library as a hard copy and digitally on the Arcus website (www.arcusconsulting.co.za/projects).

Registration of I&APs continued throughout the process, and the I&AP database was updated accordingly, based on comments received and included in the final amendment report (Volume I: Appendix D).

All comments are included in a Comments and Responses Table, and responded to and addressed by the project team, i.e. EAP, Applicant and Specialists as applicable. The Comments and Responses Table is provided with this Final EA Amendment Report (Volume I: Appendix H).

With the exception of the DEA and SAHRA, no comments were received on the Amendment Report.

9 CHANGES TO THE DRAFT EMPR

The EMPr for the original San Kraal WEF prepared by Arcus in 2018 was amended in respect of the assessment of impacts on archaeological sites and materials within the Hartebeesthoek East WEF.

10 RECOMMENDATIONS AND CONCLUSION

Hartebeesthoek Wind Power (Pty) Ltd is proposing the amendment to the already authorised San Kraal Wind Energy Facility (WEF). The proposed amendments to the turbine specifications and layout and the proposed Hartebeesthoek study area falls within the originally assessed area. The split enables a similar amount of energy yield with fewer turbines. Corresponding to this reduction in the number of turbines was a decrease in hub

height - from 150 m to up to 137 m, and an increase in rotor diameter - from 150 m to up to 175 m.

The use of renewable energy to provide power to South Africa is supported at International, National, Provincial and Local Government Levels. Further, given South Africa's need for additional electricity generation and the need to decrease the country's dependence on coal-based power, renewable energy has been identified as a national priority, with wind energy identified as one of the most readily available, technically viable and commercially cost-effective sources of renewable energy.

Taking into consideration the findings of this amendment process for the proposed development and the fact that recommended mitigation measures have been used to inform the project design, it is the opinion of the Environmental Assessment Practitioner (EAP) that the negative impacts associated with the implementation of the proposed project have been mitigated to acceptable levels. Figure 10.1 reflects the environmental sensitivity of the proposed development. While the residual impacts of the project will have an impact on the local environment, the extent of the benefits associated with the implementation of the projects will benefit a much larger group of people, in terms of renewable energy supply and positive local and regional economic impact. During the 30 day public review and comment period, no comments were received from I&APs. The DEA and SAHRA comments received have been addressed and included in this final amendment report submitted for environmental authorisation.

The study has concluded that there are no negative high residual impacts, including potential cumulative impacts associated with the proposed amendment application and the amendment can be authorised.

APPENDIX A: EAP CV AND DECLARATION OF INDEPENDENCE



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

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

The Proposed Amendment of the Authorised San Kraal Wind Energy Facility into San Kraal Split 1 and Hartebeesthoek East WEF, Northern and Eastern Cape Provinces

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.
2. 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. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP Company Name:	Arcus Consultancy Services South Africa (Pty) Ltd		
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition
EAP name:	Ashlin Bodasing		
EAP Qualifications:	Bachelor of Social Science (Geography and Environmental Management)		
Professional affiliation/registration:	None		
Physical address:	Office 607, Cube Workspace, Icon Building, cnr Long Street and Hans Strijdom Avenue, Cape Town		
Postal address:	Same as above		
Postal code:	8001	Cell:	0763408914
Telephone:	0214121529	Fax:	
E-mail:	ashlinb@arcusconsulting.co.za		

The appointed EAP must meet the requirements of Regulation 13 of GN R982 of 04 December 2014, as amended.

2. DECLARATION BY THE EAP

I, Ashlin Bodasing, declare that –

<ul style="list-style-type: none"> • I act as the independent environmental assessment practitioner in this application; • I have expertise in conducting environmental impact assessments, 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 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 will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the application and any report relating to the application; • 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, unless access to that information is protected by law, in which case it will be indicated that such information exists and will be provided to the Competent Authority; • I will perform all obligations as expected from an environmental assessment practitioner in terms of the Regulations; and • I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act. 	<ul style="list-style-type: none"> (i) the correctness of the information provided in the reports; (ii) the inclusion of comments and inputs from stakeholders and I&APs; (iii) the inclusion of inputs and recommendations from the specialist reports where relevant; and (iv) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.
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Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- I have a vested interest in the proposed activity proceeding, such vested interest being:

Bodasing

Signature of the Environmental Assessment Practitioner

Arcus Consultancy Services South Africa (Pty) Ltd

Name of Company:

11 / 10 / 2019

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

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

Bodasing

Signature of the Environmental Assessment Practitioner

Arcus Consultancy Services South Africa (Pty) Ltd

Name of Company

11 / 10 / 2019

Date

David Erasmus Marais

Signature of the Commissioner of Oaths

11 / 10 / 2019

Date

David Erasmus Marais
Commissioner of Oaths
Practising Attorney SA
ENSAfrica
1 North Wharf Square
Loop Street Cape Town 8001



CURRICULUM VITAE

Ashlin Bodasing

Technical Director and Environmental Assessment Practitioner

Email: ashlinb@arcusconsulting.co.za Tel: +27 (0) 21 412 1529



Specialisms

- Environmental Impact Assessments
- Environmental Management Plans
- Environmental Feasibility Studies
- Environmental Due Diligence and Compliance
- Client Relationship Management

Summary of Experience

Ashlin Bodasing is a Technical Director at Arcus Consultancy Services South Africa (Pty) Ltd. She manages the Arcus South African office and the team based in Cape Town. Having obtained her Bachelor of Social Science Degree (Geography and Environmental Management) from the University of Kwa-Zulu Natal; she has over fourteen years' experience in the environmental consulting industry in southern Africa. She has gained extensive experience in the field of Integrated Environmental Management, environmental impact assessments and public participation. She has also been actively involved in a number of industrial and infrastructural projects, including electricity power lines and substations; road and water infrastructure upgrades and the installation of telecommunication equipment, green and brown field coal mines, as well as renewable energy facilities, both wind and solar. Ashlin has excellent Project Management experience and has gained major project experience in the development of Environmental Impact Assessments, Environmental Management Plans and the monitoring of construction activities. Her areas of expertise include project management, environmental scoping and impact assessments, environmental management plans, environmental compliance monitoring and environmental feasibility studies. Experience also includes International Finance Corporation Performance Standards and World Bank Environmental Guidelines environmental due diligence reviews. She has worked in Mozambique, Namibia, Botswana, Lesotho and Zimbabwe.

Professional History

- 2017 – Present** – Technical Director, Arcus Consultancy Services South Africa
- 2015 - 2017** – Team Leader, Arcus Consultancy Services Ltd
- 2012 – 2015** – Lead Environmental Officer, Tweefontein Optimisation Project, Glencore / Xstrata Coal Mine, Witbank, Mpumalanga, South Africa (secondment)
- 2007-2015** - Senior Environmental Assessment Practitioner, Parsons Brinckerhoff Africa
- 2005-2007** – Environmental Consultant, WSP Environment and Energy

Ashlin spent over 2 years at the Glencore (previously Xstrata Coal SA) – Tweefontein Optimisation Project, as the sole environmental officer permanently on site overseeing all their construction projects, ensuring contractor compliance to EMP and Environmental Authorisations. This included the construction of the internal and external infrastructure packages. Roles include ensuring all construction and development are in line with the EIA and EMP for the project. Areas of responsibility include the Mine Infrastructure Area, the Explosives Magazine Area, construction of a secondary school, construction of residential houses, and the rail load out facility. Role also included review of environmental impact assessment applications and reports submitted to the department of environmental affairs for the project.

Qualifications and Professional Interests

- **University of Kwa-Zulu Natal, 2004**
Bachelor of Social Science (Geography and Environmental Management)

Project Experience

- **Environmental Impact Assessments**
• **Highlands North, South and Central Wind Energy Facilities, 2018-present.**
Project Director (client liaison) and Lead EAP.

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- **Paulputs Wind Energy Facility, 2018-present.** Project Director (client liaison) and Lead EAP.
- **San Kraal Wind Energy Facility, 2016- 2018.** Project Director (client liaison) and Lead EAP.
- **Phezukomoya Wind Energy Facility, 2016 – 2018.** Project Director (client liaison) and Lead EAP.
- **Kolkies and Karee Wind Energy Facilities, 2016-2016.** Project Director (Client liaison) and Lead EAP.
- **Komsberg East and West Wind Energy Facilities 2015-2016.** Project Director (Client Liaison) and EAP.
- **Umsinde Emoyeni Wind Energy Facilities, 2015-2018.** Project Director (Client Liaison) and EAP.

Ecological Impact Assessments and Monitoring

- **Confidential Wind Farm, 2017-2018, Northern Cape Province.** Project Director (Client Liaison), coordination and management of ecologists (bird and bat), review of technical and specialists impact assessments.
- **Paulputs Wind Energy Facility 2017-present, Northern Cape Province.** Project Director (Client Liaison), coordination and management of ecologists (bird and bat), review of technical and specialists impact assessments.
- **Highlands Wind Energy Facilities 2017 – 2018, Northern Cape Province.** Project Director (Client Liaison), coordination and management of ecologists (bird and bat), review of technical and specialists impact assessments.
- **Komsberg Wind Farms, 2015-2016.** Project Director (Client Liaison), coordination and management of ecologists (bird and bat), review of technical and specialists impact assessments.
- **Kolkies and Karee Wind Energy Facilities 2015-2016.** Project Director (Client Liaison), coordination and management of bird and bat specialists and review of technical and impact assessment reports.
- **Umsinde Wind Energy Facilities, Additional Bird Monitoring.** Project Director. Coordination and management of bird specialists and review of technical reports.
- **Kap Vley Wind Energy Facility, Bird and Bat Pre-Construction Monitoring.** Project Director. Coordination and management of bird and bat specialists, review of technical reports.
- **Highlands Wind Energy Facility, Bird and Bat Pre-Construction Monitoring.** Project Director. Coordination and management of bird and bat specialists, review of technical reports.
- **Hopefield Wind Farm –Operational Monitoring.** Project Manager. Coordination and management of bird and bat specialists, review of technical reports.
- **Gouda Wind Farm – Operation Monitoring.** Project Director. Coordination and management of bird and bat specialists, review of technical reports.

Feasibility Studies and Due Diligence Reviews

- **Ecological due diligence for IFC PS6 – Wind Energy Developments:** Project Manager. Review and reporting on bird and bat specialist reports to IFC/World Bank Standards – Various sites across South Africa.
- **Power Plant – Ghana.** Project Manager Compilation of environmental due diligence for refinancing, IFC and World Bank Standards, on behalf of Botswana Development Corporation.
- **Ecological Feasibility Study.** Project Director. Review of the feasibility of a site for a wind energy facility in relation to bats.
- **Environmental Feasibility Study.** Project Director and EAP. Review of a proposed site for the development of industrial facility.

Previous Project Experience

CURRICULUM VITAE

Environmental Scoping and Impact Assessments and Project Management for:

- eThekweni Municipality
- Moreland Developments
- RBCH – Bulk Materials and Handling Facility
- SAPREF
- Mittal Steel Permit Amendment
- Transnet Projects
- ArcelorMittal South Africa
- MCA-Lesotho
- Talbot Group Holdings (Australian Mining Company)
- Ncondezi Energy – Mozambique

Environmental Management Plans and Compliance Monitoring

- Nongoma Road Monitoring – Compliance Monitoring
- eThekweni Municipality - Taxi Holding Areas: Canberra Road and Umgeni Road Compilation of the EMP; and Bi-monthly compliance monitoring (site visits) and reporting.
- EMP for Kwezi V3 - Kwamashu Fuel Tank Exemption
- eThekweni Municipality - Ridgeview Road – Compliance Monitoring
- eThekweni Municipality and Merz and McLellen - Phoenix Overhead Transmission Lines – Compliance Monitoring
- eThekweni Municipality and Merz and McLellen - E8546 E8699 Compliance Monitoring
- eThekweni Municipality and Merz and McLellen - Environmental Assessment and EMP
- EMP for eThekweni Municipality - Parlock Switching Station

Training and Auditing

- Petronet Alien Plant Training - Compilation of the training material for alien plant identification and removal methods.
- eThekweni Municipality - Taxi Holding Areas – Canberra and Umgeni Road - Contactor and workforce training.
- eThekweni Municipality - Kingsway Road Taxi Rank - Contactor and workforce training.

Environmental Reviews / Terms of Reference

- Biotherm Energy - Environmental Project Manager: Independent review of environmental impact assessment reports and management plans compiled for 3 wind farms in the Western Cape and 2 PV Solar Plants in the Northern Cape, to ensure compliance to IFC and World Bank Standards.
- Government of Zimbabwe – Hwange Power Station - Environmental Project Manager: Compilation of the Terms of Reference for Environmental Management Plan and Environmental and Social Audit of the Hwange Power Plant in Zimbabwe.

Pre-Feasibility Studies

- Pre-feasibility studies for eThekweni Municipality, Investec, Sekoko Coal Resources, Mulilo, Sekoko Mining and MCA-Lesotho for renewable energy, coal mines and power plants.

APPENDIX B: ENVIRONMENTAL MANAGEMENT PROGRAMME



ARCUS

**ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE
HARTEBEESTHOEK EAST WIND ENERGY FACILITY,
NORTHERN AND EASTERN CAPE PROVINCES**

On behalf of

HARTEBEESTHOEK WIND POWER (PTY) LTD

December 2019



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Figure List:

Figure 1	Site Location
Figure 2	Environmental Sensitivity Map

1 INTRODUCTION

EDF Renewables (Pty) Ltd (previously InnoWind) ('EDF'), through the Specialist Purpose Vehicle (SPV) San Kraal Wind Power (Pty) Ltd received environmental authorisation for the development of a 390 MW wind energy facility (WEF), located near the town of Noupoort in the Northern Cape Province, parts of the proposed facility traverse the Eastern Cape Province.

Subsequent to the issue of environmental authorisation, the applicant has decided to split the 390 MW facility into two, namely San Kraal Split 1 WEF and Hartebeesthoek East WEF (Figure 1).

This EMPr update is relevant to the Hartebeesthoek East WEF - the Applicant is Hartebeesthoek Wind Power (Pty) Ltd.

As part of the environmental authorisation, the Environmental Management Programme (EMPr) was not approved by the Department of Environmental Affairs (DEA). This EMPr, for the Hartebeesthoek East WEF, is an update to the previous EMPr submitted, including any new mitigation measures that were incorporated in the specialist's assessments.

The Environmental Management Programme (EMPr) outlines measures to be implemented in order to minimise adverse environmental degradation associated with the construction of the proposed development. It serves as a guide for the contractor and the construction workforce on their roles and responsibilities concerning environmental management on-site, and it provides a framework for environmental monitoring throughout the life cycle of the development, i.e. from Design phase until after Decommissioning phase.

This document must be seen as dynamic, and be updated when and if required, throughout the lifecycle of the project.

1.1 Details of the Applicant and the Environmental Assessment Practitioner

Details of Applicant	
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1.2 Purpose and Aims of this Document

An Environmental Management Programme (EMPr) for the proposed development is required in terms of the following document:

- Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998), EIA Regulations of 2014 (GNR 326), as amended.

As per the Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning (DEA&DP) Guideline for Environmental Management Plans (Lochner 2005), the over-arching objectives of an EMPr is (1) to ensure compliance with regulatory authority stipulations and guidelines, (2) to ensure sufficient allocation of resources on the project budget, (3) to verify environmental performance through information on impacts as they occur, (4) to respond to changes in project implementation not considered in the EIA, (5) to respond to unforeseen events and (6) to provide feedback for continual improvement in environmental performance.

The aim of this Environmental Management Programme is to achieve the above objectives by:

- Defining the environmental management objectives to be realised during the life of the project, in order to enhance benefits and minimise adverse environmental impacts;
- Describing detailed actions needed to achieve these objectives and mechanisms that address changes in the project implementation, emergencies and unexpected events;
- Clarifying institutional structures, roles, communication and reporting processes;
- Describing the link between the EMPr and associated legislated requirements; and
- Describing requirements for record-keeping, reporting, review and auditing.

1.3 The Hartebeesthoek East WEF Development

The proposed HBH East WEF will comprise 20 wind turbines with a generation capacity of 6.2 MW each for a total WEF output of 124 MW. The wind farm will connect to the SK-PH collector substation via medium voltage lines, which will, in turn, connect to the Umsobomvu Substation via an approved 132 kV transmission line. The new on-site substation, SK-PH collector substation and other associated infrastructure are subject to a separate Basic Assessment process.

1.4 Components of a WEF Development

The proposed project will comprise components as described below. It should be noted that the final design of the proposed project is not yet finalised, all dimensions are maximums as is required by the EIA process. The final design may include infrastructure which is of equal or less than dimensions to those stated below but not more than.

1.4.1 Turbines

The turbines will be placed on steel and concrete foundations which will each occupy an area of up to 25 m by 25 m in total (which includes the maximum total area that may need to be disturbed during construction of the foundation) and be typically up to 5 m deep and may include concrete and steel plinths depending on local ground conditions.

Once construction is complete, much of the foundation area can be rehabilitated.

1.4.2 Hard Stand Areas

Each turbine requires an area of hard-standing to be built adjacent to the turbine foundation. This provides a flat, stable base on which to lay down the turbine components ready for assembly and erection and to site the two cranes necessary to lift the tower sections, nacelle and rotor into place.

A hardstanding area of up to 7500 m² will be established adjacent to each turbine location. This will be used to provide a platform for cranes to operate during construction (and unscheduled maintenance), as well as a clear area to layout turbine components prior to erection.

The crane hard-standing will be left in place following construction in order to allow for the use of similar plant, should major components need replacing during the operational phase of the proposed development.

1.4.3 Laydown Areas

Temporary infrastructure would include a site camp, laydown areas and a batching plant. Additional temporary laydown areas will be required for equipment and component storage during construction across the site. These areas will be levelled and compacted and used for component storage.

1.4.4 Electrical Cabling and On-site Substation

The electricity from the turbines will be transferred via a 33 kV electrical network to 1 x 80 MVA on-site substation. Where possible this will be underground, but the feasibility of this will be confirmed as the design progresses and geotechnical studies are conducted. The on-site substation will house electrical infrastructure such as transformers and switchgear to enable the energy to be transferred into the existing national grid. The operations and maintenance building including parking will be approximately 7500 m².

Underground cabling will link the turbines to each other and to the on-site transformer / control building. Detailed construction and trenching specifications will depend on the ground conditions encountered. Typically, cables would be laid in a trench approximately 1 m deep and 0.5 m wide. To minimise ground disturbance, cables will be routed along the side of the access tracks where practicable.

1.4.5 Access

The turbine locations will be accessed through a network of unsealed roads which will be established across the WEF Site. These access roads will be between 8 m and 14 m wide.

A width of 14 m is required for curves in order to allow trucks to turn. Such roads are required to facilitate access for the cranes and abnormal load deliveries of turbine components.

Existing farm access roads will be upgraded and utilised where possible, as will existing watercourse crossings. Some of the aggregate required for the construction of the on-site tracks may be sourced from cut and fill operations during construction from within the proposed development site with additional material imported from permitted quarries as required.

If borrow pits are required, a separate application must be lodged with the Department of Mineral Resources in regard to this activity.

1.4.6 Compound

There will also be an on-site office compound, including site offices, parking and an operation and maintenance facility including a control room.

2 LEGAL FRAMEWORK

An application for Environmental Authorisation, in terms of the National Environmental Management Act, Act 107, 1998 (NEMA), Environmental Impact Assessment Regulations,

2014, was submitted to the Department of Environmental Affairs. The development was authorised by the DEA in 2018. The following listed activities have been approved.

Table 2.1: The NEMA EIA Regulations 2014 as Amended Listed Activities Authorised for the Proposed Development

Listing Notices 1 - 3 07 April	<i>Listed Activity</i>	Project Description
Listing Notice 1 GN R 327 Activity 11	<i>The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts.</i>	The WEF will require transmission lines in order to connect to the grid. Electrical reticulation will be installed to transfer electricity from the turbines to an on-site substation. Cables will be installed underground where feasible.
Listing Notice 1 GN R 327 Activity 14	<i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic meters or more but not exceeding 500 cubic meters.</i>	Construction of the proposed development will require dangerous goods in the form of hydrocarbon fuels (e.g. diesel), paints and solvents, oils and greases. Sewage and waste streams will be generated by the WEF. During construction of the WEF, in particular, the combined capacity of dangerous goods on-site may exceed 80 cubic metres. The proposed on-site substation is likely to require the use of transformer oils/other hazardous substances during the operational phase.
Listing Notice 1 GN R 327 Activity 19	<i>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</i>	The construction of the WEF will include the excavation of soil in watercourses/drainage line areas, and infilling/deposition may exceed 5 cubic metres and in some instances may exceed 10 cubic metres. The construction of associated infrastructure, such as access tracks crossing watercourses may require excavation and/or infilling of watercourse areas.

<p>Listing Notice 1 GN R 327 Activity 24</p>	<p><i>The development of a road— (ii) with a reserve wider than 13,5 metres, or where no reserve exists where the road is wider than 8 metres;</i></p>	<p>Access roads will be required between turbines. These roads will be unsealed and will likely be between 8 - 14 m in width. The roads will be up to 14 m wide during construction but will be reduced during operation.</p>
<p>Listing Notice 1 GN R 327 Activity 56</p>	<p><i>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre- (ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas.</i></p>	<p>Existing farm access roads may need to be widened or lengthened. These roads would currently have no road reserve and will be wider than 8 meters in some areas.</p>
<p>Listing Notice 2 GN R 325 Activity 1</p>	<p><i>The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more</i></p>	<p>The WEF will consist of a number of wind turbines for electricity generation of more than 20 megawatts.</p>
<p>Listing Notice 2 GN R 325 Activity 15</p>	<p><i>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; maintenance purposes undertaken in accordance with a maintenance management plan.</i></p>	<p>The construction of the WEF will require the clearance of more than 20 hectares of indigenous vegetation in total across the site.</p>
<p>Listing Notice 3 GN R 324 Activity 4</p>	<p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres. g. Northern Cape Outside urban areas: (bb) National Protected Area Expansion Strategy Focus areas; (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>Internal and external access roads will be constructed, which are wider than 4 m. The site falls outside of an urban area, and parts of the site fall within a National Protected Area Expansion Strategy Focus area and CBA in the Northern Cape.</p>
<p>Listing Notice 3 GN R324 Activity 12</p>	<p><i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. g. Northern Cape iii. Within critical biodiversity areas identified in bioregional plans</i></p>	<p>The proposed development will require the clearance of natural vegetation in excess of 300 square metres in areas of natural vegetation. The area includes Critical Biodiversity Areas in the Northern Cape.</p>

<p>Listing Notice 3 GN R324 Activity 18</p>	<p><i>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p><i>ii. Outside urban areas</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(ee) Critical biodiversity areas identified in systematic bioregional plans adopted by the competent authority or in bioregional plans</i></p>	<p>Existing farm roads may need to be widened or lengthened. The site lies outside urban areas and contains NPAES and CBAs in the Northern Cape.</p>
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3 ENVIRONMENTAL IMPACT ASSESSMENT

The environmental impact assessment for the 390 MW WEF was completed in 2018. Subsequent to the issue of environmental authorisation, the applicant has decided to split the 390 MW facility into two, namely San Kraal WEF and Hartebeesthoek East WEF.

The proposed HBH East WEF will comprise 20 wind turbines with a generation capacity of 6.2 MW each for a total WEF output of 124 MW. The wind farm will connect to the SK-PH collector substation via medium voltage lines, which will, in turn, connect to the Umsobomvu Substation via an approved 132 kV transmission line.

Due to the amendment to the layout of the facility, the specialist studies were updated, and the potential impacts reassessed. Potential environmental impacts were evaluated according to their extent, duration, intensity and magnitude. Negative impacts of the proposed project on the biophysical environment include clearing of vegetation that leads to habitat fragmentation, potential loss of species of concern, soil erosion, surface water pollution; while social-economic impacts being minimal loss of agricultural land, disruption of social relations within the proposed area by the introduction of contractor workers from different areas, spread of diseases, loss of potential heritage resources and impact on sense of place. An Environmental Sensitivity Map (Figure 2) is attached to this EMPr.

All impacts have been identified and assessed at different stages

(design/planning, construction, operation and decommission) and possible mitigation or enhancement measures assigned to reduce the significance of negative impacts or enhance positive impacts.

Mitigation measures proposed by the specialists have been included in this EMPr. As this is a legally binding document, all mitigation measures included herein must be adhered to by the developer and operator as applicable.

4 ENVIRONMENTAL MANAGEMENT PROGRAMME

This section forms the core of the EMPr and outlines the specific mitigation measures for those key impacts identified in the section above.

4.1 Environmental Awareness and Compliance

The philosophy that has been used for the compilation of this management programme is derived from the principles of the National Environmental Management Act (No. 107 of 1998) which states that development must be socially, economically and environmentally sustainable. Sustainable development requires that:

- The disturbance of ecosystems and loss of biodiversity are avoided (minimised or remedied);
- Pollution and degradation of the environment are avoided or minimised and remedied;
- Waste is avoided or minimised and re-used or re-cycled where possible and otherwise disposed of in a responsible manner;
- A risk-averse and cautious approach is applied; and

- Negative impacts on the environment and on people's environmental rights are anticipated and prevented; and where they cannot altogether be prevented, are minimised and remedied.

The Act makes provision that anyone who causes pollution or degradation of the environment is responsible for preventing impacts occurring, continuing or recurring and for the costs of repair of the environment.

4.2 Roles and Responsibilities

The developer, together with each appointed contractor, will be responsible for environmental management on-site during the construction and operational phases of the proposed development. Specific roles and responsibilities are highlighted in the table below.

Developer Representative – Environmental Manager

- Review and approve EMPr prior to authorisation by DEA.
- Review and approve any EMPr updates or amendments.
- Ensure environmental requirements are integrated into the project plans, method statements and tender processes.
- Support the site environmental control officer during the construction phase to ensure implementation of the EMPr.
- Follow up and close out all environmental incidents and non-conformances.
- Appointment a suitably qualified independent environmental control officer during the construction phase.

Principal Contractor Representative - Environmental Control Officer

An independent environmental consultant will arrange for inspections of the construction activities and EMPr implementation throughout the construction phase. After each inspection, the ECO will produce a monitoring report that will be submitted to the client, the Department of Environmental Affairs (DEA). Relevant sections of the minutes of customary (monthly) site meetings will be attached to the monitoring report.

The Environmental Control Officer (ECO) will be responsible for overseeing the implementation of the EMPr during the construction and operations phases, and for monitoring, reviewing and verifying compliance of the contractor with the EMPr, record-keeping and updating of the EMPr as and when necessary.

The ECO will:

- Be fully knowledgeable with the contents of the EMPr;
- Be fully knowledgeable with the contents of all relevant environmental legislation and ensure compliance with them;
- Ensure that the contents of the EMPr are communicated to the contractor, all site staff, and the contractor and /or site manager are made aware of the contents of the EMPr, through presentations and discussions;
- Ensure that compliance to the EMPr is monitored by regular and comprehensive inspection of the site and surrounding areas;
- Report on any incidents of non-compliance and ensure mitigation measure are implemented as soon as practical.

During *construction*, the Environmental Control Officer will be responsible for the following:

- Meeting on-site with the Construction Manager prior to the commencement of construction activities to confirm the construction procedure and designated activity zones;

- Daily / weekly (depending on the extent of construction activities, at any given time) monitoring of site activities during construction to ensure adherence to the specifications contained in the EMPr, using a monitoring checklist that is to be prepared by an independent environmental assessment practitioner at the start of the construction phase;
- Preparation of the monitoring report based on the site visit;
- Conducting an environmental inspection on completion of the construction period and signing off the construction process with the Construction Manager; and
- Maintain an Incidents Register and Complaints Register on site.

During *operation*, the Environmental Control Officer will be responsible for:

- Overseeing the implementation of the EMPr for the operation phase;
- Ensure that the necessary environmental monitoring takes place as specified in the EMPr;
- Update the EMPr and ensure that records are kept of all monitoring activities and results; and
- Maintain an Incidents Register and Complaints Register on site.

During *decommissioning*, the Environmental Control Officer will be responsible for:

- Overseeing the implementation of the EMPr for the decommissioning phase; and
- Conducting an environmental inspection on completion of decommissioning and "signing off" the site rehabilitation process.

4.3 Training and Induction of Employees

The contractor has a responsibility to ensure that all personnel involved in the project are aware of and are familiar with the environmental requirements for the project. The EMPr shall be part of the terms of reference (ToR) for all contractors, sub-contractors and suppliers. All Contractors have to give some assurance that they understand the EMPr and that they will undertake to comply with the conditions therein. All senior and supervisory staff members shall familiarise themselves with the full contents of the EMPr. They shall know and understand the specifications of the EMPr and be able to assist other staff members in matters relating to the EMPr.

The Contractor must ensure that all staff working on site have an environmental induction. The presentation can include the following topics;

- What is meant by "Environment"?
- Why the environment needs to be protected and conserved.
- How construction activities can impact on the environment.
- What can be done to militate against such impacts?
- Awareness of emergency and spills response provisions.
- Social responsibility during construction, e.g. being considerate to local residents.

A detailed environmental management and training program must be developed. The purpose of this is to ensure that all staff and workers understand what is required of them.

The main components of the program can incorporate the following:

- Concept of sustainability and the reasons for good environmental management and practice
- Potential environmental impacts
- Mitigation measures
- Establishing a chain of responsibility and decision making
- Specific training requirements of certain staff, and the potential hazardous associated with the job.
- Methodologies to be used for field sampling

- Training in the use of field equipment
- Training in identification of non-compliance situations and procedures to be followed in such instances
- Reporting requirements
- Fire management
- HIV/AIDS

4.4 Complaints Register and Environmental Incidents Book

The Contractor must record any complaints received from the community. The complaint must be brought to the attention of the site manager and Environmental Control Officer, who will respond accordingly.

The following information will be recorded:

- Time, date and nature of the complaint;
- Response and investigation undertaken; and,
- Actions taken and by whom.

All complaints received will be investigated, and a response (even if pending further investigation) will be given to the complainant within 7 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- Time, date, location and nature of the incident, and
- Actions taken and by whom.

4.5 Construction Environmental Monitoring

Environmental audits must be undertaken by an independent environmental consultant who will act as the Environmental Control Officer twice monthly, and on a daily basis or what is deemed necessary by the ECO during times of heavy earthworks and vegetation clearing, in order to ensure compliance of all aspects of the EMPr.

In order to facilitate communication between the ECO and the Resident Engineer and Contractor, it is vital that a suitable chain of command is structured that will ensure that the ECO's recommendations have the full backing of the project team before being conveyed to the Contractor. In this way, penalties as a result of non-compliances with the EMPr may be justified as a failure to comply with an instruction from the highest authority.

4.6 Dealing with Non-Compliance with the EMPr

There may be difficulties encountered with carrying out the mitigation measures within the EMPr. This may result in non-compliance with the EMPr. It may be possible that the contractor and or the developer put in place procedures to motivate staff members to comply with the EMPr and to deal with non-compliance. The developer must make this known to the contractor at the earliest stage possible, even during the tender phase.

5 DESIGN PHASE / PRE-CONSTRUCTION PHASE MITIGATION MEASURES

The objectives of the pre-construction phase are:

- To promote environmental awareness;
- To define roles and responsibilities for environmental management;
- To ensure suitable environmental training and induction to all contractors, sub-contractors and labourers; and
- To ensure that all legal obligations and contractual conditions have been met prior to commencing of construction.

5.1 Mitigation Measures for Legal Compliance

- Appoint an independent environmental control officer.
- Appoint an internal environmental co-ordinator or environmental officer, to oversee the day to day environmental activities.
- Staff should be educated as to the need to refrain from indiscriminate waste disposal and/or pollution of local soil and water resources and receive the necessary safety training.
- Before construction begins, all areas to be developed must be clearly demarcated, by a qualified surveyor.
- The contractor must ensure compliance with conditions described in the environmental authorisation.
- Confirm with ECO, suitable sites for the construction camps (equipment and batching, etc.) and storage areas for materials. All construction equipment must be stored within this construction camp, and all associated oil changes etc. (no servicing) must take place within this camp.
- Unskilled labourers should be drawn from the local market, where possible, in line with the socio-economic mitigation measures.
- Environmental awareness training for construction staff, concerning the prevention of accidental spillage of hazardous chemicals and oil; pollution of water resources (both surface and groundwater), air pollution and litter control and identification of archaeological artefacts.
- Project Manager shall ensure that the training and capabilities of the Contractor's site staff are adequate to carry out the designated tasks.
- Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitised to any potential hazards associated with their tasks.
- No operator shall be permitted to operate critical items of mechanical equipment without having been trained by the Contractor and certified competent by the Project Manager.

5.2 EMPr Update

The developer must ensure that the following mitigation measures are applied to the proposed project prior to the construction phase.

Prior to the submission of the final layout plan to the DEA for approval, the following specialists must visit the site to assist with micro-siting the layout of turbines and do a walkthrough of all power lines:

- Flora and fauna specialists
- Avifaunal specialist
- Bat specialist
- Aquatic specialist
- Palaeontologist

Following the selection of turbine to be used for the project, the developer must update the layout plan, this together with the following management plans, to be developed, must be submitted to the DEA for approval:

- Traffic Management Plan - this plan will include the necessary arrangements to transport all equipment and infrastructure to site, including the necessary road transport permits.
- Heritage Management Plan - to ensure the in-situ conservation of heritage resources within the development area. The HMP must be submitted to SAHRA prior to construction for comment and approval;

- Construction Site Traffic Management Plan - this will be in the form of a site layout, showing the flow of traffic during the construction phase taking into consideration existing land users.
- Stormwater Management Plan - once the final layout plan has been produced, the appointed responsible engineers must produce a stormwater management plan for the site, during the construction and operational phases of the project.
- A health and safety plan must be drawn up to ensure worker safety.
- Develop a Project Layout and Access Plan to show the intended use of the area. The plan shall clearly indicate and/or describe the location and details of:
 - Servitudes.
 - Areas and routes to be cleared – including the size / width of the cleared areas.
 - The construction campsite and rest areas to be used during construction.
 - Waste disposal sites to be used during construction.
 - Sources of construction materials.
 - Power supply during construction.
 - Existing roads and tracks to be used as transportation routes, and routes to gain access to construction areas.
 - New tracks deemed necessary to provide access to construction activities.
 - Any informal residential structures found within the property.
 - Affected land use, 1:50 year floodlines.
 - Sensitive areas.

5.3 Method Statements

Prior to construction, the developer must ensure that the contractor supplies the following method statements:

- Vegetation clearing;
- Cement mixing;
- Hazardous waste management;
- Emergency preparedness and response;
- Hazardous spills clean up;
- Topsoil stockpiling management;
- Laydown area management; and
- Hazardous materials management.

5.4 Site Establishment

The object of site establishment is to ensure that an appropriate location is selected for the construction camp / site office and that the site office is managed in an environmentally responsible manner with minimal impact on the environment.

5.4.1 Mitigation Measures

Before establishing the construction office areas, carefully plan the layout and develop a Construction Site Office Plan. The Construction Site Office Plan shall provide a description of the site and shall show, on a reasonably scaled map, the intended use of the site. Indicate and/or describe the location, size / quantity / capacity and design of:

- Access routes;
- Ablution facilities (including details on the handling of sewage and wastewater);
- On-site waste management facilities (waste containers, etc.);
- Design of bunds and other structures for containment of hazardous substances;
- Fencing;
- Water storage and supply;
- Power supply (for cooking, space heating, lighting, etc.);

- Fire extinguishers, first aid kit and any other relevant safety equipment;
- Other structures and buildings (offices, storerooms, workshops, etc.); and
- Other storage areas and stockpiles (i.e. topsoil, construction materials, equipment, etc.).

The following must also be undertaken:

- An area within the site must be demarcated for a construction site office, which will include a storage area. This area must be fenced off.
- Site establishment shall take place in an orderly manner, and all required amenities shall be installed at the laydown area before the main workforce move onto the site.
- The construction camp shall have the necessary ablution facilities with chemical toilets at the commencement of construction.
- The Contractor shall inform all site staff to make use of supplied ablution facilities and under no circumstances shall indiscriminate sanitary activities be allowed other than in supplied facilities.
- The Contractor shall supply waste collection bins and all solid waste collected shall be disposed of at a registered landfill.
- Potable water for use by on-site workers must be made available on a daily basis at the site office and the working areas on site.
- A certificate of disposal shall be obtained by the Contractor and kept on file. Where a registered waste site is not available close to the construction site, the Contractor shall provide a method statement with regard to waste management.
- The disposal of waste shall be in accordance with all relevant legislation. Under no circumstances may solid waste be burnt or buried on site.

5.5 Siting, Establishment and Management of Materials

- Choice of location for storage areas must take into account prevailing winds, distances to water bodies, general on-site topography and water erosion potential of the soil. Impervious surfaces must be provided where necessary.
- Storage areas must be designated, demarcated and fenced.
- Storage areas should be secure so as to minimize the risk of crime. They should also be safe from access by children / animals etc.
- Fire prevention facilities must be present at all storage facilities.
- Proper storage facilities for the storage of oils, paints, grease, fuels, chemicals and any hazardous materials to be used must be provided to prevent the migration of spillage into the ground and groundwater regime around the temporary storage area(s).
- These pollution prevention measures for storage should include a bund wall high enough to contain at least 110% of any stored volume, and this should be sited away from drainage lines in a site with the approval of the Engineer.
- Any water that collects in the bund must not be allowed to stand and must be removed immediately and the hydrocarbon digestion agent within must be replenished.
- All legal compliance requirements with respect to Fuel storage and dispensing must be met.
- All fuel storage tanks (temporary or permanent) and associated facilities must be designed and installed in accordance with the relevant oil industry standards, SANS codes and other relevant requirements.
- Areas for storage of fuels and other flammable materials must comply with standard fire safety regulations.
- Flammable fuel and gas must be well separated from all welding workshops, assembly plants and loading bays where ignition of gas by an accidental spark may cause an explosion or fire.
- The tank must be erected at a safe distance from buildings, boundaries, welding sites and workshops and any other combustible or flammable materials.

- Symbolic safety signs depicting “No Smoking”, “No Naked Flames” and “Danger” are to be prominently displayed in and around the fuel storage area.
- The capacity of the tank must be clearly displayed, and the product contained within the tank clearly identified.
- The storage tank must be removed on completion of the construction phase of the project.
- All such tanks to be designed and constructed in accordance with a recognised code (international standard).
- The rated capacity of tanks must provide sufficient capacity to permit expansion of the product contained therein by the rise in temperature during storage.
- Only empty and externally clean tanks may be stored on the bare ground. All empty and externally dirty tanks must be sealed and stored in an area where the ground has been protected.
- Any electrical or petrol-driven pump must be equipped and positioned so as not to cause any danger of ignition of the product.
- If fuel is dispensed from 200L drums, the proper dispensing equipment must be used.
- The drum must not be tipped in order to dispense fuel. The dispensing mechanism of the fuel storage tank must be stored in a waterproof container when not in use.
- All waste fuel and chemical impregnated rags must be stored in leak-proof containers and disposed of at an approved hazardous waste site.
- The amounts of fuel and chemicals stored on-site must be minimised.
- Storage sites must be provided with bunds to contain any spilled liquids and materials.
- These storage facilities (including any tanks) must be on an impermeable surface that is protected from the ingress of stormwater from surrounding areas in order to ensure that accidental spillage does not pollute local soil or water resources.
- Clear signage must be placed at all storage areas containing hazardous substances / materials.
- Material Safety Data Sheets (MSDSs) shall be readily available on site for all chemicals and hazardous substances to be used on site. Where possible the available, MSDSs should additionally include information on ecological impacts and measures to minimise negative environmental impacts during accidental releases or escapes.
- Storage areas containing hazardous substances / materials must be clearly signed.
- Staff dealing with these materials/substances must be aware of their potential impacts and follow the appropriate safety measures.
- A suitable Waste Disposal Contractor must be employed to remove waste oil. These wastes should only be disposed of at licensed landfill sites designed to handle hazardous wastes.
- The contractor must ensure that its staff is made aware of the health risks associated with any hazardous substances used and has been provided with the appropriate protective clothing/equipment in case of spillages or accidents and have received the necessary training.
- All excess cement and concrete mixes are to be contained on the construction site prior to disposal off-site.
- Any spillage, which may occur, shall be investigated and immediate action must be taken.

6 CONSTRUCTION PHASE MITIGATION MEASURES

The developer is to ensure that the contractor complies with all mitigation measures during the construction period. The major sources of potential impacts include the turbine footprint construction, the construction of buildings and infrastructure, the construction of roads and bridges, and vehicle operation, and spillages.

The following is not allowed on site:

- No poaching of any animals or harvesting of any flora;
- No construction camp, for workforce accommodation is allowed on-site; contractors are to ensure suitable housing for staff outside of the proposed development footprint.
- No cooking or fires allowed on-site; and
- No alcohol or drugs are allowed on site.

6.1 Potential Construction Phase Impacts

The following impacts are likely to occur during the construction of the proposed WEF. Specific mitigation measures are presented in the table below.

- The accidental, negligent, or deliberate spillage or inappropriate disposal of hazardous substances could result in air, soil and water pollution and may affect the health and well-being of people, plants and animals.
- Excessive noise could be made by the construction activity, which would affect neighbouring communities.
- Potential damage to the soil structure, soil compaction and loss of soil fertility.
- Loss of vegetation cover and increased erosion risks.
- Dust related problems.
- Safety hazards to the public, workers and animals in the area.
- Disturbance to local hydrology from construction activities.
- Pollution of surface water bodies
- Dust can be a nuisance to the construction workforce and to the public and can negatively affect the growth and recovery rate of plants. Potential sources of fugitive dust include, but are not limited to:
 - Demolition of concrete foundations and existing buildings;
 - Grading/movement of soil;
 - Transportation and unloading of construction materials;
 - Vehicular movement over unsurfaced roads and tracks; and,
 - Wind erosion of stockpiles.
- Construction activities will result in the exposure of the soil to erosive factors, i.e. wind and water, and the compaction of the soil in other areas;
- Illegal poaching and collection of animals and plant material.
- Loss of established indigenous and exotic habitat
- Unnecessary trampling of vegetation and harm to animals.
- Degradation of the scenic quality due to the major earthworks and any unsightly structures.
- Damage or loss of important cultural, historical or pre-historical sites and artefacts.
- Damage to existing roads and tracks, power lines, pipelines, etc.
- Dangerous conditions near road.
- Trespassing and illegal access onto land.

Table 6.1 Construction Phase Mitigation Measures

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Geology, Soils and Agricultural Potential		
<p>Loss of agricultural land Avoid areas under cultivation (if any)</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Increased soil erosion hazard Minimize vegetation removal to the smallest possible footprint. Control possible runoff by using soil conservation and soil retention measures, especially on steep slopes. Store any removed topsoil for later use (contains indigenous seeds etc.) and re-vegetate as soon as possible. Once specific infrastructure sites are known, site-specific measures can be devised for implementation, and any potentially high-risk sites can be identified.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
Freshwater and Wetlands		
<p>Loss of riparian systems and watercourses during the construction phase of the WEF No construction may take place within 32 m of a watercourse, with the exception of watercourse crossings. Where watercourse crossings are required, the engineering team must provide effective means to minimise the potential upstream and downstream effects of sedimentation and erosion (erosion protection) as well minimise the loss of riparian vegetation (small footprint). If several the transmission line towers for the grid need to be located within some of the watercourses, then this must be carried out in collaboration with an aquatic specialist during the micro siting process. No vehicles to refuel or be maintained within drainage lines/riparian vegetation. Where possible culvert bases must be placed as close as possible with natural levels in mind so that these don't form additional steps/barriers.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Increase in sedimentation and erosion within the development footprint during the construction phase and to a lesser degree, the operational phase.</p> <p>Any stormwater within the site must be handled in a suitable manner, i.e. trap sediments and reduce flow velocities.</p>		
<p>Impact on localized surface water quality mainly during the construction phase</p> <p>Strict use and management of all hazardous materials used on site.</p> <p>Strict management of potential sources of pollution (e.g. litter, hydrocarbons from vehicles & machinery, cement during construction, etc.).</p> <p>Containment of all contaminated water by means of careful run-off management on the development site.</p> <p>Strict control over the behaviour of construction workers.</p> <p>Working protocols incorporating pollution control measures (including approved method statements by the contractor) should be clearly set out in the Environmental Management Programme (EMPr) for the project and strictly enforced.</p> <p>Appropriate ablution facilities should be provided for construction workers during the construction of the facility.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction. Monthly checks</p>
Flora and Terrestrial Fauna		
<p>Impacts on vegetation and listed or protected plant species resulting from construction activities</p> <p>Placement of turbines within the High Sensitivity areas and drainage lines must be avoided.</p> <p>Preconstruction walk-through of the approved development footprint to ensure that sensitive habitats and species are avoided where possible.</p> <p>Ensure that lay-down and other temporary infrastructure is within medium- or low-sensitivity areas. The assessed locations are considered acceptable but should be rehabilitated after use.</p> <p>Minimise the development footprint as far as possible and rehabilitate disturbed areas that are no longer required by the operational phase of the development.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction. Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>The exact routing of the roads should be adjusted where necessary to avoid features of higher sensitivity such as rocky outcrops, as informed by the preconstruction walkthrough of the facility.</p> <p>Preconstruction environmental induction for all construction staff on-site to ensure that basic environmental principles are adhered to. This includes topics such as no littering, appropriate handling of pollution and chemical spills, avoiding fire hazards, minimizing wildlife interactions, remaining within demarcated construction areas etc.</p> <p>Demarcate sensitive areas in close proximity to the development footprint as no-go areas with construction tape or similar and clearly marked as a no-go area.</p> <p>If parts of the facility are to be fenced, then no electrified strands should be placed within 30cm of the ground as some species such as tortoises are susceptible to electrocution from electric fences as they do not move away when electrocuted but rather adopt defensive behaviour and are killed by repeated shocks. Alternatively, the electrified strands should be placed on the inside of such fenced areas and not the outside.</p>		
<p>Alien Plant Invasion</p> <p>Wherever excavation is necessary, topsoil should be set aside and replaced after construction to encourage natural regeneration of the local indigenous species.</p> <p>Due to the disturbance at the site as well as the increased runoff generated by the hard infrastructure, alien plant species are likely to be a long-term problem at the site, and a long-term control plan will need to be implemented. Problem woody species such as <i>Prosopis</i> are already present in the area and are likely to increase rapidly if not controlled.</p> <p>Regular monitoring for alien plants within the development footprint as well as adjacent areas which receive runoff from the facility as there are also likely to be prone to invasion problems.</p> <p>Regular alien clearing should be conducted, as needed, using the best-practice methods for the species concerned. The use of herbicides should be avoided as far as possible</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
<p>Faunal impacts due to construction-phase noise and physical disturbance</p> <p>Preconstruction walk-through of the facility to identify areas of faunal sensitivity.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction. Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>During construction, any fauna directly threatened by the construction activities should be removed to a safe location by the ECO or other suitably qualified person.</p> <p>The illegal collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden. Personnel should not be allowed to wander off the construction site.</p> <p>Fires within suitable dedicated containers (i.e. braai drums etc.) should only be allowed within the construction camp and similar demarcated and cleared areas, and no fires should be allowed in the open veld as there is a risk of runaway veld fires.</p> <p>No fuelwood collection should be allowed on-site.</p> <p>No dogs or cats should be allowed on site apart from that of the landowners.</p> <p>If any parts of site such as construction camps must be lit at night, this should be done with low-UV type lights (such as most LEDs) as far as practically possible, which do not attract insects, and which should be directed downwards.</p> <p>All hazardous materials should be stored in an appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.</p> <p>No unauthorized persons should be allowed onto the site, and site access should be strictly controlled.</p> <p>All construction vehicles should adhere to a low-speed limit (40km/h for cars and 30km/h for trucks) to avoid collisions with susceptible species such as snakes and tortoises and rabbits or hares. Speed limits should apply within the facility as well as on the public gravel access roads to the site.</p> <p>All personnel should undergo environmental induction with regards to fauna and in particular awareness about not harming or collecting species such as snakes, tortoises and owls which are often needlessly persecuted.</p>		
Avifauna		
<p>Displacement of priority species due to construction activities at the wind development area</p> <p>Restrict the construction activities to the construction footprint area.</p> <p>Do not allow any access to the remainder of the property during the construction period.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Measures to control noise and dust should be applied according to current best practice in the industry.</p> <p>Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.</p> <p>Implement a 500m no development buffer zone around each of the two pans at FP3 at 31°14'15.02"S 25° 2'44.17"E and FP4 at 31°13'55.42"S 25° 2'50.37"E to protect the pair of Blue Cranes from disturbance.</p> <p>It is recommended that a 2.5km pre-cautionary no-go buffer is implemented around the Verreaux's Eagle nest at FP1 (31°12'59.66"S 24°57'26.08").</p> <p>The appointed Environmental Control Officer (ECO) should be trained by an avifaunal specialist to identify the signs that indicate possible breeding by priority species. The ECO must then, during audits/site visits, make a concerted effort to look out for such breeding activities of such species, and such efforts may include the training of construction staff to identify such species, followed by regular questioning of staff as to the regular whereabouts on site of the species. If any priority species are confirmed to be breeding (e.g. if a nest site is found), construction activities within 500m of the breeding site must cease, and the avifaunal specialist will be contacted immediately for further assessment of the situation and instruction on how to proceed.</p>		
Bats		
<p>Destruction of bat roosts due to earthworks and blasting</p> <p>Adhere to the sensitivity map during turbine placement.</p> <p>Blasting should be minimised and used only when necessary.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Loss of foraging habitat</p> <p>Adhere to the sensitivity map.</p> <p>Keep to designated areas when storing building materials, resources, turbine components and/or construction vehicles and keep to designated roads with all construction vehicles.</p> <p>Damaged areas not required after construction should be rehabilitated by an experienced vegetation succession specialist.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
Noise		

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Night-time construction of the Access Roads Where possible, do not allow night-time construction activities located within 800m from potential noise-sensitive receptors.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Noise from daytime construction traffic Where possible relocate access roads to be further than 60m from dwellings occupied by people (during construction period) to reduce the significance of noise from construction traffic during the day.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Noise from night-time construction traffic Where possible relocate access roads to be further than 140 m from dwellings occupied by people (noise level below 42 dBA). Minimize or eliminate night-time traffic that may pass within 140 m (ideally) from noise-sensitive receptors for a noise impact of low significance.</p>	<p>ECO and Safety Officer Site engineer/site manager Developer to implement</p>	<p>Throughout construction Monthly checks</p>
Visual		
<p>Impact of access roads Carefully plan to reduce the construction period. Minimise vegetation clearing and rehabilitate cleared areas as soon as possible. Maintain a neat construction site by removing rubble and waste materials regularly. Make use of existing gravel access roads where possible. Ensure that dust suppression techniques are implemented on all access roads, especially those leading up steep slopes. Medium-high visual impact zones should be viewed as zones where the number of turbines should be limited, where possible. No turbines should be placed within 500m of the N9, N10 and R389 provincial road. Where possible, fewer but larger turbines with a greater output should be utilised rather than a larger number of smaller turbines with a lower capacity. Turbines should be painted plain white, as this is a less industrial colour (Vissering, 2011). Bright colours or obvious logos should not be permitted.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Turbines should be repaired promptly, as they are considered more visually appealing when the blades are rotating (or at work) (Vissering, 2011).</p> <p>If required, turbines should be replaced with the same model or one of equal height and scale. Repeating elements of the same height, scale and form can result in unity and lessen the visual impact that would typically be experienced in a chaotic landscape made up of diverse colours, textures and patterns (Vissering, 2011).</p> <p>Light fittings for security at night should reflect the light toward the ground and prevent light spill.</p> <p>Ensure that dust suppression techniques are implemented on all access roads.</p>		
<p>Impact of cabling</p> <p>All reinstated cable trenches should be re-vegetated with the same vegetation that existed prior to the cable being laid.</p> <p>Carefully plan to reduce the construction period.</p> <p>Minimise vegetation clearing and rehabilitate cleared areas as soon as possible.</p> <p>Maintain a neat construction site by removing rubble and waste materials regularly.</p> <p>Make use of existing gravel access roads where possible.</p> <p>Ensure that dust suppression techniques are implemented on all access roads.</p> <p>Light fittings for security at the on-site switching station at night should reflect the light toward the ground and prevent light spill.</p> <p>Where practically possible, the operations and maintenance buildings should not be illuminated at night.</p> <p>Power lines should be aligned to run parallel to existing power lines and other linear infrastructure, if possible.</p> <p>Cables should be buried underground where possible.</p> <p>Power lines should be aligned to avoid ridgelines and steep slopes, if possible.</p> <p>The operation and maintenance buildings should be painted with natural tones that fit with the surrounding environment. Non-reflective surfaces should be utilised where possible.</p> <p>Ensure that dust suppression techniques are implemented on all access roads.</p> <p>Select the alternatives that will have the least impact on visual receptors.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Heritage		
<p>Impacts to Archaeological Heritage</p> <p>Do not disturb and old stone kraals or ruins, do not remove stone from walls, or artefacts from the earth or earth surface.</p> <p>Report any chance discoveries of human remains to an archaeologist or a heritage authority.</p> <p>Moderate mitigation requirements have been identified that involve the avoidance of, or professional collection of archaeological material from archaeological sites.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Impacts to Colonial Period Heritage</p> <p>Do not disturb and old stone kraals or ruins, do not remove stone from walls, or artefacts from the earth or earth surface.</p> <p>Do not demolish without authority authorisation, ideally reuse old structures and cottages, care for the fabric but change it as little as possible.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Impacts to cultural landscape and setting</p> <p>Mitigation can be achieved only in part due to size of turbines.</p> <p>Adhere to findings and recommendations of the Visual Impact Assessment.</p> <p>If it is not possible to avoid site Hartebeesthoek JR001, a permit in terms of section 35 of the National Heritage Resources Act, Act 25 of 1999 (NHRA) and Chapter II and III of the 2000 NHRA Regulations must be applied for prior to construction.</p> <p>In order to mitigate sites JG017-19, permits in terms of section 35 of the NHRA and Chapter II and III of the 2000 NHRA Regulations must be applied for prior to construction.</p> <p>A Heritage Management Plan (HMP) must be developed and implemented as part of the EMPr to ensure the in-situ conservation of heritage resources within the development area. The HMP must be submitted to SAHRA prior to construction for comment and approval.</p> <p>If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Hine 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately.</p> <p>A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.</p>		
Palaeontology		
<p>Impacts to Palaeontology</p> <p>Safeguarding of chance fossil finds (preferably in situ) during the construction phase by the responsible ECO, followed by reporting of finds to reporting of finds to the responsible heritage management authority (SAHRA for the Northern Cape or the Eastern Cape Provincial Heritage Resources Authority (ECPRHA) for the Eastern Cape).</p> <p>The monitoring of 10% of excavations into bedrock as per SAHRA guideline.</p> <p>The avoidance of any buffer zones as recommended by the palaeontologist.</p> <p>Recording and judicious sampling of significant chance fossil finds by a qualified palaeontologist, together with pertinent contextual data (stratigraphy, sedimentology, taphonomy) within the final footprint.</p> <p>Curation of fossil material within an approved repository (museum / university fossil collection) by a qualified palaeontologist.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
Socio-Economic		
<p>Creation of local employment, training and business opportunities</p> <p>Employment</p> <p>Where reasonable and practical the proponent should appoint local contractors and implement a 'locals first' policy, especially for semi and low-skilled job categories. Due to the low skills levels in the area, the majority of skilled posts are likely to be filled by people from outside the area.</p> <p>Where feasible, efforts should be made to employ local contractors that are compliant with Broad Based Black Economic Empowerment (BBBEE) criteria.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Before the construction phase commences the proponent should meet with representatives from the ULM and IYLM to establish the existence of a skills database for the area. If such a database exists, it should be made available to the contractors appointed for the construction phase.</p> <p>The local authorities, relevant community representatives and local farmers should be informed of the final decision regarding the project and the potential job opportunities for locals and the employment procedures that the proponent intends following for the construction phase of the project;</p> <p>Where feasible a training and skills development programmes for local workers should be initiated prior to the initiation of the construction phase;</p> <p>The recruitment selection process should seek to promote gender equality and the employment of women wherever possible.</p> <p><u>Business</u></p> <p>The proponent should liaise with the ULM and IYLM with regards the establishment of a database of local companies, specifically BBBEE companies, which qualify as potential service providers (e.g. construction companies, catering companies, waste collection companies, security companies etc.) prior to the commencement of the tender process for construction contractors. These companies should be notified of the tender process and invited to bid for project-related work;</p> <p>Where possible, the proponent should assist local BBBEE companies to complete and submit the required tender forms and associated information.</p> <p>The ULM and IYLM, in conjunction with the local business sector and representatives from the local hospitality industry, should identify strategies aimed at maximising the potential benefits associated with the project.</p> <p><i>Note that while preference to local employees and companies is recommended, it is recognised that a competitive tender process may not guarantee the employment of local labour for the construction phase.</i></p>		
<p>Impact of construction workers on local communities</p> <p>Where possible the proponent should make it a requirement for contractors to implement a 'locals first' policy for construction jobs, specifically for semi and low-skilled job categories.</p> <p>The proponent should consider the need for establishing a Monitoring Forum (MF) in order to monitor the construction phase and the implementation of the recommended mitigation measures. The MF should be established before the construction phase</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>commences, and should include key stakeholders, including representatives from the ULM and IYLM, farmers and the contractor(s). The MF should also be briefed on the potential risks to the local community and farmworkers associated with construction workers.</p> <p>The proponent and the contractor(s) should, in consultation with representatives from the MF, develop a code of conduct for the construction phase. The code should identify which types of behaviour and activities are not acceptable. Construction workers in breach of the code should be dismissed. All dismissals must comply with the South African labour legislation.</p> <p>The proponent and contractor (s) should implement an HIV/AIDS awareness programme for all construction workers at the outset of the construction phase.</p> <p>The contractor should provide transport to and from the site on a daily basis for low and semi-skilled construction workers. This will enable the contractor to effectively manage and monitor the movement of construction workers on and off the site.</p> <p>Where necessary, the contractors should make the necessary arrangements to enable low and semi-skilled workers from outside the area to return home over weekends and/ or on a regular basis. This would reduce the risk posed to local family structures and social networks.</p> <p>It is recommended that no construction workers, with the exception of security personnel, should be permitted to stay over-night on the site.</p>		
<p>Influx of job seekers</p> <p>The proponent should implement a “locals first” policy, specifically with regard to unskilled and low skilled opportunities.</p> <p>The proponent should implement a policy that no employment will be available at the gate and or in the local towns in the area (except for local residents).</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>
<p>Risk to safety, livestock, farm infrastructure and farming operations</p> <p>The proponent should enter into an agreement with the local farmers in the area whereby damages to farm property etc. during the construction phase proven to be associated with the construction activities for the WEF will be compensated for. The agreement should be signed before the construction phase commences.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Contractors appointed by the proponent should provide daily transport for workers to and from the site. This would reduce the potential risk of trespassing on the remainder of the farm and adjacent properties.</p> <p>The proponent should consider the option of establishing a MF (see above) that includes local farmers and develop a Code of Conduct for construction workers. This committee should be established prior to commencement of the construction phase. The Code of Conduct should be signed by the proponent and the contractors before the contractors move onto site.</p> <p>The proponent should hold contractors liable for compensating farmers in full for any stock losses and/or damage to farm infrastructure that can be linked to construction workers. This should be contained in the Code of Conduct to be signed between the proponent, the contractors and neighbouring landowners. The agreement should also cover losses and costs associated with fires caused by construction workers or construction-related activities (see below).</p> <p>The Environmental Management Programme (EMP) should outline procedures for managing and storing waste on-site, specifically plastic waste that poses a threat to livestock if ingested.</p> <p>Contractors appointed by the proponent must ensure that all workers are informed at the outset of the construction phase of the conditions contained in the Code of Conduct, specifically consequences of stock theft and trespassing on adjacent farms.</p> <p>Contractors appointed by the proponent must ensure that construction workers who are found guilty of trespassing, stealing livestock and/or damaging farm infrastructure are dismissed and charged. This should be contained in the Code of Conduct. All dismissals must be in accordance with South African labour legislation.</p> <p>The housing of construction workers on the site should be limited to security personnel.</p>		
<p>Increased fire risk</p> <p>The proponent should enter into an agreement with the local farmers in the area whereby losses associated with fires that can be proven to be associated with the construction activities for the WEF will be compensated for. The agreement should be signed before the construction phase commences.</p> <p>Contractor should ensure that open fires on the site for cooking or heating are not allowed except in designated areas.</p> <p>No smoking should be permitted on site, except in designated areas.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Contractor should ensure that construction-related activities that pose a potential fire risk, such as welding, are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include avoiding working in high wind conditions when the risk of fires is greater. In this regard, special care should be taken during the high risk dry, windy summer months.</p> <p>Contractor to provide adequate fire-fighting equipment on- site.</p> <p>Contractor to provide fire-fighting training to selected construction staff.</p> <p>No construction staff, with the exception of security staff, to be accommodated on-site overnight.</p> <p>As per the conditions of the Code of Conduct, in the event of a fire proven to be caused by construction workers and or construction activities, the appointed contractors must compensate farmers for any damage caused to their farms.</p> <p>The contractor should also compensate for the fire-fighting costs borne by farmers and local authorities.</p>		
<p>Impacts associated with construction vehicles</p> <p>As far as possible, the transport of components to the site along the N10 and N9 should be planned to avoid weekends and holiday periods.</p> <p>The contractor should inform local farmers and representatives from the ULM and IYLM Tourism of dates and times when abnormal loads will be undertaken.</p> <p>The contractor must ensure that damage caused by construction related traffic to internal farm roads is repaired on a regular basis throughout the construction phase. The costs associated with the repair must be borne by the contractor.</p> <p>Dust suppression measures must be implemented for heavy vehicles such as wetting of gravel roads on a regular basis, adhering to speed limits and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers.</p> <p>All vehicles must be road-worthy, and drivers must be qualified and made aware of the potential road safety issues and need for strict speed limits.</p> <p>The Contractor should ensure that workers are informed that no waste can be thrown out of the windows while being transported to and from the site. Workers who throw waste out windows should be fined.</p> <p>The Contractor should be required to collect waste along the road reserve on a weekly basis.</p>	<p>Site engineer/ site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Waste generated during the construction phase should be transported to the local landfill site.</p> <p>EMP measures (and penalties) should be implemented to ensure farm gates are closed at all times.</p> <p>EMP measures (and penalties) should be implemented to ensure speed limits are adhered to at all times.</p>		
<p>Impact associated with loss of farmland</p> <p>The location of wind turbines, access roads, laydown areas etc. should be informed by the findings of the soil and vegetation study. In this regard, areas of high potential agricultural and sensitive vegetation soils should be avoided.</p> <p>The developer should consult with affected property owners in order to enable them to factor construction activities into their farming schedules.</p> <p>The location of wind turbines, access roads, laydown areas etc. should be discussed with the locally affected landowner in the finalisation process and inputs provided should be implemented in the layout as best as possible.</p> <p>The footprint areas for the establishment of individual wind turbines should be clearly demarcated prior to commencement of construction activities. All construction related activities should be confined to the demarcated area and minimised where possible.</p> <p>An Environmental Control Officer (ECO) should be appointed to monitor the establishment phase of the construction phase.</p> <p>All areas disturbed by construction related activities, such as access roads on the site, construction platforms, workshop area, etc., should be rehabilitated at the end of the construction phase. The rehabilitation plan should be informed by input from the soil scientist and discussed with the local farmer.</p> <p>The implementation of a rehabilitation programme should be included in the terms of reference for the contractor/s appointed.</p> <p>The implementation of the Rehabilitation Programme should be monitored by the ECO.</p> <p>All workers should receive training/ briefing on the reasons for and importance of not driving in undesignated areas.</p> <p>EMP measures (and penalties) should be implemented to strictly limit all vehicle traffic to designated roads and construction areas. Under no circumstances should vehicles be allowed to drive into the veld.</p> <p>Disturbance footprints should be reduced to the minimum.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout construction Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Compensation should be paid by the developer to farmers that suffer a permanent loss of land due to the establishment of the WEF. Compensation should be based on accepted land values for the area.		

6.2 Post Construction

- Once construction has been completed on-site, and all excess material has been removed, the storage area shall be rehabilitated. If the area was badly damaged, re-seeding shall be done, and fencing in of the area shall be considered if livestock/faunal species-specific to the area may subsequently have access to such an area.
- Such areas shall be rehabilitated to their natural state. Any spilled concrete shall be removed, and soil compacted during construction shall be ripped, levelled and revegetated.
- Only designated areas must be used for storage of construction materials, soil stockpiles, machinery and other equipment.
- Specific areas must be designated for cement/concrete mixing/ batching plants. Sufficient drainage for these plants must be in place to ensure that soils do not become contaminated.
- The construction camp must be kept clear of litter at all times.
- Spillages within the construction camp need to be cleaned up immediately and disposed of in the hazardous skip bin for correct disposal.
- All remaining material, including building rubble and waste are to be removed from the site.
- All areas disturbed should be managed to ensure efficient drainage.
- The area designated for the deposition of spoil material is to be levelled and shaped to ensure the efficient drainage of the site. Under no circumstances is general or hazardous waste to be disposed of at this site.

6.2.1 Infrastructure

- Disassemble all temporary infrastructure units and remove components from the working areas and contractors camp. This will include storage structures and containers, water storage container, power supply, workers accommodation, sewage systems.
- Drain all potable chemical toilets, being careful not to spill the contents. Transfer the waste to an appropriate disposal site.
- Drain all wastewater and sewage associated with temporary ablution facilities and transfer the waste to an appropriate disposal site to be identified by the contractor.
- Disassemble all fencing around the camp and either sell, suction or donate to the local community or transfer the waste components to a disposal site or the contractor's base.
- Do not leave any components, waste or infrastructure units within the working area and camp unless specifically required for the operation and maintenance phases and as agreed by the ECO.

6.2.2 Contaminate Substrate and Pollution Control Structures

- Excavate all areas of contaminated substrate, transfer the contaminated substrate to an appropriate disposal site and treat the affected areas.
- Remove all plastic linings used for pollution control and transfer to an appropriate disposal site.
- Break up all concrete structures that have been created and remove concrete waste to an appropriate disposal site.

6.2.3 Waste

- Remove all remaining construction materials from the camp and working areas and either sell, auction, donate to the local community or transfer the waste components to a disposal site or the contractor's base.
- Remove all construction debris, litter and domestic waste from the camp and working areas and transfer to an appropriate disposal site.
- Remove all waste receptacles from the camp and working areas and either sell, auction, donate to the local community or transfer the waste components to a disposal site or the contractor's base.

7 OPERATIONAL PHASE MITIGATION MEASURES

Once the construction and commissioning of the WEF is completed the project becomes operational. The operator of the WEF has the responsibility to ensure that the mitigation measures proposed for the operational phase of the WEF is implemented and conducted appropriately. The main impacts associated with the operation phase of the WEF relate to birds and bats.

During operation of the development, the large majority of the WEF sites will continue with agricultural use as it is currently. The only development related activities on-site will be routine servicing and unscheduled maintenance. The noise impact from maintenance activities is insignificant, with the main noise source being the wind turbine blades and the nacelle (components inside).

Although noise and disturbance levels during operation will be significantly reduced compared to construction, some noise and disturbance impacts will persist due to operational activities on the wind farm as well as noise generated by the turbines themselves. Due to the low significance of a noise impact, no routine noise measurement programme is recommended. Measurement locations, frequencies and procedures are provided as a guideline for the developer to consider should there be a noise complaint.

As the affected areas are not considered to be very high faunal sensitivity, and there are no species of very high sensitivity present, the post-mitigation operational impacts on fauna are likely to be of low significance.

Displacement of priority bird species due to habitat destruction during the operational lifetime of the wind energy facility phase is likely to be a medium negative impact but will be reduced to a low level with the application of mitigation measures. Species most likely to be affected by the habitat destruction (particularly fragmentation) are the terrestrial species such as Blue Crane, Ludwig's Bustard, Secretarybird and Grey-winged Francolin. The rehabilitation of disturbed areas will help to mitigate the impact of the habitat transformation to some extent, but the fragmentation of the habitat due to the construction of the internal road network cannot be mitigated and will remain an impact for the duration of the operational lifetime of the facility.

Collisions of priority species with the turbines in the operational phase are likely to be a medium negative impact, and it could be reduced to a low negative level through the application of mitigation measures. Species most likely to be at risk of collision with the turbines are Lesser Kestrel, Martial Eagle, Verreux's Eagle and Jackal Buzzard. The impact is likely to persist for the operational lifetime of the project. Implementation of the proposed mitigation measures should reduce the probability and severity of the impact on priority species to such an extent that the overall significance should be reduced to low.

Mortality of priority species with the grid connection and internal medium voltage network due to collisions in the operational phase is likely to be of medium significance and will remain as such after the implementation of mitigation measures.

During the operational life of the wind farm, it is expected that physical impacts to heritage will diminish or cease. Impacts to intangible heritage are expected to occur. Such impacts relate to changes to the feel, atmosphere and identity of a place or landscape. Such changes are evoked by visual intrusion, noise, changes in land use and population density. In the case of this project, there are no inhabited structures with or close to the project area, therefore, these impacts will not apply.

It is recommended that curtailment be applied from the start of operation at Level 3 on all turbines for every night of the year from dusk until dawn. Should robust and scientifically defensible data gathered during the operational study phase reveal higher bat mortalities

than currently anticipated, the mitigations should be applied to the turbines identified as causing the highest impacts.

The developer has the responsibility to ensure that all operational mitigation measures outlined in this document, and all revisions thereof, are complied with.

Table 7.1 Operational Phase Mitigation Measures

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Freshwater and Wetlands		
<p>Impact on riparian systems through the possible increase in surface water runoff from hard surfaces and or new road crossings on riparian form and function</p> <p>Any stormwater within the site must be handled in a suitable manner, i.e. trap sediments, and reduce flow velocities. This is particularly important due to the levels of erosion already observed within the affected catchments.</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout operation. Monthly checks
<p>Increase in sedimentation and erosion within the development footprint during the construction phase and to a lesser degree the operational phase</p> <p>During the operational phase, monitor culverts to see if erosion issues arise and if any erosion control is required.</p> <p>Appropriate ablation facilities should be provided for on-site staff during the operation of the facility.</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout operation. Monthly checks
Flora and Terrestrial Fauna		
<p>Faunal impacts due to operational activities</p> <p>Management of the site should take place within the context of an Open Space Management Plan.</p> <p>No unauthorized persons should be allowed onto the site.</p> <p>Any potentially dangerous fauna such snakes or fauna threatened by the maintenance and operational activities should be removed to a safe location.</p> <p>The collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden by anyone except landowners or other individuals with the appropriate permits and permissions where required.</p> <p>If the site must be lit at night for security purposes, this should be done with downward- directed low-UV type lights (such as most LEDs) as far as possible, which do not attract insects.</p> <p>All hazardous materials should be stored in an appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout operation. Monthly checks

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>site should be cleaned up in the appropriate manner as related to the nature of the spill.</p> <p>All vehicles accessing the site should adhere to a low-speed limit (40km/h max) to avoid collisions with susceptible species such as snakes and tortoises.</p>		
<p>Soil Erosion Risk</p> <p>Erosion management at the site should take place according to the Erosion Management Plan and Rehabilitation Plan.</p> <p>All roads and other hardened surfaces should have runoff control features which redirect water flow and dissipate any energy in the water which may pose an erosion risk.</p> <p>Regular monitoring for erosion after construction to ensure that no erosion problems have developed as result of the disturbance, as per the Erosion Management and Rehabilitation Plans for the project.</p> <p>All erosion problems observed should be rectified as soon as possible, using the appropriate erosion control structures and revegetation techniques.</p> <p>All cleared areas should be revegetated with indigenous perennial shrubs and grasses from the local area. These can be cut when dry and placed on the cleared areas if natural recovery is slow.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
<p>Alien Plant Invasion</p> <p>Regular monitoring for alien plants within the development footprint as well as adjacent areas which receive runoff from the facility as there are also likely to be prone to invasion problems.</p> <p>Regular alien clearing should be conducted, as needed, using the best-practice methods for the species concerned. The use of herbicides should be avoided as far as possible</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
Avifauna		
<p>Displacement of priority species due to habitat destruction at the wind development site</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Following construction, rehabilitation of all areas disturbed (e.g. temporary access tracks and laydown areas) must be undertaken, and to this end a habitat restoration plan is to be developed by a rehabilitation specialist.		
<p>Direct mortality of priority species due to collisions with the turbines at the wind development area</p> <p>Once the turbines have been constructed, post-construction monitoring should be implemented to compare actual collision rates with predicted collision rates.</p> <p>The avifaunal specialist, in consultation with external experts and relevant NGO's such as BLSA, should determine annual mortality thresholds for priority species anticipated to be at risk of collision mortality, prior to the wind farm going operational.</p> <p>If actual collision rates exceed the pre-determined threshold levels, curtailment of turbines should be implemented for high-risk situations.</p> <p>A 150m no-turbine set-back buffer zone (infrastructure is allowed) is required around the escarpment to minimise the risk of collisions for slope soaring species.</p> <p>Care should be taken not to create habitat for prey species that could draw priority raptors into the area and expose them to collision risk. Rock piles must be removed from site or covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie).</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout operation. Monthly checks
Bats		
<p>Bat mortalities due to direct blade impact or barotrauma during foraging activities (not migration)</p> <p>Adhere to operational mitigation measures that may be deemed necessary during the operational monitoring assessment, if any is required.</p>	Site engineer/site manager Developer to implement ECO	Throughout operation. Monthly checks
<p>Artificial Lighting</p> <p>If possible, utilise lights with wavelengths that attract fewer insects (low thermal/infrared signature).</p> <p>Lights should be switched off when not in use or equipped with passive motion sensors.</p>	Site engineer/site manager Developer to implement ECO	Throughout operation. Monthly checks
Socio-Economic		

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Development of renewable energy infrastructure</p> <p>Implement a skills development and training programme aimed at maximizing the number of employment opportunities for local community members.</p> <p>Maximise opportunities for local content, procurement and community shareholding.</p> <p>Establish a visitor centre.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
<p>Creation of employment and business opportunities and support for local economic development</p> <p>Implement a skills development and training programme aimed at maximizing the number of employment opportunities for local community members.</p> <p>Maximise opportunities for local content, procurement and community shareholding.</p> <p>Establish a visitor centre.</p> <p>The proponent should implement a training and skills development programme for locals during the first 5 years of the operational phase. The aim of the programme should be to maximise the number of South African's and locals employed during the operational phase of the project.</p> <p>The proponent, in consultation with the ULM and IYLM, should investigate the options for the establishment of a Community Development Trust.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
<p>Benefits associated with the establishment of a Community Trust</p> <p>The ULM and IYLM should be consulted as to the structure and identification of potential trustees to sit on the Trust. The key departments in the ULM and IYLM that should be consulted include the Municipal Managers Office, IDP Manager and LED Manager.</p> <p>Clear criteria for identifying and funding community projects and initiatives in the area should be identified. The criteria should be aimed at maximising the benefits for the community as a whole and not individuals within the community.</p> <p>Strict financial management controls, including annual audits, should be instituted to manage the funds generated for the Community Trust from the WEF.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>
<p>Generate income for affected landowners</p> <p>Implement agreements with affected landowners.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout operation. Monthly checks</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Potential impact on tourism The proponent should consider the establishment of a visitor centre should the proposed WEF be approved.	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout operation. Monthly checks

8 CUMULATIVE IMPACTS MITIGATION MEASURES

8.1 Geology

The likelihood of cumulative impacts is small. Only if other developments (whether wind farms or not) were to occur, using the same access roads and thereby increasing potential soil erosion aspects, would cumulative impacts need to be considered.

8.2 Freshwater and Wetlands

Overall cumulative impact during the construction and operational phases mitigation measures is to reduce residual risk or enhance opportunities by improving the current stormwater and energy dissipation features not currently found along the tracks and roads within the region and installing properly sized culverts with erosion protection measures at the present road/track crossings.

8.3 Flora and Terrestrial Fauna

The current layout has been arrived at through iteration of various layouts and takes account of the sensitive features identified and mapped, as such, the development footprint will minimize the impact on the high sensitivity areas and is considered to represent an acceptable mitigated layout. Further refinement of the layout can occur with turbine micro-siting at the pre-construction phase to minimize impact on local features such as rocky outcrops. There should be an integrated management plan for the development area during operation, which is beneficial to fauna and flora.

8.4 Avifauna

Cumulative impacts on avifauna are displacement of priority species due to construction activities at the wind development area; mortality of priority species due to electrocution associated with the internal medium voltage MV powerlines; direct mortality of priority species due to collisions with the turbines at the wind development area; displacement of priority species due to dismantling activities at the wind development area; and direct mortality of priority species due to collisions with the internal medium voltage MV lines and the 132kV grid connection powerline. The mitigation measures to reduce residual risk or enhance opportunities is to ensure that all the proposed mitigation measures for the Hartebeesthoek East WEF detailed above must be implemented and all the proposed mitigation measures proposed for the other renewable energy facilities within a 35km radius should be implemented to reduce the cumulative impact. Developers and operators of the facilities must ensure that these mitigation measures are implemented.

8.4.1 Mitigation Measures

All proposed mitigation measures for Construction, Operational and Decommissioning Impact Phases of the San Kraal WEF and the Hartebeesthoek East WEF should be implemented:

- Restrict the construction activities to the construction footprint area.
- Do not allow any access to the remainder of the property during the construction period.
- Measures to control noise and dust should be applied according to current best practice in the industry.
- Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.
- Implement a 500m no development buffer zone around each of the two pans at FP3 at 31°14'15.02"S 25° 2'44.17"E and FP4 at 31°13'55.42"S 25° 2'50.37"E to protect the pair of Blue Cranes from disturbance.

- The appointed Environmental Control Officer (ECO) should be trained by an avifaunal specialist to identify the signs that indicate possible breeding by priority species. The ECO must then, during audits/site visits, make a concerted effort to look out for such breeding activities of such species, and such efforts may include the training of construction staff to identify such species, followed by regular questioning of staff as to the regular whereabouts on site of the species. If any priority species are confirmed to be breeding (e.g. if a nest site is found), construction activities within 500m of the breeding site must cease, and the avifaunal specialist will be contacted immediately for further assessment of the situation and instruction on how to proceed.
- The final powerline design and associated electrocution mitigation measures (if necessary) must be approved and signed off by the avifaunal specialist.
- The recommendations of the specialist ecological study must be strictly adhered to.
- Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.
- Following construction, rehabilitation of all areas disturbed (e.g. temporary access tracks and laydown areas) must be undertaken, and to this end a habitat restoration plan is to be developed by a rehabilitation specialist.
- Once the turbines have been constructed, post-construction monitoring should be implemented to compare actual collision rates with predicted collision rates.
- The avifaunal specialist, in consultation with external experts and relevant NGO's such as BLSA, should determine annual mortality thresholds for priority species anticipated to be at risk of collision mortality, prior to the wind farm going operational.
- If actual collision rates exceed the pre-determined threshold levels, curtailment of turbines should be implemented for high-risk situations.
- A 150m no-turbine set-back buffer zone (infrastructure is allowed) is required around the escarpment to minimise the risk of collisions for slope soaring species.
- Care should be taken not to create habitat for prey species that could draw priority raptors into the area and expose them to collision risk. Rock piles must be removed from site or covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie).
- Restrict the dismantling activities to the footprint area.
- Do not allow any access to the remainder of the property during the dismantling period.
- Measures to control noise and dust should be applied according to current best practice in the industry.
- Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.

All the proposed mitigation measures proposed for the other renewable energy facilities within a 35km radius should be implemented:

Umsobomvu Wind Energy Facility

- No infrastructure should be built in the areas identified as HIGH sensitivity.
- There may be a requirement to avoid construction of certain infrastructure during Verreaux's Eagle breeding season (approximately May to September/October). This will be determined by the avifaunal walk through prior to construction and once the infrastructure layout is final.
- All power line linking the turbines and linking turbine strings to the on-site substation should be placed underground.
- The power line linking the site to the Eskom grid will be above ground but must conform to all Eskom standards in terms of bird-friendly pole monopole structures with Bird Perches on every pole top (to mitigate for bird electrocution), and anti-bird collision line marking devices (to mitigate for bird collision). It is particularly important that the collision mitigation devices used are durable and remain in place on the line for the full lifespan of the power line. It will be EDF/Eskom's responsibility to maintain these

devices ineffective condition for this period. Systematic patrols of this power line should be conducted during post-construction bird monitoring for the wind energy facility, in order to monitor the impacts, the effectiveness of mitigation, and the durability of the mitigation measures. An avifaunal walk down will need to be conducted to assess the route of this power line once available.

- A final avifaunal walkthrough should be conducted prior to construction to ensure that all the avifaunal aspects have been adequately managed and to ground-truth the final layout of all infrastructure. This will most likely be done as part of the site-specific Environmental Management Plan. This will also allow the development of specific management actions for the Environmental Control Officer during construction and training for relevant on-site personnel if necessary.
- The post-construction bird monitoring programme outlined by this report should be implemented by a suitably qualified avifaunal specialist, in accordance with the latest available best practice guidelines at the time (see Jenkins et al. 2015). As mentioned above this monitoring should include the grid connection power line.
- The findings of post-construction monitoring should be used to measure the effects of this facility on birds. If significant impacts are identified, the wind farm operator will have to identify and implement suitable mitigation measures.

Phezukomoya Wind Energy Facility and Hartebeesthoek West Wind Energy Facility

- Restrict the construction activities to the construction footprint area.
- Do not allow any access to the remainder of the property during the construction period.
- Measures to control noise and dust should be applied according to current best practice in the industry.
- Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.
- A 3 km no-go buffer is implemented around the Verreaux's Eagle nest at FP1 (31°12'59.66"S 24°57'26.08").
- The appointed Environmental Control Officer (ECO) should be trained by an avifaunal specialist to identify the signs that indicate possible breeding by priority species. The ECO must then, during audits/site visits, make a concerted effort to look out for such breeding activities of such species, and such efforts may include the training of construction staff to identify such species, followed by regular questioning of staff as to the regular whereabouts on site of the species. If any priority species are confirmed to be breeding (e.g. if a nest site is found), construction activities within 500m of the breeding site must cease, and the avifaunal specialist will be contacted immediately for further assessment of the situation and instruction on how to proceed.
- The final powerline route should be assessed by the avifaunal specialist way of a walk-down to identify any priority species nests, which could be impacted by the construction activities. Should a nest be discovered, the avifaunal specialist must have input into the construction schedule to assess how and which of the construction activities can be timed to minimize the disturbance potential to the occupants of the nest.
- The final powerline design and associated electrocution mitigation measures (if necessary) must be approved and signed off by the avifaunal specialist.
- The recommendations of the specialist ecological study must be strictly adhered to.
- Following construction, rehabilitation of all areas disturbed (e.g. temporary access tracks and laydown areas) must be undertaken, and to this end a habitat restoration plan is to be developed by a rehabilitation specialist.
- Once the turbines have been constructed, post-construction monitoring should be implemented to compare actual collision rates with predicted collision rates.
- The avifaunal specialist, in consultation with external experts and relevant NGO's such as BLSA, should determine annual mortality thresholds for priority anticipated to be at risk of collision mortality, prior to the wind farm going operational.

- If actual collision rates exceed the pre-determined threshold levels, curtailment of turbines should be implemented for high-risk situations.
- Care should be taken not to create habitat for prey species that could draw priority raptors into the area and expose them to collision risk. Rock piles must be removed from site or covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie).
- The final powerline route should be assessed by way of a walkthrough to identify sections of the lines that require bird flight diverters.
- An avifaunal specialist should perform a walk-through of the powerline prior to the commencement of the dismantling activities to identify any raptor nests on the line. Should a nest be discovered, the avifaunal specialist must have input into the dismantling schedule to assess how and which of the dismantling activities can be timed to minimize the disturbance potential to the occupants of the nest.

8.5 Bats

Cumulative impacts on bat mortalities due to direct blade collision or barotrauma during foraging on resident and migrating bats can be mitigated by adhering to recommended mitigation measures during the operational phase study; applying and adhering to project-specific mitigations and the sensitivity map during any further turbine layout revisions; avoid placements of turbines in bat sensitive areas and their buffers; lastly the high sensitivity valley areas can serve as commuting corridors for bats in the larger area, potentially lowering the cumulative effects of several WEF's in an area if the valley areas are avoided during turbine placement and are well buffered.

8.6 Visual

Large construction vehicles and equipment during the construction phase of the Hartebeesthoek East WEF will contribute further to the alteration of the natural character of the study area and will also expose a greater number of visual receptors to visual impacts associated with the construction phase. The construction activities may be perceived as an unwelcome visual intrusion, particularly in more natural undisturbed settings. Vehicles and trucks travelling to and from the proposed Hartebeesthoek East development site on gravel access roads are also expected to result in an increase in dust emissions in the greater area. The increased traffic on these roads and the dust plumes could create a greater visual impact within the greater area and may evoke more negative sentiments from surrounding viewers. Surface disturbance during construction of the Hartebeesthoek East WEF would also result in a greater amount of bare soil being exposed which could result in a greater visual contrast with the surrounding environment. In addition, temporary stockpiling of soil during construction may alter the landscape further. Wind blowing over these disturbed areas could result in a greater amount of dust which would have a visual impact. The following should be implemented by all developers in the cumulative region assessed:

- Carefully plan to reduce the construction period.
- Minimise vegetation clearing and rehabilitate cleared areas as soon as possible.
- Vegetation clearing should take place in a phased manner.
- Maintain a neat construction site by removing rubble and waste materials regularly.
- Make use of existing gravel access roads, where possible.
- Limit the number of vehicles and trucks travelling to and from the proposed Hartebeesthoek East development site, where possible.
- Ensure that dust suppression techniques are implemented on all access roads.
- Ensure that dust suppression is implemented in all areas where vegetation clearing has taken place.
- Ensure that dust suppression techniques are implemented on all soil stockpiles.

- Temporarily fence-off the construction sites (for the duration of the construction period).
- All reinstated cable trenches should be re-vegetated with the same vegetation that existed prior to the cable being laid, where possible.
- It is not realistic to attempt to screen wind farms visually. Providing a means whereby they can be absorbed into the landscape is more feasible. This can be approached by making use of certain materials and finishes and by presenting the scheme to I&APs.
- Institute a rigorous planting regime around certain boundaries of the project site, for example, the substations, the buildings, and the N10 and N9 transportation routes.

Buildings and similar structures must be in keeping with regional planning policy documents, especially the principles of critical regionalism (namely sense of place, sense of history, sense of nature, sense of craft and sense of limits).

The Hartebeesthoek East WEF development and its associated infrastructure could exert a visual impact by further altering the visual character of the surrounding area and exposing a greater number of sensitive visual receptor locations to visual impacts. The operation of the Hartebeesthoek East WEF in addition to the other nearby renewable energy developments may be perceived as an unwelcome visual intrusion, particularly in more natural undisturbed settings. Maintenance vehicles may need to access the Hartebeesthoek East WEF development and its associated infrastructure via gravel access roads and are expected to increase dust emissions in the surrounding area in doing so. The increased traffic on the gravel roads and the dust plumes could create a greater visual impact within the surrounding area and may evoke more negative sentiments from surrounding viewers. It should, however, be noted that the existing roads which can be found around the project site also appear to be gravel. As such, the gravel access roads are not expected to contribute significantly to the overall cumulative visual impact. Security and operational lighting at Hartebeesthoek East WEF development and its associated infrastructure could result in a greater amount of light pollution and glare within the surrounding area, which could be a significant annoyance to surrounding viewers.

- Where possible, fewer but larger turbines with a greater output should be utilised rather than a larger number of smaller turbines with a lower capacity.
- Medium-high visual impact zones should be viewed as zones where the number of turbines should be limited, where possible.
- Light fittings for security at night should reflect the light toward the ground (except for aviation lighting) and prevent light spill.
- The operations and maintenance buildings should not be illuminated at night, if possible.
- Turbines should be painted plain white, as this is a less industrial colour (Vissering, 2011). Bright colours or obvious logos should not be permitted.
- Turbines should be repaired promptly, as they are considered more visually appealing when the blades are rotating (or at work) (Vissering, 2011).
- The operation and maintenance buildings should be painted with natural tones that fit with the surrounding environment. Non-reflective surfaces should be utilised where possible.
- If required, turbines should be replaced with the same model or one of equal height and scale. Repeating elements of the same height, scale and form can result in unity and lessen the visual impact that would typically be experienced in a chaotic landscape made up of diverse colours, textures and patterns (Vissering, 2011).
- As far as possible, limit the number of maintenance vehicles, which are allowed to access the sites.
- Bury cables under the ground where possible.
- Ensure that dust suppression techniques are implemented on all access roads.
- Select the alternatives that will have the least impact on visual receptors.

8.7 Heritage

The cumulative impact on heritage is the risk of accumulative damage to the National Estate. Given the lack of information at present, it is difficult to judge the success of mitigation and therefore, the degree of accumulative impact that has taken place. Methods must be developed by heritage authorities, to assess the success of mitigation, within renewable energy projects.

8.8 Social

- The final placement of wind turbines associated with the proposed WEF should be discussed with the affected landowners, and the recommendations of the VIA should be implemented.
- The establishment of a number of renewable energy facilities has the potential to place pressure on local services, specifically medical, education and accommodation. The Northern and Eastern Cape Provincial Government, in consultation with the ULM and IYLM and the proponents involved in the development renewable energy projects in the ULM and IYLM area should consider establishing a Development Forum to coordinate and manage the development and operation of renewable energy projects in the area, with the specific aim of mitigating potential negative impacts and enhancing opportunities. This would include identifying key needs, including the capacity of existing services, accommodation and housing and the implementation of an accredited training and skills development programmes aimed at maximising the opportunities for local workers to be employed during the construction and operational phases of the various proposed projects. These issues should be addressed in the Integrated Development Planning process undertaken by the ULM and IYLM.
- The establishment of a number of renewable energy facilities in the region will create employment, skills development and training opportunities, creation of downstream business opportunities. The proposed establishment of suitably sited renewable energy facilities within the ULM and IYLM should be supported.

9 DECOMMISSIONING PHASE

The following mitigation measures must be implemented, should the development be decommissioned. These measures must be continuously updated through the operational phase of the development.

Table 9.1 Decommissioning Phase Mitigation Measures

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
Freshwater and Wetlands		
<p>Impact on riparian systems through the possible increase in surface water runoff from hard surfaces and or new road crossings on riparian form and function</p> <p>Any stormwater within the site must be handled in a suitable manner, i.e. trap sediments, and reduce flow velocities. This is particularly important due to the levels of erosion already observed within the affected catchments.</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout the decommissioning of the facility.
Flora and Terrestrial Fauna		
<p>Faunal impacts due to decommissioning phase activities</p> <p>Any potentially dangerous fauna such as snakes or fauna threatened by the decommissioning activities should be removed to a safe location prior to the commencement of decommissioning activities.</p> <p>All hazardous materials should be stored in the appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.</p> <p>All vehicles accessing the site should adhere to a low-speed limit (40km/h max) to avoid collisions with susceptible species such as snakes and tortoises.</p> <p>No excavated holes or trenches should be left open for extended periods as fauna may fall in and become trapped.</p> <p>All above-ground infrastructure should be removed from the site. Below-ground infrastructure such as cabling can be left in place if it does not pose a risk, as removal of such cables may generate additional disturbance and impact, however, this should be in accordance with the facilities' decommissioning and recycling plan, and as per the agreements with the landowners concerned.</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout the decommissioning of the facility.
<p>Following decommissioning, the site will be highly vulnerable to soil erosion</p>	Site engineer/site manager Developer to implement ECO and Safety Officer	Throughout the decommissioning of the facility.

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Any roads that will not be rehabilitated should have runoff control features which redirect water flow and dissipate any energy in the water, which may pose an erosion risk.</p> <p>There should be regular monitoring for erosion for at least 2 years after decommissioning by the applicant to ensure that no erosion problems develop as result of the disturbance, and if they do, to immediately implement erosion control measures.</p> <p>All erosion problems observed should be rectified as soon as possible, using the appropriate erosion control structures and revegetation techniques.</p> <p>All disturbed and cleared areas should be revegetated with indigenous perennial shrubs and grasses from the local area.</p>		
<p>Faunal impacts due to decommissioning phase activities</p> <p>Any potentially dangerous fauna such as snakes or fauna threatened by the decommissioning activities should be removed to a safe location prior to the commencement of decommissioning activities.</p> <p>All hazardous materials should be stored in the appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.</p> <p>All vehicles accessing the site should adhere to a low speed limit (40km/h max) to avoid collisions with susceptible species such as snakes and tortoises.</p> <p>No excavated holes or trenches should be left open for extended periods as fauna may fall in and become trapped.</p> <p>All above-ground infrastructure should be removed from the site. Below-ground infrastructure such as cabling can be left in place if it does not pose a risk, as removal of such cables may generate additional disturbance and impact, however, this should be in accordance with the facilities' decommissioning and recycling plan, and as per the agreements with the landowners concerned.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout the decommissioning of the facility.</p>
<p>Alien Plant Invasion following decommissioning</p> <p>Wherever excavation is necessary for decommissioning, topsoil should be set aside and replaced after decommissioning activities are complete to encourage natural regeneration of the local indigenous species.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout the decommissioning of the facility.</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
<p>Due to the disturbance at the site alien plant species are likely to be a long-term problem at the site following decommissioning, and regular control will need to be implemented until a cover of indigenous species has returned.</p> <p>Regular monitoring for alien plants within the disturbed areas for at least two years after decommissioning or until alien invasive species are no longer a problem at the site.</p> <p>Regular alien clearing should be conducted using the best-practice methods for the species concerned. The use of herbicides should be avoided as far as possible.</p>		
Avifauna		
<p>Displacement of priority species due to dismantling activities at the wind development area</p> <p>Restrict the dismantling activities to the footprint area.</p> <p>Do not allow any access to the remainder of the property during the dismantling period.</p> <p>Measures to control noise and dust should be applied according to current best practice in the industry.</p> <p>Maximum use should be made of existing access roads, and the construction of new roads should be kept to a minimum.</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout the decommissioning of the facility.</p>
Socio-Economic		
<p>Loss of jobs and associated income</p> <p>The proponent should ensure that retrenchment packages are provided for all staff retrenched when the WEF is decommissioned.</p> <p>All structures and infrastructure associated with the proposed facility should be dismantled and transported off-site on decommissioning;</p> <p>The proponent should investigate the option of establishing an Environmental Rehabilitation Trust Fund to cover the costs of decommissioning and rehabilitation of disturbed areas. The Trust Fund should be funded by a percentage of the revenue generated from the sale of energy to the national grid over the 20-year operational life of the facility. The rationale for the establishment of a Rehabilitation Trust Fund is linked to the experiences with the mining sector in South Africa and failure of many</p>	<p>Site engineer/site manager Developer to implement ECO and Safety Officer</p>	<p>Throughout the decommissioning of the facility.</p>

Potential Impact and Proposed Mitigation Measures	Responsibility	Frequency
mining companies to allocate sufficient funds during the operational phase to cover the costs of rehabilitation and closure. Alternatively, the funds from the sale of the WEF as scrap metal should be allocated to the rehabilitation of the site		

10 ALIEN INVASIVE MANAGEMENT PLAN

10.1 Purpose of the Alien Invasive Management Plan

The purpose of the Hartebeesthoek East WEF Alien Invasive Management Plan is to provide a framework for the management of alien and invasive plant species during the construction and operation of the Hartebeesthoek East Wind Energy Facility. The broad objectives of the plan include the following:

- Ensure alien plants do not become dominant in parts or the whole site through the control and management of alien and invasive species presence, dispersal & encroachment
- Initiate and implement a monitoring and eradication programme for alien and invasive species
- Promote the natural re-establishment and planting of indigenous species in order to retard erosion and alien plant invasion.

10.2 Problem Outline

Alien plants replace indigenous vegetation leading to a severe loss of biodiversity and change in landscape function. Potential consequences include loss of biodiversity, loss of grazing resources, increased fire risk, increased erosion, loss of wetland function, impacts on drainage lines, increased water use etc.

In addition, the Conservation of Agricultural Resources Act (Act 43 of 1983), as amended in 2001, requires that land users clear *Declared Weeds* from their properties and prevent the spread of declared invader plants

Table 3 of CARA (the Conservation of Agricultural Resources Act) lists all declared weeds and invader plants. Alien plants are divided into 3 categories based on their risk as an invader.

- Category 1 - These plants must be removed and controlled by all land users. They may no longer be planted or propagated, and all trade in these species is prohibited.
- Category 2 – These plants pose a threat to the environment but nevertheless have commercial value. These species are only allowed to occur in demarcated areas, and a land user must obtain a water use licence as these plants consume large quantities of water.
- Category 3 – These plants have the potential of becoming invasive but are considered to have ornamental value. Existing plants do not have to be removed, but no new plantings may occur, and the plants may not be sold.

The following guide is a useful starting point for the identification of alien species: Bromilow, C. 2010. Problem Plants and Alien Weeds of South Africa. Briza, Pretoria.

10.2.1 Vulnerable Ecosystems and Habitats

Certain habitats and environments are more vulnerable to alien plant invasion and are likely to bear the brunt of alien plant invasion problems at the site. In addition, construction activities and changes in water distribution at the site following construction are also likely to increase and alter the vulnerability of the site to alien plant invasion.

Areas at the site which are likely to require specific attention include the following:

- Wetlands, drainage lines and other mesic areas
- Cleared and disturbed areas such as road verges, crane pads and construction footprints etc.

- Construction camps and lay-down areas which are cleared or are active for an extended period

10.2.1.1 *Wetlands, drainage lines and other mesic areas*

There are a number of drainage lines at the site. Disturbance within these areas often results in alien plant invasion on account of the greater water and nutrient availability in this habitat. Although there are no turbines within such areas, numerous road crossings will be required. The disturbance footprint within such areas should be minimized, and these areas should be checked for alien species more than the surrounding landscape.

10.2.1.2 *Cleared and disturbed areas*

Cleared and disturbed areas are clearly vulnerable to invasion on account of the lack of existing plant cover to resist invasion as well as the disturbance created during construction which promoted the germination and establishment of alien plant species.

10.2.1.3 *Construction camps and laydown areas*

Construction camps and lay down areas are either cleared of vegetation or prolonged activities in these areas result in negative impact on indigenous vegetation. In addition, repeated vehicle and human activity in these areas usually results in the import of alien plant seed on clothes, dirty vehicles or with construction machinery and materials

10.3 General Clearing and Guidance Principles

Alien control programs are long-term management projects and should include a clearing plan which includes follow up actions for rehabilitation of the cleared area. Alien problems at the site should be identified during pre-construction surveys of the development footprint. This may occur simultaneously to other required surveys. The clearing plan should then form part of the pre-construction reporting requirements for the site.

- The plan should include a map showing the alien density & indicating dominant alien species in each area.
- Lighter infested areas should be cleared first to prevent the build-up of seed banks.
- Pre-existing dense mature stands ideally should be left for last, as they probably won't increase in density or pose a greater threat than they are currently.
- Collective management and planning with neighbours may be required in the case of large woody invaders as seeds of aliens are easily dispersed across boundaries by wind or watercourses.
- All clearing actions should be monitored and documented to keep track of which areas are due for follow-up clearing.

10.4 Clearing Methods

- Different species require different clearing methods such as manual, chemical or biological methods or a combination of both.
- However, care should be taken that the clearing methods used do not encourage further invasion. As such, regardless of the methods used, disturbance to the soil should be kept to a minimum. Fire is not a natural phenomenon in the area and fire should not be used for alien control or vegetation management at the site.
- The best-practice clearing method for each species identified should be used. The preferred clearing methods for most alien species can be obtained from the DWAF Working for Water Website. <http://www.dwaf.gov.za/wfw/Control/>.

10.5 Use of Herbicide for Alien Control

Although it is usually preferable to use manual clearing methods where possible, such methods may create additional disturbance which stimulates alien invasion and may also be ineffective for many woody species which re-sprout. Where herbicides are to be used, the impact of the operation on the natural environment should be minimised by observing the following:

- Area contamination must be minimised by careful, accurate application with a minimum amount of herbicide to achieve good control.
- All care must be taken to prevent contamination of any water bodies. This includes due care in storage, application, cleaning equipment and disposal of containers, product and spray mixtures.
- Equipment should be washed where there is no danger of contaminating water sources and washings carefully disposed of in a suitable site.
- To avoid damage to indigenous or other desirable vegetation, products should be selected that will have the least effect on non-target vegetation.
- Coarse droplet nozzles should be fitted to avoid drift onto neighbouring vegetation.
- The appropriate health and safety procedures should also be followed regarding the storage, handling and disposal of herbicides.

For all herbicide applications, the following guidelines should be followed:

Working for Water: Policy on the Use of Herbicides for the Control of Alien Vegetation

11 ALIEN PLANT MANAGEMENT PLAN

11.1 Construction Phase Activities

The following management actions are aimed at reducing soil disturbance during the construction phase of the development, as well as reducing the likelihood that alien species will be brought onto site or otherwise encouraged.

Construction Phase Action	Frequency
The ECO is to provide permission prior to any vegetation being cleared for development.	Daily
Clearing of vegetation should be undertaken as the work front progresses – mass clearing should not occur unless the cleared areas are to be surfaced or prepared immediately afterwards.	Weekly
Where cleared areas will be exposed for some time, these areas should be protected with packed brush, or appropriately battered with fascine work. Alternatively, jute (Soil Saver) may be pegged over the soil to stabilise it.	Weekly
Cleared areas that have become invaded can be sprayed with appropriate herbicides provided that these are such that break down on contact with the soil. Residual herbicides should not be used.	Weekly
Although organic matter is frequently used to encourage regrowth of vegetation on cleared areas, no foreign material for this purpose should be brought onto site. Brush from cleared areas should be used as much as possible. The use of manure or other soil amendments is likely to encourage invasion.	Weekly
Clearing of vegetation is not allowed within 32 m of any wetland, 80 m of any wooded area, within 1:100 year floodlines, in conservation servitude areas or on slopes steeper than 1:3, unless permission is granted by the ECO for specifically allowed construction activities in these areas	Weekly

Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. (Particular attention must be paid to imported material such as building sand or dirty earth-moving equipment.) Stockpiles should be checked regularly, and any weeds emerging from material stockpiles should be removed.	Weekly
Alien vegetation regrowth on areas disturbed by construction must be controlled throughout the entire site during the construction period.	Monthly
The alien plant removal and control method guidelines should adhere to best-practice for the species involved. Such information can be obtained from the DWAF Working for Water website.	Monthly
Clearing activities must be contained within the affected zones and may not spill over into demarcated No Go areas.	Daily
Pesticides may not be used. Herbicides may be used to control listed alien weeds and invaders only	Monthly
Wetlands and other sensitive areas should remain demarcated with appropriate fencing or hazard tape. These areas are no-go areas (this must be explained to all workers) that must be excluded from all development activities.	Daily

11.1.1 Monitoring Actions for the Construction Phase

Monitoring Action	Indicator	Timeframe
Document alien species present at the site	List of alien species	Pre-construction
Document alien plant distribution	Alien plant distribution map within priority areas	3 Monthly
Document & record alien control measures implemented	Record of clearing activities	3 Monthly
Review & evaluation of control success rate	Decline in documented alien abundance over time	Biannually

11.2 Operational Phase Activities

The following management actions are aimed at reducing the abundance of alien species within the site and maintaining non-invaded areas clear of aliens.

Operational Phase Action	Frequency
Surveys for alien species should be conducted regularly. Every 6 months for the first two years after construction and annually thereafter. All aliens identified should be cleared.	Every 6 months for 2 years and annually thereafter
Where areas of natural vegetation have been disturbed by construction activities, revegetation with indigenous, locally occurring species should take place where the natural vegetation is slow to recover or where repeated invasion has taken place following disturbance.	Biannually, but revegetation should take place at the start of the rainy season
Areas of natural vegetation that need to be maintained or managed to reduce plant height or biomass, should be controlled using methods that leave the soil protected, such as using a weed-eater to mow above the soil level.	When necessary
No alien species should be cultivated on-site. If vegetation is required for aesthetic purposes, then non-invasive, water-wise locally-occurring species should be used.	When necessary

11.2.1 Monitoring Actions for the Operational Phase

The following monitoring actions should be implemented during the construction phase of the development.

Monitoring Action	Indicator	Timeframe
Document alien species distribution and abundance overtime at the site	Alien plant distribution map	Biannually
Document alien plant control measures implemented & success rate achieved	Records of control measures and their success rate. A decline in alien distribution and cover overtime at the site	Quarterly
Document rehabilitation measures implemented, and success achieved in problem areas	Decline in vulnerable bare areas over time	Biannually

11.3 Decommissioning Phase Activities

The following management actions are aimed at preventing the invasion, by alien plant species, of the re-vegetated areas created during the decommissioning phase. Revegetation of the disturbed site is aimed at approximating as near as possible the natural vegetative conditions prevailing prior to operation.

Decommissioning Phase Action	Frequency
All damaged areas shall be rehabilitated if the infrastructure is removed and the facility is decommissioned	Once off
All natural areas must be rehabilitated with species indigenous to the area. Re-seed with locally-sourced seed of indigenous grass species that were recorded on-site pre-construction.	Once off, with annual follow up re-vegetation where required
Maintain alien plant monitoring and removal programme for 3 years after rehabilitation.	Biannually

11.3.1 Monitoring Actions for the Decommissioning Phase

The following monitoring and evaluation actions should take place during the decommissioning phase of the development

Monitoring Action	Indicator	Timeframe
Monitor newly disturbed areas where infrastructure has been removed to detect and quantify any aliens that may become established for 3 years after decommissioning and rehabilitation	Alien plant surveys and distribution map	Biannually until such time as the natural vegetation has recovered sufficiently to resist invasion.
Monitor re-vegetated areas to detect and quantify any aliens that may become established for 3 years after decommissioning and rehabilitation	Alien plant surveys and distribution map	Biannually for 3 years

Document alien plant control measures implemented & success rate achieved	Records of control measures and their success rate. A decline in alien distribution and cover overtime at the site	Annually for 3 years
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12 PLANT RESCUE AND PROTECTION PLAN

The purpose of the plant rescue and protection plan is to implement avoidance and mitigation measures to reduce the impact of the development on listed and protected plant species and their habitats. Although this report identifies those species suitable for search and rescue at the site, it is important to note that a preconstruction walk-through of the site would also be important to refine the list of species identified for search and rescue, as well as locate such species prior to construction.

The objective of rescuing plants on the project area is to prevent the loss of species either directly or through future extinction and minimising impacts of development on population dynamics of species of conservation concern.

Preserving the natural configuration of habitats as part of ecosystems, thus ensuring a diverse but stable hydrology, substrate and general environment for species to be able to become established and persist.

12.1 Effect of Removing Individual Species of Conservation Concern

Species of conservation concern are declining either due to overexploitation or because their range of occupancy is limited and further infringed on by development. Most plant populations require a certain minimum number of individuals within a population or metapopulation to allow for sufficient genetic transfer between individuals. This prevents genetic erosion and hence weakening of the ability of individuals to persist in their environments. Similarly, where the distance between metapopulations is significantly increased due to fragmentation and the resultant loss of some populations, populations may suffer genetic decline due to restricted movement of pollen. Pollinators or other species that depend on a particular plant species for a specific microhabitat or food source may be equally affected because of the reduction of available resources. Therefore, the aim of plant rescue actions are always to maintain as many individuals of a plant population in as close proximity to the original habitat as possible to minimise loss of individuals and fragmentation of populations to prevent the creation of future extinction debts of the development.

12.2 Plant Rescue and Protection

Successful plant rescue can only be achieved if:

- Species can be removed from their original habitat with minimal damage to the plant, especially the roots.
- All plants removed are safely stored and treated according to their specific requirements prior to being transplanted again.
- They are relocated into a suitable habitat and protected from further damage and all disturbances to aid their re-establishment.
- Timing of planting activities is planned with the onset of the growing season.
- Steps are taken where necessary to aid the initial establishment of vegetation, including occasional watering.

12.3 Timing of Planting

- All planting shall be carried out as far as is practicable during the period most likely to produce beneficial results (i.e. during the peak growing season), but as soon as possible after the completion of a section of earthworks.
- Drainage line rehabilitation preparation must be done during autumn, and planting of appropriate species in these areas should commence during early spring after the first rains.

12.4 Plant Search and Rescue

Prior to construction, once all the areas where topsoil will be removed or areas will be transformed have been demarcated, the ECO and contractor will be responsible to remove all bulbous species from the topsoil, as well as succulents and small indigenous shrubs that can be transplanted. These are to be kept in a raised, protected position in a designated area until they can be replanted again as part of the rehabilitation process. Further details are listed in the Re-vegetation and Habitat rehabilitation Plan.

13 REVEGETATION AND HABITAT REHABILITATION PLAN

The Revegetation and Habitat Rehabilitation Plan addresses the need to mitigate all impacts leading to disturbed vegetation, loss of species and/or agricultural potential, disturbed soil surfaces, and generally bare soils prone to erosion and further degradation on the proposed development site. The plan overlaps to some degree with the Erosion Management Plan, and for successful rehabilitation, it is imperative that this plan is at all times used in conjunction with other EMPs mentioned.

The objective of the plan is therefore to provide:

- Protocols for the removal, temporary storage and replanting of plant species of conservation concern
- Protocols for the rehabilitation of vegetative cover across the project area
- Tools for planning the rehabilitation work and responding to unforeseen events
- Guidelines on implementation and post-implementation tasks
- Criteria for evaluating rehabilitation success
- A summary of items to be included in the rehabilitation budget to ensure that there is sufficient allocation of resources on the project budget so that the scale of EMPR-related activities is consistent with the significance of project impacts

The objective of the revegetation and rehabilitation of the area is:

- Preventing the loss of species either directly or through future extinction and minimising impacts of development on population dynamics of species of conservation concern.
- Preserving the natural configuration of habitats as part of ecosystems, thus ensuring a diverse but stable hydrology, substrate and general environment for species to be able to become established and persist.
- Preserving or re-creating the structural integrity of natural plant communities. Actively aid the improvement of indigenous biodiversity according to a desirable end state according to a previously recorded reference state. This reference state, if healthy, will be dynamic and able to recover after occasional disturbances without returning to a degraded state.
- Improving the ecosystem function of natural landscapes and their associated vegetation.
- Successful rehabilitation can only be achieved with:
 - »A long-term commitment
 - »Practical, adaptive management
 - »Viable goals of desired outcomes.

Prior to vegetation rehabilitation, all stakeholders involved should be consulted to determine:

- What the rehabilitation is ultimately aiming for – rehabilitation of cropping/grazing lands or rehabilitation of indigenous vegetation, after soil erosion and stormwater management is in place and IAPs have been cleared?
- A clear definition of incompatible and compatible vegetation on and in the immediate surroundings of the development must be defined and maintained as such. No tree or shrubs shall be allowed to grow to a height in excess of the horizontal distance of that tree or shrub from the nearest newly developed structure or to grow in such a manner as to endanger the development or its operation.
- Who will take long-term ownership and hence responsibility for the rehabilitation and its subsequent monitoring and management? Continued monitoring of vegetation establishment and composition, as well as erosion detection, will have to be coupled with continued follow-up maintenance of rehabilitation and erosion control from commencement of activity up to the decommissioning phase.
- The ultimate objective for rehabilitation should focus on the stabilisation of soil erosion, retaining agricultural potential of transformed areas and /or the establishment of a dense and protective plant cover and the maintenance of habitats to enable vegetation to persist and flourish on rehabilitated areas indefinitely, ultimately relying only on environmental resources.

13.1 Map and Create Management Areas

The entire project area must be mapped and divided into management areas indicating:

- Current land cover
- Roads and residential
- Areas with IAPs, subdivided further in sparse or dense infestations where applicable
- Transformed areas
- Untransformed indigenous vegetation

For every one of the management areas, the project proponent, in consultation with the land users, will have to decide what intervention will be necessary, desirable, and feasible to enable the development of the project and long-term sustainable maintenance of infrastructure. Thus, for every management area, there must be an operational outline on:

- what will happen there
- what needs to be mitigated – including stormwater- and erosion management
- which management units need priority intervention / mitigation.
- how will this mitigation/intervention be done (method statements) including schedule of work
- realistic and desirable end states including list of species that should be established to initiate rehabilitation after initial revegetation
- approximate timeframes
- monitoring protocol to evaluate success or failures of interventions
 - establish permanently marked transects and monitor with fixed-point photography who will be responsible for doing what how will different actions be integrated to achieve and maintain or improve the desirable end state of the environment of that management unit

Special attention will have to be given to drainage zones, as these not only have very active morphodynamics, but are also distributors of seeds – both indigenous and of IAPs. Thus, clearing a downstream invasion of aliens to enable maintenance of the development will be futile if the upstream IAPs are not cleared or at least aggressively controlled.

13.2 Setting Realistic Rehabilitation Goals

Rehabilitation efforts typically aim at improving ecosystem function that consists of a series of processes, which can, in the end, be evaluated against a desired outcome or reference state of the vegetation and environment.

Attainable goals of rehabilitation on the project area should be possible and viable for at least the following:

- Stabilisation of soils
- Stabilisation of riparian areas
- Stormwater reduction through management and wetland integrity
- Clearing of IAPs
 - The degree to which IAPs can be cleared from the project area needs to be determined according to desirability, available project funding, personnel and project requirements
- Restoring and/or rehabilitating vegetative cover on non-transformed areas to obtain an acceptable vegetation cover that can be maintained or persists on its own indefinitely

13.3 Remove or Ameliorate the Cause of Degradation

This will include:

- Physical rehabilitation of topsoil where it has been removed.
- Topsoil on areas that have not been cultivated are considered as the upper 20 - 30 cm only. These contain the most important nutrients, micro flora and – fauna essential for nutrient cycling processes. Topsoils are also important source of seeds.
- Subsoils and overburden substrata lack the above elements and will first have to be used for physical rehabilitation of landscapes as and where necessary, and then overlain with topsoils.
- Stabilisation of topsoils and prevention of erosion – refer to the Erosion management plan.
- Removal of all invasive vegetation – refer to the Alien Invasive Management Plan
 - Where it is desirable to use brush or logs of the cleared vegetation for soil stabilisation, such material must be free of regenerative material – e.g. seeds or root suckers

13.4 Initial Revegetation

Immediately after clearing of vegetation, the soil surface must be inspected for signs of erosion and stabilised as soon as possible. After completion of construction, such erosion stabilisation should preferably be with a cover of vegetation. A dense initial grass or other perennial cover will be desirable. The appropriate seed mix should be determined in consultation with an ecologist familiar with the area. The aim of the first vegetation cover is to form a protective, relatively dense indigenous layer to slow runoff, increase moisture infiltration into the soil, and gradually change the soil nutrient status in order for it to be more favourable for other desirable indigenous vegetation to become established.

13.5 Natural seed banks and improvement of plant structural and compositional diversity

It is expected that soil seed banks of indigenous vegetation will be present to initiate initial vegetation cover but may not be sufficient to establish an acceptable cover of desirable species. After deciding which indigenous species should be re-introduced, seed should be ideally collected from site or an environmentally-matched site nearby.

Seed collection may be done throughout the year as seed ripens, but can also be restricted to summer, when a large amount of the perennial seed should have ripened. Seeds should be stored in paper, or canvas bags dusted with insecticide and sown at the onset of the rainy season.

Alternatively, slower-growing perennials may be raised from seed or cuttings in a nursery and then transplanted once established. It will be beneficial to investigate if community members would be able to create and maintain such a nursery, or if there are nurseries in the area, that raise indigenous flora from the area.

The final vegetation cover should resemble the original (non-encroached) vegetation composition and structure as far as practicable possible or permissible within each management unit.

For drainage areas:

- First restore drainage line morphology following the guidelines of the Erosion Management Plan – without that ecological recovery cannot be initiated
- Determine if natural seed sources may be present further upstream
- If such upstream seed sources are still present, rehabilitation of riparian vegetation after soil erosion management will most likely occur naturally, PROVIDED that follow-up monitoring of the establishment of vegetation is carried out, and all invasive species eradicated as they emerge. This can only be achieved with a long-term commitment (> 5 years minimum)
- Should no upstream seed resources be available, suitable species (as determined in consultation with an ecologist) should be sown or planted.

13.6 Monitoring and follow-up action

Throughout the lifecycle of the development, regular monitoring and adaptive management must be in place to detect any new degradation of ecosystems affected by the development, and remedy these as soon as detected.

During the construction phase, the ECO and contractor will be responsible for initiating and maintaining a suitable monitoring system. Once the development is operational, the project proponent will have to identify a suitable entity that will be able to take over and maintain the monitoring cycle and initiate adaptive management as soon as it is required. Monitoring personnel must be adequately trained.

The following are the minimum criteria that should be monitored:

- Composition and density of replanted vegetation, distinguishing between species introduced for initial revegetation only and species that are part of the pre-determined desirable end state
- Associated nature and stability of surface soils
 - It is recommended that permanent transects are marked and surveyed annually according to the LFA technique (Tongway and Hindley 2004), adapted to integrate both surface soil characteristics and the vegetation to be monitored
- Re-emergence of IAPs
 - If noted, remedial action must be taken immediately according to Working for Water specifications
- Nature and dynamics of riparian zones
 - Stability of riparian vegetation
 - Any form of bank erosion, slumping or undercutting
 - Stability of channel form and width of streams – if this increases, it shows that vegetation on plains and/or riparian areas and upper drainage lines are not yet in a stable enough state to be fully functional in reducing excess runoff and the ecosystem overall is losing valuable resources

13.7 Timeframes and duration

- Rehabilitation will occur during construction, as areas for the re-application of topsoil and revegetation become available or where revegetation can be initiated after clearing of invasives or to stabilise erosion.
- The initial revegetation period post-construction is estimated to be over a period of 6 (minimum) to 12 months (maximum), or a time period specified by the Horticultural Landscape Contractor, particularly if planting of trees and shrubs occurs.
- The rehabilitation phase (including post-seeding maintenance) should be at least 12 months (depending on time of seeding and rainfall) to ensure establishment of an acceptable plant cover is achieved (excluding invasive plant species or weeds).
- If the plants have not established and the acceptable plant cover is not achieved within the specified maintenance period, maintenance of these areas shall continue until an acceptable plant cover is achieved (excluding alien plant species or weeds).
- Additional seeding or planting may be necessary to achieve acceptable plant cover. Hydroseeding may have to be considered as an option in this case.
- Any plants that die, during the maintenance period, shall be replaced by the Horticultural Landscape Contractor (at the Horticultural Landscape Contractor's cost if it was due to insufficient maintenance).
- Succession of natural plant species should be encouraged
- Monitoring of rehabilitation success and follow-up adaptive management, together with clearing of emerging invasives shall be carried on until the decommissioning phase has been completed.

14 OPEN SPACE MANAGEMENT PLAN

The objective of open space management is to restore, enhance and rehabilitate open spaces, improve climate change adaptations through the minimisation of biodiversity loss, and mitigate against environmental degradation. Management actions consider open spaces and natural areas as well as community perceptions of these.

In the context of the proposed grid connections and substations, the primary purpose of the open plan management plan is therefore to:

- Minimise visual impact on the character of the area; and
- Maintain biodiversity within the area to ensure that no long-term negative impacts occur on the local environment.

The proposed grid connections and associated infrastructure have the potential to impact negatively on the character of the area, as identified in the Visual Impact Assessment conducted during the EIA phase. The following actions must be implemented to minimise this visual impact:

- Grid connection route to avoid visually sensitive peaks, major ridgelines, scarp edges and slopes steeper than 1:5 gradient.
- Substation to be sited in unobtrusive low-lying areas, away from roads and habitations, and screened by berms and/or tree-planting where feasible.
- Operations and maintenance buildings and parking areas to be located in an unobtrusive area and consolidated to avoid sprawl of buildings in the open landscape.
- Access roads to be in sympathy with the contours, avoid steep 1:5 slopes and drainage courses, and kept as narrow as possible.
- Access and haul roads to use existing farm tracks as far as possible.
- Construction camp, stockpiles and lay-down area to be located out of sight of district roads, possibly in the vicinity of the proposed substation and O&M buildings.
- Disturbed areas rather than pristine or intact land to preferably be used for the construction camp. Construction camp and laydown areas to be limited in area to only that which is essential.

- Measures to control wastes and litter to be included in the contract specification documents.
- Provision to be made for rehabilitation / re-vegetation of areas damaged by construction activities.

In order to maintain biodiversity, the Alien Invasive, Plant Rescue and Protection and Revegetation and Habitat Management Plans must be adhered to.

In addition, the following actions should be implemented by the Contractor and Project Company:

- Promote environmental awareness in all employees and sub-contractors and create an understanding of the environmental sensitivities of the project site;
- No waste, including organic matter, may be disposed of anywhere on site, except in provided bins placed at convenient locations, especially during the construction period. Disciplinary actions should be taken against littering;
- Open spaces are to be kept free of alien plants and weeds;
- Indigenous plants may not be collected or removed from the site;
- Access to the facility should be strictly controlled;
- All visitors and contractors should be required to sign-in; and
- Signage at the entrance should indicate that disturbance to fauna and flora is strictly prohibited.

The following activities should not be permitted by anyone except the landowner or his representatives:

- No fires within the site.
- No hunting, collecting or disturbance of fauna and flora, except where required for the safe operation of the facility and only by the Environmental Officer on duty and with the appropriate permits and landowner permission.
- No driving off of demarcated roads.
- No interfering with livestock.

14.1 Grazing Management

The development of the wind energy facility will not prevent the site from being used for its current land use of livestock production. Extensive livestock grazing is compatible with biodiversity maintenance provided that it is implemented according to the basic principles of sustainable grazing management. While the majority of these are beyond the scope of the current plan, the following basic principles should be adhered to:

- A grazing management plan for the site should be developed in cooperation with Agricultural Extension services.
- The stocking rate applied should be within the recommended limits, as identified by the Department of Agriculture.
- Livestock should be rotated through the different paddocks at the site in a manner which allows for the growth and recovery of the vegetation between grazing events.
- Precautions should be taken to ensure that the development of the site does not increase the risk of stock theft within the facility. These include access control as previously described, as well as security patrols.

15 TRAFFIC MANAGEMENT PLAN

The objective of the traffic management plan is the prevention of incidents from the use of vehicles and disturbance of local traffic on public roads during the construction, operation and decommissioning phases of the proposed projects. Traffic volumes are most likely to increase during the construction phase. However, due to the remote location of the site, and the low volume of traffic on public roads in the area, the impact is expected to be low.

A specialist study was conducted to determine, what impact, if any the proposed development will have on the existing traffic in the area.

The specialist study had the following recommendations:

- A comprehensive route assessment of the entire route is recommended should the project be awarded to a preferred bidder as part of the REIPPP process.
- Scheduling abnormal and heavy vehicle transport by proper distribution of arrivals and departure to avoid high numbers of vehicles arriving at once
- Access point G and F are recommended as the preferred access positions, based on safety considerations.
- It is recommended that access point G be moved west, 0.6 km away from any intersection/access point, in order to comply with spacing requirements.
- It is recommended that access points control be priority controlled, with the higher category road as a priority.
- Roads should be widened to allow for incorporating the turning circles of the expected abnormal vehicles at access points.
- Provision must be made for clear warning road markings and signage on both sides of both approaches of access points.
- Traffic accommodation measures during temporary roadwork's/closures must be implemented as per the South African Road Traffic Signs Manual.
- In addition, allowance must be made for public transport vehicle lay byes preferably on the road verge away from the roadway, as well as safe pedestrian crossings on the minor access road.
- Clearances permits will be required for the transport of the WT components.
- It is recommended that applications for Abnormal Permits be lodged to the Department of Transport and Public Works, Eskom and Telkom.

The minimum spacing requirements for intersections with a Rural Class 4 road, as defined by the TRH26: South African Road Classification and Access Management Manual, is 0.6 km from the centrelines of the connecting intersections. Access G does not meet minimum spacing requirements as it is located close to the existing Noupoot WEF access. It is therefore recommended that access point G be moved west, 0.6 km away from any intersection/access point, in order to comply with spacing requirements.

Based on the assessment, both Access F and G have the potential to be acceptable access points. Access F will provide access to the portion north of Murray Street, and Access G will provide access to the portion south of Murray Street (Figure 15.1).

The Hartebeesthoek East WEF must be accessible to passenger cars, buses, trucks and abnormal multi-vehicle combinations which will be delivering WT components. Access to the site needs to be safe and practical to minimise the risk of pedestrian and vehicle accidents through:

- The provision of adequate traffic control; and
- Clear visibility by ensuring sufficient stopping sight distances and sufficient markings and warnings signs.

It is recommended that the access points/intersections into the site:

- Be priority controlled, with the higher category road as a priority; and
- Be widened to allow for incorporating the turning circles of the expected abnormal vehicles.

An example of the recommended intersection layout for access F and G is illustrated in Figure 15.2 and Figure 15.3, respectively.



Figure 15.1: Site Access Options to Hartebeesthoek East WEF

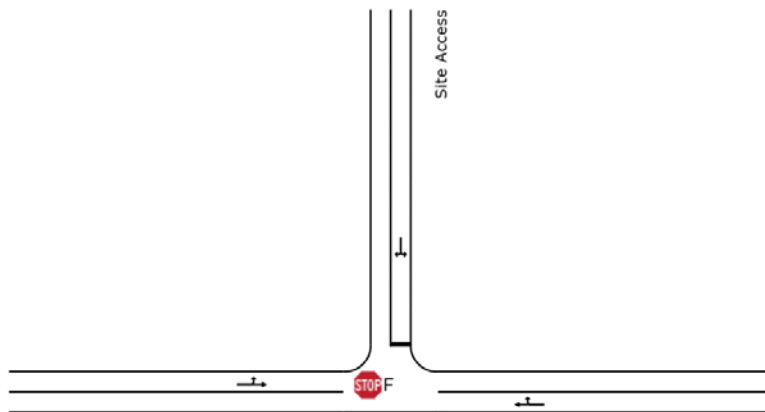


Figure 15.2: Site Access Option for a priority control T-junction intersection (Access F)

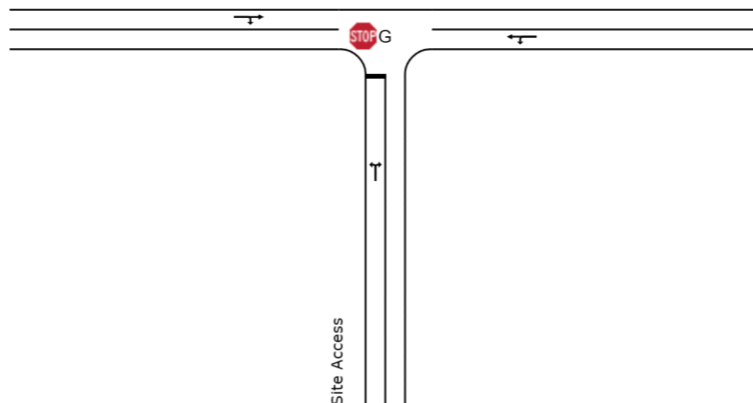


Figure 15.3: Site Access Option for a priority control T-junction intersection (Access G)

Actions to be implemented by the Contractor and Project Company:

- Site-specific traffic plan to be developed and implemented during the detailed design phase prior to construction;
- Limit use of private cars by arranging minibus transport service for workers;
- Monitor for overloading of vehicles;
- Use only well trained, suitably qualified and experienced drivers in possession of an appropriate and valid driver's license;
- All vehicles must be roadworthy and serviced regularly;
- Clear and visible signage must be placed on and around site, clearly demarcating safe entry and exit points;
- Require all drivers to abide by standard road and safety procedures on-site;
- When travelling on public roads all speed limits and rules of the road must be adhered to; and
- Limit dust generation by applying dust suppressants and postponing dust generating activities during period of strong winds and enforcing a strict speed limit of 40 km/h on unpaved roads.

Monitoring actions to be conducted by the ECO

- Maintain incidents/complaints register for community complaints; and
- Monitor dust generation and implementation of management actions detailed above.

16 TRANSPORTATION MANAGEMENT PLAN

The Transportation Management Plan aims to ensure the safe transportation of all components required for the construction of the proposed project to the construction site. This includes the turbines, substation transformers, electrical cables and pylon structures.

As part of the Traffic Management Study that was undertaken for the development, the following regarding transportation management must be considered and implemented:

Transport requirements for the WEF project will require the use of abnormal load vehicles as stipulated in the TRH 11, especially in the construction phase of the project for the delivery of construction materials and turbine components. Very little to no special transport will be required during the remainder of the development phases as standard transport will be used.

All WT components are considered to be abnormal loads, either through length, weight or height, usually comprising of 3 tower sections, 1 hub, 1 nacelle and 3 blades. These require different truck / trailer combinations and configurations to be transported. These issues will be investigated at a later stage when the transporting contractor and the plant hire companies apply for the necessary permits from the permit issuing authorities. The heaviest component of a wind turbine is the nacelle (approximately 67 to 85 tons depending on manufacturer and design of the unit). Combined with road-based transport, it has a total vehicle mass of approximately 130 000 kg (for the 85-ton unit). Thus, route clearances and permits will be required for transporting the nacelle by road based transport.

Blades are the longest component, ranging between 45 – 75 m, and need to be transported on a specially imported extendible blade transport trailer or in a rigid container with rear steerable dollies. The blades can be transported individually, in pairs or in three's although different manufacturers have different methods of packaging and transporting the blades. Where required, existing public roads may need to be upgraded along the proposed equipment transport route to allow for the transportation and delivery of wind turbine components and other associated infrastructure components. The national roads on the potential national access routes are generally of a high standard, and many of the structures have been assessed for load-bearing capacity and height clearance in the past. Turbine supplier/s or the contractor selected for implementation would be responsible for

the transportation of wind turbine components to site. A complete transportation management plan will be undertaken prior to construction, should the project be awarded preferred bidder status.

16.1 Permit requirements

In transportation of loads the following guidelines are available. According to the TRH 11, the expected load dimensions are classified as abnormal load, therefore an exemption permit for each province that the load has to transit is required.

Provision for the type of abnormal loads in this development is made in the National Road Transport Act (NRTA), and specifically in Section 81 of the NRTA, which reads as follows:

“Vehicle and load may be exempted from provisions of Act

An MEC may, subject to such conditions as upon payment of such fees or charges as he or she may determine, authorise in writing, either generally or specifically, the operation on a public road of a vehicle which does not comply with the provisions of this Act or the conveyance on a public road of passengers or any load otherwise that in accordance with the provisions of this Act.”

When the movement of an abnormal load is considered to be in the economic and/or social interest of the country, an exemption permit may be issued to allow a vehicle(s) transporting such an abnormal load to operate on a public road for a limited period. The fundamental principles guiding this process are:

- An exemption permit for an abnormal load will only be considered for an indivisible load, abnormal in dimension and/or mass, where there is no possibility of transporting the load in a legal manner.
- The risks to other users must be reduced to a level equivalent to what it would be without the presence of the abnormal vehicle on the road; and
- The conditions imposed must take the economic and/or social interest of the country and public at large into account.

16.2 Types of Abnormalities

The WEF is anticipated to carry loads that are considered to be indivisible, can be abnormal either dimensionally or abnormal in mass or abnormal both dimensionally and in mass.

The following is the Legally Permissible Maximum Dimensions / Mass:

Length- Truck & Semi-trailer (Tri-Axle) Overall length of combination (Including load projections) -18.50m. Superlink (6m + 12m trailers) Overall length of combination (No load projections) –22.00m.

Width- 2.60 m.

Height- 4.30 m measured from the ground. Height of conventional trailer is 1.60m from ground to trailer deck, therefore permissible height of load is 2.70m.

Weight- 13.50m Tri-Axle 28 Ton / 15.00m Tri-Axle 30 Ton. Superlink 34 Ton gross (6.00m –10 / 12 Ton & 12m –24 / 22 Ton)

The WEF components are classified as an Abnormal Load and will necessitate the application to the Department of Transport and Public Works for a permit authorising the conveyance of said load.

With the required permits in place, the following escort vehicles (whether it is the clients own escort vehicles or provincial traffic officer) will be necessary to escort the transportation of abnormal loads. The anticipated escort vehicles are presented in Table 16-1.

It must be noted Loads with a height of 4.70m measured from the ground require –1 x Own Escort vehicle. For loads of 5.50m + high Telkom & Eskom Clearances are required for the lifting of overhead lines. Upon final selection of WT models to be used, the exact amount of escort vehicles can be determined.

Table 16-1: Escort Vehicles

Component	Details	Escort Vehicles
Tower	Length: 150 m	3 Tower sections/WT 2 x Provincial Traffic Escorts (subject to width of load)
Rotor	Blade Length: 75 m Hub	3 Blades/WT Connected to 1 Hub/WT 2 x Provincial Traffic Escorts (subject to width of load)

16.3 SANRAL Consultation

Consultation took place with SANRAL on 9 January 2018. It was established that:

- SANRAL’s Western Region (head office in Cape Town, Western Cape) is responsible for the section of the N9 where the access points are proposed (accesses are located in the Northern Cape). The project manager of this section of the N9 is Mr Deriek Wilson - 021 957 4600.
- The client needs to submit the TIA, a plan indicating existing intersections and layouts as well as planned intersections and proposed layouts produced by the applicant to SANRAL for approval should the project be awarded.
- This TIA needs to be submitted to SANRAL’s statutory control section – Ms Colene Runkel (runkelc@nra.co.za).
- SANRAL may then request additional information as required.
- SANRAL’s Southern Region (head office in Port Elizabeth, Eastern Cape) will be responsible for the remainder of the N9 route to/from the site and Port Elizabeth and will have to be consulted for any route determination requirements, which are not included in this scope of works. The project manager for the N9 between Graaff-Reinet and Carlton Heights is Mr Danford Adams - 041 398 3200.

The following actions should be implemented by the developer and Contractor:

- Apply for all relevant permits for abnormal loads and route clearances with the relevant authorities prior to construction;
- Appoint a qualified specialist to conduct a detailed site-specific Transport Risk Assessment during the detailed design phase and prior to construction;
- Determine the pre-construction condition of the road immediately prior to construction by carrying out a condition assessment or from recent pavement management system condition assessments if available from the Provincial Authorities;
- Public notices regarding any planned abnormal load transports must be placed at the construction site to inform affected parties;
- Abnormal loads must conform with legal maximum dimensions, and vehicles carrying abnormal loads must display sufficient signage;
- Any roads damaged during the transportation of components, or from other construction vehicles must be rehabilitated and returned to pre-construction conditions.

The following monitoring activities should be carried out by the ECO:

- Conduct site audits and report non-compliance with the above-mentioned conditions.

17 STORMWATER MANAGEMENT PLAN

The objective of the stormwater management plan (SWMP) is to prevent increased soil erosion, to contain any contaminated run-off and to avoid waterlogging and pollution. The

Erosion Management Plan (see below) must, therefore, be seen in conjunction with the SWMP. Actions are listed that will ensure that stormwater is channelled in a controlled manner from roads and substations towards natural drainage lines, without impeding natural surface flows.

- Develop and implement a site-specific stormwater management plan during the detailed design phase of the projects and prior to construction;
- In the detailed design phase of the project minimise any water crossings and utilise existing roads wherever possible;
- Enforce 32 m construction buffers of all rivers, streams and waterbodies;
- Should new roads be required to cross any banks or channels these must be secured with erosion protection (i.e. gabions etc.);
- Monitor for erosion during the clearing of vegetation;
- Avoid hard-engineered surfaces (i.e. construct gravel roads and not asphalt roads wherever possible);
- Roads in steep areas must be equipped with side drainages and culverts that channel the run-off to natural drainage lines without gaining velocity and causing erosion;
- Construction camps and temporary ablution facilities must be located beyond the 1:100 year flood line;
- Stockpiles must be located on flat areas and protected from erosion;
- The substation site design must include side water outlets and an adequate slope to allow stormwater run-off from the paved areas;
- Prevent surface run-off from areas of potential contamination.

18 EROSION MANAGEMENT PLAN

18.1 Purpose

The purpose of the erosion management plan is to implement avoidance and mitigation measures to reduce the erosion potential and the likely impact of erosion associated with the construction and operational phases of the proposed facility. As part of the management plan, measures to protect hydrological features from erosion damage are included.

18.2 Scope and Limitations

This plan is intended at introducing measures aimed at reducing the negative impacts of erosion on biodiversity as well as reducing the vulnerability of the site to erosion problems during the construction and operational phases of the development. The focus is on managing runoff and reducing the construction phase impact on ecologically sensitive areas. The plan does not cover engineering-side issues which are of relevance to soil management and erosion. Therefore, issues such as the potential presence of heaving clays, compressible soils, perched water tables, dispersive soils and corrosive groundwater at the site are beyond the general scope of this study and are not directly dealt with. These issues would need to be addressed and their relevance assessed during detailed geotechnical investigation of the site.

18.3 Background

18.3.1 Types of Erosion

Erosion comes in several forms, some of which are not immediately obvious. The major types of erosion are briefly described below:

Raindrop impact

This is the erosion that occurs due to the “bomb blast” effect of raindrop impact. Soil particles can be blasted more than a meter into the air. Apart from loosening soil particles, the effect can also break soil aggregates apart and form a clay seal on the surface which resists infiltration and results in increased levels of runoff. This effect is most important when large areas of exposed soils are present. If the site is cleared, then this effect will play an important role as it results in the soil surface becoming sealed, which reduces infiltration and increases runoff, leading to erosion.

Sheet Erosion

This is the removal of a shallow and uniform layer of soil from the surface. It is caused initially by raindrop splash and then by runoff. Sheet erosion is often difficult to see as no perceptible channels are formed. Accumulated sediment at the bottom of the slope is often the only indicator. This is likely to be an important erosion type at the site given the gently sloping nature of the site and the susceptible soils.

Rill Erosion

This is the removal of soil from the surface whereby small channels or rills up to 300 mm are formed. It is caused by runoff concentrating into depressions, wheel tracks etc.

Gully Erosion

This is the removal of soil from the surface and sub-surface caused by concentrated runoff eroding channels greater than 300mm deep. Gully erosion often begins as rill erosion.

Wind Erosion

Wind erosion results from soil particles being picked up, bounced or moved by the wind. Wind erosion is primarily a problem in arid areas and may affect sands soils as well as fine-textured soils. Vegetation cover is usually an effective barrier to wind erosion, but large soils losses or degradation can occur in disturbed areas or on croplands.

18.3.2 Promoting Factors

Rainfall characteristics

High-intensity, short-duration storm events have much greater erosion potential than low intensity, longer duration storm events with the same runoff volume. Intense storms produce larger raindrops and are more likely to break up the soil and dislodge particles.

Soil erodibility

Soil erodibility is determined by the soils ability to resist detachment and transport due to rainfall, runoff and infiltration capacity. Well-structured soils with a high clay content are generally least erodible. Some clays are dispersible meaning that they break down when wet and become highly erodible. Silts and fine sands are highly erodible.

Length and Steepness of Slope

Steeper slopes cause runoff velocities to increase, resulting in increased erosion. As the slope length increases the opportunity for runoff to concentrate and achieve an erosive velocity increases.

Soil Surface Cover

Soil surface cover such as vegetation and mulch protect the soil surface from raindrop impact, reduce flow velocity, disperse flow, and promote infiltration and the deposition of sediment. This is a basic principle underlying many erosion control approaches which aim to modify the surface characteristics in order to reduce the flow velocity and reduce the potential for erosion. In this regard, it is important to note that many of the practices which are used to enhance rehabilitation potential are also useful in reducing erosion potential.

18.3.3 Erosion and Sediment Control Principles

The goals of erosion and sediment control during and after construction at the site should be to:

- Protect the land surface from erosion;
- Intercept and safely direct run-on water from undisturbed upslope areas through the site without allowing it to cause erosion within the site or become contaminated with sediment.
- Progressively revegetate or stabilise disturbed areas.
- Prevent damage to hydrological features such as drainage lines or wetlands, either within or adjacent to the site.

These goals can be achieved by applying the following principles:

1. Integrate project design with site constraints.
2. Plan and integrate erosion and sediment control with construction activities.
3. Minimise the extent and duration of disturbance.
4. Control stormwater flows onto, through and from the site in stable drainage structures.
5. Use erosion controls to prevent on-site damage.
6. Use sediment controls to prevent off-site damage.
7. Control erosion and sediment at the source.
8. Stabilise disturbed areas promptly.
9. Inspect and maintain control measures.

18.3.4 On-Site Erosion Management

Exposed and unprotected soils are the main cause of erosion in most situations. Therefore, the erosion management plan and the revegetation and rehabilitation plan should be closely linked to one another and should not operate independently but should rather be seen as complementary activities within the broader environmental management of the site and should, therefore, be managed together.

General factors to consider regarding erosion risk at the site includes the following:

- Soil loss will be greater during wet periods than dry periods. Intense rainfall events outside of the wet season, such as occasional unseasonal showers can also, however, cause significant soil loss. Therefore, precautions to prevent erosion should be present throughout the year.
- Soil loss is related to the length of time that soils are exposed prior to rehabilitation or stabilization. Therefore, the gap between construction activities and rehabilitation

should be minimized. Allied to this the fact that topsoil does not store well and should preferably be used within a month or at most within 3 months to aid in the revegetation and rehabilitation of disturbed areas.

- Phased construction and progressive rehabilitation are important elements of the erosion control strategy.
- The extent of disturbance will influence the risk and consequences of erosion. Therefore, large areas should not be cleared at a time, especially in areas such as slopes where the risk of erosion is higher.

18.4 Concentration of flows into downstream areas

Road crossings over drainage lines, streams and wetlands can impact downstream wetland ecosystems. Crossings that result in narrowing of the downstream system can result in concentration of flows and channelisation downstream. This may result in a loss of wetland function, and result in the drying out and shrinkage of the wetland area. Erosion and increased vulnerability to invasion of drier banks by alien vegetation may occur.

- Culverts should be adequately spaced such that they do not result in shrinkage of downstream wetlands. Where roads cross minor drainage channels, a single culvert may be adequate, aligned with the downstream drainage line. Where more substantial wetland systems are intercepted by a road, sufficient culverts should be provided such that downstream shrinkage of wetland width does not occur. Moreover, culverts should be aligned, as far as impossible, with existing, natural channels.
- All crossings of drainage systems should ensure that both surface and shallow subsurface flows can be accommodated where appropriate and that unnatural channelisation does not occur downstream.

18.5 Runoff Concentration

The increase in hardened surfaces associated with roads, and other infrastructure will lead to a significant increase in volume and velocity of flow generated from these areas during large rainfall events.

Runoff from road surfaces is usually channelled off of the road surface towards the downslope side of the road. On steep slopes, the volumes and velocity of runoff generated may result in erosion of the surrounding areas. Therefore, specific measures to curb the speed of runoff water is usually required in such areas, such as rock beds or even gabions. In addition, these areas should be monitored for at least a year after construction to ensure that erosion is not being initiated in the receiving areas. Once erosion on steep slopes has been initiated, it can be very difficult to arrest.

18.5.1 Diversion of Flows

Diversion of flows from natural drainage channels may occur when roads interrupt natural drainage lines, and water is forced to run in channels along the manipulated road edge to formalized crossing points. Even slight diversion from the natural drainage line can result in excessive downstream erosion, as the new channel cuts across the slope to reach the valley bottom. Should the access road to the site traverse any major drainage lines, the following principles should apply:

- Adequate culverts should be provided along the length of all roads to prevent diversion of flow from natural drainage lines.
- Culverts should be carefully located, such that outlet areas do in fact align with drainage lines.
- The downstream velocity of runoff should be managed, such that it does not result in downstream erosion – on steep slopes, where roads have been constructed on cut

areas, allowance should be made for culverts to daylight sufficiently far down the slope that their velocities are managed, and erosion does not occur.

- Where necessary, anti-erosion structures should be installed downstream of road drains – these may comprise appropriate planting, simple riprap or more formal gabion or other structures.
- Roads and their drainage system should be subject to regular monitoring and inspection, particularly during the wet season, so that areas where head cut erosion is observed can be addressed at an early stage.

18.6 Monitoring Requirements

18.6.1 Construction Phase

The following monitoring actions should be implemented during the construction phase of the development:

Monitoring Action	Indicator	Timeframe
Identify all river and drainage line crossings affected by the development	Map of sites of potential concern	Preconstruction
Monitor cleared areas for erosion problems	Record of monitoring site, problems encountered, and remedial actions implemented	Monthly during the rainy season and following significant rainfall events otherwise
Monitor vegetation clearing activities near sensitive areas such as wetlands or drainage lines	Activity log of monitoring actions and any mitigation and avoidance measures implemented	Monthly during the rainy season and following significant rainfall events otherwise
Monitor revegetated and stabilised areas	Record of monitoring site, problems encountered, and remedial actions implemented	Monthly during the rainy season and following significant rainfall events otherwise

18.6.2 Operational Phase

The following monitoring actions should be implemented during the operational phase of the development:

Monitoring Action	Indicator	Timeframe
Monitor for the development of new erosion problems across the site, with a focus on areas where water has been diverted or collected from upslope onto downslope areas	Map of erosion problem areas	Quarterly
Document erosion control measures implemented	Records of control measures and their success rate.	Quarterly
Document the extent of erosion at the site and the remedial actions implemented	Decline in erosion and vulnerable bare areas over time	Biannually

19 FIRE MANAGEMENT PLAN

The National Veld and Forest Fires Act states that it is the landowner's responsibility to ensure that the appropriate equipment as well as trained personnel are available to combat fires.

Although fires are not a regular occurrence at the site, fires may occasionally occur under the right circumstances. Ignition risk sources in the area include the following:

- Lightning strikes
- The railway system, which lies a short distance West of the site
- Personnel within the facility
- Infrastructure such as transmission lines

19.1.1 Firebreaks

Extensive firebreaks are not recommended as a fire risk management strategy at the site. The site is very large compared to the extent of the infrastructure, and the maintenance of firebreaks would impose a large management burden on the operation of the facility. In addition, the risk of fires is not distributed equally across the site and within many of the lowlands of the site, there is not sufficient biomass to carry fires, and the risk of fires within these areas is very low. Rather targeted risk management should be implemented around vulnerable or sensitive elements of the facility such as substations or other high-risk components. Within such areas, the extent over which management action needs to be applied is relatively limited, and it is recommended that firebreaks are created by mowing and that burning to create firebreaks is not used as this in itself poses a risk of runaway fires. Where such firebreaks need to be built such as around substations, a strip of vegetation 5 - 10 m wide can be cleared manually and maintained relatively free of vegetation through manual clearing on an annual basis. However, if alien species colonise these areas, more regular clearing should be implemented.

20 AVIFAUNA MANAGEMENT PLAN

The avifauna monitoring and management plan must be implemented during the construction and operation of the facility. This plan must be drafted by a suitably qualified avifauna specialist.

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
<p>Displacement of priority species due to <u>disturbance</u> during construction operations</p>	<p>1) A site-specific Environmental Management Plan (EMP) must be implemented, which gives appropriate and detailed description of how construction activities must be conducted. All contractors are to adhere to the EMP and should apply good environmental practice during construction.</p> <p>2) Environmental Control Officer (ECO) to oversee activities and ensure that the site-specific EMP is implemented and enforced via regular inspections.</p> <p>3) The ECO must be trained by the avifaunal specialist to identify the potential priority species as well as the signs that indicate possible breeding by these species. The ECO must then, during audits/site visits, make a concerted effort to look out for such breeding activities of Red Data species, and such efforts may include the training of construction staff to identify Red Data species, followed by regular questioning of staff as to the regular whereabouts on site of these species. If any of the Red Data species are confirmed to be</p>	<p>ECO and Avifaunal specialist</p>	<p>Construction</p>	<p>Yes</p>	<p>If a priority species nest is discovered during the construction phase, the ECO must conduct weekly inspections of the nest to monitor the breeding effort, in consultation with the avifaunal specialist.</p>

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
	<p>breeding (e.g. if a nest site is found), construction activities within 500 m of the breeding site must cease, and an avifaunal specialist is to be contacted immediately for further assessment of the situation and instruction on how to proceed.</p> <p>4) Prior to construction, an avifaunal specialist should conduct a site walkthrough, covering the final road and power line routes as well as the final turbine positions, to identify any nests/breeding/roosting activity of priority species. The results of which may inform the final construction schedule in close proximity to that specific area, including abbreviating construction time, scheduling activities around avian breeding and/or movement schedules, and lowering levels of associated noise.</p> <p>5) During the construction phase, the avifaunal specialist must conduct surveys/exploration of the WEF site (particularly focusing on potential Verreaux's Eagle roost sites as well as suitable nesting habitat). This should be done during and after, the breeding season (i.e. approximately in July and again in September). The aim will be to locate any new nest sites, so that these may be monitored during the construction and operational phase.</p>				

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
<p>Displacement of priority species due to <u>habitat transformation</u> during construction phase</p>	<p>1) A site-specific Environmental Management Plan (EMP) must be implemented, which gives appropriate and detailed description of how construction activities must be conducted to reduce unnecessary destruction of habitat. All contractors are to adhere to the EMP and should apply good environmental practice during construction. EMP should include the following:</p> <p>Existing roads and farm tracks should be used where possible;</p> <p>The minimum footprint areas of infrastructure should be used wherever possible, including road widths and lengths;</p> <p>No off-road driving;</p> <p>ECO to hold regular inspections ensure that the EMP is implemented and enforced;</p>	<p>ECO Avifaunal specialist Rehabilitation specialist</p>	<p>Construction</p>	<p>Yes</p>	<p>ECO to oversee activities and ensure that the site-specific EMP is implemented and enforced via regular inspections;</p>

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
	<p>Any clearing of stands of alien trees on site should be approved first by the avifaunal specialist.</p> <p>Following construction, rehabilitation of all areas disturbed (e.g. temporary access tracks and laydown areas) must be undertaken, and to this end a habitat restoration plan is to be developed by a rehabilitation specialist and included within the EMP.</p>				
<p>Priority species mortality due to <u>collisions with the turbines</u></p>	<p>1) Mortality thresholds should be determined by the avifaunal specialist in consultation with BirdLife SA, for priority species recorded during the pre-construction monitoring, prior to the wind farm becoming operational.</p> <p>1) Once the turbines have been constructed, operational monitoring should be implemented under the guidance of an avifaunal specialist to assess collision rates, in accordance with the latest version of the Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in southern Africa.</p> <p>3) If collision rates indicate mortality exceeding threshold levels of priority species, curtailment must be implemented during high-risk periods. These periods, and the number of turbines to be curtailed will be determined by the</p>	<p>Wind farm management, ECO, and avifaunal specialist (in consultation with BirdLife SA)</p>	<p>Operational</p>	<p>Yes</p>	<p>Once the turbines have been constructed, operational monitoring should be implemented under the guidance of an avifaunal specialist to assess collision rates, in accordance with the latest version of the Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in southern Africa.</p>

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
	<p>avifaunal specialist in consultation with the wind farm management.</p> <p>4) Regular inspections must be conducted by the ECO to ensure that rock piles are removed from site or covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie) <i>Procavia capensis</i>.</p>				
Priority species mortality due to collision with the on-site powerlines	<p>1) An avifaunal specialist must conduct a site walkthrough of final pylon positions prior to construction to determine if, and where, bird flight diverters (BFDs) are required.</p> <p>2) Bird flight diverters must be installed as per the instructions of the specialist following the site walkthrough, which may include the need for modified BFDs fitted with solar-powered LED lights on certain spans.</p> <p>3) The operational monitoring programme must include quarterly monitoring of all overhead power lines for collision mortalities, with a view to mark additional spans with BFDs if necessary.</p>	Avifaunal specialist	Operational	Yes	The operational monitoring programme must also include quarterly monitoring of the overhead power lines for collision mortalities.
Priority species mortality due to electrocution on the on-site powerlines	<p>1) An avifaunal specialist must certify that the pole structures to be used on the internal MV network is bird-friendly.</p>	Avifaunal specialist	Design	Yes	The operational monitoring programme must also include quarterly monitoring of the overhead power lines for electrocution mortalities.
Displacement of priority species due to disturbance during	<p>1) A site-specific Environmental Management Plan (EMP) must be implemented, which gives appropriate and detailed description of how</p>	Site management	Decommissioning	Yes	None

Activity	Mitigation and Management Measure	Responsible Person	Applicable Development Phase	Include as Condition of Authorisation	Monitoring requirements
decommissioning operations	<p>decommissioning activities must be conducted to reduce unnecessary destruction of habitat. All contractors are to adhere to the EMP and should apply good environmental practice during decommissioning.</p> <p>2) Following decommissioning, rehabilitation of all areas disturbed must be undertaken and to this end, a habitat restoration plan is to be developed by a rehabilitation specialist and included within the Environmental Management Plan (EMP).</p>	Rehabilitation specialist			

21 BAT MANAGEMENT PLAN

Currently the most effective method of mitigation, after correct turbine placement, is alteration of blade speeds and cut-in speeds under environmental conditions favourable to bats.

A basic "6 levels of mitigation" (by blade manipulation or curtailment), from light to aggressive mitigation is structured as follows:

1. No curtailment (free-wheeling is unhindered below manufacturer's cut-in speed, so all momentum is retained, thus normal operation).
2. Partial feathering (45-degree angle) of blades below manufacturer's cut-in speed in order to allow the free-wheeling blades half the speed it would have had without feathering (some momentum is retained below the cut in speed).
3. Ninety degree feathering of blades below manufacturer's cut-in speed, so it is exactly parallel to the wind direction as to minimize free-wheeling blade rotation as much as possible without locking the blades.
4. Ninety degree feathering of blades below manufacturer's cut-in speed, with partial feathering (45-degree angle) between the manufacturers' cut-in speed and mitigation cut-in conditions.
5. Ninety degree feathering of blades below mitigation cut in conditions.
6. Ninety degree feathering throughout the entire night.

It is recommended that curtailment be applied from the start of operation at Level 3 on all turbines for every night of the year from dusk until dawn.

Should robust and scientifically defensible data gathered during the operational study phase reveal higher bat mortalities than currently anticipated, the mitigations in Table 21.1 should be applied to the turbines identified as causing the highest impacts. Such curtailment specified in Table 21.1 will have to be at a maximum of Level 5. The turbine layout avoids all High and Moderate bat sensitivities and their buffers.

The Table 21.1 below is based on the passive data collected. They infer mitigation be applied (only when needed as described above) during the peak activity periods and times, and when the advised wind speed and temperature ranges are prevailing simultaneously, considering conditions in which 80% of bat activity occurred (normalised data). Bat activity at 50m height were used, with wind speed data at 50 m and temperature data at 37.5 m.

Table 21.1: The periods and weather conditions for implementation of mitigation.

	Terms of mitigation implementation
Peak activity (times to implement curtailment/ mitigation)	1 October – 15 November; sunset – 20:30
Environmental conditions in which to implement curtailment/ mitigation	Wind speed below 4.5m/s <i>and simultaneously</i> Temperature above 11°C
Peak activity (times to implement curtailment/ mitigation)	15 February – 31 March; sunset – 04:00

<p>Environmental conditions in which to implement curtailment/ mitigation</p>	<p>Wind speed below 5m/s <i>and simultaneously</i> Temperature above 14°C</p>
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22 NOISE MANAGEMENT PLAN

Environmental Noise Measurement can be divided into two distinct categories, namely:

- Passive measuring – the registering of any complaints (reasonable and valid) regarding noise; and
- Active measuring – the measurement of noise levels at identified locations.

No active environmental noise monitoring is recommended due to the low significance for a noise impact to develop. However, should a reasonable and valid complaint about noise be registered, it is the responsibility of the developer to investigate this complaint as per the following sections. It is recommended that the noise investigation be done by an independent acoustic consultant.

While this section recommends a noise monitoring programme, it should be used as a guideline as site-specific conditions may require that the monitoring locations, frequency or procedure be adapted.

22.1 Measurement Localities and Procedures

22.1.1 Measurement Localities

No routine noise measurements or locations are recommended. Noise measurements must be conducted at the location of the person that registered a valid and reasonable noise complaint. The measurement location should consider the direct surroundings to ensure that other sound sources cannot influence the reading. A second instrument must be deployed at a control point away from the potential noise source during the measurement period.

22.1.2 Measurement Frequencies

Once-off measurements if and when a reasonable and valid noise complaint is registered. Results and feedback must be provided to the complainant. If required and recommended by an acoustic consultant, there may be follow-up measurements, or a noise monitoring programme can be implemented.

22.1.3 Measurement Procedures

Ambient sound measurements should be collected as defined in SANS 10103:2008. Due to the variability that naturally occurs in sound levels at most locations, it is recommended that semi-continuous measurements are conducted over a period of at least 24 hours, covering at least a full day- (06:00 – 22:00) and night-time (22:00 – 06:00) period.

Measurements should be collected in 10-minute bins defining the 10-minute descriptors such as LAeq,l (National Noise Control Regulation requirement), LA90,f (background noise level as used internationally) and LAeq,f (Noise level used to compare with IFC noise limit). Spectral frequencies should also be measured to define the potential origin of noise. When a noise complaint is being investigated, measurements should be collected during a period or in conditions similar to when the receptor experienced the disturbing noise event.

22.2 Relevant Standard for Noise Measurements

Noise measurements must be conducted as required by the National Noise Control Regulations (GN R154 of 1992) and SANS 10103:2008. It should be noted that the SANS standard also refers to a number of other standards.

22.3 Data Capture Protocols

22.3.1 Measurement Technique

Noise measurements must be conducted as required by the National Noise Control Regulations (GN R154 of 1992) and SANS 10103:2008.

22.3.2 Variables to analysed

Measurements should be collected in 10-minute bins defining the 10-minute descriptors such as LAeq,l (National Noise Control Regulation requirement), L-A90,f (background noise level as used internationally) and L-Aeq,f (Noise level used to compare with IFC noise limit). Noise levels should be coordinated with the 10-m wind speed. Spectral frequencies should also be measured to define the potential origin of noise.

22.3.3 Database Entry and Backup

Data must be stored unmodified in the electronic file saved from the instrument. This file can be opened to extract the data to a spreadsheet system to allow the processing of the data and to illustrate the data graphically. Data and information should be safeguarded from accidental deletion or corruption.

22.3.4 Feedback to Receptor

A measurement report must be compiled considering the requirements of the National Noise Control Regulations (GN R154 of 1992) and SANS 10103:2008. The facility must provide feedback to the potential noise-sensitive receptors using the channels and forums established in the area to allow interaction with stakeholders, alternatively in a written report.

22.4 Standard Operating Procedures for Registering a Complaint

When a noise complaint is registered, the following information must be obtained:

- Full details (names, contact numbers, location) of the complainant;
- Date and approximate time when this non-compliance occurred;
- Description of the noise or event;
- Description of the conditions prevalent during the event (if possible).

23 FUEL STORAGE MEASURES

23.1 Storage Tanks

The storage tanks will be within contained areas to prevent spills contaminating soil and water, and with a design to capture and contain a volume of spill of at least 110% of the volume of stored fuel. These containers can be built in concrete and painted with anti-corrosive paint. The floor of the container must be inclined to permit the collection of the spilled liquids.

The storage tanks must also have a cover protection on top, prepared for drainage and collection of runoff.

23.2 General Procedures

- Transport routes for the transport of fuel will be clearly indicated;
- Pollution control equipment (spill and leak cleaning kits) must be readily available;
- Ensure personnel training, including measures to prevent fuel spills, to treat/clean fuel spills, how to react on spill of flammable liquids on clothing and in the inhalation of vapours, leaks simulations; fuel vapour recovery processes, etc. Keep records of all training;
- Maintain the premises and equipment in a clean and tidy state;
- Regularly clean outdoor areas with a broom;
- Wastewater from outside areas must be directed to the contaminated water drainage system, and not enter the stormwater system;
- Used oils (waste oil) will be collected, re-used, stored and disposed of in line with disposal procedures for hazardous wastes;
- Ensure the proper management of other hazardous wastes (contaminated soils, used spilling kits, waste lube, etc.).

Filling operations

- Isolate the area by cones and a rope;
- Prohibit refuelling operations during tank filling operations;
- Avoiding having people who are not involved in the operation within a 10 metre radius;
- Prohibit smoking and the use of mobile telephones or any other ignition sources during tank filling operations or vehicle refuelling, within a 3 metre radius;
- Use a tight-fill cap to completely seal off the connections between the tubing and the truck's and station's tanks;
- Engines must be turned off during refuelling;
- Prevent overflowing and spilling situations when the storage tanks are being filled (verify filling sensors and be aware of overflow alarms).

Preventing Accidents with fuel mixtures

Establish a procedure to deal with the potential occurrence of these situations, such as:

- The chemicals and reaction mechanisms associated with the substances mixed or blended must be well understood and documented;
- Chemical and process hazards must be understood and addressed, and the facilities should ensure that process equipment, controls, and procedures are designed, installed and maintained to safely operate the process;
- All employees should understand the chemical and process hazards;
- Facilities should establish a system for Standard Operating Procedures and ensure that they are understood and followed;
- Display clear and informative messages for users of the station, as to how to deal with this situation;
- Prepare a procedure to suitably dispose of wastes recovered from the batches of fuel mixture.

Spill Kits

- Emergency spill kits of absorbent material (e.g. sand) must be provided and stored next to the higher risk sites, and must be easily-accessible, ideally outside, in order to allow an immediate response when a spill occurs. This will be clearly labelled and ready for use.
- Drums for the storage of contaminated material must be provided.
- An accurate drawing of the local drainage system shall be posted next to the spill kit.

Closure Phase

- During the closure phase, there may be loss of product into the soil, as a result of a deliberate or accidental release during closure and removal of tanks and tubing. In addition, this risk may arise outside of the facility site, if the tanks and/or tubing are not properly disposed of.
- In the closure phase, it is important to remove all tanks and pipes. A risk may arise if the tanks are left on site with residual products. As the integrity of the equipment will no longer be ensured or monitored.
- During closure, it must be ensured that facilities do not present a risk to the environment, health or safety. Measures must be taken to ensure that the closure does not result in an unacceptable risk, including:
 - Any and all waste products will be removed from the tanks. Care will be taken to ensure that no product is lost into the soil. Tank closure must be carried out safely, with the removal of explosive vapours, for example by filling the tanks with water or inert gases. All tanks will be safe prior to their removal from the ground. Similar methods will be employed prior to the removal of the pipes.
 - Water used in this process will be contaminated with residual product, and thus a water contamination risk may arise if the contaminated water is not disposed of in a way which is appropriate for hydrocarbon contamination. This would normally imply the removal to a suitable waste handling facility.
 - According to the best environmental practices, the tanks, tubing and distributors will be disposed of. However, if the tanks remain in situ, it will be ensured that the procedure is safe. After making the tanks inert and safe, they will be filled in with sand, concrete, inert mud or hydrophobic foam.
 - The tanks and associated tubing which are no longer considered appropriate or safe for fuel storage will not be used for storage of other hydrocarbons, without first ensuring their integrity.
 - The oil/water separators will be removed for disposal, off the facility site. Otherwise, they will be filled in a similar way to the tanks. Regardless of the fate of the oil/water separator, all liquid and mud waste will be removed (off the facility site), and all the inlets and outlets will be sealed.
 - Whatever drainage system left behind will be modified to ensure that it does not serve as a path for pollutants to reach groundwater or other waters.
 - If the deactivation is temporary, product can be left in the tanks. In this case, all monitoring procedures will be carried out as if the facility were in operation. If for any reason the monitoring cannot carry on, the tanks will be emptied and made inert.
 - Personnel involved in the closure of a filling and fuel station will be aware and respect obligations with regards to waste disposal, in line with the best practices described above.

Environmental Aspect	Action or Measure
Prevent accidental spills from entering the stormwater drainage system	Provide cleaning equipment conceived specifically to deal with minor spills as may occur at the station.
	Place a clearly-identified spill kit in a visible location for each fueling line.
	Develop a step-by-step guide to use of the spill kit.
	Develop an evacuation plan and/or response procedures for emergencies involving large fuel spills.
	Train the whole team in the emergency response procedures. Make sure that all staff knows where the emergency equipment is to be found and is acquainted with its maintenance.
	Label all of the stormwater drains on-site in the proximity of the facilities as "Clean Water Only".

	Inspect the fuel distribution area in order to confirm that rainwater drained or emptied from the roof doesn't enter the areas marked out.
	Check whether the embankment around the fuel distribution area is in good condition and has the capacity to contain a fuel leak in the event of an emergency.
Minimise the risks of environmental contamination and from issues of workers' health and safety	Provide training to the staff regarding the disposal of material contaminated with fuel, such as absorbent material from the spill kit, soaked in fuel.
	Ensure that the product safety cards for all fuels and oils are up-to-date and accessible at all times.
Minimise the risks of fuel leaks as may result in pollution of the sub-soil and groundwater	Check if there is fuel, from a possible leak, in the spill containment sumps installed at the tank's discharge nozzle.
	Check if there is fuel, from a possible leak, in the all tanks containment sumps, installed on the manhole to the storage tanks. In the event of suspected leakage, report it immediately.
	Check if there is fuel or lube, from a possible leak in the containment sumps installed under the tanks.
Minimise the risks of fuel leaks as this may result in pollution of the sub-soil and groundwater	Check if there is fuel, from a possible leak, in the chambers of the containment sumps installed under the pumps
Minimise the risks of harmful emissions to the atmosphere and the loss of fuel	Check that lids, flanges and connections are closed.
	Confirm that the ventilation conduits are not blocked.
	Supervise the fuel deliveries.
Minimise the risks of water pollution	Carry out an Oil-Water Separator inspection to ensure effective treatment.
Integrity control	Adequate maintenance and calibration of the monitoring equipment

24 DECOMMISSIONING PHASE

Should the WEF be decommissioned, a decommissioning plan must be produced. The plan must include details on the decommissioning and dismantling of the WEF, taking in consideration the potential environmental impact associated with it. Environmental monitoring plans must be produced so ensure no pollution occurs during this phase. The plan must include the steps that will be taken to rehabilitate the area after the WEF is dismantled, as well as recycling options of the equipment and structures.

25 CONCLUSION

In terms of the National Environmental Management Act, 1998 (Act 107 of 1998) everyone is required to take reasonable measures to ensure that they do not pollute the environment. Reasonable measures include informing and educating employees about the environmental risks of their work and training them to operate in an environmentally acceptable manner.

Furthermore, in terms of the 'Act', the cost to repair any environmental damage shall be borne by the person responsible for the damage.

It is therefore imperative that the management plan is successfully implemented, as a failure to comply could have legal implications.

The environmental impacts on the site will not be significant if the construction management is well implemented, and a set of operational guidelines are developed by the long term site management body.

**APPENDIX C: SITE AND POSTER NOTICE AND NEWSPAPER
ADVERTISEMENT PROOF**

KENNISGEWING VAN EA WYSIGINGS AANSOEKPROSES: VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA – WINDKRAAGANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgevingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Ouer DEA Verwysingsnommer van die San Kraal Windkragaanleg: 14/12/16/3/3/2/1029/AM1
Ouer DEA Verwysingsnommer van die PhezukomoYA Windkragaanleg: 14/12/16/3/3/2/1028/AM1

Aard en Ligging van Aktiviteit: Die Omgevingsmagtiging (EA) vir die San Kraal Windkragaanleg (WEF) en PhezukomoYA Windkragaanleg (WEF) is in Junie 2018 deur die Departement van Omgewingsake (DEA) toegestaan. 'n EA wysingsaansoekproses vir die voorgestelde split van die San Kraal WEF en PhezukomoYA WEF in vier WEFs sal gevolg word. Aansoek sal by die Departement van Omgewingsake (DEA) ingedien word vir die split van die gemaatigde San Kraal WEF (DEA Verwysingsnommer: 14/12/16/3/3/2/1029) en 14/12/16/3/3/2/1029/AM1) (San Kraal) in twee WEFs (naamlik San Kraal Split 1 en Hartebesthoek East), en die PhezukomoYA WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1028 en 14/12/16/3/3/2/1028/AM1) (PhezukomoYA) in twee WEFs (naamlik PhezukomoYA Split 1 en Hartebesthoek West).

VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA – WINDKRAAGANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgevingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Aard en Ligging van Aktiviteit: Die Aansoeker, EDF Renewables (Edms) Bpk, dien 'n aansoek in vir omgewingsmagtiging vir die elektriese aansluiting en gepaardgaande infrastruktuur, verband hou met die voorgestelde split van die gemaatigde WEFs, i.e. San Kraal Split 1 WEF; PhezukomoYA Split 1 WEF; Hartebesthoek East WEF en Hartebesthoek West WEF. 'n Basiese assesseringsproses word gevolg omdat 'n nuwe gang voorgestel is, en part daarvan is buite die gemaatigde perseelgrense (van San Kraal en PhezukomoYA) geleë is.

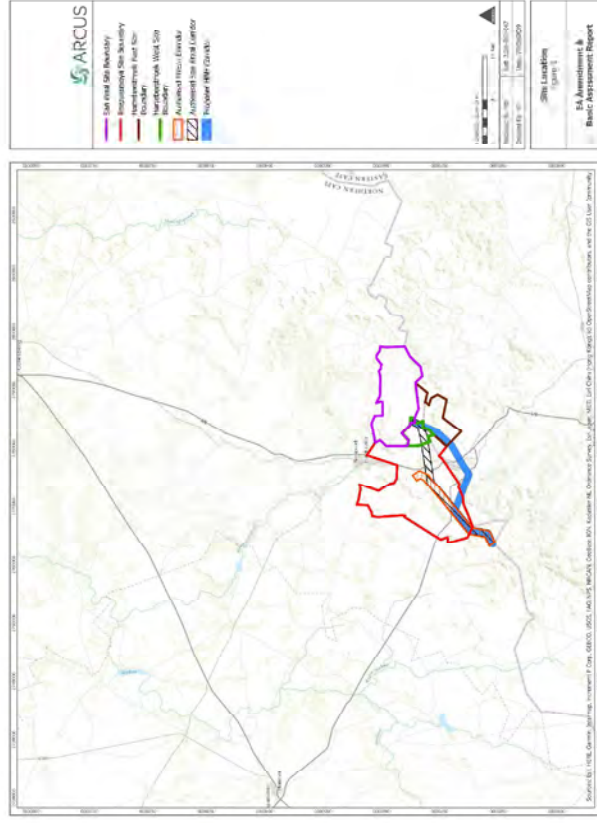
Die **Konsep EA Wysigingsverslag** en **Basiese Assessingsproses** sal beskikbaar gestel word vir openbare kommentaar en kommentaarlewering in September 2019 (presiese datum van beskikbaarheid sal bevestig word aan alle geregistreerde B&GP's deur kennisgewings) by die Noupoot; en op die webtuiste www.arcusconsulting.co.za.

Met verwysing na die voorgestelde ontwikkeling, indien u as 'n Belanghebbende en Gearfakteerde Party (B & GP) wil registreer, stuur asseblief u versoek om registrasie skriftelik na die onderstaande adres:

ARCUS Consultancy Services South Africa (Pty) Ltd

Reference : 3329 Projects
Email : info@arcusconsulting.co.za
Post : 021 607 0135, Workspace, Icon Building, Cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001
Telephone : +27 21 411 1529
Person : Annesah Allwie

Opmerking: die e-posadres: sankraal@arcusconsulting.co.za en phezukomoya@arcusconsulting.co.za is nie meer geldig nie



Vir die duur van die PPP, EIA en EA-proses sal slegs geregistreerde B&GP's korrespondensie ontvang. Registrasie sal gedurende die EIA en EA-proses moontlik wees.

NOTIFICATION OF EA AMENDMENT APPLICATION PROCESS: SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Older DEA Reference Number of the San Kraal Wind Energy Facility: 14/12/16/3/3/2/1029/AM1 and 14/12/16/3/3/2/1029/AM1
Older DEA Reference Number of the PhezukomoYA Wind Energy Facility: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Nature and Location of Activity: The Environmental Authorisation for the San Kraal Wind Energy Facility (WEF) and the PhezukomoYA Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs in June 2018. An EA Amendment application process for the proposed split of the San Kraal WEF and PhezukomoYA WEF into four WEFs will be followed. Applications will be submitted to the Department of Environmental Affairs for the split of the authorised San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) (San Kraal) into two WEFs (namely San Kraal Split 1 and Hartebesthoek East), and the PhezukomoYA WEF (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) (PhezukomoYA) into two WEFs (namely PhezukomoYA Split 1 and Hartebesthoek West).

NOTIFICATION OF BASIC ASSESSMENT PROCESS: PROPOSED SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Nature and Location of Activity: The Applicant, EDF Renewables (Pty) Ltd, is submitting an application for environmental authorisation for the electrical grid connection and associated infrastructure related to the proposed split of the authorised WEFs, i.e. San Kraal Split 1 WEF; PhezukomoYA Split 1 WEF; Hartebesthoek East WEF and Hartebesthoek West WEF. A basic assessment process is being followed because a new corridor has been proposed, and part of the corridor is located outside the authorised site boundaries (of San Kraal and PhezukomoYA).

The **Draft EA Amendment and Basic Assessment Reports** will be made available for public review and comment in September 2019 (exact date of availability to be confirmed in notification to all registered I&APs) at the following locations:

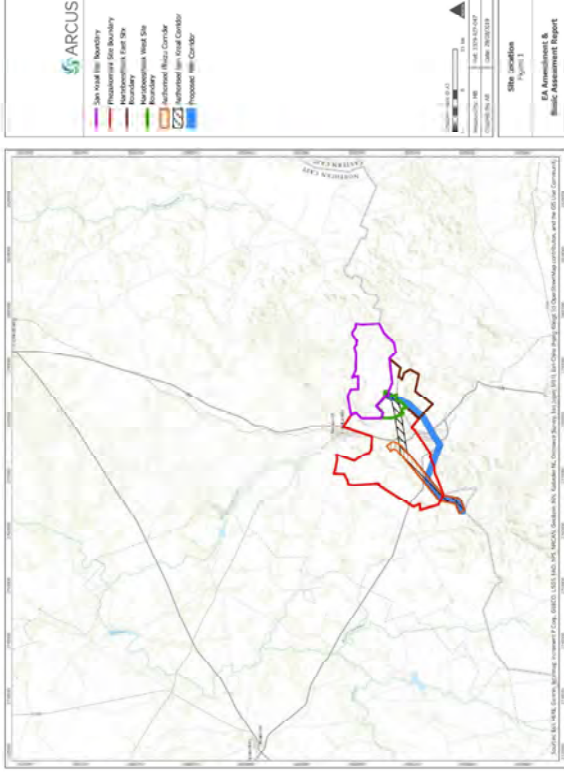
- Noupoot Library; and
- Website: www.arcusconsulting.co.za

With reference to the proposed developments, if you wish to be registered as an Interested and Affected Party (I&AP), please send your request for registration in writing to the address below:

ARCUS Consultancy Services South Africa (Pty) Ltd

Reference : 3329 Projects
Email : info@arcusconsulting.co.za
Post : 021 607 0135, Workspace, Icon Building, Cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001
Telephone : +27 21 411 1529
Person : Annesah Allwie

Note: The email addresses: sankraal@arcusconsulting.co.za and phezukomoya@arcusconsulting.co.za is no longer valid.



Correspondence throughout the remainder of the PPP, EIA and EA Process will only be distributed to Registered Interested and Affected Parties (I&APs). Registration as an I&AP is possible throughout the EIA and EA Process.

San Kraal and Phezukomoya Site Notice Placements

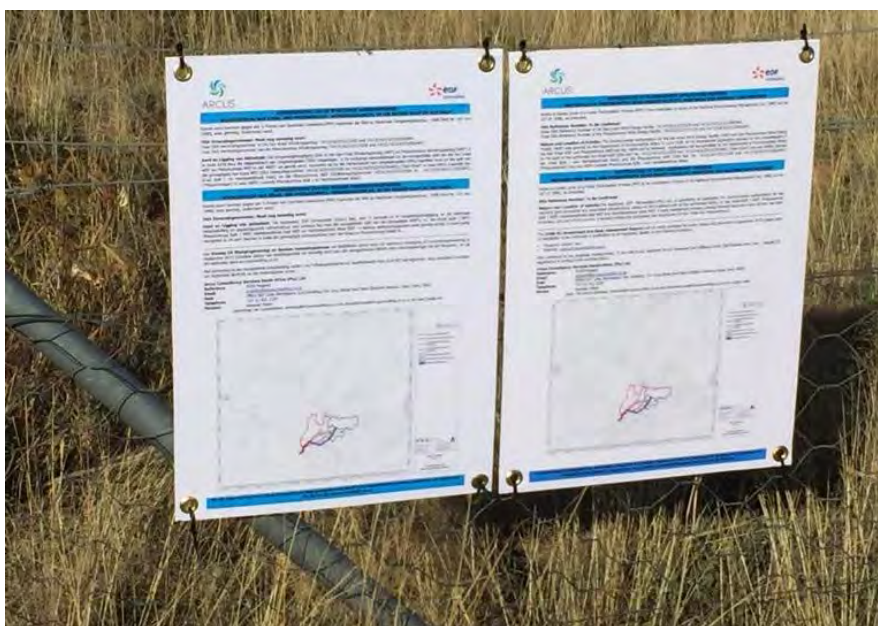


Site Notice Placement S Site Boundary
S 31° 18.573' ; E 024° .55.253'



Site Notice Placement SW Site Boundary S 31° 17.074' ; E 024° .50.520'

San Kraal and Phezukomoya Site Notice Placements

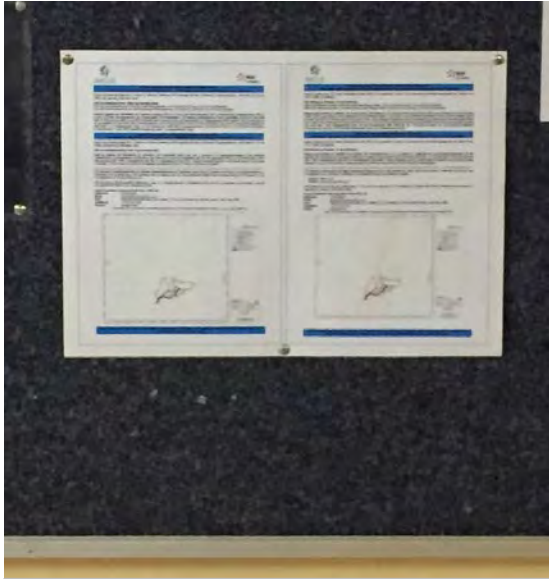


Site Notice Placement N Site Boundary
S 31°10.464' ; E 024°57.808'



Site Notice Placement NE Site Boundary S 31°12.113' ; E 025°02.401'

San Kraal and Phezukomoya Poster Placement: Middelburg



Middelburg Police Station

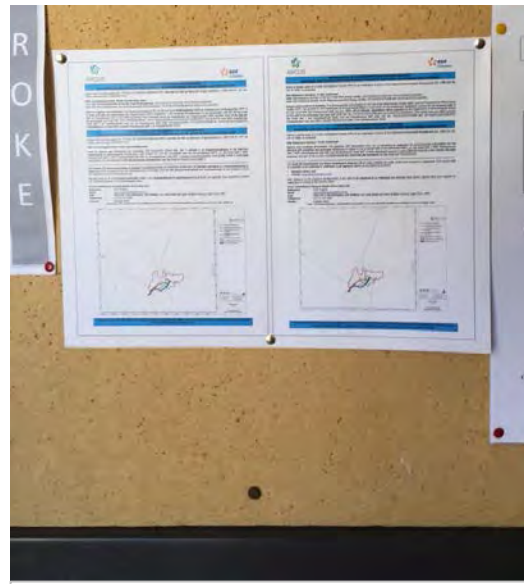


NG Kerk Middelburg-Karoo



Middelburg Keg and Springbuck Pub & Restaurant

San Kraal and Phezukomoya Poster Placement: Middelburg



Middelburg Wilhelm Stahl Hospital



Middelburg Karoo Apteek / Pharmacy

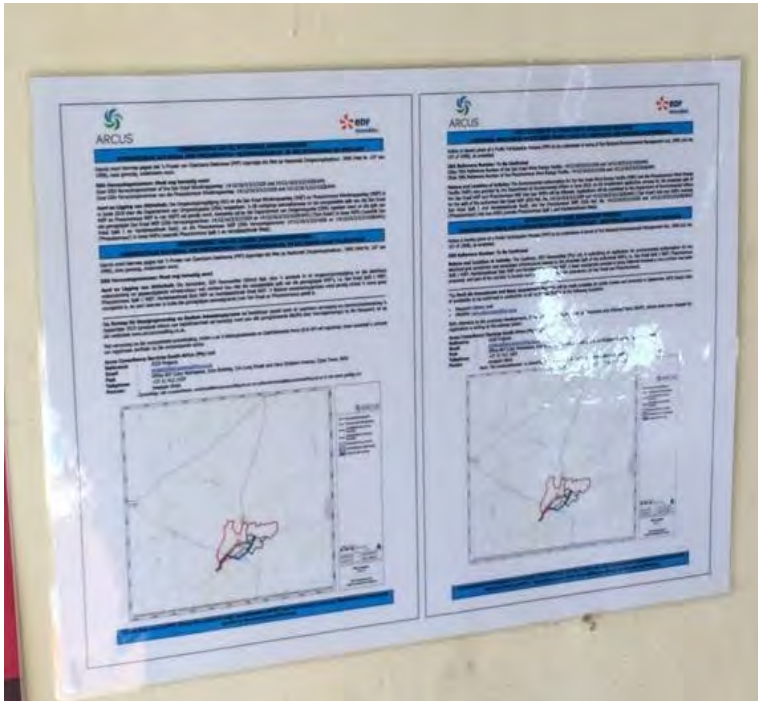
San Kraal and Phezukomoya Poster Placement: Noupoort



Noupoort Police Station



Noupoort Fritz Visser CHC Hospital



Noupoort Foodzone



San Kraal and Phezukomoya Poster Placement: Noupoort



Noupoort Umsobomvu Municipality



Noupoort Post Office

**NOTIFICATION OF EA AMENDMENT APPLICATION PROCESS:
SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY,
NORTHERN AND EASTERN CAPE PROVINCE**

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Older DEA Reference Number of the San Kraal WEF: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 and the Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Nature and Location of Activity: The Environmental Authorisation for the San Kraal Wind Energy Facility (WEF) and the Phezukomoya Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs in June 2018. An EA Amendment application process for the proposed split of the San Kraal WEF and Phezukomoya WEF into four WEFs will be followed. Applications will be submitted to the Department of Environmental Affairs for the split of the authorised San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal') into two WEFs (namely San Kraal Split 1 and Hartebeesthoek East), and the Phezukomoya WEF (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') into two WEFs (namely Phezukomoya Split 1 and Hartebeesthoek West).

**NOTIFICATION OF BASIC ASSESSMENT PROCESS:
PROPOSED SAN KRAAL AND PHEZUKOMOYA WIND ENERGY
FACILITY, NORTHERN AND EASTERN CAPE PROVINCE**

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Nature and Location of Activity: The Applicant: EDF Renewables (Pty) Ltd, is submitting an application for environmental authorisation for the electrical grid connection and associated infrastructure related to the proposed split of the authorised WEFs, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF and Hartebeesthoek West WEF. A basic assessment process is being followed because a new corridor has been proposed, and part of the corridor is located outside the authorised site boundaries (of San Kraal and Phezukomoya).

The **Draft EA Amendment and Basic Assessment Reports** will be made available for public review and comment in September 2019 (exact date of availability to be confirmed in notification to all registered I&APs) at the Noupoot Library and on the website: www.arcusconsulting.co.za.

With reference to the proposed developments, if you wish to be registered as an Interested and Affected Party (I&AP), please send your request for registration in writing to the address below.

**KENNISGEWING VAN EA WYSIGINGS AANSOEKPROSES:
VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –
WINDKRAGAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP**

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Ouer DEA Verwysingsnommer of the San Kraal WEF: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 en Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Aard en Ligging van Aktiwiteit: Die Omgewingsmagtiging (EA) vir die San Kraal Windkragaanleg (WEF) en Phezukomoya Windkragaanleg (WEF) is in Junie 2018 deur die Departement van Omgewingsake (DEA) toegestaan. 'n EA wysigings aansoekproses vir die voorgestelde split van die San Kraal WEF en Phezukomoya WEF in vier WEFS sal gevolg word. Aansoeke sal by die Departement van Omgewingsake (DEA) ingedien word vir die split van die gemagtigde San Kraal WEF (DEA Verwysingsnommer. 14/12/16/3/3/2/1029 en 14/12/16/3/3/2/1029/AM1) ('San Kraal') in twee WEFs (naamlik San Kraal Split 1 en Hartebeesthoek East), en die Phezukomoya WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1028 en 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') in twee WEFs (naamlik Phezukomoya Split 1 en Hartebeesthoek West).

**KENNISGEWING VAN DIE BASIESE ASSESSERINGSPROSES:
VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –
WINDKRAGAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP**

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Aard en Ligging van Aktiwiteit: Die Aansoeker: EDF Renewables (Edms) Bpk, dien 'n aansoek in vir omgewingsmagtiging vir die elektriese netaansluiting en gepaardgaande infrastruktuur wat verband hou met die voorgestelde split van die gemagtigde WEF's, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF en Hartebeesthoek West WEF. 'n Basiese assesseringsproses word gevolg omdat 'n nuwe gang voorgestel is, en part daarvan is buite die gemagtigde perseelgrense (van San Kraal en Phezukomoya) geleë is.

Die **Konsep EA Wysigingsverslag en Basiese Assesseringsproses** sal beskikbaar gestel word vir openbare oorweging en kommentaarlewering in September 2019 (presiese datum van beskikbaarheid sal bevestig word aan alle geregistreerde B&GPe deur kennisgewings) by die Noupoot Biblioteek; en op die webtuiste www.arcusconsulting.co.za.

Met verwysing na die voorgestelde ontwikkeling, indien u as 'n Belanghebbende en Geaffekteerde Party (B & GP) wil registreer, stuur asseblief u versoek om registrasie skriftelik na die onderstaande adres.

APPENDIX D: I&AP DATABASE

FARM / DEPARTMENT	NAME	SURNAME	TELEPHONE	EMAIL ADDRESS	POSTAL ADD.	CITY	CODE
RE/61, 6/61, RE/4/61	Abbott	Erasmus	0825790501	paardevei@adsactive.com / n.paardevei@gmail.com			
National Department of Water and Sanitation	Abe	Abrahams	0538308800/6 7600	AbrahamsA@dws.gov.za	Private Bag X6101	Kimberley	8300
Wildlife and Environment Society of South Africa (WESSA)	Admin	Admin	0114625663	jnbadmin@wessa.co.za	PO Box 435	Ferndale	2160
Square Kilometre Array Africa	Adrian	Tiplady	0114422434	atiplady@ska.ac.za			
Sustainable Energy Society of Southern Africa (SESSA)	Adriana	Chickesh	0112140668	office@sessa.org.za	53 Dudley Road	Parkwood	2193
Sender Technology Park (STP) SENTECH	Alishea	Viljoen			Private Bag X06	Honeydew	2040
Southern African Alternative Energy Association (SAAEA)	Alwyn	Smith	0716378466	alwyn@saaea.org	PO Box 866	Welobie	1714
15/182; 3/182; 14; 46/182	Amos	Mpela	0517530777	mpela@umsobomvumun.co.za / birtus@umsobomvumun.co.za			
47/182; RE/182	Amos	Mpela	0517530777	mpela@umsobomvumun.co.za / birtus@umsobomvumun.co.za			
Umsobomvu Local Municipality	Amos	Mpela		msestile@umsobomvumun.co.za			
National Energy Regulator of South Africa (NERSA)	Andile	Gxasheka	0124014600	Andile.Gxasheka@nersa.org.za	PO Box 40343	Arcadia	0007
Salinga Farmers Association (Northern Cape)	Andile	Gwatu	0782233123				
Umsobomvu Local Municipality	Annie	Fritz	0517530253	wminnie@umsobomvumun.co.za / sbrown@umsobomvumun.co.za	Private Bag X7	Colesberg	9795
Department of Rural Development and Land Reform	Aphiwe	Fayindlala	0437007003	aphiwe.fayindlala@drdlr.gov.za			
SALGA Eastern Cape	Aseza	Dlanjwa	0437271150		PO Box 19511	East London	5214
National Department of Mineral Resources	Azwihangwisi	Mulaudzi	0413963900	Azwihangwisi.Mulaudzi@dmr.gov.za	Private Bag X6076	Port Elizabeth	6000
Environmental Quality Management, DEDEA	Bhelinda	Mtambo	0458084000	bhelinda.mtamo@dedea.gov.za			
Department of Finance, Economic Development, Environmental Affairs and Tourism	Bongani	Gxilisho	0436057004	mncedisi.makosonke@deaet.ecape.gov.za			
Department of Rural Development and Agrarian Reform	Bongikaya	Dayimani	0436423497	bongikaya.dayimani@drdar.gov.za	Private Bag X0040	Bhisho	5605
National Department of Water and Sanitation	Carlo	Schrader	0514059300	SchraderC@dws.gov.za	PO Box 528	Bloemfontein	
Mainstream Renewable Power	Catharina	Stone	02165774040	Catharina.Stone@mainstreamrp.com			
Chris Hanu District Municipality	Cira	Ngetu	0458084000	cira.ngetu@deaet.ecape.gov.za	PO Box 9636	Queenstown	5320
Leads 2 Business	Claire	Threadingham	0860836337	ClaireT@L2B.co.za			
SANRAL	Colene	Runkel	0219574600	runkelc@nra.co.za	Private Bag X19	Bellville	7535
MTCR	DA	Mnweba		mtrc.ltd@gmail.com			
Department of Environment & Nature Conservation	Dineo	Moleko	0538077300	dmoleko@ncpg.gov.za / denc@ncpg.gov.za	90 Long Street Private Bag X6120	Kimberley	8301
Umsobomvu Local Municipality	Dionne	Visagie		dionne@umsobomvumun.co.za			
National Department of Rural Development and Land Reform	Dr N	Makgalemele	0123129665	karen.vanschalkwyk@drdlr.gov.za	Room 246, Old Building, 184 Jacob Mare (Jeff Masemola) Street	Pretoria	0001
Agri Eastern Cape	Eben			potfontein@gmail.com			
Transnet	Eddie	Seaton	0113082417	eddie.seaton@transnet.net	PO Box 72501	Parkview	2122
1/133, RE/133	Faunteroy Bartholomew	Gillmer	0834552052	fauntyg@vodamail.co.za			
Department of Finance, Economic Development, Environmental Affairs and Tourism	Fezeka	Boyi		fezeka.boyi@dedea.gov.za			
Chris Hanu District Municipality	Francois	Nel	0458084610		PO Box 9636	Queenstown	5320

Department of Cooperative Governance, Human Settlements and Traditional Affairs	G	Botha	0538309427 / 22	jpetersen@ncpg.gov.za	Private Bag X5005	Kimberley	8300
Ptn 5 of Salpeter Krans / Ptn 4 of Wolwe Kop	George Sebastian	Moore			PO Box 64	Middelburg	5900
RE 181	Gerhard	Taljaard	0824466459	elizetaljaard5@gmail.com			
Department of Finance, Economic Development, Environmental Affairs and Tourism	Gerry	Pienaar	0824584593	gerry.pienaar@dedea.gov.za	Global Life Building	Bhisho	5605
Department of Finance, Economic Development, Environmental Affairs and Tourism	Ncumisa	Manyonga	0738372031	ncumisa.manyonga@dedea.gov.za	Global Life Building	Bhisho	5605
Department of Finance, Economic Development, Environmental Affairs and Tourism	Alistair	McMaster	0718653771	Alistair.McMaster@dedea.gov.za			
Ptn 1 of Elandsheuwel	Hendrikus Jacobus	Visser	0498431520		PO Box 5	Middelburg	5900
Agri Northern Cape	Henning	Myburgh	0538329595	henning@agrink.co.za	PO Box 1094	Kimberley	8300
RE/67 Kapok Hoek	Henry	Retief	0498424343	hennie@triotrust.co.za			
Department of Transport	Irene	Mpolweni	0436047415 / 7472	angie.majongile@dot.ecprov.gov.za	Private Bag X0023	Bhisho	5605
Pixley ka Seme District Municipality	Jack	Maccollan	0536310891	pixley@telkomsa.net	Private Bag X1012	De Aar	7000
Department of Agriculture, Forestry and Fisheries	Jacoline	Mans	0543385860	jacolineMa@daff.gov.za	PO Box 2782	Upington	8800
Community Safety and Security	Janine	Carstensen		jan@safetyzonesa.co.za			
18/1; RE/11/1; 3/1; 2/11; 12/1; 21/ 1 RE/13/1	Jean	Gillmer	0498431434	jean.gillmer@karoomail.co.za			
RE/117 ; 1/117	Jim	de Villiers	0836549256	jdv@eik.co.za			
South African Wind Energy Association (SAWEA)	Johan	van der Berg	0112140660	johan@sawea.org.za			
Ptn 2 of Groene Kloof / Blydefontein	Johannes Jurie	Lessing	0498431710		PO Box 52	Noupoort	5950
Bergendal	Johannes Marthinus	Du Toit	0498431588		PO Box 145	Noupoort	5950
Eskom: Renewable Energy	John	Geeringh	0115167233	john.geeringh@eskom.co.za	PO Box 1091	Johannesburg	2000
South African Bat Assessment Association (SABAAP)	Kate	McEwan		madaboutbats@gmail.com / kate@iws-sa.co.za			
Department of Rural Development and Land Reform	Katshaba	Goafhiwe	0538304001	katshaba.gaofhiwe@drdlr.gov.za			
Private Guest House Owner	L	De Swardt	0498431075	booking@thedon@gmail.co.za			
Ptn 5 of Groote Hoek	Laurraine Eugene	Miller	0828420008		PO Box 548	Middelburg	5900
Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	Lennox	Zote	0437221740 / 6		PO Box 759	East London	5200
Telkom SA Limited	Leonard	Shaw	0123112012	ShawLS@telkom.co.za	Private Bag X74	Pretoria	0001
Department of Cooperative Governance and Traditional Affairs	Lerato	Sebiloane	0406095656 / 58	lerato.sebiloane@ecjgta.gov.za	Private Bag X0035	Bhisho	5605
SALGA Northern Cape	Lesang	Daniels	0538367900		PO Box 3183	Kimberley	8300
Salinga Farmers Association (Northern Cape)	LH	Fuba	0607038354				
1/120, 1/135, 2/3, 3/3, 7/3, 8/3, RE/3, 4/3, 6/3, 2/61, 3/133, 2/61, 3/133	Lindo	van der Merwe	0498431506	transkaroo@eik.co.za			
South African Civil Aviation Authority (CAA)	Lizelle	Stroh	0115451232 / 1455	strohl@caa.co.za	Private Bag X73	Halfway House	1685
Endangered Wildlife Trust	Lourens	Leeuwner	0217885661	lourensl@ewt.org.za	Private Bag X11	Modderfontein	1645
Agri Northern Cape	Lucelle	van Niekerk	0538329595	ontvangs@agrink.co.za	PO Box 1094	Kimberley	8300
National Department of Agriculture, Forestry and Fisheries	M.E	Tau	0124730236	MmaphakaT@daff.gov.za	Private Bag X250	Tecoma	5214
Air Traffic and Navigation Services (ATNS) SOC Limited	Makaya	Mamogale	0116071000	makayam@atns.co.za	Private Bag X15	Kempton Park	1650

National Department of Rural Development and Land Reform	Malebo	Baloi	0123129801	Malebo.baloi@drdlr.gov.za			
Salinga Farmers Association (Northern Cape)	Mande	Mfengu	0840588600				
National Department of Government Communication and Information System	Marius	Nagel	0538321378 / 9	mariusn@gcis.gov.za	Private Bag X6101	Kimberley	8300
National Department of Agriculture, Forestry and Fisheries	Mashudu	Marubini	0123197619	MashuduMa@daff.gov.za	Private Bag x120	Pretoria	0001
National Department of Rural Development and Land Reform	Mathemba	Gcasamba	0437007003	Mathemba.Gcasamba@drdlr.gov.za	PO Box 1958	East London	5200
National Department of Rural Development and Land Reform	Mduduzi	Shabane	0123128503	DGOffice@drdlr.gov.za	Private Bag X833	Pretoria	0001
Agriculture, Forestry and Fisheries	Melvin Mothese	Charlie	0437046800 / 15	MelvinC@daff.gov.za	Private Bag X04	Tecoma	5214
National Department of Energy	Mokgadi	Mathekgana	0124068000	Nokuthula.Mbeje@energy.gov.za	Private Bag X96	Pretoria	0001
SALGA Northern Cape	Mr	Jahannes	0538367900		PO Box 3183	Kimberley	8300
Earthlife Africa	Muna	Lakhani	0834717276	muna@iafrica.com			
Umsobomvu Local Municipality	Mzimbhulu	Sesthile	0517530253		Private Bag X8	Colesberg	9795
Department of Sport, Recreation, Arts and Culture	Mzolisi	Matutu	0436044019	mzolisi.matutu@srac.ecprov.gov.za			
Inxuba Yethemba Local Municipality	Mzwandile Sydney	Tantsi	0488015000	mzwandile@iyam.gov.za	PO Box 24	Cradock	5880
South African Heritage Resources Agency (SAHRA) - National	Natasha	Higgitt	0214624502	nhiggitt@sahra.org.za	111 Harrington Street	Cape Town	7925
Department of Transport, Roads and Public Works	Natasha	Corns	0538392109	ncorns@ncpg.gov.za	PO Box 3132	Kimberley	8300
Agri Eastern Cape	Natasja	Barkhuizen	0413631890 / 96	natasja.barkhuizen@agriec.co.za	PO Box 34889	Port Elizabeth	6055
Umsobomvu Local Municipality	Ncedo	Thiso		ncedo@umsobomvumun.co.za			
National Department of Government Communication and Information System	Ndlelantle	Pinyana	0737222609 / 2602 / 490	ndlelantle@gcis.gov.za	Private Bag X608	East London	5200
SANRAL	Nicole	Abrahams	0219574602	Abrahamsn@nra.co.za	Private Bag X19	Bellville	7535
Environmental Quality Management, DEDEA	Nondwe	Mdekazi-Nkqubezelo	0458084000	nondwe.mdekazi@dedea.gov.za			
Department of Communication	Nozipho N	Mndaweni	012473000		Private Bag X745	Pretoria	0001
National Department of Mineral Resources	Ntsundeni	Ravhugoni	0538071700	Sunday.mabaso@dmr.gov.za	Private Bag 6093	Kimberley	8300
National Department of Mineral Resources	Nwabisa	Qwanyashe	0124443880	nwabisa.qwanyashe@dmr.gov.za	Private Bag X59	Pretoria	0007
SALGA Northern Cape	Obed	Mvula	0538304001		Private Bag X5007	Kimberley	8300
National Department of Water and Sanitation	P	Makhanya	0436045406	MakhanyaP@dwa.gov.za	Private Bag X7485	King Williams Town	5600
National Department of Government Communication and Information System	Phumla	Williams	0124730236	phumla@gcis.co.za	Private Bag X745	Pretoria	0001
National Department of Water and Sanitation	Phumzile	Mdakane	0123366990	Mdakanep@dwa.gov.za	Private Bag X313	Pretoria	0001
1/11 ; RE/13	Pieter	Erasmus	0825587178	beskuitfontein@gmail.com / perasmus@ovk.co.za			
RE/1/1	Pieter	Jordaan	0824996609	tollie@isat.co.za			
Ludlow	Pieter Willem Jr	Jordaan			PO Box 521	Middelburg	5900
National Department of Government Communication and Information System	Precian	Tshitaudzi	0124730169	phumla@gcis.co.za	Private Bag X745	Pretoria	0001
National Department of Rural Development and Land Reform	Pule	Salia	0123129801	Ramaleho.saila@drdlr.gov.za			
Department of Transport	Pule Godfrey	Selepe	0123093000	info@dot.gov.za	Private Bag X193	Pretoria	0001
Mainstream Renewable Power	Rebecca	Thomas	02165774040	Rebecca.Thomas@mainstreamrp.com			

SANRAL	Rene	de Kock	0219574607	Dekockr@nra.co.za			
Wildlife and Environment Society of South Africa (WESSA)	Rudzani	Nemukula	0114625663	rudzani.nemukula@wessa.co.za	PO Box 435	Ferndale	2160
Commision of Restitution of Land Rights	Ryan	Oliver		ryan.oliver@drdlr.gov.za			
Department of Environmental Affairs	Salome	Mambane	0123999385	Smambane@environment.gov.za	473 Steve Biko Road Arcadia Private Bag X 447	Pretoria	0001
Southern African Large Telescope	SALT	SALT	0235711205	salt@salt.ac.za	Old Fraserburg Road	Sutherland	6920
Birdlife South Africa	Samantha	Ralston	0117891122	energy@birdlife.org.za	Private Bag X5000	Parklands	2121
Agricultural Research Council	Shadrack	Moephuli	0124279700	enquiry@arc.agric.za	PO Box 8783	Pretoria	0001
Department of Environmental Affairs: Biodiversity and Conservation	Shonisani	Munzhedzi	0123999171	smunzhedzi@environment.gov.za			
SANRAL	Simon	Peterson	0413983200	Kleinhansm@nra.co.za	PO Box 27230	Greenacres	6057
Department of Environmental Affairs: Biodiversity and Conservation	Simon	Malete	0123999511	smalete@environment.gov.za			
Umsobomvu Local Municipality	Simphiwe	Nkcithiso		simphiwe@umsobomvumun.co.za			
Southern African Faith Communities' Environment Institute	Stefan	Cramer	0498910458	stefan@safcei.org.za	PO Box 677	Graaf-Reinet	6280
Environmental management / Bat impact assessments	Stephanie	Dippenaar	0218801653	sdippenaar@snowisp.com			
South African Astronomical Observatory	Ted	Williams		williams@sao.ac.za			
Transnet	Thandeka	Nohoyeka	0415071316	thandeka.nohoyeka@transnet.net			
SALGA Northern Cape	Thatelo	Itumeleng	0538367900	ithatelo@salga.org.za	PO Box 3183	Kimberley	8300
Agri SA	Thea	Liebenberg	0126433434	thea@agrisa.co.za	Private Bag X180	Centurion	0046
Umsobomvu Local Municipality	Themba	Mosompha		mosomphat@umsobomvumun.co.za			
National Energy Regulator of South Africa (NERSA)	Thembani	Bukula	0124014600	thembani.bukula@nersa.org.za	PO Box 40343	Arcadia	0007
National Department of Agriculture, Forestry and Fisheries	Thoko	Buthelezi	0123197634	ThokoB@daff.gov.za	Private Bag x120	Pretoria	0001
Ptn 11 of New Jakhalsfontein; Hughdale	Thomas Johannes	van der Walt	0498431706	tomvdwalt@gmail.com	PO Box 102	Noupoort	5950
Department of Agriculture and Rural Development	Thози	Manyisana	0406093472 / 74	thози.man@gmail.com	Private Bag X0040	Bhisho	5605
Department of Agriculture and Rural Development	Thози	Manyisana	0406093472 / 74	thози.man@gmail.com	Private Bag X0040	Bhisho	5605
Ngwao Boswa Kapa Bokoni (Provincial Heritage Resources Authority)	Timothy	Ratha	0538312537	rtimothy@nbkb.org.za	PO Box 1930	Kimberley	8300
Department of Environmental Affairs	Toinette	van der Merwe	0123998630	tvandermerwe@environment.gov.za	Provate Bag X 447	Pretoria	0001
Mainstream Renewable Power	Tom	Thorogood	02165774040	tom.thorogood@mainstreamrp.com			
Square Kilometre Array Africa	Tshegofatso	Monama		temonama@ska.ac.za			
Department of Environment & Nature Conservation	Tsholo	Makaudi	0538077300	amabunda@grand.ncape.gov.za	Private Bag X6120	Kimberley	8301
South African Heritage Resources Agency (SAHRA) - National	Veliswa	Baduza	0214624502	vbaduza@sahra.org.za	PO Box 4637	Cape Town	8000
SALGA Northern Cape	Viljoen	Mothibi	0538389118	fortunec@ncpg.gov.za / gmothibi@ncpg.gov.za / vmothibi@ncpg.gov.za	Private Bag X5018	Kimberley	8300
RE/118	Vivian	van der Merwe	0514303396	attsec@mindek.co.za / klwatt@roundbar.co.za			
Salinga Farmers Association (Northern Cape)	Vuyo	Nkobongo	0735330530				
Department of Social Development	Vuyokazi	Sangini	0436055058	Vuyokazi.sangoni@ecdsd.gov.za	Private Bag X0039	Bhisho	5605

Department of Environmental Affairs: Biodiversity and Conservation	Wadzi	Mandivenyi	0123999619	wmandivenyi@environment.gov.za			
Ptn 15 of Falsefontein	Willem Hendrik Jacobsz	van Reenen			PO Box 42	Noupoort	5950
Transnet	Willie	Zietsman	0415071318	willie.ziedsman@transnet.net / williezietsman@transnet.net			
Endangered Wildlife Trust	Yolan	Friedman	0113723600		Private Bag X11	Modderfontein	1645
Department of Social Development	Zintle	Hlobo	0725134262	zintleh@ecdhs.gov.za	Private Bag X31008	East London	5206
National Department of Rural Development and Land Reform	Zongezile	Bongo		zongezile.bango@drdlr.gov.za		Pretoria	0001
Department of Roads and Public Works	Zukiswa	Ngwane	0406024256 / 4804	Zukiswa.Ngwane@dpw.ecape.gov.za	Private Bag X0022	Bhisho	5606
Ptn 8 of Damfontein; Ptn 3 of Wonderheuvel					PO Box 58	Middelburg	5900
Mooi Plaats			0495431501		PO Box 12	Middelburg	5900
Vlage Kop					PO Box 124	Noupoort	5950
Northern Cape Tourism Authority			0538331434 / 0538322657	info@experiencenortherncape.com	Private Bag X5107	Kimberley	8300
Karoo News Group			0603341648	karoonegroup@gmail.com			
Saamvat Construction			0628720220				
Eastern Cape Parks and Tourism Agency			0434920881	info@ecpta.co.za	17 - 25 Oxford Street	East London CBD	5201
Private	Mario	Bratz	0799797829	mario.bratz@yahoo.com			
Private	Alfranzo	Smit	0795008361	alfranzosmit@gmail.com			
Noupoort Library	Martha	van Eck	0498431056/7 ext. library 2076	noupoortlib@ncpg.gov.za	Shaw Street	Noupoort	5950

**APPENDIX E: NOTIFICATION OF AVAILABILITY OF THE DRAFT AMENDMENT
REPORT**

Dear Interested and Affected Party,

NOTIFICATION OF EA AMENDMENT APPLICATION PROCESS: SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Older DEA Reference Number of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 and the Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Nature and Location of Activity: The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) and the Phezukomoya Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs in June 2018. An EA Amendment application process for the proposed split of the San Kraal WEF and Phezukomoya WEF into four WEFs will be followed. Applications will be submitted to the Department of Environmental Affairs for the split of the authorised San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal') into two WEFs (namely San Kraal Split 1 and Hartebeesthoek East), and the Phezukomoya WEF (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') into two WEFs (namely Phezukomoya Split 1 and Hartebeesthoek West).

NOTIFICATION OF BASIC ASSESSMENT PROCESS: PROPOSED SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Nature and Location of Activity: The Applicant, Hartebeesthoek Wind Power (Pty) Ltd, is submitting an application for environmental authorisation for the electrical grid connection and associated infrastructure related to the proposed split of the authorised WEFs, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF and Hartebeesthoek West WEF. A basic assessment process is being followed because a new corridor has been proposed, and part of the corridor is located outside the authorised site boundaries (of San Kraal and Phezukomoya).

The **Draft EA Amendment and Basic Assessment Reports** are available for public review and comment from 26 September 2019 to 25 October 2019 at the Noupoot Library and on the website: www.arcusconsulting.co.za.

With reference to the proposed developments, if you wish to be registered as an Interested and Affected Party (I&AP), please send your request for registration in writing to the address below.

KENNISGEWING VAN EA WYSIGINGS AANSOEKPROSES: VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –WINDKRAGAAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Ouer DEA Verwysingsnommer of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 en Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Aard en Ligging van Aktiwiteit: Die Omgewingsmagtiging (EA) vir die San Kraal Windkragaanleg (WEF) en Phezukomoya Windkragaanleg (WEF) is in Junie 2018 deur die Departement van Omgewingsake (DEA) toegestaan. 'n EA wysigings aansoekproses vir die voorgestelde split van die San Kraal WEF en Phezukomoya WEF in vier WEFs sal gevolg word. Aansoek sal by die Departement van Omgewingsake (DEA) ingedien word vir die split van die gemagtigde San Kraal WEF (DEA Verwysingsnommer. 14/12/16/3/3/2/1029 en 14/12/16/3/3/2/1029/AM1) ('San Kraal') in twee WEFs (naamlik San Kraal Split 1 en Hartebeesthoek East), en die Phezukomoya WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1028 en 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') in twee WEFs (naamlik Phezukomoya Split 1 en Hartebeesthoek West).

KENNISGEWING VAN DIE BASIESE ASSESSERINGSPROSES: VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –WINDKRAGAAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Aard en Ligging van Aktiwiteit: Die Aansoeker, Hartebeesthoek Wind Power (Edms) Bpk, dien 'n aansoek in vir omgewingsmagtiging vir die elektriese netaansluiting en gepaardgaande infrastruktuur wat verband hou met die voorgestelde split van die gemagtigde WEF's, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF en Hartebeesthoek West WEF. 'n Basiese assesseringsproses word gevolg omdat 'n nuwe gang voorgestel is, en part daarvan is buite die gemagtigde perseelgrense (van San Kraal en Phezukomoya) geleë is.

Die **Konsep EA Wysigingsverslag en Basiese Assesseringsproses** is vir openbare oorweging en kommentaarlewing beskikbaar van 26 September 2019 tot 25 Oktober 2019 by die Noupoot Biblioteek; en op die webtuiste www.arcusconsulting.co.za.

Met verwysing na die voorgestelde ontwikkeling, indien u as 'n Belanghebbende en Geaffekteerde Party (B & GP) wil registreer, stuur asseblief u versoek om registrasie skriftelik na die onderstaande adres.

The following is available for public review:

- Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province
- Volume II - Specialist Impact Assessment Reports

- Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupport Library, and website: www.arcusconsulting.co.za.

Any comments regarding the applications must be submitted as per the below:

Contact	: Aneesah Alwie	Telephone	: +27 21 412 1529
Email	: projects@arcusconsulting.co.za	Fax	: +27 86 762 2885
Postal address: Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001			

Please feel free to contact the undersigned should you have any queries.

Kind Regards,



Ashlin Bodasing

Dear Noupport Library,

**NOTIFICATION OF EA AMENDMENT APPLICATION
PROCESS: SAN KRAAL AND PHEZUKOMOYA WIND
ENERGY FACILITY, NORTHERN AND EASTERN
CAPE PROVINCE**

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Older DEA Reference Number of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 and the Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Nature and Location of Activity: The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) and the Phezukomoya Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs in June 2018. An EA Amendment application process for the proposed split of the San Kraal WEF and Phezukomoya WEF into four WEFs will be followed. Applications will be submitted to the Department of Environmental Affairs for the split of the authorised San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal') into two WEFs (namely San Kraal Split 1 and Hartebeesthoek East), and the Phezukomoya WEF (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') into two WEFs (namely Phezukomoya Split 1 and Hartebeesthoek West).

**NOTIFICATION OF BASIC ASSESSMENT PROCESS:
PROPOSED SAN KRAAL AND PHEZUKOMOYA
WIND ENERGY FACILITY, NORTHERN AND
EASTERN CAPE PROVINCE**

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Nature and Location of Activity: The Applicant, Hartebeesthoek Wind Power (Pty) Ltd, is submitting an application for environmental authorisation for the electrical grid connection and associated infrastructure related to the proposed split of the authorised WEFs, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF and Hartebeesthoek West WEF. A basic assessment process is being followed because a new corridor has been proposed, and part of the corridor is located outside the authorised site boundaries (of San Kraal and Phezukomoya).

The **Draft EA Amendment and Basic Assessment Reports** are available for public review and comment from 26 September 2019 to 25 October 2019 at the Noupport Library and on the website: www.arcusconsulting.co.za.

With reference to the proposed developments, if you wish to be registered as an Interested and Affected Party (I&AP), please send your request for registration in writing to the address below.

**KENNISGEWING VAN EA WYSIGINGS
AANSOEKPROSES: VOORGESTELDE SAN KRAAL
AND PHEZUKOMOYA –WINDKRAGAAANLEG, IN DIE
NOORD-KAAP EN OOS-KAAP**

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Ouer DEA Verwysingsnommer of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 en Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Aard en Ligging van Aktiwiteit: Die Omgewingsmagtiging (EA) vir die San Kraal Windkragaanleg (WEF) en Phezukomoya Windkragaanleg (WEF) is in Junie 2018 deur die Departement van Omgewingsake (DEA) toegestaan. 'n EA wysigings aansoekproses vir die voorgestelde split van die San Kraal WEF en Phezukomoya WEF in vier WEFS sal gevolg word. Aansoeke sal by die Departement van Omgewingsake (DEA) ingedien word vir die split van die gemagtigde San Kraal WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1029 en 14/12/16/3/3/2/1029/AM1) ('San Kraal') in twee WEFs (naamlik San Kraal Split 1 en Hartebeesthoek East), en die Phezukomoya WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1028 en 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') in twee WEFs (naamlik Phezukomoya Split 1 en Hartebeesthoek West).

**KENNISGEWING VAN DIE BASIESE
ASSESSERINGSPROSES: VOORGESTELDE SAN
KRAAL AND PHEZUKOMOYA –WINDKRAGAAANLEG,
IN DIE NOORD-KAAP EN OOS-KAAP**

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Aard en Ligging van Aktiwiteit: Die Aansoeker, Hartebeesthoek Wind Power (Edms) Bpk, dien 'n aansoek in vir omgewingsmagtiging vir die elektriese netaansluiting en gepaardgaande infrastruktuur wat verband hou met die voorgestelde split van die gemagtigde WEF's, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF en Hartebeesthoek West WEF. 'n Basiese assesseringsproses word gevolg omdat 'n nuwe gang voorgestel is, en part daarvan is buite die gemagtigde perseelgrense (van San Kraal en Phezukomoya) geleë is.

Die **Konsep EA Wysigingsverslag en Basiese Assesseringsproses** is vir openbare oorweging en kommentaarlewing beskikbaar van 26 September 2019 tot 25 Oktober 2019 by die Noupport Biblioteek; en op die webtuiste www.arcusconsulting.co.za.

Met verwysing na die voorgestelde ontwikkeling, indien u as 'n Belanghebbende en Geaffekteerde Party (B & GP) wil registreer, stuur asseblief u versoek om registrasie skriftelik na die onderstaande adres.

The following is available for public review:

- Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province
- Volume II - Specialist Impact Assessment Reports

- Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupoot Library, and Arcus website: www.arcusconsulting.co.za.

Any comments regarding the applications must be submitted as per the below:

Contact	: Aneesah Alwie	Telephone	: +27 21 412 1529
Email	: projects@arcusconsulting.co.za	Fax	: +27 86 762 2885
Postal address:			
Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001			

Please feel free to contact the undersigned should you have any queries.

Kind Regards,



Ashlin Bodasing



26 September 2019

Dear EIA Admin

**SUBMISSION OF EA AMENDMENT AND NEW APPLICATIONS FOR ENVIRONMENTAL
AUTHORISATION**

EA Amendment Application for the Environmental Authorisation for the split of the Authorised Phezukomoya Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya')

and

EA Amendment Application for the Environmental Authorisation for the split of the Authorised San Kraal Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal')

and

New Application for the Basic Assessment of the Proposed Electrical Grid Connection and Associated Infrastructure for the San Kraal Split 1, Hartebeesthoek East, Phezukomoya Split 1 and Hartebeesthoek West Wind Energy Facilities, Eastern and Northern Cape Provinces

The amendment applications are for authorisation to split the two authorised WEFs into four WEFs. The authorised San Kraal WEF will be split into San Kraal Split 1 and Hartebeesthoek East WEFs and Phezukomoya WEF will be split into Phezukomoya Split 1 and Hartebeesthoek West WEFs.

The new basic assessment application is for the authorisation of a proposed grid connection and associated infrastructure, which is required to transfer electricity from the proposed amendment of the San Kraal WEF and Phezukomoya WEF, to the national grid.

Arcus would like to request that it be considered that the same case officers, of the original San Kraal WEF and Phezukomoya WEF, receive the above named applications.

The EA amendment applications and new application has been submitted simultaneously, public review and comment is from the **26 September 2019** to the **25 October 2019 (both days inclusive)**.

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 ; W: www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



ATT: Chief Director

**Integrated Environmental Authorisations
Department of Environmental Affairs**

Environment House
473 Steve Biko Road, Arcadia,
Pretoria, 0083

DEA Ref. No.: To be confirmed

Original EA DEA Ref. No: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1

26 September 2019

EA AMENDMENT APPLICATIONS FOR ENVIRONMENTAL AUTHORISATION

SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SPLIT AMENDMENT APPLICATIONS

The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs to San Kraal Wind Power (Pty) Ltd, in June 2018. San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd is submitting the enclosed application to the DEA for the amendment of the authorised 390 MW San Kraal WEF into two WEFs, namely San Kraal Split 1 and Hartebeesthoek East WEF.

The split amendment will result in two separate Environmental Authorisations, i.e. the San Kraal Wind Energy Facility EA and the Hartebeesthoek East Wind Energy Facility EA, which will be owned by San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd, respectively.

Please find enclosed **one electronic copy (1 USB)** and **two hard copies** of **each amendment application** of:

- The Application Forms

Please find enclosed **one electronic copy** (*same USBs as above*) and **one hard copy** of:

- Volume I - San Kraal Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports
- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports

The **Draft EA Amendment Reports** have been made available for public review and comment for a period of 30 days, from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupport Library, and the Arcus website: www.arcusconsulting.co.za.

Comments must be submitted to the below:

Contact	: Aneesah Alwie	Telephone	: +27 21 412 1529
Email	: projects@arcusconsulting.co.za	Fax	: +27 86 762 2885

Postal address:

Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 **E:** office@arcusconsulting.co.za **W:** www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



ATT: Constance Musemburi
Integrated Environmental Authorisations
Department of Environmental Affairs
Private Bag X447
Pretoria
0001
DEA Ref. No.: 14/12/16/3/3/2/1029/2/AM1

15 October 2019

RE: ACKNOWLEDGMENT OF RECEIPT FOR HARTEBEESTHOEK EAST WIND ENERGY FACILITY

Following submission of the application for amendment of environmental authorisation (EA) and draft amendment report for the abovementioned project on 26 September 2019, the acknowledgement of receipt letter, dated 15 October 2019, requested submission of the following documents:

- Originally signed 'Letter of Signatory' and 'Letter of Undertaking' dated 26 August 2019; and
- Originally certified copies of the EA and subsequent amendment.

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing



26 September 2019

Dear Department of Biodiversity Conservation

**SUBMISSION OF EA AMENDMENTS AND NEW APPLICATION FOR ENVIRONMENTAL
AUTHORISATION**

EA Amendment Application for the Environmental Authorisation for the split of the Authorised Phezukomoya Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya')

and

EA Amendment Application for the Environmental Authorisation for the split of the Authorised San Kraal Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal')

and

New Application for the Basic Assessment of the Proposed Electrical Grid Connection and Associated Infrastructure for the San Kraal Split 1, Hartebeesthoek East, Phezukomoya Split 1 and Hartebeesthoek West Wind Energy Facilities, Eastern and Northern Cape Provinces

The amendment applications are for authorisation to split the two authorised WEFs into four WEFs. The authorised San Kraal WEF will be split into San Kraal Split 1 and Hartebeesthoek East WEFs and Phezukomoya WEF will be split into Phezukomoya Split 1 and Hartebeesthoek West WEFs.

The new basic assessment application is for the authorisation of a proposed grid connection and associated infrastructure, which is required to transfer electricity from the proposed amendment of the San Kraal WEF and Phezukomoya WEF, to the national grid.

The EA amendment applications and new application has been submitted simultaneously, public review and comment is from the **26 September 2019** to the **25 October 2019 (both days inclusive)**.

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 ; W: www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



ATT: Biodiversity Officer Control

Department of Environment, Forestry & Fisheries: Biodiversity Conservation Directorate

Department of Environmental Affairs

Environment House

473 Steve Biko Road, Arcadia,

Pretoria, 0083

DEA Ref. No.: To be confirmed

Original EA DEA Ref. No: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1

26 September 2019

EA AMENDMENT APPLICATIONS FOR ENVIRONMENTAL AUTHORISATION

SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SPLIT AMENDMENT APPLICATIONS

The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs to San Kraal Wind Power (Pty) Ltd, in June 2018. San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd is submitting the enclosed application to the DEA for the amendment of the authorised 390 MW San Kraal WEF into two WEFs, namely San Kraal Split 1 and Hartebeesthoek East WEF.

The split amendment will result in two separate Environmental Authorisations, i.e. the San Kraal Wind Energy Facility EA and the Hartebeesthoek East Wind Energy Facility EA, which will be owned by San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd, respectively.

Please find enclosed **one electronic copy (1 USB)** and **one hard copy** of:

- Volume I - San Kraal Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports
- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports

The **Draft EA Amendment Reports** have been made available for public review and comment for a period of 30 days, from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupoot Library, and the Arcus website: www.arcusconsulting.co.za.

Comments must be submitted to the below:

Contact : Aneesah Alwie **Telephone** : +27 21 412 1529
Email : projects@arcusconsulting.co.za **Fax** : +27 86 762 2885

Postal address:

Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 **E:** office@arcusconsulting.co.za **W:** www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



26 September 2019

Dear Department of Economic Development Environmental Affairs and Tourism

**SUBMISSION OF EA AMENDMENT AND NEW APPLICATION FOR ENVIRONMENTAL
AUTHORISATION**

EA Amendment Application for the Environmental Authorisation for the split of the Authorised Phezukomoya Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya')

and

EA Amendment Application for the Environmental Authorisation for the split of the Authorised San Kraal Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal')

and

New Application for the Basic Assessment of the Proposed Electrical Grid Connection and Associated Infrastructure for the San Kraal Split 1, Hartebeesthoek East, Phezukomoya Split 1 and Hartebeesthoek West Wind Energy Facilities, Eastern and Northern Cape Provinces

The amendment applications is for authorisation to split the two authorised WEFs into four WEFs. The authorised San Kraal WEF will be split into San Kraal Split 1 and Hartebeesthoek East WEFs and Phezukomoya WEF will be split into Phezukomoya Split 1 and Hartebeesthoek West WEFs.

The new basic assessment application is for the authorisation of a proposed grid connection and associated infrastructure, which is required to transfer electricity from the proposed amendment of the San Kraal WEF and Phezukomoya WEF, to the national grid.

The EA amendment applications and new application have been submitted simultaneously, public review and comment is from the **26 September 2019** to the **25 October 2019 (both days inclusive)**.

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 ; W: www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



ATT: Gerry Pienaar

Department of Economic Development Environmental Affairs and Tourism

Beacon Hill, Hockley Close

King Williams Town, 5600

DEA Ref. No.: To be confirmed

Original EA DEA Ref. No: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1

26 September 2019

EA AMENDMENT APPLICATIONS FOR ENVIRONMENTAL AUTHORISATION

SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SPLIT AMENDMENT APPLICATIONS

The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs to San Kraal Wind Power (Pty) Ltd, in June 2018. San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd is submitting the enclosed application to the DEA for the amendment of the authorised 390 MW San Kraal WEF into two WEFs, namely San Kraal Split 1 and Hartebeesthoek East WEF.

The split amendment will result in two separate Environmental Authorisations, i.e. the San Kraal Wind Energy Facility EA and the Hartebeesthoek East Wind Energy Facility EA, which will be owned by San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd, respectively.

Please find enclosed **one electronic copy (1 CD)** and **one hard copy** of **each amendment application** of:

- The Application Forms

Please find enclosed **one electronic copy** (*same CD as above*) and **one hard copy** of:

- Volume I - San Kraal Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports
- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports

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Comments must be submitted to the below:

Contact : Aneesah Alwie **Telephone** : +27 21 412 1529

Email : projects@arcusconsulting.co.za **Fax** : +27 86 762 2885

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Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

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Registered in South Africa No. 2015/416206/07



26 September 2019

Dear Department of Environment and Nature Conservation

**SUBMISSION OF EA AMENDMENTS AND NEW APPLICATION FOR ENVIRONMENTAL
AUTHORISATION**

EA Amendment Application for the Environmental Authorisation for the split of the Authorised Phezukomoya Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya')

and

EA Amendment Application for the Environmental Authorisation for the split of the Authorised San Kraal Wind Energy Facility and Associated Infrastructure, Eastern and Northern Cape Provinces (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal')

and

New Application for the Basic Assessment for the Proposed Electrical Grid Connection and Associated Infrastructure for the San Kraal Split 1, Hartebeesthoek East, Phezukomoya Split 1 and Hartebeesthoek West Wind Energy Facilities, Eastern and Northern Cape Provinces

The amendment applications are for authorisation to split the two authorised WEFs into four WEFs. The authorised San Kraal WEF will be split into San Kraal Split 1 and Hartebeesthoek East WEFs and Phezukomoya will be split into Phezukomoya Split 1 and Hartebeesthoek West WEFs.

The new basic assessment application is for the authorisation of a proposed grid connection and associated infrastructure, which is required to transfer electricity from the proposed amendment of the San Kraal WEF and Phezukomoya WEF, to the national grid.

The EA amendment applications and new application have been submitted simultaneously, public review and comment is from the **26 September 2019** to the **25 October 2019 (both days inclusive)**.

Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

Arcus Consultancy Services South Africa (Pty) Limited

Office 607 Cube Workspace, Cnr Long Street and Hans Strijdom Road, Cape Town, 8001

T: +27 21 412 1529 ; W: www.arcusconsulting.co.za

Registered in South Africa No. 2015/416206/07



ATT: Dineo Moleko

Department of Environment and Nature Conservation

Northern Cape Provincial Department

90 Long Street, Kimberley, 8300

DEA Ref. No.: To be confirmed

Original EA DEA Ref. No: 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1

26 September 2019

EA AMENDMENT APPLICATIONS FOR ENVIRONMENTAL AUTHORISATION

SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SPLIT AMENDMENT APPLICATIONS

The Environmental Authorisation for the San Kraal Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs to San Kraal Wind Power (Pty) Ltd, in June 2018. San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd is submitting the enclosed application to the DEA for the amendment of the authorised 390 MW San Kraal WEF into two WEFs, namely San Kraal Split 1 and Hartebeesthoek East WEF.

The split amendment will result in two separate Environmental Authorisations, i.e. the San Kraal Wind Energy Facility EA and the Hartebeesthoek East Wind Energy Facility EA, which will be owned by San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd, respectively.

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- The Application Forms

Please find enclosed **one electronic copy** (*same CD as above*) and **one hard copy** of:

- Volume I - San Kraal Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports
- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendment Reports

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Email : projects@arcusconsulting.co.za **Fax** : +27 86 762 2885

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Please feel free to contact the undersigned should you have any queries.

Kind Regards,

Ashlin Bodasing

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Registered in South Africa No. 2015/416206/07

APPENDIX F: PROOF OF DELIVERY OF THE DRAFT AMENDMENT REPORT

From: [Projects](#)
To: [Projects](#)
Bcc: attsec@mindek.co.za; klwatt@roundbar.co.za; tollie@isat.co.za; jdv@eik.co.za; Jean.gillmer@karoomail.co.za; elizetaljaard5@gmail.com; beskuitfontein@gmail.com; perasmus@ovk.co.za; birtus@umsobomvumun.co.za; hennie@triotrust.co.za; nwabisa.qwanyashe@dmr.gov.za; Nokuthula.Mbeje@energy.gov.za; MmaphakaT@daff.gov.za; Malebo.baloi@drdlr.gov.za; Ramaleho.saila@drdlr.gov.za; ryan.oliver@drdlr.gov.za; DGOffice@drdlr.gov.za; Mdakanep@dwa.gov.za; vbaduza@sahra.org.za; mpela@umsobomvumun.co.za; pixley@telkomsa.net; ncorns@ncpg.gov.za; jpetersen@ncpg.gov.za; jacolineMa@daff.gov.za; ithatelo@salga.org.za; fortunec@ncpg.gov.za; gmothibi@ncpg.gov.za; vmothibi@ncpg.gov.za; mariusn@gcis.gov.za; wminnie@umsobomvumun.co.za; sbrown@umsobomvumun.co.za; msestile@umsobomvumun.co.za; mzwandile@lym.gov.za; cira.ngetu@deaet.ecape.gov.za; mncedisi.makosonke@deaet.ecape.gov.za; fezeka.boyi@dedea.gov.za; Zukiswa.Ngwane@dpw.ecape.gov.za; willie.ziedsman@transnet.net; williezietsman@transnet.net; MelvinC@daff.gov.za; Vuyokazi.sangoni@ecdsd.gov.za; ZINTLEH@ecdhs.gov.za; angie.majongile@dot.ecprov.gov.za; Mathemba.Gcasamba@drdlr.gov.za; MakhanyaP@dwa.gov.za; AzwiHangwisi.Mulaudzi@dmr.gov.za; ndlelantle@gcis.gov.za; nhiggitt@sahra.org.za; muna@iafrica.com; john.geeringh@eskom.co.za; eddie.seaton@transnet.net; energy@birdlife.org.za; enquiry@arc.agric.za; lourensl@ewt.org.za; stroh@caa.co.za; runkelc@nra.co.za; Kleinhansm@nra.co.za; ShawLS@telkom.co.za; thembani.bukula@nersa.org.za; Andile.Gxasheka@nersa.org.za; rtimothy@nbkb.org.za; johan@sawea.org.za; office@sessa.org.za; alwyn@saaea.org; thea@agrisa.co.za; natasja.barkhuizen@agriec.co.za; info@experiencenortherncape.com; makayam@atns.co.za; madaboutbats@gmail.com; kate@lws-sa.co.za; Abrahamsn@nra.co.za; stefan@safcei.org.za; ClaireT@L2B.co.za; karoonegroup@gmail.com; sdippenaar@snowisp.com; potfontein@gmail.com; jan@safetyzonesa.co.za; mtcr.ltd@gmail.com; nondwe.mdekazi@dedea.gov.za; bhelinda.mtamo@dedea.gov.za; tom.thorogood@mainstreamrp.com; thandeka.nohoyeka@transnet.net; karen.vanschalkwyk@drdlr.gov.za; Malebo.Baloi@drdlr.gov.za; Ramaleho.saila@drdlr.gov.za; Dekockr@nra.co.za; williams@sao.ac.za; atiplady@ska.ac.za; phumla@gcis.co.za; AbrahamsA@dws.gov.za; bongikaya.dayimani@drdar.gov.za; henning@agrink.co.za; ontvangs@agrink.co.za; thozi.man@gmail.com; Rebecca.Thomas@mainstreamrp.com; Catharina.Stone@mainstreamrp.com; Mike.Mangnall@mainstreamrp.com; jnbadmin@wessa.co.za; tomvdwalt@gmail.com; MashuduMa@daff.gov.za; ThokoB@daff.gov.za; info@dot.gov.za; dmoleko@ncpg.gov.za; denc@ncpg.gov.za; Sunday.mabaso@dmr.gov.za; gerry.pienaar@dedea.gov.za; info@ecpta.co.za; salt@salt.ac.za; smunzhedzi@environment.gov.za; smalete@environment.gov.za; wmandivenyi@environment.gov.za; temonama@ska.ac.za; Smambane@environment.gov.za; tvandermerwe@environment.gov.za; transkaroo@eik.co.za; fauntyg@vodamail.co.za; paardevelei@adsactive.com; n.paardevelei@gmail.com; aphiwe.fayindlala@drdlr.gov.za; katshaba.gaofhiwe@drdlr.gov.za; simpfiwe@umsobomvumun.co.za; mosomphat@umsobomvumun.co.za; ncedo@umsobomvumun.co.za; dionne@umsobomvumun.co.za; booking@thedon.co.za; SchraderC@dws.gov.za; zongezile.bango@drdlr.gov.za; booking@thedon.co.za; Rudzani.Nemukula@wessa.co.za; mzolisi.matutu@srac.ecprov.gov.za; selepeg@dot.gov.za; amabunda@grand.ncape.gov.za; lerato.sebiloane@eclgta.gov.za; alfranzosmit@gmail.com; mario.bratz@yahoo.com; noupoortlib@ncpg.gov.za
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Date: Thursday, September 26, 2019 9:02:00 AM
Attachments: [3329 San Kraal and Phezukomoya WEF Amendments and BA Process Notificatio....pdf](#)
[image001.png](#)
[image002.png](#)

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public comment and review.

The following is available for public review:

Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province

Volume II - Specialist Impact Assessment Reports

Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupoot Library, and website: www.arcusconsulting.co.za.

Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 220 Cube Workspace

Cnr Long Street and Hans Strijdom Ave

Cape Town

8001

www.arcusconsulting.co.za



Dear Interested and Affected Party,

NOTIFICATION OF EA AMENDMENT APPLICATION PROCESS: SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Older DEA Reference Number of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 and the Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Nature and Location of Activity: The Environmental Authorisation (EA) for the San Kraal Wind Energy Facility (WEF) and the Phezukomoya Wind Energy Facility (WEF) was granted by the Department of Environmental Affairs in June 2018. An EA Amendment application process for the proposed split of the San Kraal WEF and Phezukomoya WEF into four WEFs will be followed. Applications will be submitted to the Department of Environmental Affairs for the split of the authorised San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1) ('San Kraal') into two WEFs (namely San Kraal Split 1 and Hartebeesthoek East), and the Phezukomoya WEF (DEA Ref. No. 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') into two WEFs (namely Phezukomoya Split 1 and Hartebeesthoek West).

NOTIFICATION OF BASIC ASSESSMENT PROCESS: PROPOSED SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITY, NORTHERN AND EASTERN CAPE PROVINCE

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

DEA Reference Number: To Be Confirmed

Nature and Location of Activity: The Applicant, Hartebeesthoek Wind Power (Pty) Ltd, is submitting an application for environmental authorisation for the electrical grid connection and associated infrastructure related to the proposed split of the authorised WEFs, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF and Hartebeesthoek West WEF. A basic assessment process is being followed because a new corridor has been proposed, and part of the corridor is located outside the authorised site boundaries (of San Kraal and Phezukomoya).

The **Draft EA Amendment and Basic Assessment Reports** are available for public review and comment from 26 September 2019 to 25 October 2019 at the Noupoot Library and on the website: www.arcusconsulting.co.za.

With reference to the proposed developments, if you wish to be registered as an Interested and Affected Party (I&AP), please send your request for registration in writing to the address below.

KENNISGEWING VAN EA WYSIGINGS AANSOEKPROSES: VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –WINDKRAGAAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Ouer DEA Verwysingsnommer of the San Kraal WEF:

14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1 en Phezukomoya WEF: 14/12/16/3/3/2/1028 and 14/12/16/3/3/2/1028/AM1

Aard en Ligging van Aktiwiteit: Die Omgewingsmagtiging (EA) vir die San Kraal Windkragaanleg (WEF) en Phezukomoya Windkragaanleg (WEF) is in Junie 2018 deur die Departement van Omgewingsake (DEA) toegestaan. 'n EA wysigings aansoekproses vir die voorgestelde split van die San Kraal WEF en Phezukomoya WEF in vier WEFs sal gevolg word. Aansoeke sal by die Departement van Omgewingsake (DEA) ingedien word vir die split van die gemagtigde San Kraal WEF (DEA Verwysingsnommer. 14/12/16/3/3/2/1029 en 14/12/16/3/3/2/1029/AM1) ('San Kraal') in twee WEFs (naamlik San Kraal Split 1 en Hartebeesthoek East), en die Phezukomoya WEF (DEA Verwysingsnommer 14/12/16/3/3/2/1028 en 14/12/16/3/3/2/1028/AM1) ('Phezukomoya') in twee WEFs (naamlik Phezukomoya Split 1 en Hartebeesthoek West).

KENNISGEWING VAN DIE BASIESE ASSESSERINGSPROSES: VOORGESTELDE SAN KRAAL AND PHEZUKOMOYA –WINDKRAGAAANLEG, IN DIE NOORD-KAAP EN OOS-KAAP

Kennis word hiermee gegee dat 'n Proses van Openbare Deelname (PPP) ingevolge die Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998), soos gewysig, onderneem word.

DEA Verwysingsnommer: Moet nog bevestig word

Aard en Ligging van Aktiwiteit: Die Aansoeker, Hartebeesthoek Wind Power (Edms) Bpk, dien 'n aansoek in vir omgewingsmagtiging vir die elektriese netaansluiting en gepaardgaande infrastruktuur wat verband hou met die voorgestelde split van die gemagtigde WEF's, i.e. San Kraal Split 1 WEF; Phezukomoya Split 1 WEF; Hartebeesthoek East WEF en Hartebeesthoek West WEF. 'n Basiese assesseringsproses word gevolg omdat 'n nuwe gang voorgestel is, en part daarvan is buite die gemagtigde perseelgrense (van San Kraal en Phezukomoya) geleë is.

Die **Konsep EA Wysigingsverslag en Basiese Assesseringsproses** is vir openbare oorweging en kommentaarlewering beskikbaar van 26 September 2019 tot 25 Oktober 2019 by die Noupoot Biblioteek; en op die webtuiste www.arcusconsulting.co.za.

Met verwysing na die voorgestelde ontwikkeling, indien u as 'n Belanghebbende en Geaffekteerde Party (B & GP) wil registreer, stuur asseblief u versoek om registrasie skriftelik na die onderstaande adres.

The following is available for public review:

- Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province
- Volume II - Specialist Impact Assessment Reports

- Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Phezkumoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

- Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province
- Volume II - Specialist Amendments Reports

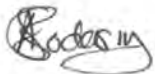
The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupoot Library, and website: www.arcusconsulting.co.za.

Any comments regarding the applications must be submitted as per the below:

Contact	: Aneesah Alwie	Telephone	: +27 21 412 1529
Email	: projects@arcusconsulting.co.za	Fax	: +27 86 762 2885
Postal address: Office 607 Cube Workspace, cnr Long Street and Hans Strijdom Avenue, Cape Town, 8001			

Please feel free to contact the undersigned should you have any queries.

Kind Regards,



Ashlin Bodasing



QUOTE THIS WAYBILL NUMBER REGARDING ANY QUERIES

WAYBILL: NOT NEGOTIABLE

27 Wrench Road, Isando, 1609, South Africa
 P O Box 506, Isando, 1600
 Telephone: +27 (0)11 977 5000
 Facsimile: +27 (0)11 392 5885
 www.ram.co.za



NOTE: Please PRINT all details in block capitals ONLY

From Sender / Consignor Cust. ID
 and **CUBE Workspace (ARCUS)**
ANEESAH AWIE Shipper's Ref
Icon Building Suite/Floor **6/607**
 Street Name
Foreshore Tel Fax **021412529**
Cape Town Cell
WIC Email

Receiver / Consignee Cust. ID
 and **NOUPOORT LIBRARY**
Northoupoort Shopping Centre
Noupoort Library Suite/Floor
Show Street Street
Noupoort Tel Fax
 Cell **0842431609**
 Email

Billing Information
 Party Head Office
 Receiver / Consignee

4 Sender's / Consignor's Authorisation
 On behalf of the Consignor / Customer, the undersigned, who warrants that he/she is duly authorised to sign this waybill, hereby warrants and agrees that the Consignor / Customer -
 • has read and understood RAM's Standard Terms and Conditions of Contract (RAM's ST&C's) which were signed at the commencement of RAM providing the Consignor / Customer with Courier Services;
 • is aware that RAM's ST&C's have also been made available to him/her by RAM and are also available on RAM's Website (www.ram.co.za) or at any of RAM's branches; and
 • agrees to be bound by RAM's ST&C's; and
 • has provided RAM with a true, accurate and complete description of the parcel/s and contents in 7 and 8.
 A false declaration is a criminal offence.

Sender's / Consignor's Name: _____
 Authorised Representative's Signature: _____
 Date: **20 09 2019** Time: _____

5 Liability Option (as more fully described in RAM's ST&C) Please Initial

Full Liability Option (FLO)

Declared Value of Shipment (For the purpose of defining RAM's Maximum Liability) R _____,00

Should the Customer fail to complete this Section 5, the Courier Service shall be provided solely at the Customer's risk - refer Section 8 of RAM's ST&C's.

6 Services Surcharges

Demand Services	Distribution Services	International Services	Surcharges
<input type="checkbox"/> Same Day	<input type="checkbox"/> Express Road 24/48	<input type="checkbox"/> Int'l Documents	<input type="checkbox"/> Saturday
<input type="checkbox"/> Earlybird (08h30)	<input checked="" type="checkbox"/> Economy Service 48/72	<input type="checkbox"/> Int'l Parcels	<input type="checkbox"/> After Hours Collect / Deliver
<input type="checkbox"/> Next Day (10h30)	Special Services	<input type="checkbox"/> Int'l BLNS	<input type="checkbox"/> Face to Face
<input type="checkbox"/> Next Day (17h00)	<input type="checkbox"/> Valuable Cargo		<input type="checkbox"/> Armoured Vehicle
	<input type="checkbox"/> Firearm Service (attach Schedule)		<input type="checkbox"/> Drive Away

PLEASE NOTE: Should no Service be selected, "Economy Service 48/72" will be charged.

7 Shipment Information - weight and dimensions
 Should the dimensions not be completed by the Customer, then RAM is hereby authorised to fill in the measurements for the billing purposes after the Customer has signed the Waybill.

#	Length cm	Breadth cm	Height cm	Actual Weight kg	Security Pack No.
1					
2					
3					

Total Number of Items If more than 3 items, please attach manifest

8 Description of Goods

9 Special Instructions / Additional Services / Consignee's Details

10 Tick if Required on Delivery
 GRV

11 Receiver's / Consignee's Details
 Signature: _____
 Print Name: **SURANA**
 Date: **20 09 20**
 Time: **11 3**
 GRV No. (if appl.) _____
 On behalf of the Receiver / Consignee, by undersigned, who warrants that he is duly authorised to acknowledge receipt of the parcel/s described in this Waybill in good order and condition and subject to the RAM's ST&C's.

12 Store / Branch Stamp

THIS CONSIGNMENT MAY BE CARRIED BY AIR AND WILL BE SUBJECT TO AVIATION SECURITY AND CLEARING PROCEDURES AND THE CONSIGNOR DECLARES THAT THE CONSIGNMENT DOES NOT CONTAIN ANY DANGEROUS OR PROHIBITED GOODS, EXPLOSIVES OR INCENDIARY DEVICES.
 RAM Transport (South Africa) (Pty) Ltd. Reg No. 1997/009992/07 / VAT No. 4020168847 / RAM International Transport (Pty) Ltd Reg No. 1988/000591/07 / VAT No. 4840116851 · Head Office - Isando: +27 (0)11 977-5000

CUSTOMER CARE: 0861 726 726 / info@ram.co.za



X International Couriers (Pty) Ltd

Reg. No. 1996/001037/07



28036447

ORIGIN	DEST.
NO DELIVERIES TO A P.O. BOX	

REGIONAL OFFICES

LOCATION	TEL	FAX
S.A. (CPT)	+27 21 511 0110	+27 21 511 7077
S.A. (JHB)	+27 11 397 8322	+27 11 397 6297
S.A. (DUR)	+27 31 569 4465	

WAYBILL NO:

ACCOUNT # *1071021* SHIPPER'S REF.

FROM: (SENDER)

~~PHONE (CONSISTENT SERVICE) 021 511 0110~~
~~OFFICE 2ND FLOOR 100, TOWN BUILDING TOWN~~
~~FLORIS (THE BANK) STREET~~

WE TOWN
WE TOWN

TO: (RECEIVER) *EIA Admin*
DFA - IEA
Environment House
473 Steve Biko Rd
Albany
Proseria
0083

CONTACT: TEL:

CONTACT: *Ryan* TEL: *0726781523*

INTERNATIONAL		DOMESTIC	
COURIER DOCUMENTS <input type="checkbox"/>	AIRFREIGHT TO DOOR <input type="checkbox"/>	SAME DAY <input type="checkbox"/>	OVERNITE by 10h30 <input checked="" type="checkbox"/>
COURIER NON-DOC <input type="checkbox"/>	AIRFREIGHT TO TERMINAL <input type="checkbox"/>	OVERNITE by 08h00 <input type="checkbox"/>	AIR FREIGHT <input type="checkbox"/>
		OVERNITE by 09h00 <input type="checkbox"/>	SATURDAY <input type="checkbox"/>
			ROAD FREIGHT <input type="checkbox"/>

These transit times are not applicable to regional areas

DIMENSIONS (CM)	PIECES	WEIGHT	INSURANCE		VALUE
L X W X H / #			YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	

20427139

FULL DESCRIPTION OF CONTENTS / SPECIAL INSTRUCTIONS

CURRENCY/CUSTOMS VALUE

SENDER		COLLECTED BY		P.O.D	
PRINT NAME	<i>Ryan</i>	PRINT NAME	<i>Shane Taylor</i>	PRINT NAME	<i>Eric</i>
SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>
DATE	<i>25/09/19</i>	DATE	<i>25/09/19</i>	DATE	<i>26.09.19</i>
TIME	<i>12.00</i>	TIME		TIME	<i>09:18</i>

P.O.D. COPY



X International Couriers (Pty) Ltd

Reg. No. 1996/001037/07



28036448

ORIGIN	DEST.
NO DELIVERIES TO A P.O. BOX	

REGIONAL OFFICES

LOCATION	TEL	FAX
S.A. (CPT)	+27 21 511 0110	+27 21 511 7077
S.A. (JHB)	+27 11 397 8322	+27 11 397 6297
S.A. (DUR)	+27 31 569 4465	

WAYBILL NO:

ACCOUNT #	SHIPPER'S REF.
100041	

FROM: (SENDER)	TO: (RECEIVER)
X International Couriers (Pty) Ltd Private Bag 111, Tugela Highway Durban 4013	Biodiversity Offices Control DEA: DEFF Environment House 473 Steve Biko Rd Ampthill Pretoria 0082

CONTACT:	TEL:	CONTACT:	TEL:
		Leen	012 678 1523

INTERNATIONAL		DOMESTIC	
COURIER DOCUMENTS <input type="checkbox"/>	AIRFREIGHT TO DOOR <input type="checkbox"/>	SAME DAY <input type="checkbox"/>	OVERNITE by 10h30 <input checked="" type="checkbox"/>
COURIER NON-DOC <input type="checkbox"/>	AIRFREIGHT TO TERMINAL <input type="checkbox"/>	OVERNITE by 08h00 <input type="checkbox"/>	AIR FREIGHT <input type="checkbox"/>
		OVERNITE by 09h00 <input type="checkbox"/>	SATURDAY <input type="checkbox"/>
			ROAD FREIGHT <input type="checkbox"/>

These transit times are not applicable to regional areas

DIMENSIONS (CM)	PIECES	WEIGHT	INSURANCE		VALUE
L X W X H / #	1	8.2	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	

FULL DESCRIPTION OF CONTENTS / SPECIAL INSTRUCTIONS	CURRENCY/CUSTOMS VALUE
32 x 24 x 22	

SENDER		COLLECTED BY		P.O.D	
PRINT NAME	Leen	PRINT NAME	Shelton	PRINT NAME	Shelton
SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>
DATE	25/09/19	DATE	25/09/19	DATE	26.09.19
TIME	12:00	TIME		TIME	07:15

P.O.D. COPY

LINE: 001 4/4 1928 XND01/1 06/14



XI



0000026351
j&t
INV: 28036430

s (Pty) Ltd

X
7 21 511 7077
7 11 397 6297



28036430

ORIGIN	DEST.
NO DELIVERIES TO A P.O. BOX	

WAYBILL NO:

ACCOUNT #	100941	SHIPPER'S REF.	
-----------	--------	----------------	--

FROM: (SENDER)
 CONSULTANCY SERVICES (PVT) LTD
 OFFICE 200 CABE NS, TCOM BUILDING LONG
 STREET CAR BANG STRYDOM
 VRE TOWN
 VRE TOWN

TO: (RECEIVER) GERRY PIENAR
 DEPARTMENT OF ECONOMIC DEVELOPMENT,
 ENVIRONMENTAL AFFAIRS AND TOURISM
 GLOBAL LIFE BUILDING
 RHISHO, 6605

CONTACT: TEL:

CONTACT: GERRY PIENAR TEL: 043 605 7051

INTERNATIONAL			
COURIER DOCUMENTS	<input type="checkbox"/>	AIRFREIGHT TO DOOR	<input type="checkbox"/>
COURIER NON-DOC	<input type="checkbox"/>	AIRFREIGHT TO TERMINAL	<input type="checkbox"/>

DOMESTIC			
SAME DAY	<input type="checkbox"/>	OVERNITE by 10h30	<input checked="" type="checkbox"/>
OVERNITE by 08h00	<input type="checkbox"/>	AIR FREIGHT	<input type="checkbox"/>
OVERNITE by 09h00	<input type="checkbox"/>	SATURDAY	<input type="checkbox"/>
		ROAD FREIGHT	<input type="checkbox"/>

These transit times are not applicable to regional areas

DIMENSIONS (CM)	PIECES	WEIGHT	INSURANCE	VALUE
L X W X H / #			YES <input type="checkbox"/> NO <input type="checkbox"/>	

FULL DESCRIPTION OF CONTENTS / SPECIAL INSTRUCTIONS
 40X30X3

SENDER		COLLECTED BY		P.O.D	
PRINT NAME	ANEE SAN ALWE	PRINT NAME		PRINT NAME	D. M. M. M.
SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>	SIGNATURE	<i>[Signature]</i>
DATE		DATE	20/09/19	DATE	15/10/19
TIME		TIME		TIME	15:50

LITHO: SJ 011 474 1528 XIN001/1 06/14

P.O.D. COPY



X International Couriers (Pty) Ltd

Reg. No. 1996/001037/07

REGIONAL OFFICES

LOCATION	TEL	FAX
S.A. (CPT)	+27 21 511 0110	+27 21 511 7077
S.A. (JHB)	+27 11 397 8322	+27 11 397 6297
S.A. (DUR)	+27 31 569 4465	



28036429

ORIGIN	DEST.
NO DELIVERIES TO A P.O. BOX	

WAYBILL NO:

100941

SHIPPER'S REF.

FROM: (SENDER)	TO: (RECEIVER)
101	DINEO MOLEKO
101	DEPARTMENT OF ENVIRONMENT AND NATURE
101	CONSERVATION
101	NORTHERN CAPE PROVINCIAL DEPARTMENT
101	90 LONG STREET
101	KIMBERLEY
101	8200
CONTACT:	CONTACT: DINEO MOLEKO TEL: 053 807 7467

INTERNATIONAL		DOMESTIC	
COURIER DOCUMENTS <input type="checkbox"/>	AIR FREIGHT TO DOOR <input type="checkbox"/>	SAME DAY <input type="checkbox"/>	OVERNITE by 10h30 <input checked="" type="checkbox"/>
COURIER NON-DOC <input type="checkbox"/>	AIR FREIGHT TO TERMINAL <input type="checkbox"/>	OVERNITE by 08h00 <input type="checkbox"/>	AIR FREIGHT <input type="checkbox"/>
		OVERNITE by 09h00 <input type="checkbox"/>	SATURDAY <input type="checkbox"/>
			ROAD FREIGHT <input type="checkbox"/>

These transit times are not applicable to regional areas

DIMENSIONS (CM)	PIECES	WEIGHT	INSURANCE	VALUE
L X W X H / #	1 of 1		YES <input type="checkbox"/> NO <input type="checkbox"/>	

FULL DESCRIPTION OF CONTENTS / SPECIAL INSTRUCTIONS	CURRENCY/CUSTOMS VALUE
5 Application forms & 5 CDS FOR EIA PROCESS	

SENDER		COLLECTED BY		P.O.D	
PRINT NAME	ANEESAH ALWIE	PRINT NAME	SHARITA	PRINT NAME	DINEO MOLEKO
SIGNATURE	<i>AE</i>	SIGNATURE	<i>SHARITA</i>	SIGNATURE	<i>Dineo</i>
DATE		DATE	20/09/19	DATE	25/09/2019
TIME		TIME		TIME	

UNSWER SJ 011 474 1818 XINCO1/1 08/14

P.O.D. COPY

Registered Mail San Kraal and Phezu WEF

Name and Address

Wonderheuwel TrustPO Box 58
Middelburg
5900

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073201ZA
CUSTOMER COPY 301028R

Hendrikus Jacobus VisserPO Box 5
Middelburg
5900

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073215ZA
CUSTOMER COPY 301028R

JJ van Lingen Family TrustPO Box 12
Middelburg
5900

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073229ZA
CUSTOMER COPY 301028R

Gillroy TrustPO Box 124
Noupoort
5950

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073232ZA
CUSTOMER COPY 301028R

Pieter Willem Jordaan Jnr TrustPO Box 521
Middelburg
5900

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073246ZA
CUSTOMER COPY 301028R

Groenkloof TrustPO Box 52
Noupoort
5950

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073250ZA
CUSTOMER COPY 301028R

George Sebastian MoorePO Box 64
Middelburg
5900

REGISTERED LETTER
(with a domestic insurance option)
ShareCall 0860 111 502 www.sapo.co.za
RC322073263ZA
CUSTOMER COPY 301028R

8	Johannes Marthinus Du Toit PO Box 145 Noupoort 5950	REGISTERED LETTER <small>(with a domestic insurance option)</small> ShareCall 0860 111 502 www.sapo.co.za RC322073285ZA CUSTOMER COPY 301028R
9	Willem Hendrik Jacobsz van Reenen PO Box 42 Noupoort 5950	REGISTERED LETTER <small>(with a domestic insurance option)</small> ShareCall 0860 111 502 www.sapo.co.za RC322073277ZA CUSTOMER COPY 301028R
10	Nozipho N Mndaweni Private Bag X745 Pretoria 0001	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469565ZA CUSTOMER COPY 301012
11	Mzimkhulu Sesthile Private Bag X8 Colesberg 9795	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469551ZA CUSTOMER COPY 301012
12	Tsholo Makaudi Private Bag X6120 Kimberley 8301	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469548ZA CUSTOMER COPY 301012
13	Lesang Daniels PO Box 3183 Kimberley 8301	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469534ZA CUSTOMER COPY 301012
14	Mr Jahannes PO Box 3183 Kimberley 8301	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469525ZA CUSTOMER COPY 301012

15	Obed Mvula Private Bag X5007 Kimberley 8300	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469517ZA CUSTOMER COPY 301012
16	Francois Nel PO Box 9636 Queenstown 5320	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469503ZA CUSTOMER COPY 301012
17	Lerato Sebiloane Private Bag X0035 Bhisho 5605	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469494ZA CUSTOMER COPY 301012
18	Aseza Dlanjwa PO Box 19511 East London 5214	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469485ZA CUSTOMER COPY 301012
19	Lennox Zote PO Box 759 East London 5200	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469477ZA CUSTOMER COPY 301012
20	Alishea Viljoen Private Bag X06 Honeydew 2040	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469463ZA CUSTOMER COPY 301012
21	Yolan Friedman Private Bag X11 Modderfontein 1645	INSURED PARCEL <small>ShareCall 0860 111 502 www.sapo.co.za</small> PA541469450ZA CUSTOMER COPY 301012

CAPE TOWN 8000
Post Office 
27 SEP 2019
FOLIO 10

Proof of SMS notification for Draft Basic Assessment Report and Draft Amendment Report for the Proposed San Kraal Split 1, Hartebeesthoek East, Phezukomoya Split 1 and Hartebeesthoek West WEF and Grid Infrastructure

Phonenumber	Network	Status	ScheduledDate	SubmittedDate	StatusDate	SentData
27607038354	Vodacom	DELIVRD	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 2:44:57 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27628720220	CELL C	EXPIRED	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 8:15:46 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27735330530	MTN	DELIVRD	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 2:44:55 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27782233123	CELL C	DELIVRD	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 2:44:49 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27828420008	Vodacom	EXPIRED	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 8:15:46 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27840588600	CELL C	EXPIRED	9/26/2019 2:44:00 PM	9/26/2019 2:44:46 PM	9/26/2019 8:15:46 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd
27835078368	MTN	DELIVRD	9/26/2019 2:50:00 PM	9/26/2019 2:49:47 PM	9/26/2019 2:49:56 PM	Dear I&AP. The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public review and comment from the 26/09/19 to 25/10/19 (both days inclusive) at Noupoot Library and Website: www.arcusconsulting.co.za . Please send your comments in writing by the 25 October 2019 to projects@arcusconsulting.co.za . Regards, Arcus SA (Pty) Ltd

Sophie Williams

From: Marius Nagel <MariusN@gcis.gov.za>
Sent: 10 October 2019 11:07
To: Projects
Subject: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

[<http://www.gcis.gov.za/banner.jpg>]

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Sophie Williams

From: Sharlene Matthews <Sharlene.Matthews@agriec.co.za>
To: Projects
Sent: 30 September 2019 16:47
Subject: Not read: [SPAM] Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Sharlene Matthews
Subject: [SPAM] Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria

was deleted without being read on Monday, September 30, 2019 3:46:18 PM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Leonard Shaw (LS) <LeonardS@openserve.co.za>
To: Projects
Sent: 30 September 2019 12:38
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Leonard Shaw (LS)
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria
was read on Monday, September 30, 2019 11:37:32 AM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Marius Nagel <MariusN@gcis.gov.za>
Sent: 30 September 2019 10:46
To: Projects
Subject: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

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Sophie Williams

From: Nokuthula Mbeje <Nokuthula.Mbeje@energy.gov.za>
Sent: 30 September 2019 10:13
To: Projects
Subject: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

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Sophie Williams

From: Ndlelantle Pinyana <Ndlelantle@gcis.gov.za>
Sent: 29 September 2019 11:55
To: Projects
Subject: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Not read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

[<http://www.gcis.gov.za/banner.jpg>]

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Sophie Williams

From: Jacoline Mans <JacolineMa@daff.gov.za>
To: Projects
Sent: 27 September 2019 10:49
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Jacoline Mans
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Windhoek
was read on Friday, September 27, 2019 9:49:07 AM (UTC+02:00) Windhoek.

Sophie Williams

From: Microsoft Outlook
To: fauntyg@vodamail.co.za
Sent: 27 September 2019 09:19
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

fauntyg@vodamail.co.za

Your message couldn't be delivered. Despite repeated attempts to contact the recipient's email system it didn't respond.

Contact the recipient by some other means (by phone, for example) and ask them to tell their email admin that it appears that their email system isn't accepting connection requests from your email system. Give them the error details shown below. It's likely that the recipient's email admin is the only one who can fix this problem.

For more information and tips to fix this issue see this article:
<https://go.microsoft.com/fwlink/?LinkId=389361>.

Diagnostic information for administrators:

Generating server: CWXP265MB1589.GBRP265.PROD.OUTLOOK.COM
Receiving server: CWXP265MB1589.GBRP265.PROD.OUTLOOK.COM
Total retry attempts: 25

fauntyg@vodamail.co.za
9/27/2019 6:18:48 AM - Server at CWXP265MB1589.GBRP265.PROD.OUTLOOK.COM returned '550 5.4.300 Message expired'

Original message headers:

Received: from CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) by
CWXP265MB1589.GBRP265.PROD.OUTLOOK.COM (20.176.45.146) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2284.23; Thu, 26 Sep 2019 07:42:19 +0000
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKVmYTBudDC1iHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
mawCFxH4s jCaVWoIAmkst jcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2llluL5VUzRp9O9JrHVZ9q2uju5
gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteap+GcYgNT2Rbg9t
D1SXoVr1G6PpAxldCCvcOufZe87YIcaMNCnWPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wfA
==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIApFGuRacjlyH4EXY7ViwoJ+ZJjbIU1Tp/sU=;

b=aT0szp2XZsmcw2xJsR3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneL
eJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o0
8W1zRL3zZth8fPLfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGk
W7Vq/UkX9hqwJ1+Qxg3BcApfTsZZXNT3KUF5aUR+F1t7UGg+ZNRIrI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA
==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+DqofxlkrAxhXFpw8h3rHgci/ct3NGEln/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>
Return-Receipt-To: <Projects@arcusconsulting.co.za>
Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-TrafficTypeDiagnostic: CWLP265MB1585:|CWLP265MB1585:|CWXP265MB1589:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77

x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(1
99004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8
676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)
(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(9993600
1)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(9928600
4)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002
) (8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)
(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT

;SFP:1102;SCL:1;SRVR:CWLP265MB1585;H:CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:N
one;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
received-spf: None (protection.outlook.com: arcusconsulting.co.za does not
designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqeM/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNhlJKAmY9m/JkOsGPmkLzxR7R6Rhg/39zaYYdG1
k0xcMviTB+EqOwBbfqUQCMVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLx
QGejHCCyHlh11TC00JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJngyGf1+Ke5ChITJ1/983tnRA
vEbnbz6KDshRMiHtK/fmfMLg94RFFGye8kRlKiA3ZRDps/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r51vTcfwf
/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU00vLQZolopkglAVrvPnKL
h55F2ZDRQNjmnWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
 boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581
 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname:
IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDmbrnW+Kxfh0dMy
NkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
Return-Path: Projects@arcusconsulting.co.za
X-OriginatorOrg: arcusconsulting.co.za

Sophie Williams

From: René de Kock (WR) <Dekockr@nra.co.za>
To: Projects
Sent: 27 September 2019 08:06
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: René de Kock (WR)
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria
was read on Friday, September 27, 2019 7:05:24 AM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Jan Carstensen <jan@safetyzonesa.co.za>
To: Projects
Sent: 26 September 2019 19:56
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: 2019/09/26 09:02 AM

was read on 2019/09/26 06:56 PM.

Sophie Williams

From: John Geeringh <GeerinJH@eskom.co.za>
To: Projects
Sent: 26 September 2019 14:18
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: John Geeringh
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria

was read on Thursday, September 26, 2019 1:17:19 PM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Abrahams Abe (KBY) <AbrahamsA@dws.gov.za>
Sent: 26 September 2019 13:58
To: Projects
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

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Sophie Williams

From: Makhanya Portia (KWT) <MakhanyaP@dws.gov.za>
Sent: 26 September 2019 13:29
To: Projects
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

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Sophie Williams

From: Pixley Ka Seme District Municipality <telkomsa128018@telkomsa.net>
To: Projects
Sent: 26 September 2019 12:11
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: 2019/09/26 09:02

was read on 2019/09/26 11:10.

Sophie Williams

From: Thandeka Nohoyeka Transnet Property PLZ <Thandeka.Nohoyeka@transnet.net>
To: Projects
Sent: 26 September 2019 12:08
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Thandeka Nohoyeka Transnet Property PLZ
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria

was read on Thursday, September 26, 2019 11:06:55 AM (UTC+02:00) Harare, Pretoria.

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Sophie Williams

From: Melvin Charlie <MelvinC@daff.gov.za>
To: Projects
Sent: 26 September 2019 11:34
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Melvin Charlie
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria

was read on Thursday, September 26, 2019 10:30:05 AM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Microsoft Outlook
To: Nokuthula.Mbeje@energy.gov.za
Sent: 26 September 2019 10:42
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Nokuthula.Mbeje@energy.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Marilyn Kleinhans (WR) <Jonesm@nra.co.za>
To: Projects
Sent: 26 September 2019 10:35
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Marilyn Kleinhans (WR)
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 9:02:56 AM (UTC+02:00) Harare, Pretoria

was read on Thursday, September 26, 2019 9:34:37 AM (UTC+02:00) Harare, Pretoria.

Sophie Williams

From: Enquiry <Enquiry@arc.agric.za>
To: Projects
Sent: 26 September 2019 10:36
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Enquiry
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: Thursday, September 26, 2019 6:02:56 AM (UTC-01:00) Cabo Verde Is.

was read on Thursday, September 26, 2019 6:36:01 AM (UTC-01:00) Cabo Verde Is..

Sophie Williams

From: The Don <booking@thedon.co.za>
To: Projects
Sent: 26 September 2019 10:30
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: 2019/09/26 9:02 AM

was read on 2019/09/26 9:29 AM.

Sophie Williams

From: Microsoft Outlook
To: angie.majongile@dot.ecprov.gov.za
Sent: 26 September 2019 10:19
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

angie.majongile@dot.ecprov.gov.za (angie.majongile@dot.ecprov.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: bongikaya.dayimani@drdar.gov.za
Sent: 26 September 2019 10:19
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

bongikaya.dayimani@drdar.gov.za (bongikaya.dayimani@drdar.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: lerato.sebiloane@eclgta.gov.za
Sent: 26 September 2019 10:18
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

lerato.sebiloane@eclgta.gov.za (lerato.sebiloane@eclgta.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: tollie@isat.co.za
To: Projects
Sent: 26 September 2019 10:14
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: 2019/09/26 09:02

was read on 2019/09/26 09:13.

Sophie Williams

From: Salome Mambane <SMambane@environment.gov.za>
Sent: 26 September 2019 10:13
To: Projects
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

'Please consider the environment before you print this email'

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Sophie Williams

From: Simon Maletle <SMaletle@environment.gov.za>
Sent: 26 September 2019 10:09
To: Projects
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

'Please consider the environment before you print this email'

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Sophie Williams

From: elmarie <transkaroo@eik.co.za>
To: Projects
Sent: 26 September 2019 10:07
Subject: Read: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message

To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Sent: 2019/09/26 09:02

was read on 2019/09/26 09:06.

Sophie Williams

From: Mail Delivery System <Mailer-Daemon@spe8.ucebox.co.za>
To: energy@birdlife.org.za
Sent: 26 September 2019 10:06
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This message was created automatically by mail delivery software.
----- The following addresses had successful delivery notifications -----



Notification of
Availability o...

<energy@birdlife.org.za> (relayed to non-DSN-aware mailer)

Sophie Williams

From: postmaster@GMS.local
To: Ramaleho.saila@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

Ramaleho.saila@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: zongezile.bango@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

zongezile.bango@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: Mathemba.Gcasamba@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

Mathemba.Gcasamba@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: ryan.oliver@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

ryan.oliver@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: karen.vanschalkwyk@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

karen.vanschalkwyk@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: katshaba.gaofhiwe@drrdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

Katshaba.Mathibe@drrdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: Malebo.baloi@drrdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

Malebo.baloi@drrdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: aphuwe.fayindlala@drdlr.gov.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

aphuwe.fayindlala@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@GMS.local
To: DGOoffice@drdlr.gov.za
Sent: 26 September 2019 10:03
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

DGOoffice@drdlr.gov.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Lourens Leeuwner <lourensl@ewt.org.za>
Sent: 26 September 2019 10:04
To: Projects
Subject: Automatic reply: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Please note that I will be traveling to the US until 06/10/2019 with limited communications. For any urgent matters, please contact Constant Hoogstad on 0823344176

Disclaimer

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Sophie Williams

From: Mail Delivery System <Mailer-Daemon@se-filter01.tld-mx.com>
To: Jean.gillmer@karoomail.co.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This message was created automatically by mail delivery software.
----- The following addresses had successful delivery notifications -----



<Jean.gillmer@karoomail.co.za> (relayed to non-DSN-aware mailer)

Notification of
Availability o...

Sophie Williams

From: Mail Delivery System <Mailer-Daemon@se-filter03.tld-mx.com>
To: klwatt@roundbar.co.za
Sent: 26 September 2019 10:04
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This message was created automatically by mail delivery software.
----- The following addresses had successful delivery notifications -----



Notification of
Availability o...

<klwatt@roundbar.co.za> (relayed to non-DSN-aware mailer)

Sophie Williams

From: postmaster@ecdsd.gov.za
To: Vuyokazi.sangoni@ecdsd.gov.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

Vuyokazi.sangoni@ecdsd.gov.za

The email address you entered couldn't be found. Please check the recipient's email address and try to resend the message. If the problem continues, please contact your helpdesk.

Diagnostic information for administrators:

Generating server: DSDSRVBHIEXC02.ecdsd.gov.za

Vuyokazi.sangoni@ecdsd.gov.za
Remote Server returned '550 5.1.1 RESOLVER.ADR.RecipNotFound; not found'

Original message headers:

Received: from DSDSRVBHIEXC01.ecdsd.gov.za (10.219.31.244) by DSDSRVBHIEXC02.ecdsd.gov.za (10.219.31.245) with Microsoft SMTP Server (TLS) id 15.0.1263.5; Thu, 26 Sep 2019 09:03:15 +0200
Received: from gbr1.gov.za (10.219.31.249) by DSDSRVBHIEXC01.ecdsd.gov.za (10.219.31.244) with Microsoft SMTP Server id 15.0.1263.5 via Frontend Transport; Thu, 26 Sep 2019 09:03:15 +0200
Received: from securemail-pl-mx8.synaq.com ([196.35.198.148]) by gbr1.gov.za with esmtp (Exim 4.89 (FreeBSD)) (envelope-from <Projects@arcusconsulting.co.za>) id 1iDNo2-0005ea-Pp for Vuyokazi.sangoni@ecdsd.gov.za; Thu, 26 Sep 2019 09:03:15 +0200
Received: from mail-eopbgr110139.outbound.protection.outlook.com ([40.107.11.139] hello=GBR01-CWL-obe.outbound.protection.outlook.com) by securemail-pl-mx8.synaq.com with esmtps (TLSv1.2:AES256-SHA256:256) (Exim 4.92.2) (envelope-from <Projects@arcusconsulting.co.za>) id 1iDNnq-0009P4-RT for Vuyokazi.sangoni@ecdsd.gov.za; Thu, 26 Sep 2019 09:03:04 +0200
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKVmYTBUDClIHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7mawCFxH4sJCaVWoIAmkstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2llluL5VUzRp9O9JrHVZ9q2uju5gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9tD1SXoVRlG6PpAxldCCvcOufZe87YIcaMncNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wFA==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com; s=arcselector9901; h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck; bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aTOszp2XZsmcw2xJsR3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneL
eJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o0
8WlzlRL3zZth8fPLfjCeWeZXJ5MxLY+YlRbza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGk
W7Vq/UkX9hqwJ1+Qxg3BcApfTsZZXNT3KUF5aUR+F1t7UGg+ZNRIrI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA
==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+DqofxlkrAxhXFpw8h3rHgci/ct3NGEln/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-traffictypediagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:

SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(1
99004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8
676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)
(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(9993600
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4)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002
) (8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)
(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT
;SFP:1102;SCL:1;SRVR: CWLP265MB1585;H: CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:N
one;LANG:en;PTR:InfoNoRecords;MX:1;A:1;

received-spf: None (protection.outlook.com: arcusconsulting.co.za does not

designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqeM/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNh1JKAmY9m/JkOsGPmkLzXR7R6Rhq/39zaYYdG1
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/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU00vLQZolopkglAVrvPnKL
h55F2ZDRQNjmnWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
 boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581
 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname:
IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDmbrnW+Kxfh0dMy
NkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-IS-SYNAQ-MX: mail-eopbgr110139.outbound.protection.outlook.com ([40.107.11.139]
helo=GBR01-CWL-obe.outbound.protection.outlook.com)
X-SYNAQ-Pinpoint-Information: Please contact Internet Solutions for more information
X-SYNAQ-Pinpoint-ID: lidNnq-0009P4-RT
X-SYNAQ-Pinpoint: Found to be clean
X-SYNAQ-Pinpoint-SpamCheck: not spam, SpamAssassin (not cached, score=0.699,
 required 5, BAYES_50 1.20, DCC_REPUT_00_12 -0.40, DKIM_INVALID 0.10,
 DKIM_SIGNED 0.10, DOUBLE_SPF_NO_URIRBL -0.30, HTML_MESSAGE 0.00,
 SPF_HELO_PASS -0.00, SPF_PASS -0.00)
X-Pinpoint-From: projects@arcusconsulting.co.za
X-Spam-Flag: NO
Return-Path: Projects@arcusconsulting.co.za

Sophie Williams

From: postmaster@transnet.net
To: williezietsman@transnet.net
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

williezietsman@transnet.net

The email address you entered couldn't be found. Please check the recipient's email address and try to resend the message. If the problem continues, please contact your helpdesk.

Diagnostic information for administrators:

Generating server: JHBWEXDSI106.inter.transnet.net

williezietsman@transnet.net

Remote Server returned '550 5.1.1 RESOLVER.ADR.RecipNotFound; not found'

Original message headers:

Received: from JHBWEXDSI115.inter.transnet.net (10.98.237.20) by JHBWEXDSI106.inter.transnet.net (10.98.237.9) with Microsoft SMTP Server (TLS) id 15.0.1473.3; Thu, 26 Sep 2019 09:03:20 +0200
Received: from za-smtp-1.mimecast.co.za (10.98.237.114) by smtp.transnet.net (10.98.237.20) with Microsoft SMTP Server (TLS) id 15.0.1473.3 via Frontend Transport; Thu, 26 Sep 2019 09:03:20 +0200
ARC-Message-Signature: i=2; a=rsa-sha256; c=relaxed/relaxed; d=dkim.mimecast.com; s=201903; t=1569481400; h=from:from:reply-to:subject:subject:date:date:message-id:message-id:to:to:cc:mime-version:mime-version:content-type:content-type:dkim-signature; bh=EPD0NQfTwjtoSQINRx6yAMgUoT2fNkoWsOj+ghjnsJ4=; b=pYyGqXtAla5F6AYENikwm52lE/Da4CYs9a/imIPvUNgxfAnyhY8fSxlapcTmcGQ9Cq2luyQ76LP5vS0nudwEgIwYQaIvyFhVM6M76xQ9TK6S368z2cqBCrcjJxIAGkVv+HsxQGLrtG0yUHOke4Sk8yiXR+y237MftMn73NOrIril5VjBZuPYDs+qP4Ms63YJ8wm+8OlKgnpm3wePSKqoFGhsX5HYozljOWRFUg0Hcx2f9UnwDlefDsIlKDTK5omrFN4c7ZlNY4gITDjyKKDndtJQeYTAnrAHC3DhQaDvG9OxRcorUsepgAJ/576w32mxPJTzLYPWmqyDvIt/52c04A==
ARC-Seal: i=2; s=201903; d=dkim.mimecast.com; t=1569481400; a=rsa-sha256; cv=fail; b=gO3+C6cJraj7YZo62S1zIUTdkmBkgr3WWJzSKBK9C+817dD6WZEFcyvvc6eKXgPTk92WyPN/9D356vy114Q/PZquWb6x3UJbjvbXI/I003tdHftZefSVRFUq+czz9Q0UF0WNsHT0jwxo0CoN9yVBdvFCU5N0jiEG9qecntO+XWk7h5i+LaWmAl9ylnxW2VKIots4iPEpnMDvJCsJafbSqe06FNl12P1l1bmXi3Wbk8ZXR5KcSwG9njaS6XaOBQBNuf2kjFhCN0zU4EYiTNDIYvQCvtaj+Yqd6aiNu5YG7OTbE5HXgBANCe4pShtnHzEJ2+agcrOEc0xrLhhv4DogUDA==
ARC-Authentication-Results: i=2; relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKvMYTBUDcliHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
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D1SXoVRLG6PpAxldCCvcOufZe87YIcaMncNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wfa
==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aToszp2XZsmcw2xJsr3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneL
eJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUy6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o0
8W1zRL3zZth8fPlfjCeWeZXXJ5MxLY+Ylrbza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGk
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ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+Dqofx1krAxhXFpw8h3rHgci/ct3NGElN/AvILpN/jbl/eWNDPzvVpA
E=

Received: from GBR01-CWL-obe.outbound.protection.outlook.com
(mail-eopbgr110117.outbound.protection.outlook.com [40.107.11.117]) (Using
TLS) by relay.mimecast.com with ESMTP id
za-mta-10-6E2lOK1lMZ6N-s0Vct6WwQ-1; Thu, 26 Sep 2019 09:03:01 +0200

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process

Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process

Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==

Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>

Return-Receipt-To: <Projects@arcusconsulting.co.za>

Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:

<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach: yes

X-MS-TNEF-Correlator:

x-ms-exchange-messagesentrepresentingtype: 1

x-originating-ip: [196.22.229.227]

x-ms-publictraffictype: Email

x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e

x-ms-traffictypediagnostic: CWLP265MB1585:

x-ms-exchange-purlcount: 3

x-ms-exchange-transport-forked: True

x-microsoft-antispam-prvs:

<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>

x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(199004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(99936001)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(99286004)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002)(8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT;SFP:1102;SCL:1;SRVR:CWLP265MB1585;H:CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:None;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
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MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname: IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDmbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-MC-Unique: 6E2lOK1lMZ6N-s0Vct6WwQ-1
Authentication-Results: relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
X-Mimecast-Spam-Score: 2
X-Mimecast-Impersonation-Protect: Policy=3 hits, no action with tagging, notifications issued;Similar Internal Domain=false;Similar Monitored External Domain=false;Custom External Domain=false;Mimecast External Domain=false;Newly Observed Domain=false;Internal User Name=false;Reply-to Address Mismatch=false;Targeted Threat Dictionary=false;Mimecast Threat Dictionary=false;Custom Threat Dictionary=false; Content-Type: multipart/mixed;
boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
Return-Path: projects@arcusconsulting.co.za



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Sophie Williams

From: postmaster@transnet.net
To: eddie.seaton@transnet.net
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

eddie.seaton@transnet.net

The email address you entered couldn't be found. Please check the recipient's email address and try to resend the message. If the problem continues, please contact your helpdesk.

Diagnostic information for administrators:

Generating server: JHBWEXDSI118.inter.transnet.net

eddie.seaton@transnet.net
Remote Server returned '550 5.1.1 RESOLVER.ADR.RecipNotFound; not found'

Original message headers:

Received: from JHBWEXDSI107.inter.transnet.net (10.98.237.6) by JHBWEXDSI118.inter.transnet.net (10.98.237.23) with Microsoft SMTP Server (TLS) id 15.0.1473.3; Thu, 26 Sep 2019 09:03:28 +0200
Received: from za-smtp-1.mimecast.co.za (10.98.237.102) by smtp.transnet.net (10.98.237.6) with Microsoft SMTP Server (TLS) id 15.0.1473.3 via Frontend Transport; Thu, 26 Sep 2019 09:03:28 +0200
ARC-Message-Signature: i=2; a=rsa-sha256; c=relaxed/relaxed; d=dkim.mimecast.com; s=201903; t=1569481408; h=from:from:reply-to:subject:subject:date:date:message-id:message-id:to:to:cc:mime-version:mime-version:content-type:content-type:dkim-signature; bh=SYgHKpyFDYhBFv4CCT0P5BLp6MSzKDOLVA6609pXbak=; b=WDoYYyyno4lQHEijor6cNBCQFdjnL56lLr31ME/bHgg21PRDqp+deRoiwQuHT+qSdJt5etOFKpIJgAqlKFSiK+V/DZkb0UPNGDXEyHqxPXZwM3PoWKEdEsEd7VzNZPPyATDQFRB6Xkkf2kq5lQiSUUMeYpeamPOAuNdnSdWZ9TXyazOgCyrJmkGwrgtQ/sHPOitc63RypCdbwBbLT D7Obs0lqvMpEuDRqTs+MQ2KJpjEkXjpxtENGkSzIMgnJwkh6yWibUsksdZUc6vGxG4tYnhqh9Ca38l/mLfDEvwSuCJ0Vqw6397WJQNycwmncfUJGxKI8prl4Rw8iELU7tokA==
ARC-Seal: i=2; s=201903; d=dkim.mimecast.com; t=1569481408; a=rsa-sha256; cv=fail; b=LwmD0nrRFGQdaDhGAvPvtmDoiLr5gS8vuK0I0VIwZv3qkRmJxgCgRHl29DGTdkMhr2rFRa+nJlgkBGNMkd3KyOZUmoAU2enk041PGlyfvX0DF77ZFJ6ZXgWKuDdtNLEz2duGaM3bfohRxdq0q8eiePmWu10a2vZTq6RQjrRpkp+kf8FflnC0ynCkdPHTVA7k7EHq0B5DX1fwR0T/2HVibb+qglZrcqGAgS28wODof59W0c6GyHi+XjftVSSXCEduSRTBU+X0JWulzicmrwNahAZejir7mETfmd4+1zCYwE2fSB0jKlKJWgKtnRhngysWPUsqYSjkl2zZ2MFjTBXOURg==
ARC-Authentication-Results: i=2; relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

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ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;
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ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
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E=

Received: from GBR01-CWL-obe.outbound.protection.outlook.com
(mail-eopbgr110117.outbound.protection.outlook.com [40.107.11.117]) (Using
TLS) by relay.mimecast.com with ESMTP id
za-mta-10-6E2lOK1lMZ6N-s0Vct6WwQ-1; Thu, 26 Sep 2019 09:03:01 +0200

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process

Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process

Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==

Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>

Return-Receipt-To: <Projects@arcusconsulting.co.za>

Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:

<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach: yes

X-MS-TNEF-Correlator:

x-ms-exchange-messagesentrepresentingtype: 1

x-originating-ip: [196.22.229.227]

x-ms-publictraffictype: Email

x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e

x-ms-traffictypediagnostic: CWLP265MB1585:

x-ms-exchange-purlcount: 3

x-ms-exchange-transport-forked: True

x-microsoft-antispam-prvs:

<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>

x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(199004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(99936001)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(99286004)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002)(8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT;SFP:1102;SCL:1;SRVR:CWLP265MB1585;H:CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:NONE;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
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MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname: IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDmbrnW+Kxfh0dMyNkJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-MC-Unique: 6E2lOK1lMZ6N-s0Vct6WwQ-1
Authentication-Results: relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
X-Mimecast-Spam-Score: 2
X-Mimecast-Impersonation-Protect: Policy=3 hits, no action with tagging, notifications issued;Similar Internal Domain=false;Similar Monitored External Domain=false;Custom External Domain=false;Mimecast External Domain=false;Newly Observed Domain=false;Internal User Name=false;Reply-to Address Mismatch=false;Targeted Threat Dictionary=false;Mimecast Threat Dictionary=false;Custom Threat Dictionary=false; Content-Type: multipart/mixed;
boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
Return-Path: projects@arcusconsulting.co.za



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Sophie Williams

From: Mail Delivery System <Mailer-Daemon@mx1.dot.gov.za>
To: selepeg@dot.gov.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This message was created automatically by mail delivery software.

A message that you sent could not be delivered to one or more of its recipients. This is a permanent error. The following address(es) failed:

selepeg@dot.gov.za
host trans-mail.dot.gov.za [10.129.10.34]
SMTP error from remote mail server after RCPT TO:<selepeg@dot.gov.za>:
550 No such recipient

Sophie Williams

From: Microsoft Outlook
To: jan@safetyzonesa.co.za
Sent: 26 September 2019 10:04
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

jan@safetyzonesa.co.za (jan@safetyzonesa.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@transnet.net
To: willie.ziedsman@transnet.net
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

willie.ziedsman@transnet.net

The email address you entered couldn't be found. Please check the recipient's email address and try to resend the message. If the problem continues, please contact your helpdesk.

Diagnostic information for administrators:

Generating server: JHBWEXDSI107.inter.transnet.net

willie.ziedsman@transnet.net

Remote Server returned '550 5.1.1 RESOLVER.ADR.RecipNotFound; not found'

Original message headers:

Received: from JHBWEXDSI108.inter.transnet.net (10.98.237.5) by JHBWEXDSI107.inter.transnet.net (10.98.237.6) with Microsoft SMTP Server (TLS) id 15.0.1473.3; Thu, 26 Sep 2019 09:03:18 +0200
Received: from za-smtp-1.mimecast.co.za (10.98.237.103) by smtp.transnet.net (10.98.237.5) with Microsoft SMTP Server (TLS) id 15.0.1473.3 via Frontend Transport; Thu, 26 Sep 2019 09:03:18 +0200
ARC-Message-Signature: i=2; a=rsa-sha256; c=relaxed/relaxed; d=dkim.mimecast.com; s=201903; t=1569481398; h=from:from:reply-to:subject:subject:date:date:message-id:message-id:to:to:cc:mime-version:mime-version:content-type:content-type:dkim-signature; bh=1A3LceplOcpTdaYtwxJFTu0bXrkBg+FpFqoA5Kc7qjQ=; b=H0sfg8DISqj5G+t6Zafb30kowePYcMoRbHWjpkPqwojvJGBCmkVKgyvYF1b3euKlyeGnO+i+iDhRkKMj0zrd5I5jXFaIRJYqVL7gTe0o72HswsaW0JzDo4KS9DjNc0T2y+eI1kwrOyI CvtWdeD3oz0G7Ece7HcsZo7nlKRTLauLx03wVvZdhbp19PrajpLsknaUPftdONQYZvW4vf nz5/MTt10EavlqwdpuBfCqLxv4wjiC+jibvSEuNnFgNRC0ppdWyeYelY5PYMZS0nxDo5Kg R+Bo6GfZJla0UeahOrfEkNrDqpdghaAw32xlQkZD6HgK1S2U1FTuFLS0+fFOQA==
ARC-Seal: i=2; s=201903; d=dkim.mimecast.com; t=1569481398; a=rsa-sha256; cv=fail; b=oQUG3yDyiTpjzSV+c1qRofbS/FUyJ8PCCKZrs9mgThoU7G8xyP0N0DnyTXqLX36aBp8HYu Zia6c5iVVgDOyDyamIkguOAC1wiPm+T/f+ITvQR+54MYeDRfMMLxUjJrvw7GgwkTCZQDwY 8CUsy/XGglvaW/YwJJ7i7RajAUA5PA1tLzXuYHqc+4tVvvhx6uTGYj8licaapOFw+cWfl abtBj6dbPjapMaHGWFeg/E81mKgygZihoiBrdeMgKUKWFQjYsJx77fvcfsnfxCVlar/tr4 KsSDRi1SLLWeLhL77JkiK0WPT2bweJ7Zy9ZaPbN69SmzQAAb6SsOGEezZgLU3g==
ARC-Authentication-Results: i=2; relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKvMYTBUDcliHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
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ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

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ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

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E=

Received: from GBR01-CWL-obe.outbound.protection.outlook.com
(mail-eopbgr110117.outbound.protection.outlook.com [40.107.11.117]) (Using
TLS) by relay.mimecast.com with ESMTP id
za-mta-10-6E2lOK1lMZ6N-s0Vct6WwQ-1; Thu, 26 Sep 2019 09:03:01 +0200

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process

Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process

Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==

Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>

Return-Receipt-To: <Projects@arcusconsulting.co.za>

Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:

<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach: yes

X-MS-TNEF-Correlator:

x-ms-exchange-messagesentrepresentingtype: 1

x-originating-ip: [196.22.229.227]

x-ms-publictraffictype: Email

x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e

x-ms-traffictypediagnostic: CWLP265MB1585:

x-ms-exchange-purlcount: 3

x-ms-exchange-transport-forked: True

x-microsoft-antispam-prvs:

<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>

x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(199004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(99936001)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(99286004)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002)(8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT;SFP:1102;SCL:1;SRVR:CWLP265MB1585;H:CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:NONE;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
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MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname: IZKLc0eqZEi31oE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-MC-Unique: 6E21OK11MZ6N-s0Vct6WwQ-1
Authentication-Results: relay.mimecast.com; spf=pass (relay.mimecast.com: domain of projects@arcusconsulting.co.za designates 40.107.11.117 as permitted sender) smtp.mailfrom=projects@arcusconsulting.co.za
X-Mimecast-Spam-Score: 2
X-Mimecast-Impersonation-Protect: Policy=3 hits, no action with tagging, notifications issued;Similar Internal Domain=false;Similar Monitored External Domain=false;Custom External Domain=false;Mimecast External Domain=false;Newly Observed Domain=false;Internal User Name=false;Reply-to Address Mismatch=false;Targeted Threat Dictionary=false;Mimecast Threat Dictionary=false;Custom Threat Dictionary=false; Content-Type: multipart/mixed;
boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
Return-Path: projects@arcusconsulting.co.za



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Sophie Williams

From: postmaster@daff.gov.za
To: ThokoB@daff.gov.za
Sent: 26 September 2019 10:04
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

ThokoB@daff.gov.za

The recipient's mailbox is full and can't accept messages now. Please try resending this message later, or contact the recipient directly.

The following organization rejected your message: ptaexcha2.nda.agric.za.

Diagnostic information for administrators:

Generating server: Ptaexcha4.nda.agric.za

ThokoB@daff.gov.za
ptaexcha2.nda.agric.za
Remote Server returned '554 5.2.2 mailbox full; STOREDRV.Deliver.Exception:QuotaExceededException.MapiExceptionShutoffQuotaExceeded; Failed to process message due to a permanent exception with message Cannot open mailbox /o=Departement van Landbou/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Configuration/cn=Servers/cn=PTAEXCHA2/cn=Microsoft System Attendant. 16.55847:7E000000, 17.43559:000000005801000000000000000000000000000000000000, 20.52176:000FC185030000000000000000, 20.50032:000FC1857317103100000000, 255.23226:000FC185, 255.27962:FE000000, 255.17082:DD040000, 0.26937:00000000, 4.21921:DD040000, 255.27962:FA000000, 255.1494:00000000, 0.50608:0F010480, 5.29818:0000000037366135336263312D353865312D346535392D613965652D61333038303132323139636600000078 0, 1.29920:03000000, 7.29828:11564913000000001A010480, 7.29832:00343313000000001A010480, 4.45884:DD040000, 4.29880:DD040000, 1.36108:03000000, 4.29888:DD040000, 1.56872:FE000000, 4.42712:DD040000, 5.10786:0000000031352E30302E3134373332E3030333A7074616578636861320000244005000780, 255.1750:00000000, 0.26849:0A000000, 255.21817:DD040000, 0.26297:000FC185, 4.16585:DD040000, 0.32441:9E000000, 4.1706:DD040000, 0.24761:9E000000, 4.20665:DD040000, 0.25785:0A000000, 4.29881:DD040000 [Stage: CreateSession]'

Original message headers:

Received: from Ptaexcha4.nda.agric.za (2002:9bf0:9550::9bf0:9550) by Ptaexcha4.nda.agric.za (2002:9bf0:9550::9bf0:9550) with Microsoft SMTP Server (TLS) id 15.0.1473.3; Thu, 26 Sep 2019 09:03:41 +0200
Received: from agrimx2.nda.agric.za (192.96.1.11) by Ptaexcha4.nda.agric.za (155.240.149.80) with Microsoft SMTP Server (TLS) id 15.0.1473.3 via Frontend Transport; Thu, 26 Sep 2019 09:03:41 +0200
Received: from cluster-s.mailcontrol.com (unknown [196.216.238.190]) by Forcepoint Email with ESMTPS id A147961BA9EDB55AA9A2; Thu, 26 Sep 2019 09:23:59 +0200 (CAT)
Received: from rly09s.srv.mailcontrol.com (localhost [127.0.0.1])

by rly09s.srv.mailcontrol.com (MailControl) with ESMTTP id x8Q7336g092733;
Thu, 26 Sep 2019 08:03:03 +0100
Received: from localhost.localdomain (localhost.localdomain [127.0.0.1])
by rly09s.srv.mailcontrol.com (MailControl) id x8Q733Iv092714;
Thu, 26 Sep 2019 08:03:03 +0100
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eopbgr110109.outbound.protection.outlook.com [40.107.11.109])
by rly09s-eth0.srv.mailcontrol.com (envelope-sender
<Projects@arcusconsulting.co.za>) (MIMEDefang) with ESMTTP id x8Q72w3U090757
(TLS bits=256 verify=OK); Thu, 26 Sep 2019 08:03:03 +0100 (BST)
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

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ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
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Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000
Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000
From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>
Return-Receipt-To: <Projects@arcusconsulting.co.za>
Date: Thu, 26 Sep 2019 07:02:56 +0000
Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;

x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
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<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
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x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
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received-spf: None (protection.outlook.com: arcusconsulting.co.za does not designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqeM/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNh1JKAmY9m/JkOsGPmkLzxr7R6Rhg/39zaYYdG1k0xcMviTB+EqOwBbfqUQCmVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLxQGejHCCyHlh11TC00JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJnqyGf1+Ke5ChITJ1/983tnRAvEbnbz6KDshRmiHtK/fmfMLg94RFFGye8kRlKiA3ZRDps/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r5lvTcfwf/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU0OvLQZo1opkgl1AVrvPnKLh55F2ZDRQNjmnWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
 boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname: IZKLc0eqZEi31oE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-HeloDomain: R0JSMDEtQldMLW9iZS5vdXRib3VuZC5wcm90ZWN0aW9uLm9ldGxvb2suY29t
X-MailControl-Inbound: aEoj4A4ViVG!8AcUppckDk8x0uKcmco300MZbWnZ2MyZX4PznQOf1DDhcpcIBB2tDLnVv0QZ13TgBXkIACjewgy53p91OV!D
X-MailControl-ReportSpam: https://www.mailcontrol.com/sr/Ecs5lPnEfG3GX2PQP0mvUskNvxilUarDbCnUd4Xl58bes0jOxcVYcm0MhUFgeTiLRKeHly_B29iNc_rJiVGaJg==
X-Scanned-By: MailControl 44278.2075 (www.mailcontrol.com) on 10.83.1.119
Return-Path: Projects@arcusconsulting.co.za

Sophie Williams

From: Jacoline Mans <JacolineMa@daff.gov.za>
Sent: 26 September 2019 10:04
To: Projects
Subject: Automatic reply: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Good Day

Thank you for your e-mail. Please note I am out of office for work purposes and unable to respond to your e-mail. I should be back in the office, Monday 30 September.

Regards, Jacoline Mans
Cell 082 808 2737; 060 973 1660

Sophie Williams

From: postmaster@nersa.org.za
To: thembani.bukula@nersa.org.za
Sent: 26 September 2019 10:02
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

thembani.bukula@nersa.org.za

The e-mail address you entered couldn't be found. Please check the recipient's e-mail address and try to resend the message. If the problem continues, please contact your helpdesk.

Diagnostic information for administrators:

Generating server: nersa.org.za

thembani.bukula@nersa.org.za
#550 5.1.1 RESOLVER.ADR.RecipNotFound; not found ##rfc822;thembani.bukula@nersa.org.za

Original message headers:

Received: from ES1000.nersa.org.za (10.1.1.71) by NERSASRVEXC01.nersa.local (10.1.1.28) with Microsoft SMTP Server id 14.2.247.3; Thu, 26 Sep 2019 09:02:19 +0200
Received: from ES1000.nersa.org.za (localhost.localdomain [127.0.0.1]) by localhost (Email Security Appliance) with SMTP id 4893F66B2AB7_D8C62AEB; Thu, 26 Sep 2019 07:03:10 +0000 (GMT)
Received: from GBR01-CWL-obe.outbound.protection.outlook.com (mail-eopbgr110115.outbound.protection.outlook.com [40.107.11.115]) (using TLSv1.2 with cipher ECDHE-RSA-AES256-SHA384 (256/256 bits)) (Client CN "mail.protection.outlook.com", Issuer "GlobalSign Organization Validation CA - SHA256 - G3" (verified OK)) by ES1000.nersa.org.za (Sophos Email Appliance) with ESMTPS id A165B66AF9C9_D8C62A7F; Thu, 26 Sep 2019 07:03:01 +0000 (GMT)
ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qkVmYTBUDCl1HoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7mawCFxH4sjCaVWoIAmkstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2lluL5VUzRp9O9JrHVZ9q2uju5gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9tD1SXoVRlG6PpAxldCCvcOufZe87YIcaMNCNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wfa==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com; s=arcselector9901;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIApFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aTOszp2XZsmcw2xJsr3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneLeJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o08WlZRL3zZth8fPlfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGkW7Vq/UkX9hqWj1+Qxg3BcApfTsZZXNT3KUF5aUR+F1t7UGg+ZNRIrI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass

smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIApFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+DqofxLkrAxhXFpw8h3rHgci/ct3NGElN/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000
Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000
From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>
Return-Receipt-To: <Projects@arcusconsulting.co.za>
Date: Thu, 26 Sep 2019 07:02:56 +0000
Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(1
99004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8
676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)
(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(9993600
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4)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002
) (8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)
(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT
;SFP:1102;SCL:1;SRVR: CWLP265MB1585;H: CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:N
one;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
received-spf: None (protection.outlook.com: arcusconsulting.co.za does not
designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
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h55F2ZDRQNjmnWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
 boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-OriginatorOrg: arcusconsulting.co.za
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581
 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname:
IZKLC0eqZEi31oE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMy
NkJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585
X-Sophos-SenderHistory:
ip=40.107.11.115,fs=0,da=139136157,mc=1,sc=0,hc=1,sp=0,fso=24333852,re=250,sd=0,hd=0
X-Sophos-ESA: [ES1000.nersa.org.za] 4.5.2.1, Antispam-Engine: 2019062400.03.04.002,
Antispam-Data: 2019.9.26.64816
X-SASI-RCODE: 200
X-SEA-Spam: Gauge=XXXIIIIIII, Probability=36%, Report='
FRAUD_X3_LARGE_BODY -1, FRAUD_IP_ANY 2.5, FRAUD_X3 1, FRAUD_IP_XOIP 0.5,
RETURN_RECEIPT 0.5, HTML_70_90 0.1, RCVD_FROM_IP_DATE 0.1, FROM_NAME_ONE_WORD 0.05,
FROM_SAME_AS_TO 0.05, SUPERLONG_LINE 0.05, ARCAUTH_PASSED 0, BODYTEXTX_SIZE_3000_MORE
0, BODYTEXTX_SIZE_3000_LESS 0, BODY_SIZE_10000_PLUS 0, DKIM_SIGNATURE 0, DQ_S_H 0,
FROM_SAME_AS_TO_DOMAIN 0, HREF_LABEL_TEXT_ONLY 0, KNOWN_MTA_TFX 0, NO_URI_HTTPS 0,
PDF_ATTACHED 0, PDF_ATTACHED_1 0, SPF_PASS 0, SXL_IP_TFX_WM 0, TRANSACTIONAL 0,
WEBMAIL_SOURCE 0, WEBMAIL_XOIP 0, WEBMAIL_X_IP_HDR 0, __ANY_URI 0,
__ARCAUTH_DKIM_PASSED 0, __ARCAUTH_DMARC_PASSED 0, __ARCAUTH_SPF_PASSED 0,
__ATTACHMENT_SIZE_100K_PLUS 0, __BODY_TEXT_X4 0, __BUSINESS_SIGNATURE 0,
__CP_URI_IN_BODY 0, __CT 0, __CTYPE_HAS_BOUNDARY 0, __CTYPE_MULTIPART 0,
__CTYPE_MULTIPART_MIXED 0, __DQ_IP_FSO_LARGE 0, __DQ_IP_HIST 0, __DQ_NEG_HEUR 0,
__DQ_NEG_IP 0, __DQ_S_HIST_1 0,
__DQ_S_IP_100K 0, __DQ_S_IP_10K 0, __DQ_S_IP_1K 0, __DQ_S_IP_HD_0 0, __DQ_S_IP_MC_1
0, __FRAUD_COMMON 0, __FRAUD_CONTACT_NUM 0, __FRAUD_LOC 0, __FRAUD_SUBJ_A 0,
__FROM_DOMAIN_IN_ANY_TO1 0, __FUR_RDNS_OUTLOOK 0, __HAS_ATTACHMENT 0,
__HAS_ATTACHMENT1 0, __HAS_ATTACHMENT2 0, __HAS_FROM 0, __HAS_HTML 0, __HAS_MSGID 0,
__HAS_XOIP 0, __HREF_LABEL_TEXT 0, __HREF_LABEL_URI 0, __HTML_AHREF_TAG 0,
__HTML_BAD_END 0, __HTML_TAG_DIV 0, __IMG_ATTACHED 0, __MIME_HTML 0, __MIME_TEXT_H 0,
__MIME_TEXT_H1 0, __MIME_TEXT_H2 0, __MIME_TEXT_P 0, __MIME_TEXT_P1 0, __MIME_TEXT_P2
0, __MIME_VERSION 0, __MULTIPLE_URI_TEXT 0, __NOTIFICATION_TO 0,
__PHISH_SPEAR_SUBJ_ALERT 0, __PNG_WIDTH_100 0, __RDNS_WEBMAIL 0, __RETURN_RECEIPT_TO
0, __SANE_MSGID 0, __STYLE_RATWARE_NEG 0, __STYLE_TAG 0, __SUBJ_ALPHA_END 0,
__SUBJ_ALPHA_NEGATE 0, __TAG_EXISTS_HTML 0, __TO_DOMAIN_IN_FROM 0, __TO_MALFORMED_2 0,
__TO_NAME 0,
__TRANSACTIONAL 0, __URI_IN_BODY 0, __URI_NOT_IMG 0, __URI_NS , __URI_WITHOUT_PATH 0,
__URI_WITH_PATH 0'
Return-Path: Projects@arcusconsulting.co.za
X-C2ProcessedOrg: 9953b9e9-bb95-4968-a215-adc7f2e61346

Sophie Williams

From: Mail Delivery Subsystem <MAILER-DAEMON@mail.ovk.co.za>
To: perasmus@ovk.co.za
Sent: 26 September 2019 10:07
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

The original message was received at Thu, 26 Sep 2019 09:07:11 +0200 from mail-eopbgr110095.outbound.protection.outlook.com [40.107.11.95]

----- The following addresses had successful delivery notifications -----
<perasmus@ovk.co.za> (successfully delivered to mailbox)

----- Transcript of session follows -----



Notification of
Availability o...

<perasmus@ovk.co.za>... Successfully delivered

Sophie Williams

From: Inext Amphibic Mail System <InextAmphibicPostmaster@inext.co.za>
Sent: 26 September 2019 10:03
To: Projects
Subject: Delivery notification (success)
Attachments: ATT00001; Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

The original message was received at Thu, 26 Sep 2019 09:03:16 +0200

Your message was successfully delivered to:
<rtimothy@nbkb.org.za>

Sophie Williams

From: Microsoft Outlook
To: john.geeringh@eskom.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

john.geeringh@eskom.co.za (john.geeringh@eskom.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@nersa.org.za
To: Andile.Gxasheka@nersa.org.za
Sent: 26 September 2019 10:02
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

Andile.Gxasheka@nersa.org.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: booking@thedon.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

booking@thedon.co.za (booking@thedon.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: johan@sawea.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

johan@sawea.org.za (johan@sawea.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: dmoleko@ncpg.gov.za; denc@ncpg.gov.za; vmothibi@ncpg.gov.za; gmothibi@ncpg.gov.za; fortunec@ncpg.gov.za; jpetersen@ncpg.gov.za; ncorns@ncpg.gov.za; noupoortlib@ncpg.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

dmoleko@ncpg.gov.za (dmoleko@ncpg.gov.za)

denc@ncpg.gov.za (denc@ncpg.gov.za)

vmothibi@ncpg.gov.za (vmothibi@ncpg.gov.za)

gmothibi@ncpg.gov.za (gmothibi@ncpg.gov.za)

fortunec@ncpg.gov.za (fortunec@ncpg.gov.za)

jpetersen@ncpg.gov.za (jpetersen@ncpg.gov.za)

ncorns@ncpg.gov.za (ncorns@ncpg.gov.za)

noupoortlib@ncpg.gov.za (noupoortlib@ncpg.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: ClaireT@L2B.co.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Your message to ClaireT@L2B.co.za couldn't be delivered.

ClaireT wasn't found at l2b.co.za.

Projects	Office 365	ClaireT
Action Required		Recipient
Unknown To address		

How to Fix It

The address may be misspelled or may not exist. Try one or more of the following:

- Send the message again following these steps: In Outlook, open this non-delivery report (NDR) and choose **Send Again** from the Report ribbon. In Outlook on the web, select this NDR, then select the link "**To send this message again, click here.**" Then delete and retype the entire recipient address. If prompted with an Auto-Complete List suggestion don't select it. After typing the complete address, click **Send**.
- Contact the recipient (by phone, for example) to check that the address exists and is correct.
- The recipient may have set up email forwarding to an incorrect address. Ask them to check that any forwarding they've set up is working correctly.
- Clear the recipient Auto-Complete List in Outlook or Outlook on the web by following the steps in this article: [Fix email delivery issues for error code 5.1.1 in Office 365](#), and then send the message again. Retype the entire recipient address before selecting **Send**.

If the problem continues, forward this message to your email admin. If you're an email admin, refer to the **More Info for Email Admins** section below.

Was this helpful? [Send feedback to Microsoft](#).

More Info for Email Admins

Status code: 550 5.1.1

This error occurs because the sender sent a message to an email address outside of Office 365, but the address is incorrect or doesn't exist at the destination domain. The error is reported by the recipient domain's email server, but most often it must be fixed by the person who sent the message. If the steps in the **How to Fix It** section above don't fix the problem, and you're the email admin for the recipient, try one or more of the following:

The email address exists and is correct - Confirm that the recipient address exists, is correct, and is accepting messages.

Synchronize your directories - If you have a hybrid environment and are using directory synchronization make sure the recipient's email address is synced correctly in both Office 365 and in your on-premises directory.

Errant forwarding rule - Check for forwarding rules that aren't behaving as expected. Forwarding can be set up by an admin via mail flow rules or mailbox forwarding address settings, or by the recipient via the Inbox Rules feature.

Mail flow settings and MX records are not correct - Misconfigured mail flow or MX record settings can cause this error. Check your Office 365 mail flow settings to make sure your domain and any mail flow connectors are set up correctly. Also, work with your domain registrar to make sure the MX records for your domain are configured correctly.

For more information and additional tips to fix this issue, see [Fix email delivery issues for error code 550 5.1.1 in Office 365](#).

Original Message Details

Created Date: 9/26/2019 7:02:56 AM
Sender Address: Projects@arcusconsulting.co.za
Recipient Address: ClaireT@L2B.co.za
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Error Details

Reported error: 550 5.1.1 Recipient unknown <ClaireT@L2B.co.za>
DSN generated by: CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM
Remote server: mail.l2b.co.za

Message Hops

HOP	TIME (UTC)	FROM	TO	WITH
1	9/26/2019 7:02:56 AM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	mapi
2	9/26/2019 7:02:56 AM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM	Microsoft cipher=TL

Original Message Headers

ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKvMYTBUdDCliHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
mawCFxH4sJCaVWoIAmkstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2llluL5VUzRp9O9JrHVZ9q2uju5
gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9t
D1SXoVRLG6PpAxldCCvcOufZe87YIcaMnCNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5R9Mub9wFA
==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;

h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRACjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aTOszp2XZsmcw2xJsr3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneL
eJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o0
8WlZRL3zZth8fPLfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGk
W7Vq/UkX9hqWJ1+Qxg3BcApfTsZZXNT3KUF5aUR+Flt7UGg+ZNRIrI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA
==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass

smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRACjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+DqofxlkrAxhXFpw8h3rHgci/ct3NGEln/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process

Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process

Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==

Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>

Return-Receipt-To: <Projects@arcusconsulting.co.za>

Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:

<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(199004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(99936001)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(99286004)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002)(8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT;SFP:1102;SCL:1;SRVR: CWLP265MB1585;H: CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:None;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
received-spf: None (protection.outlook.com: arcusconsulting.co.za does not designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqeM/8pDxOj3mieHmdM4Ft7hzwWCdwVdxx5DLpCNhlJKAmY9m/JkOsGPmkLzxR7R6Rhq/39zaYYdG1k0xcMviTB+EqOwBbfqUQCMVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLxQGejHCCyHlh11TC00JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJngyGf1+Ke5ChITJ1/983tnRAvEbnbz6KDshRmiHtK/fmfMLg94RFFGye8kRlKiA3ZRDps/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r51vTcfwf/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU0ovLQZo1opkglAVrvPnKLh55F2ZDRQNjmnWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-OriginatorOrg: arcusconsulting.co.za
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581
(UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname:
IZKLC0eqZEi31oE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585

Sophie Williams

From: postmaster@ecpta.onmicrosoft.com
To: info@ecpta.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

info@ecpta.co.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: paardevlei@adsactive.com
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

paardevelei@adsactive.com (paardevelei@adsactive.com)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: transkaroo@eik.co.za; jdv@eik.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

transkaroo@eik.co.za (transkaroo@eik.co.za)

jdv@eik.co.za (jdv@eik.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: office@sessa.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

office@sessa.org.za (office@sessa.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: attsec@mindek.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

attsec@mindek.co.za (attsec@mindek.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@triotrust.co.za
To: hennie@triotrust.co.za
Sent: 26 September 2019 10:03
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

hennie@triotrust.co.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Postmaster and Abuse Reporting
E-mail: postmaster@triotrust.co.za
Tel:

Disclaimer

The provisions of Section 11 of the Electronic Communications and Transactions Act 25 of 2002 apply to this email notice and make it enforceable and binding on the recipient/addressee. This email message (including attachments) contains information which may be confidential and/or legally privileged. Unless you are the intended recipient, you may not use, copy or disclose to anyone the message or any information contained in the message or from any attachments that were sent with this email, and if you have received this email message in error, please advise the sender by email, and delete the message. Unauthorised disclosure and/or use of information contained in this email may result in civil and criminal liability. The e-mail address of the sender may not be used, copied, sold, disclosed or incorporated into any database or mailing list for spamming and/or other marketing purposes without prior consent. The sender of the e-mail, shall not be liable to any party for any direct, indirect or consequential damages, including, without limitation, loss of profit, interruption of business or loss of information, data or software or otherwise



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: kate@iws-sa.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

kate@iws-sa.co.za (kate@iws-sa.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: pixley@telkomsa.net
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

pixley@telkomsa.net (pixley@telkomsa.net)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Mail Delivery System <MAILER-DAEMON@mailgate.sao.ac.za>
To: williams@sao.ac.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This is the mail system at host mailgate.sao.ac.za.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<williams@sao.ac.za>: delivery via mailgate.sao.ac.za[/tmp/dspam.sock]: 250



Message | Headers

2.6.0 <williams@sao.ac.za> Message accepted for delivery

Sophie Williams

From: Microsoft Outlook
To: Mdakanep@dwa.gov.za; MakhanyaP@dwa.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Mdakanep@dwa.gov.za (Mdakanep@dwa.gov.za)

MakhanyaP@dwa.gov.za (MakhanyaP@dwa.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: enquiry@arc.agric.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

enquiry@arc.agric.za (enquiry@arc.agric.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Mail Delivery System <MAILER-DAEMON@mail.snowisp.com>
To: sdippenaar@snowisp.com
Sent: 26 September 2019 10:03
Subject: Expanded: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This is the mail system at host mail.snowisp.com.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system



Message Headers

<sdippenaar@snowisp.com>: alias expanded

Sophie Williams

From: postmaster@agrisa.co.za
To: thea@agrisa.co.za
Sent: 26 September 2019 10:03
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

thea@agrisa.co.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: bhelinda.mtamo@dedea.gov.za; nondwe.mdekazi@dedea.gov.za; gerry.pienaar@dedea.gov.za; fezeka.boyi@dedea.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

bhelinda.mtamo@dedea.gov.za (bhelinda.mtamo@dedea.gov.za)

nondwe.mdekazi@dedea.gov.za (nondwe.mdekazi@dedea.gov.za)

gerry.pienaar@dedea.gov.za (gerry.pienaar@dedea.gov.za)

fezeka.boyi@dedea.gov.za (fezeka.boyi@dedea.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Mail Delivery System <MAILER-DAEMON@mailgate.saa.ac.za>
To: salt@salt.ac.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

This is the mail system at host mailgate.saa.ac.za.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<salt@salt.ac.za>: delivery via mailgate.saa.ac.za[/tmp/dspam.sock]: 250 2.6.0



Message | leaders

<salt@salt.ac.za> Message accepted for delivery

Sophie Williams

From: Microsoft Outlook
To: info@dot.gov.za; selepeg@dot.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

[info@dot.gov.za \(info@dot.gov.za\)](mailto:info@dot.gov.za)

[selepeg@dot.gov.za \(selepeg@dot.gov.za\)](mailto:selepeg@dot.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: cira.ngetu@deaet.ecape.gov.za; mncedisi.makosonke@deaet.ecape.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

cira.ngetu@deaet.ecape.gov.za (cira.ngetu@deaet.ecape.gov.za)

mncedisi.makosonke@deaet.ecape.gov.za (mncedisi.makosonke@deaet.ecape.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: dionne@umsobomvumun.co.za; ncedo@umsobomvumun.co.za;
mosomphat@umsobomvumun.co.za; simphiwe@umsobomvumun.co.za;
wminnie@umsobomvumun.co.za; mpela@umsobomvumun.co.za;
birtus@umsobomvumun.co.za; sbrown@umsobomvumun.co.za;
mstetile@umsobomvumun.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

dionne@umsobomvumun.co.za (dionne@umsobomvumun.co.za)

ncedo@umsobomvumun.co.za (ncedo@umsobomvumun.co.za)

mosomphat@umsobomvumun.co.za (mosomphat@umsobomvumun.co.za)

simphiwe@umsobomvumun.co.za (simphiwe@umsobomvumun.co.za)

wminnie@umsobomvumun.co.za (wminnie@umsobomvumun.co.za)

mpela@umsobomvumun.co.za (mpela@umsobomvumun.co.za)

birtus@umsobomvumun.co.za (birtus@umsobomvumun.co.za)

sbrown@umsobomvumun.co.za (sbrown@umsobomvumun.co.za)

mstetile@umsobomvumun.co.za (mstetile@umsobomvumun.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: postmaster@wessa.co.za
To: jnbadmin@wessa.co.za
Sent: 26 September 2019 10:03
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

jnbadmin@wessa.co.za

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: thandeka.nohoyeka@transnet.net; eddie.seaton@transnet.net; williezietsman@transnet.net; willie.ziedsman@transnet.net
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

thandeka.nohoyeka@transnet.net (thandeka.nohoyeka@transnet.net)

eddie.seaton@transnet.net (eddie.seaton@transnet.net)

williezietsman@transnet.net (williezietsman@transnet.net)

willie.ziedsman@transnet.net (willie.ziedsman@transnet.net)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: Dekockr@nra.co.za; Abrahamsn@nra.co.za; Kleinhansm@nra.co.za; runkelc@nra.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Dekockr@nra.co.za (Dekockr@nra.co.za)

Abrahamsn@nra.co.za (Abrahamsn@nra.co.za)

Kleinhansm@nra.co.za (Kleinhansm@nra.co.za)

runkelc@nra.co.za (runkelc@nra.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: Zukiswa.Ngwane@dpw.ecape.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Zukiswa.Ngwane@dpw.ecape.gov.za (Zukiswa.Ngwane@dpw.ecape.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: mzwandile@iym.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

mzwandile@iym.gov.za (mzwandile@iym.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: mariusn@gcis.gov.za; ndlelantle@gcis.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

mariusn@gcis.gov.za (mariusn@gcis.gov.za)

ndlelantle@gcis.gov.za (ndlelantle@gcis.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: ZINTLEH@ecdhs.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

ZINTLEH@ecdhs.gov.za (ZINTLEH@ecdhs.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: tvandermerwe@environment.gov.za; Smambane@environment.gov.za;
wmandivenyi@environment.gov.za; smalete@environment.gov.za;
smunzhedzi@environment.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

tvandermerwe@environment.gov.za (tvandermerwe@environment.gov.za)

Smambane@environment.gov.za (Smambane@environment.gov.za)

wmandivenyi@environment.gov.za (wmandivenyi@environment.gov.za)

smalete@environment.gov.za (smalete@environment.gov.za)

smunzhedzi@environment.gov.za (smunzhedzi@environment.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: AbrahamsA@dws.gov.za; SchraderC@dws.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

AbrahamsA@dws.gov.za (AbrahamsA@dws.gov.za)

SchraderC@dws.gov.za (SchraderC@dws.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: Sunday.mabaso@dmr.gov.za; nwabisa.qwanyashe@dmr.gov.za;
Azwihangwisi.Mulaudzi@dmr.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Sunday.mabaso@dmr.gov.za (Sunday.mabaso@dmr.gov.za)

nwabisa.qwanyashe@dmr.gov.za (nwabisa.qwanyashe@dmr.gov.za)

Azwihangwisi.Mulaudzi@dmr.gov.za (Azwihangwisi.Mulaudzi@dmr.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: ithatelo@salga.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

[ithatelo@salga.org.za \(ithatelo@salga.org.za\)](mailto:ithatelo@salga.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: amabunda@grand.ncape.gov.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Your message to amabunda@grand.ncape.gov.za couldn't be delivered.

[amabunda](#) wasn't found at grand.ncape.gov.za, or the mailbox is unavailable.

Projects	Office 365	amabunda
Action Required		Recipient
Unknown To address		

How to Fix It

The email address might be misspelled or it might not exist. Try one or more of the following:

- **Retype the recipient's address, then resend the message** - If you're using Outlook, open this non-delivery report message and click **Send Again** from the menu or ribbon. In Outlook on the web, select this message, and then click the "**To send this message again, click here.**" link located just above the message preview window. In the To or Cc line, delete and then retype the entire recipient's address (ignore any address suggestions). After typing the complete address, click **Send** to resend the message. If you're using an email program other than Outlook or Outlook on the web, follow its standard way for resending a message. Just be sure to delete and retype the recipient's entire address before resending it.
- **Remove the recipient from the recipient Auto-Complete List, then resend the message** - If you're using Outlook or Outlook on the web, follow the steps in the "Remove the recipient from the recipient Auto-Complete List" section of [this article](#). Then resend the message. Be sure to delete and retype the recipient's entire address before clicking **Send**.
- **Contact the recipient by some other means**, (by phone, for example) to confirm you're using the right address. Ask them if they've set up an email forwarding rule that could be forwarding your message to an incorrect address.

If the problem continues, forward this message to your email admin. If you're an email admin, refer to the **More Info for Email Admins** section below.

Was this helpful? [Send feedback to Microsoft.](#)

More Info for Email Admins

Status code: 550 5.1.351

When Office 365 tried to send the message, the external email server returned an error stating that the recipient is unknown or the mailbox is unavailable. This error was reported by an email server outside Office 365.

If you or the sender can't fix the problem, contact the responsible party's email admin - Give them the error code and error message from this non-delivery report (NDR) to help them troubleshoot the issue. To determine who the responsible party might be, check the error for information about where the problem is happening. For example, look for a domain name like contoso.com. A domain name in the error might suggest who is responsible for the error. It could be the recipient's email server, or it could be a third-party service that your organization or the recipient's organization is using to process or filter email messages.

Although the sender might be able to fix the issue by correcting the recipient address, it's likely that only the recipient's email admin can fix the problem. Unfortunately, it's unlikely Office 365 Support will be able to help with these kinds of externally reported errors.

Original Message Details

Created Date: 9/26/2019 7:02:56 AM
Sender Address: Projects@arcusconsulting.co.za
Recipient Address: amabunda@grand.ncape.gov.za
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Error Details

Reported error: *550 5.1.351 Remote server returned unknown recipient or mailbox unavailable -> 550 rejected because recipient verify failed - user not found*
DSN generated by: CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM
Remote server: securemail-pl-mx7.synaq.com

Message Hops

HOP	TIME (UTC)	FROM	TO	WITH
1	9/26/2019 7:02:56 AM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	mapi

Original Message Headers

ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKVMYTBUDcliHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
mawCFxH4sjCaVWoIAmkstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2lluL5VUZRp9O9JrHVZ9q2uju5
gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9t
D1SXoVrL6GpPAxldCCvcOufZe87YIcaMNCNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wfa
==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;

h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRACjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aT0szp2XZsmcw2xJsr3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneL
eJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o0
8WlzlRL3zZth8fPlfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGk
W7Vq/UkX9hqWJl+Qxg3BcApfTsZZXNT3KUF5aUR+Flt7UGg+ZNRIrI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA
==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnIAPFGuRACjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+Dqofx1krAxhXFpw8h3rHgci/ct3NGElN/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process

Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process

Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==

Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>

Return-Receipt-To: <Projects@arcusconsulting.co.za>

Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(199004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(99936001)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(99286004)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002)(8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT;SFP:1102;SCL:1;SRVR:CWLP265MB1585;H:CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:None;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
received-spf: None (protection.outlook.com: arcusconsulting.co.za does not designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqem/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNhlJKAmY9m/JkOsGPmkLzxR7R6Rhq/39zaYYdG1k0xcMviTB+EqOwBbfqUQCMVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLxQGejHCCyHlh11TC0JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJnqyGf1+Ke5ChITJ1/983tnRAvEbnbz6KDshRMiHtK/fmMLg94RFFGye8kRlKiA3ZRDps/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r51vTcfwf/Bw6p5DKkm8+K91nwrI8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU0OvLQZo1opkgblAVrvPnKlh55F2ZDRQnjmNWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-OriginatorOrg: arcusconsulting.co.za
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname: IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDmbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585

Sophie Williams

From: Microsoft Outlook
To: muna@iafrica.com
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

muna@iafrica.com (muna@iafrica.com)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: Vuyokazi.sangoni@ecdsd.gov.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Vuyokazi.sangoni@ecdsd.gov.za (Vuyokazi.sangoni@ecdsd.gov.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: ShawLS@telkom.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

ShawLS@telkom.co.za (ShawLS@telkom.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: lourensl@ewt.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

lourensl@ewt.org.za (lourensl@ewt.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: makayam@atns.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

makayam@atns.co.za (makayam@atns.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: mario.bratz@yahoo.com
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

mario.bratz@yahoo.com (mario.bratz@yahoo.com)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: alwyn@saaea.org
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

alwyn@saaea.org (alwyn@saaea.org)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: vbaduza@sahra.org.za; nhiggitt@sahra.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

vbaduza@sahra.org.za (vbaduza@sahra.org.za)

nhiggitt@sahra.org.za (nhiggitt@sahra.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: info@experiencenortherncape.com
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

info@experiencenortherncape.com (info@experiencenortherncape.com)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: Rudzani.Nemukula@wessa.co.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Your message to Rudzani.Nemukula@wessa.co.za couldn't be delivered.

[Rudzani.Nemukula](mailto:Rudzani.Nemukula@wessa.co.za) wasn't found at wessa.co.za.

Projects	Office 365	Rudzani.Nemukula
Action Required		Recipient
Unknown To address		

How to Fix It

The address might be misspelled or might not exist. Try one or more of the following:

- **Retype the recipient's address, then resend the message** - If you're using Outlook, open this non-delivery report message and click **Send Again** from the menu or ribbon. In Outlook on the web, select this message, and then click the "**To send this message again, click here.**" link located just above the message preview window. In the To or Cc line, delete and then retype the entire recipient's address (ignore any address suggestions). After typing the complete address, click **Send** to resend the message. If you're using an email program other than Outlook or Outlook on the web, follow its standard way for resending a message. Just be sure to delete and retype the recipient's entire address before resending it.
- **Remove the recipient from the recipient Auto-Complete List, then resend the message** - If you're using Outlook or Outlook on the web, follow the steps in the "Remove the recipient from the recipient Auto-Complete List" section of [this article](#). Then resend the message. Be sure to delete and retype the recipient's entire address before clicking **Send**.
- **Contact the recipient by some other means**, (by phone, for example) to confirm you're using the right address. Ask them if they've set up an email forwarding rule that could be forwarding your message to an incorrect address.

If the problem continues, ask the recipient to tell their email admin about the problem, and give them the error (and the name of the server that reported it) shown below. It's likely that only the recipient's email admin can fix this problem.

Was this helpful? [Send feedback to Microsoft.](#)

More Info for Email Admins

Status code: 550 5.4.1

This error occurred because a message was sent to an email address hosted by Office 365, but the address doesn't exist in the receiving organization's Office 365 directory. Directory Based Edge Blocking (DBEB) is enabled for wessa.co.za, and DBEB rejects messages addressed to recipients who don't exist in the receiving organization's Office 365 directory. This error is reported by the recipient domain's email server, but most often it can be fixed by the person who sent the message. If the steps in the **How to Fix It** section above don't fix the problem, and you're the email admin for the recipient, try one or more of the following:

Check that the email address exists and is correct - Confirm that the recipient address exists in your Office 365 directory, is correct, and is accepting messages.

Synchronize your directories - Make sure directory synchronization is working correctly, and that the recipient's email address exists in both Office 365 and in your on-premises directory.

Check for errant forwarding rules - Check for forwarding rules for the original recipient that might be trying to forward the message to an invalid address. Forwarding can be set up by an admin via mail flow rules or mailbox forwarding address settings, or by the recipient via the Forwarding or Inbox Rules features.

Make sure the recipient has a valid license - Make sure the recipient has an Office 365 license assigned to them. The recipient's email admin can use the Office 365 admin center to assign a license to them (Users > Active Users > Select the recipient > Assigned License > Edit).

Make sure that mail flow settings and MX records are correct - Misconfigured mail flow or MX record settings can cause this error. Check your Office 365 mail flow settings to make sure your domain and any mail flow connectors are set up correctly. Also, work with your domain registrar to make sure the MX records for your domain are set up correctly.

For more information and additional tips to fix this issue, see [this article](#).

Original Message Details

Created Date:	9/26/2019 7:02:56 AM
Sender Address:	Projects@arcusconsulting.co.za
Recipient Address:	Rudzani.Nemukula@wessa.co.za
Subject:	Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Error Details

Reported error: 550 5.4.1 [Rudzani.Nemukula@wessa.co.za]: Recipient address rejected: Access denied [HE1EUR01FT016.eop-EUR01.prod.protection.outlook.com]
DSN generated by: CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM
Remote server: HE1EUR01FT016.mail.protection.outlook.com

Message Hops

HOP	TIME (UTC)	FROM	TO	WITH
1	9/26/2019 7:02:56 AM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	map
2	9/26/2019 7:02:56 AM	CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM	CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM	Microsoft cipher=TL

Original Message Headers

ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfKzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qkVmYTBUDClIHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7mawCFxH4sJCaVWoIAmKstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2llul5VUzRp9O9JrHVZ9q2uju5gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9tD1SXoVRlG6PpAxldCCvcOufZe87YIcaMnCNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wfa==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com; s=arcselector9901;

h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck; bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aTOszp2XZsmcw2xJsr3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneLeJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o08W1zRL3zZth8fPLfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGkW7Vq/UkX9hqwJl+Qxg3BcApfTsZZXNT3KUF5aUR+F1t7UGg+ZNRIRI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass

smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none

header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za; arc=none

DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;

d=arcusconsultingltd.onmicrosoft.com;

s=selector1-arcusconsultingltd-onmicrosoft-com;

h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;

bh=RQMULxnIAPFGuRacjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguYIsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+Dqofx1krAxhXFpw8h3rHgci/ct3NGElN/AvILpN/jbl/eWNDPzvVpAE=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id 15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000

From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>
Return-Receipt-To: <Projects@arcusconsulting.co.za>
Date: Thu, 26 Sep 2019 07:02:56 +0000

Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(1
99004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8
676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)
(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(9993600
1)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(9928600
4)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002
) (8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)
(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT
;SFP:1102;SCL:1;SRVR: CWLP265MB1585;H: CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF: N
one;LANG:en;PTR: InfoNoRecords;MX:1;A:1;

received-spf: None (protection.outlook.com: arcusconsulting.co.za does not
designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;
x-microsoft-antispam-message-info:
wTAIj6fbWqem/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNhLJKAmY9m/JkOsGPmkLzXR7R6Rhg/39zaYYdG1
k0xcMviTB+EqOwBbfqUQCMVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLx
QGejHCCyHlh11TC00JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJnqyGf1+Ke5ChITJ1/983tnRA
vEbnbz6KDshRMiHtK/fmMLg94RFFGye8kRlKiA3ZRDPs/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r51vTcfwf

/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU00vLQZo1opkgblAVrvPnKLh55F2ZDRQNjmNWGSx39Y2v+RtjCKjXLzY7tp+U9Q==

Content-Type: multipart/mixed;

boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"

MIME-Version: 1.0

X-OriginatorOrg: arcusconsulting.co.za

X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e

X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581

(UTC)

X-MS-Exchange-CrossTenant-fromentityheader: Hosted

X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80

X-MS-Exchange-CrossTenant-mailboxtype: HOSTED

X-MS-Exchange-CrossTenant-userprincipalname:

IZKLc0eqZEi3loE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMyNkJJeJMVUdSnpGDbAcnATk=

X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585

Sophie Williams

From: Microsoft Outlook
To: tollie@isat.co.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

tollie@isat.co.za (tollie@isat.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: atiplady@ska.ac.za; temonama@ska.ac.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

atiplady@ska.ac.za (atiplady@ska.ac.za)

temonama@ska.ac.za (temonama@ska.ac.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: stefan@safcei.org.za
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

stefan@safcei.org.za (stefan@safcei.org.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: tomvdwalt@gmail.com; thozi.man@gmail.com; mtrc.ltd@gmail.com; potfontein@gmail.com; karoonegroup@gmail.com; madaboutbats@gmail.com; alfranzosmit@gmail.com; n.paardevlei@gmail.com; beskuitfontein@gmail.com; elizetaljaard5@gmail.com
Sent: 26 September 2019 10:03
Subject: Relayed: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

tomvdwalt@gmail.com (tomvdwalt@gmail.com)

thozi.man@gmail.com (thozi.man@gmail.com)

mtrc.ltd@gmail.com (mtrc.ltd@gmail.com)

potfontein@gmail.com (potfontein@gmail.com)

karoonegroup@gmail.com (karoonegroup@gmail.com)

madaboutbats@gmail.com (madaboutbats@gmail.com)

alfranzosmit@gmail.com (alfranzosmit@gmail.com)

n.paardevlei@gmail.com (n.paardevlei@gmail.com)

beskuitfontein@gmail.com (beskuitfontein@gmail.com)

elizetaljaard5@gmail.com (elizetaljaard5@gmail.com)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: phumla@gcis.co.za
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

phumla@gcis.co.za (phumla@gcis.co.za)

Your message couldn't be delivered. The Domain Name System (DNS) reported that the recipient's domain does not exist.

Contact the recipient by some other means (by phone, for example) and ask them to tell their email admin that it appears that their domain isn't properly registered at their domain registrar. Give them the error details shown below. It's likely that the recipient's email admin is the only one who can fix this problem.

For more information and tips to fix this issue see this article:
<https://go.microsoft.com/fwlink/?LinkId=389361>.

Diagnostic information for administrators:

Generating server: CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM

phumla@gcis.co.za

Remote Server returned '550 5.4.310 DNS domain gcis.co.za does not exist [Message=InfoDomainNonexistent] [LastAttemptedServerName=gcis.co.za] [CWLGBR01FT016.eop-gbr01.prod.protection.outlook.com]'

Original message headers:

ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKVmYTBUDClIHoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7mawCFxH4sjCaVWoIAMkstjcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2lluL5VUzRp9O9JrHVZ9q2uju5gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHPj/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteaP+GcYgNT2Rbg9tD1SXoVRLG6PpAxldCCvcOufZe87YIcaMNCNwPAP73pvJkg/jUJBR07ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wFA==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com; s=arcselector9901;

h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck; bh=RQMULxnIAPfGuRAcjlYH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=aT0szp2XZsmcw2xJsR3wuouR2pNYYZ2EzVcPf2FcmxOHme2ZbObDwD/UfVgaAzd+7i0SJ3Vlc5NYO0XobneLeJ8RvoFJReJJ9HT+mp2QBs7Fo99pi8MBFUyd6LlRXoaI8Ii+fmUKqRPiNn3eYzmKPJTHjV+hfGj6AqmJ5ij4o08W1zRL3zZth8fPLfjCeWeZXJ5MxLY+YlrBza+vOPFeQ5A8pmkQbZwQYoThbfCU01Yk4oMMwjYHaYzeFCFNOWGkW7Vq/UkX9hqwJ1+Qxg3BcApfTsZZXNT3KUF5aUR+F1t7UGg+ZNRIRI+sUriwZzdLdavMuJHJV5KaCZS3/h8/NA==

ARC-Authentication-Results: i=1; mx.microsoft.com 1; spf=pass
smtp.mailfrom=arcusconsulting.co.za; dmarc=pass action=none
header.from=arcusconsulting.co.za; dkim=pass header.d=arcusconsulting.co.za;
arc=none
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=arcusconsultingltd.onmicrosoft.com;
s=selector1-arcusconsultingltd-onmicrosoft-com;
h=From:Date:Subject:Message-ID:Content-Type:MIME-Version:X-MS-Exchange-SenderADCheck;
bh=RQMULxnlApFGuRACjlyH4EXY7ViwoJ+ZJjbIUlTp/sU=;

b=mzcsYolXJj9dQPI/wZylCwNlGlySnlctot/Z+aiXrIEZwC3csFaKHF7sFkXjk3P7+ddqDesHMY0dpvgbDguY
IsLVyCZ7okCfLYnyF0HPYCoYnEHY6jp+Dqofx1krAxhXFpw8h3rHgci/ct3NGElN/AvILpN/jbl/eWNDPzvVpA
E=

Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM (20.176.34.145) by
CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM (20.176.33.19) with Microsoft SMTP
Server (version=TLS1_2, cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id
15.20.2305.17; Thu, 26 Sep 2019 07:02:56 +0000
Received: from CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76]) by CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM
([fe80::40fd:9b6f:199e:8b76%7]) with mapi id 15.20.2284.023; Thu, 26 Sep 2019
07:02:56 +0000
From: Projects <Projects@arcusconsulting.co.za>
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF
Amendments and Basic Assessment Process
Thread-Topic: Notification of Availability of the San Kraal and Phezukomoya
WEF Amendments and Basic Assessment Process
Thread-Index: Adv0NbEZpQG0eCA2T9yLh2S4L0hEZQ==
Disposition-Notification-To: Projects <Projects@arcusconsulting.co.za>
Return-Receipt-To: <Projects@arcusconsulting.co.za>
Date: Thu, 26 Sep 2019 07:02:56 +0000
Message-ID:
<CWLP265MB1089872E0EE5B2AD7A19DD2A93860@CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM>
Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
authentication-results: spf=none (sender IP is)
smtp.mailfrom=Projects@arcusconsulting.co.za;
x-ms-exchange-messagesentrepresentingtype: 1
x-originating-ip: [196.22.229.227]
x-ms-publictraffictype: Email
x-ms-office365-filtering-correlation-id: 94abc114-a289-48c7-c834-08d7424f8f3e
x-ms-trafficdiagnostic: CWLP265MB1585:
x-ms-exchange-purlcount: 3
x-ms-exchange-transport-forked: True
x-microsoft-antispam-prvs:
<CWLP265MB1585DC63A3769CB68CC314D481860@CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM>
x-ms-oob-tlc-oobclassifiers: OLM:262;
x-forefront-prvs: 0172F0EF77
x-forefront-antispam-report:
SFV:NSPM;SFS:(10019020)(376002)(346002)(39840400004)(366004)(136003)(396003)(189003)(1
99004)(6116002)(33656002)(3846002)(7110500001)(861006)(81166006)(81156014)(10916006)(8
676002)(6436002)(733005)(6306002)(54896002)(15650500001)(55016002)(2420400007)(236005)
(80792005)(9686003)(6862004)(626008)(316002)(2906002)(25786009)(476003)(26005)(9993600
1)(14454004)(256004)(478600001)(88996005)(5024004)(14444005)(486006)(86362001)(9928600
4)(606006)(186003)(5660300002)(7696005)(71190400001)(71200400001)(6200100001)(74316002
) (8936002)(7736002)(52536014)(66556008)(66576008)(66476007)(7276002)(7336002)(7366002)
(7416002)(64756008)(66446008)(7406005)(66946007)(102836004)(66066001)(6506007);DIR:OUT
;SFP:1102;SCL:1;SRVR: CWLP265MB1585;H: CWLP265MB1089.GBRP265.PROD.OUTLOOK.COM;FPR:;SPF:N
one;LANG:en;PTR:InfoNoRecords;MX:1;A:1;
received-spf: None (protection.outlook.com: arcusconsulting.co.za does not
designate permitted sender hosts)
x-ms-exchange-senderadcheck: 1
x-microsoft-antispam: BCL:0;

x-microsoft-antispam-message-info:
wTAIj6fbWqeM/8pDxOj3mieHmdM4Ft7hzwWCdwVdxs5DLpCNhlJKAmY9m/JkOsGPmkLzxR7R6Rhg/39zaYYdG1
k0xcMviTB+EqOwBbfqUQCMVucSXiPkXY9rXE0i4CnctPqDsdvcaR5mYDdzpw3Iv/IspKC3uE42E/oOfyZ9BDLx
QGejHCCyHlh11TC00JnmsOVXz1fXHowUWX9CeCEAN+kP38ckkbla9tXGtU+ETJnqyGf1+Ke5ChITJ1/983tnRA
vEbnbz6KDshRmiHtK/fmfMLg94RFFGye8kRlKiA3ZRDps/7VicXxiRkfreX3f2uhS6Dee+yB0gII/r5lvTcfwf
/Bw6p5DKkm8+K91nwRi8xe+bElXiPdTFMb9P1Ey9Z4JDCOk0mnKKzKPNyeRClPwU0OvLQZo1opkglAVrvPnKL
h55F2ZDRQNjmNWGSx39Y2v+RtjCKjXLzY7tp+U9Q==
Content-Type: multipart/mixed;
 boundary="_007_CWLP265MB1089872E0EE5B2AD7A19DD2A93860CWLP265MB1089GBRP_"
MIME-Version: 1.0
X-OriginatorOrg: arcusconsulting.co.za
X-MS-Exchange-CrossTenant-Network-Message-Id: 94abc114-a289-48c7-c834-08d7424f8f3e
X-MS-Exchange-CrossTenant-originalarrivaltime: 26 Sep 2019 07:02:56.7581
 (UTC)
X-MS-Exchange-CrossTenant-fromentityheader: Hosted
X-MS-Exchange-CrossTenant-id: d9bba7f2-9d82-4ebf-8cec-bcd827e07f80
X-MS-Exchange-CrossTenant-mailboxtype: HOSTED
X-MS-Exchange-CrossTenant-userprincipalname:
IZKLc0eqZEi31oE5q4Qlyc8ItCoIwiNC3cXVPofwEJKv/ZKebhvp2mhDHIbFGvcAT6emeDEDMbrnW+Kxfh0dMy
NkJJeJMVUdSnpGDbAcnATk=
X-MS-Exchange-Transport-CrossTenantHeadersStamped: CWLP265MB1585

Sophie Williams

From: Microsoft Outlook
To: Projects
Sent: 26 September 2019 10:03
Subject: Delivered: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Your message has been delivered to the following recipients:

[Projects \(Projects@arcusconsulting.co.za\)](mailto:Projects@arcusconsulting.co.za)

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process



Notification of
Availability o...

Sophie Williams

From: Microsoft Outlook
To: mzolisi.matutu@srac.ecprov.gov.zal
Sent: 26 September 2019 10:03
Subject: Undeliverable: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Delivery has failed to these recipients or groups:

mzolisi.matutu@srac.ecprov.gov.zal (mzolisi.matutu@srac.ecprov.gov.zal)

Your message couldn't be delivered. The Domain Name System (DNS) reported that the recipient's domain does not exist.

Contact the recipient by some other means (by phone, for example) and ask them to tell their email admin that it appears that their domain isn't properly registered at their domain registrar. Give them the error details shown below. It's likely that the recipient's email admin is the only one who can fix this problem.

For more information and tips to fix this issue see this article:
<https://go.microsoft.com/fwlink/?LinkId=389361>.

Diagnostic information for administrators:

Generating server: CWLP265MB1585.GBRP265.PROD.OUTLOOK.COM

mzolisi.matutu@srac.ecprov.gov.zal
Remote Server returned '550 5.4.310 DNS domain srac.ecprov.gov.zal does not exist
[Message=InfoDomainNonexistent] [LastAttemptedServerName=srac.ecprov.gov.zal] [CWLGBR01FT015.eop-gbr01.prod.protection.outlook.com]'

Original message headers:

ARC-Seal: i=1; a=rsa-sha256; s=arcselector9901; d=microsoft.com; cv=none;

b=QNN0FQfkzK6JYZE6YhFiBZkWGOS3sJUNdz5AA5qKVmYTBUDCl1HoDtRBJCunBklogR7Lt0SBdOP8ugSeGK7
mawCFxH4s jCaVWoIAmkst jcvl2tGgtaCNXFmqBNh5D8AdfXrzYAJpEgt9cLl2llul5VUzRp909JrHVZ9q2uju5
gpeKscDiCbEHeOk1H9BCGt4S2PgEJPKHP j/N/rjtIFsHS9+ZF9AnKgaegfZe0Vvx+nLDjteap+GcYgNT2Rbg9t
D1SXoVRLG6PpAxldCCvcOufZe87YIcaMNCNwPAP73pvJkg/jUJBRo7ecZMsHvOTx8CL3jJLSAuG5RG9Mub9wFA
==

ARC-Message-Signature: i=1; a=rsa-sha256; c=relaxed/relaxed; d=microsoft.com;
s=arcselector9901;
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Amendments and Basic Assessment Process
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PLZ ☒ (041) 581-4612	PMB ☒ (033) 342-6756	PRY ☒ (012) 742-0300	PTG ☒ (015) 297-7798	RBG ☒ (014) 596-7775	RCB ☒ (087) 350-0657	STB ☒ (021) 867-8160	VAAL ☒ (016) 933-4297

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1 DATE 15/10/2019

2	YOUR DETAILS HERE	SENDER'S NAME	ANEESAH ALWIE	
		YOUR CELL PHONE NO. (VERY IMPORTANT)	0790523776	
		COMPANY NAME (IF APPLICABLE)	ARCUS CONSULTANCY SERVICES SA (PTY) LTD	
		STREET ADDRESS	OFFICE 607, CUBE W6 ICON BUILDING, CAPE TOWN, 8001	
		CITY/TOWN	CAPE TOWN	VERY IMPORTANT
		SENDER'S REFERENCE	14/12/16/3/3/2/1028 and 1029 / 1/AMI & 2/AMI	SENDERS 8001 CODE
SENDER'S EMAIL ADDRESS		aneesah@arcusconsulting.co.za		

3	RECEIVER'S DETAILS	RECEIVER'S NAME	EIA ADMIN FOR A.ESSOP and C. Musemburi	
		RECEIVER'S CELL PHONE NO. (VERY IMPORTANT)	012 399 8529 / 012 399 9416	
		RECEIVER'S EMAIL ADDRESS	A.ESSOP@environment.gov.za / cmusemburi@environment.gov.za	
		COMPANY NAME (IF APPLICABLE)	Department of Environmental Affairs, Integrated Environmental Authority	
		EXACT STREET ADDRESS (P.O. BOX NOT ACCEPTED)	Environment House, 473 Steve Biko Road	
		SUBURB	Arcadia	VERY IMPORTANT
		CITY/TOWN	Pretoria	DESTINATION CODE 0083 CODE
PROVINCE	Gauteng	SOUTH AFRICA		

4 SIGN HERE *Ae*

5	CONTENTS	2 X Envelopes with documents	SERVICE: ONX
	SPECIAL INSTRUCTIONS	Hand to Hand before 12h00 on Wednesday, 16/10/19	

CONDITIONS

The Shipper hereby declares the cargo has been secured in accordance with ICAO Standard (Annex 17), and has been received in a secure condition and protected from unauthorised access. The cargo is to be taken into company custody and the waybill is to be completed by the customer. The shipper certifies that the particulars of the face hereof are correct and that insofar as they relate to dangerous goods, such particulars are properly described by name and quantity in accordance with the applicable regulations and the Air Services Licensing Act No. 115 of 1990.

0/8

ACCEPTED BY ARAMEX	TIME
NAME: Michael	DATE: 15/10/19

RECEIVED IN GOOD ORDER AND CONDITION	PRINT NAME (BLOCK LETTERS)
TIME	DATE: 00/00/0000
SIGNATURE	

**APPENDIX G: ORIGINAL COMMENTS AND RESPONSES ON THE DRAFT
AMENDMENT REPORT**

Sophie Williams

From: Projects
Sent: 12 September 2019 09:58
To: mario.bratz@yahoo.com
Subject: RE: Ref:3329 Projects (fencing/civil works)

Good Day Mario

Thank you for your email and telephone call on 11 Spetember 2019 requesting to be registered as an I&AP.

You have been included as an I&AP for the San Kraal and Phezukomoya amendment and basic assessment application process.

Kind Regards

Aneesah Alwie
Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529
Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd
Office 220 Cube Workspace
Cnr Long Street and Hans Strijdom Ave
Cape Town
8001

www.arcusconsulting.co.za



From: Mario Bratz [mailto:mario.bratz@yahoo.com]
Sent: Saturday, September 7, 2019 13:59
To: Projects <Projects@arcusconsulting.co.za>
Subject: Ref:3329 Projects (fencing/civil works)

SWORN AFFIDAVIT - B-BBEE EXEMPTED MICRO ENTERPRISE - GENERAL

I, the undersigned,

Full name & Surname	MARIO IVAN BRATZ
Identity number	760123 5205 083

Hereby declare under oath as follows:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	SIYAJIKELEZA Developments (PTY) LTD
Trading Name (If Applicable):	SIYAJIKELEZA Developments PTY LTD
Registration Number:	2017-134367-07
Enterprise Physical Address:	09 Esau Road MIDROS MIDDELBURG E/CAPE 5900
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	(PTY) LTD
Nature of Business:	Civil construction, fencing
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians - (a) who are citizens of the Republic of South Africa by birth or descent, or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date."
Definition of "Black Designated Groups"	"Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

Contractor Grades

Grade: ICE PE, Update Date: 2018-07-04

Grade: ISQ PE, Update Date: 2018-10-30

Grade: ICB PE, Update Date: 2017-04-20

[Back](#)

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Website technical enquiries contact

3. I hereby declare under Oath that:

- The Enterprise is 100 % Black Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013.
- The Enterprise is 0 % Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013.
- The Enterprise is 100 % Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013.
- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = 0 %
 - Black Disabled % = 0 %
 - Black Unemployed % = 0 %
 - Black People living in Rural areas % = 0 %
 - Black Military Veterans % = 0 %

- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of 2018, the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less
- Please Confirm on the below table the B-BBEE Level Contributor, by ticking the applicable box.

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	X
At least 51% Black Owned	Level Two (125% B-BBEE procurement recognition level)	N/A
Less than 51% Black Owned	Level Four (100% B-BBEE procurement recognition level)	N/A

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.
5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: M. Bey

Date: 25/06/2019

(Signature)
Commissioner of Oaths
Signature & stamp





Contact Details

MR. MARIO BRATZ

Cell: 0799797829.

Email: mario.bratz@yahoo.com

Sophie Williams

From: Projects
Sent: 12 September 2019 09:59
To: Sherieve
Subject: RE: I&AP

Good Day Alfranzo

Thank you for your email. You have been included on the I&AP Database for the San Kraal and Phezukomoya WEF amendment and basic assessment application process.

Kind Regards

Aneesah Alwie
Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529
Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd
Office 220 Cube Workspace
Cnr Long Street and Hans Strijdom Ave
Cape Town
8001

www.arcusconsulting.co.za



From: Sherieve [mailto:alfranzosmit@gmail.com]
Sent: Wednesday, September 11, 2019 11:10
To: Projects <Projects@arcusconsulting.co.za>
Subject: I&AP

Good Morning

I would like to register as an I&AP for the projects around the Noupoort-Middleburg area. I'm a local from the area and a SMME owner. For both the wind energy and the solar energy projects. Hear from you soon.

WARM REGARDS
Alfranzo
0795008361
RIEVE SURVEYS (pty ltd)

Sophie Williams

From: John Geeringh <GeerinJH@eskom.co.za>
Sent: 27 September 2019 11:09
To: Projects
Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: Eskom requirements for work in or near Eskom servitudes WIND (3).doc; Renewable Energy Generation Plant Setbacks to Eskom Infrastructure Rev1 - signed.pdf

Please find attached the latest Eskom setbacks document with regard to renewable energy infrastructure in relation to Eskom infrastructure. Please ensure the applicant is aware of this document and its contents in terms of this amendment application. Should you have any queries, please contact me.

Kind regards

John Geeringh (Pr Sci Nat)
Senior Consultant Environmental Management
Eskom Transmission Division: Land & Rights
Megawatt Park, D1Y42, Maxwell Drive, Sunninghill, Sandton.
P O Box 1091, Johannesburg, 2000.
Tel: 011 516 7233
Cell: 083 632 7663
Fax: 086 661 4064
E-mail: john.geeringh@eskom.co.za



From: Projects [mailto:Projects@arcusconsulting.co.za]
Sent: 26 September 2019 09:03 AM
To: Projects
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public comment and review.

The following is available for public review:

- Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province
- Volume II - Specialist Impact Assessment Reports

Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupport Library, and website: www.arcusconsulting.co.za.

Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 220 Cube Workspace

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Cape Town

8001

www.arcusconsulting.co.za



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Eskom requirements for work at or near Eskom infrastructure.


1. Eskom's rights and services must be acknowledged and respected at all times.
2. Eskom shall at all times retain unobstructed access to and egress from its servitudes.
3. Eskom's consent does not relieve the developer from obtaining the necessary statutory, land owner or municipal approvals.
4. Any cost incurred by Eskom as a result of non-compliance to any relevant environmental legislation will be charged to the developer.
5. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the developer's activities or because of the presence of his equipment or installation within the servitude restriction area, the developer shall pay such costs to Eskom on demand.
6. The use of explosives of any type within 500 metres of Eskom's services shall only occur with Eskom's previous written permission. If such permission is granted the developer must give at least fourteen working days prior notice of the commencement of blasting. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued in terms of the blasting process. It is advisable to make application separately in this regard.
7. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's satisfaction.
8. Eskom shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the servitude area by the developer, his/her agent, contractors, employees, successors in title, and assignees. The developer indemnifies Eskom against loss, claims or damages including claims pertaining to consequential damages by third parties and whether as a result of damage to or interruption of or interference with Eskom's services or apparatus or otherwise. Eskom will not be held responsible for damage to the developer's equipment.
9. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the developer must give at least seven working days' notice prior to the commencement of work. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued by the relevant Eskom Manager

Note: Where and electrical outage is required, at least fourteen work days are required to arrange it.

10. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with.
11. Under no circumstances shall rubble, earth or other material be dumped within the servitude restriction area. The developer shall maintain the area concerned to Eskom's satisfaction. The developer shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.
12. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by *Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)*.
13. Equipment shall be regarded electrically live and therefore dangerous at all times.
14. In spite of the restrictions stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as an additional safety precaution, Eskom will not approve the erection of houses, or structures occupied or frequented by human beings, under the power lines or within the servitude restriction area.
15. Eskom may stipulate any additional requirements to highlight any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.
16. It is required of the developer to familiarise himself with all safety hazards related to Electrical plant.
17. Any third party servitudes encroaching on Eskom servitudes shall be registered against Eskom's title deed at the developer's own cost. If such a servitude is brought into being, its existence should be endorsed on the Eskom servitude deed concerned, while the third party's servitude deed must also include the rights of the affected Eskom servitude.

John Geeringh (Pr Sci Nat)

Senior Consultant Environmental Management
Eskom GC: Land Development

	SCOT	Technology
---	-------------	-------------------

Title: Renewable Energy Generation Plant Setbacks to Eskom Infrastructure

Unique Identifier: 240-65559775

Alternative Reference Number: N/A

Area of Applicability: Power Line Engineering




Documentation Type: Guideline

Revision: 1

Total Pages: 9

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Disclosure Classification: CONTROLLED DISCLOSURE

Compiled by	Approved by	Authorised by
		
J W Chetty Mechanical Engineer	B Ntshuntsha Chief Engineer (Lines)	R A Vajeth Snr Manager (Lines) and SCOT/SCI Chairperson
Date: 23/11/2018	Date: 24/11/2018	Date: 16/11/2018

PCM Reference: 240-65132732 **LINE ENGINEERING SERVICES**
 SCOT Study Committee Number/Name : **OVERHEAD LINES**

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EXECUTIVE SUMMARY

In recent decades, the use of wind turbines, concentrated solar plants and photovoltaic plants have been on the increase as it serves as an abundant source of energy. This document specifies setbacks for wind turbines and the reasons for these setbacks from infrastructure as well as setbacks for concentrated solar plants and photovoltaic plants. Setbacks for wind turbines employed in other countries were compared and a general setback to be used by Eskom was suggested for use with wind turbines and other renewable energy generation plants.

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1. INTRODUCTION

During the last few decades, a large amount of wind turbines have been installed in wind farms to accommodate for the large demand of energy and depleting fossil fuels. Wind is one of the most abundant sources of renewable energy. Wind turbines harness the energy of this renewable resource for integration in electricity networks. The extraction of wind energy is its primary function and thus the aerodynamics of the wind turbine is important. There are many different types of wind turbines which will all exhibit different wind flow characteristics. The most common wind turbine used commercially is the Horizontal Axis Wind Turbine. Wind flow characteristics of this turbine are important to analyse as it may have an effect on surrounding infrastructure.

Wind turbines also cause large turbulence downwind that may affect existing infrastructure. Debris or parts of the turbine blade, in the case of a failure, may be tossed behind the turbine and may lead to damage of infrastructure in the wake path.

This document outlines the minimum distances that need to be introduced between a wind turbine and Eskom infrastructure to ensure that debris and / or turbulence would not negatively impact on the infrastructure.

Safety distances of wind turbines from other structures as implemented by other countries were also considered and the reasons for their selection were noted.

Concentrated solar plants and photovoltaic plants setbacks away from substations were also to be considered to prevent restricting possible power line access routes to the substation.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document provides guidance on the safe distance that a wind turbine should be located from any Eskom power line or substation. The document specifies setback distances for transmission lines (220 kV to 765 kV), distribution lines (6.6 kV to 132 kV) and all Eskom substations. Setbacks for concentrated solar plants and photovoltaic plants are also specified away from substations.

2.1.1 Purpose

Setbacks for wind turbines and power lines / substations are required for various reasons. These include possible catastrophic failure of the turbine blade that may release fragments and which may be thrown onto nearby power lines that may result in damage with associated unplanned outages. Turbulence behind the turbine may affect helicopter flight during routine Eskom live line maintenance and

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inspections that may lead to safety risk of the aircraft / personnel. Concentrated solar plants and photovoltaic plants setback away from substations were required to prevent substations from being boxed in by these renewable generation plants limiting line route access to the substations.

2.1.2 Applicability

This document is applicable to the siting of all new and existing wind turbines, concentrated solar plants and photovoltaic plants near power lines and substations.

2.2 NORMATIVE/INFORMATIVE REFERENCES

2.2.1 Normative

1. <http://www.envir.ee/orb.aw/class=file/action=preview/id=1170403/Hiiumaa+turbulence+impact+EMD.pdf>.
2. <http://www.energy.ca.gov/2005publications/CEC-500-2005-184/CEC-500-2005-184.PDF>
3. <http://www.adamscountywind.com/Revised%20Site/Windmills/Adams%20County%20Ordinance/Adams%20County%20Wind%20Ord.htm>
4. http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=PA11R&RE=1&EE=1
5. <http://www.wind-watch.org/documents/european-setbacks-minimum-distance-between-wind-turbines-and-habitations/>
6. <http://www.publications.parliament.uk/pa/ld201011/ldbills/017/11017.1-i.html>
7. http://www.caw.ca/assets/pdf/Turbine_Safety_Report.pdf
8. Rogers J, Slegers N, Costello M. (2011) A method for defining wind turbine setback standards. Wind energy 10.1002/we.468

2.2.2 Informative

None

2.3 DEFINITIONS

Definition	Description
Setback	The minimum distance between a wind turbine and boundary line/dwelling/road/infrastructure/servitude etc.
Flicker	Effect caused when rotating wind turbine blades periodically cast shadows
Tip Height	The total height of the wind turbine ie. Hub height plus half rotor diameter (see Figure1)

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2.3.1 Disclosure Classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
None	

2.5 ROLES AND RESPONSIBILITIES

All personnel involved in the positioning wind turbines, concentrated solar plants and photovoltaic plants near power lines/substations must follow the setbacks outlined in this guideline.

2.6 PROCESS FOR MONITORING

Approval by Eskom in writing.

2.7 RELATED/SUPPORTING DOCUMENTS

None

3. DOCUMENT CONTENT

3.1 INTERNATIONAL SETBACK COMPARISON

Wind Turbine setbacks employed by various countries were considered. It was found that setbacks were determined for various reasons that include noise, flicker, turbine blade failure and wind effects. The distances (setbacks) varied based on these factors and were influenced by the type of infrastructure

Wind turbine setbacks varied for roads, power lines, dwellings, buildings and property and it was noted that the largest setbacks were employed for reasons of noise and flicker related issues [1-7]. Very few countries specified setbacks for power lines.

The literature survey [1-7], yielded information about studies and experiments were conducted to determine the distance that a broken fragment from a wind turbine might be thrown. Even though of low probability of hitting a power line [5.0×10^{-5} ^[8]], the distances recorded were significant [750m ^[8]]

Setbacks were thus introduced to prevent any damage to Eskom infrastructure.

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Wind turbines may also cause changes in wind patterns with turbulent effects behind the hub. These factors dictate the wind turbine setbacks specified in this document.

Concentrated solar plants and photovoltaic plants also can limit access into the substation for power lines of all voltages. A setback distance must therefore be employed to prevent the substation from being boxed in by these generation plants. These setback distances are specified in this document.

3.2 ESKOM REQUIRED SETBACKS

A formal application must be sent to and accepted by Eskom if any of the below mentioned setback distances are infringed upon:

- Eskom requires a setback distance of 3 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for transmission lines (220kV to 765kV) and Substations.
- Eskom requires a setback distance of 1 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for distribution lines (66 kV to 132 kV) and Substations.
- An application must be sent to Eskom regarding any proposed wind turbine, concentrated solar plants and photovoltaic activity within a 5 km radius of a substation for Eskom to comment on the application.
- Where concentrated solar plants and photovoltaic structures fall within a 2 km radius of the closest point of a transmission or distribution substation (66kV to 765kV), Eskom should be applied to for approval in writing during the planning phase of such plant or structures.
- Applicants must not position any wind turbine in the line of site between and two Eskom Radio Telecommunication masts. It must be proven that Eskom radio telecommunication systems (mainly microwave systems) will not be affected in any way by wind turbines.
- If the position or size of any turbine changes and subsequently infringes on any of the above stated setbacks, an application must be sent through to Eskom as per the point mentioned above.

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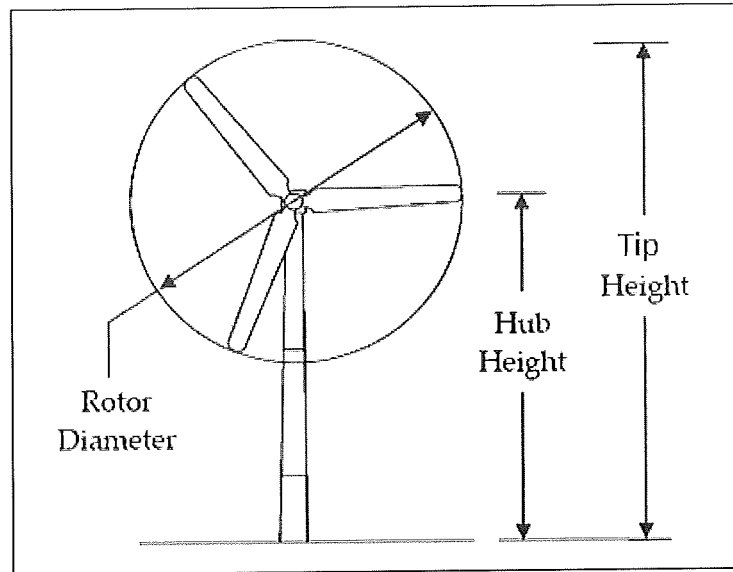


Figure 1: Horizontal Axis Wind Turbine ^[2]

4. AUTHORISATION

This document has been seen and accepted by:

Name & Surname	Designation
V Naidoo	Chief Engineer
Dr P H Pretorius	Electrical Specialist
J Geeringh	Snr Consultant Environ Mngt
B Haridass	Snr Consultant Engineer
R A Vajeth	Acting Snr Manager (Lines)

5. REVISIONS

Date	Rev.	Compiler	Remarks
November 2013	0	J W Chetty	First Publication - No renewable energy generation plant setback specification in existence
October 2018	1	JW Chetty	Modification to sub-section 3.2 to provide more clarity for application procedure

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6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

Jonathan W Chetty (Mechanical Engineer)

Vivendhra Naidoo (Chief Engineer)

Dr Pieter H Pretorius (Electrical Specialist)

John Geeringh (Snr Consultant Environ Mngt)

Bharat Haridass (Snr Consultant Engineer)

Riaz A Vajeth (Acting Snr Manager (Lines))

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Sophie Williams

From: Projects
Sent: 15 October 2019 14:31
To: Natasha Higgitt
Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Natasha,

The Draft Basic Assessment Report and the four Draft EA Amendment Reports were uploaded to SAHRIS and status changed to SUBMITTED.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

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Email: projects@arcusconsulting.co.za

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From: Natasha Higgitt [mailto:nhiggitt@sahra.org.za]

Sent: Friday, September 27, 2019 11:14

To: Projects <Projects@arcusconsulting.co.za>

Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Good afternoon,

Thank you for the notification. Please upload all documents to the relevant SAHRIS applications and change the status of the cases to SUBMITTED once completed.

Kind regards,

From: Projects <Projects@arcusconsulting.co.za>

Sent: Thursday, September 26, 2019 9:03 AM

To: Projects <Projects@arcusconsulting.co.za>

Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public comment and review.

The following is available for public review:

Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province

Volume II - Specialist Impact Assessment Reports

Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupport Library, and website: www.arcusconsulting.co.za.

Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

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Natasha Higgitt

Heritage Officer: Archaeology, Palaeontology and Meteorites Unit

South African Heritage Resources Agency

- A nation united through heritage -

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Enquiries: Natasha Higgitt
Tel: 021 462 4502
Email: nhiggitt@sahra.org.za
CaseID: 14389

Date: Monday October 28, 2019
Page No: 1

Interim Comment

In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mr Sheldon Vandrey
Mainstream Renewable Power South Africa (Pty) Ltd

EA amendment application for San Kraal WEF

Arcus Consultancy Services South Africa (Pty) Ltd has been appointed by Hartebeesthoek Wind Power (Pty) Ltd to undertake an Environmental Authorisation (EA) Amendment Application to amend the authorised San Kraal Wind Energy Facility (WEF), near Noupoort in the Northern and Eastern Cape Province (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1).

A draft Motivation Report has been submitted in terms of the National Environmental Management Act, No 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations. The proposed amendments include splitting the authorised San Kraal WEF into two project areas (San Kraal Split 1 and Hartebeesthoek East). The Hartebeesthoek East WEF will consist of 20 turbines with an amended layout.

ACO Associates cc were appointed to provide the heritage specialist component as part of the EA Amendment application in terms of section 24(4)b(iii) of the NEMA and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).

Gribble, J and Euston-Brown, G. 2019. Archaeological Amendment Report: Hartebeesthoek East Wind Energy Facility, Noupoort, Northern Cape.

The amendment layout was assessed by the heritage specialists and it was found that no disadvantages arising from the revised WEF layout were identified with respect to archaeological resources.

The following recommendations have been provided in the report:

- The 2018 Environmental Management Programme Report for the San Kraal WEF must be amended in respect of the assessment of impacts on archaeological sites and materials within the Hartebeesthoek East WEF;
- Provided that the mitigation measures recommended in this report are implemented, the overall impact of the construction of the Hartebeesthoek East WEF is tolerable and generally of low significance and,

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Enquiries: Natasha Higgitt
Tel: 021 462 4502
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CaseID: 14389

Date: Monday October 28, 2019
Page No: 2

from a heritage perspective, the proposed amendments are considered acceptable.

Interim Comment

**Please note that this comment is issued for the Northern Cape section of the development only. Eastern Cape Provincial Heritage Resources Authority (ECPHRA) must be consulted with regards to comments for the Eastern Cape section of the propose development.*

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit requests that an assessment of the impact of the proposed amendments to palaeontological resources be conducted as part of the EA Amendment application.

SAHRA advises the applicant to extend the EA Amendment Application process in terms of section 32(1)b of the NEMA EIA regulations in order to comply with the comment.

Further comments will be issued upon receipt of the requested study.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

Our Ref:



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Email: nhiggitt@sahra.org.za
CaseID: 14389

Date: Monday October 28, 2019
Page No: 3

Phillip Hine
Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/529287>
(DEA, Ref: San Kraal WEF (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1))



SAHRA - South African Heritage Resources Agency

111 Harrington Street

Cape Town

8001

ATT: Natasha Higgitt

Tel: 021 462 4502

Email: nhiggitt@sahra.org.za

SAHRA CASE NUMBER: 14386, 14388 and 14389

22 November 2019

RE: MOTIVATION FOR ACCEPTANCE OF THE 2017 PALAEOLOGICAL ASSESSMENT FOR THE PROPOSED AMENDMENTS OF THE PROPOSED SAN KRAAL SPLIT 1, HARTEBEESTHOEK EAST AND PHEZUKOMOYA SPLIT 1 WIND ENERGY FACILITIES, NORTHERN AND EASTERN CAPE PROVINCES

Dear Ms Natasha Higgitt,

Interim Comment was received from the South African Heritage Resources Agency ('SAHRA') on the 28 October 2019. Responses to this Interim Comment is provided by the independent environmental assessment practitioner (EAP) Arcus Consultancy Services South Africa (Pty) Ltd ('Arcus') in this letter and will be included as part of the comments and response in the submission of the Final Amendment Report(s) to the Department of Environmental Affairs (DEA).

In the Interim Comment, in terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999), issued by SAHRA on the 28 October 2019, for each Case ID referenced above, the following was stated:

'Please note that this comment is issued for the Northern Cape section of the development only. Eastern Cape Provincial Heritage Resources Authority (ECPHRA) must be consulted with regards to comments for the Eastern Cape section of the propose development.'

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit requests that an assessment of the impact of the proposed amendments to palaeontological resources be conducted as part of the EA Amendment application.

SAHRA advises the applicant to extend the EA Amendment Application process in terms of section 32(1)b of the NEMA EIA regulations in order to comply with the comment.

Further comments will be issued upon receipt of the requested study.'

Response to comment:

The EAP understands that this interim comment received is issued for the Northern Cape section of the development only. The ECPHRA has been consulted via the SAHRIS website.

An assessment of the impact of the proposed amendments to palaeontological resources was not conducted as part of the EA Amendment applications as the existing study, done by Dr. John Almond, October 2017, on San Kraal and Phezukomoya is still considered to be valid.

Dr. John Almond ('Almond') has taken impact assessments in the area for the Noupoot Wind Farm to the East and bordering directly on the San Kraal parcel. He also undertook the San Kraal and Phezukomoya assessment, all of which involved broad field work components prospecting any likely areas outside and within the land parcels involved. He does this to find locales where the underlying palaeontology may be exposed and visible which is not always the case in the actual

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project areas themselves. Almonds conclusions were therefore based on a solid desktop knowledge of the local geology and palaeontology, reinforced by field observation. It would be worthwhile noting that palaeontological finds on the three large land parcels that he has surveyed are minimal due to the depleted nature of the mountain-top Katberg deposits, and that all the finds he has made have been on the sides of slopes and gullies where mud strata are exposed. It is based on the general geology of the area that Almonds recommendations and conclusions are derived. The geology throughout the original and amended project areas are similar – the same formations are involved.

As reference, an extract of the recommendations for monitoring and mitigation of the existing San Kraal and Phezukomoya assessments, October 2017, by Dr. John Almond, is included below.

San Kraal

Chapter 6. RECOMMENDATIONS FOR MONITORING AND MITIGATION (of the Palaeontological Study, October 2017, by Dr. John Almond)

Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (c. 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with any recommendations for further specialist monitoring or mitigation, should be submitted by the palaeontologist to SAHRA for comment. This stepwise approach is recommended because it may well prove impracticable to recognise record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.

No palaeontological No-Go areas or fossil sites requiring mitigation have been identified within the main WEF development footprint on the Katberg sandstone plateau. In the grid connection study area several vertebrate burrows exposed in a stream bed on Farm Winterhoek 118 close to 132 kV power line route Alternative 1 (Fig. 36) should be protected by a 50m-radius buffer zone. Should the Alternative 1 route rather than the currently preferred route be finally chosen, it is recommended that that sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed.

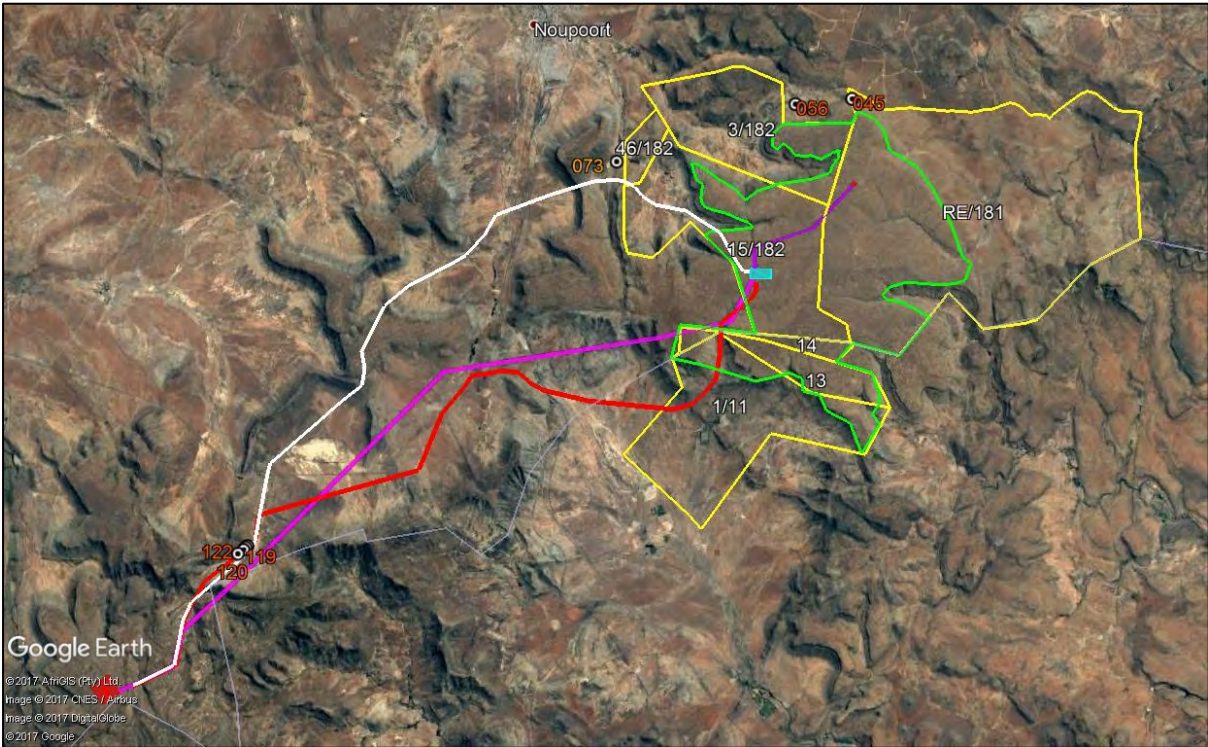


Fig. 35. Google Earth satellite image showing the preferred 132 kV power line connection between the San Kraal WEF and the Umsobomvu substation (purple line) as well as two other route options: Alternative 1 (red line) and Alternative 2 (white line).

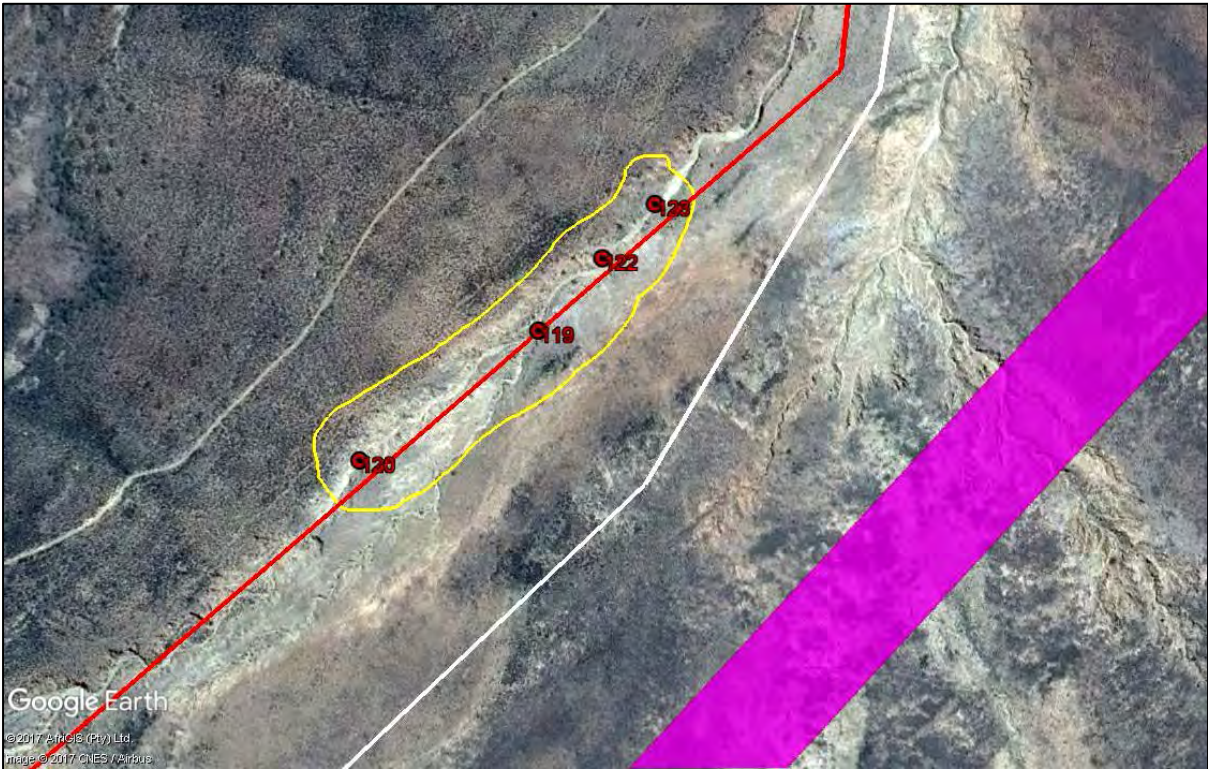


Fig. 36. Detail of the south-western sectors of the 132 kV powerline routes shown in the previous figure. Alternative 1 (red line) passes through the proposed 50 m-radius protective buffer (yellow shape) surrounding several important fossil vertebrate

burrow sites in the Katberg Formation that are exposed in a deeply-incised stream bed (Locs. 119-123). Alternative 2 route option – white. Preferred route option – purple.

In addition to the specialist palaeontological monitoring outlined above, the ECO responsible for the construction phase of the project should be aware of the potential for important fossil finds and the necessity to conserve them for possible professional mitigation (See, for example, Macrae 1999 for a well-illustrated popular account of Karoo fossils). The ECO should monitor all substantial excavations into sedimentary rocks for fossil remains on an on-going basis during the construction phase.

Recommended mitigation of chance fossil finds during the construction phase of the WEF and associated grid connection involves safeguarding of the fossils (preferably *in situ*) by the responsible ECO and reporting of finds to SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) and to ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za). Where appropriate, judicious sampling and recording of fossil material and associated geological data by a qualified palaeontologist may be required by the relevant heritage regulatory authorities. Any fossil material collected should be curated within an approved repository (museum / university fossil collection) by a qualified palaeontologist. These recommendations should be included within the Environmental Management Programme for the proposed alternative energy project.

Given the internationally recognised value of Karoo fossil heritage (*e.g.* Macrae 1999, McCarthy & Rubidge 2005, Choiniere & Rubidge 2016), the known occurrence of scientifically-valuable fossil material in the Noupoort region, as well as the legal protection of all fossil remains under the National Heritage Resources Act (1999), these mitigation measures are considered to be essential.

Phezukomoya

Chapter 6. RECOMMENDATIONS FOR MONITORING AND MITIGATION (of the Palaeontological Study, October 2017, by Dr. John Almond)

Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (*c.* 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with any recommendations for further specialist monitoring or mitigation, should be submitted by the palaeontologist to SAHRA for comment. This stepwise approach is recommended because it may well prove impracticable to recognise record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.

No palaeontological No-Go areas or fossil sites requiring mitigation have been identified within the main WEF development footprint on the Katberg sandstone plateau. In the grid connection study

area. Several vertebrate burrows exposed in a stream bed on Farm Winterhoek 118 close to 132 kV power line route Alternative 1 (Fig. 39) should be protected by a 50m-radius buffer zone. Should the Alternative 1 route rather than the currently preferred route be finally chosen, it is recommended that that sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed where the fossil burrows are exposed.

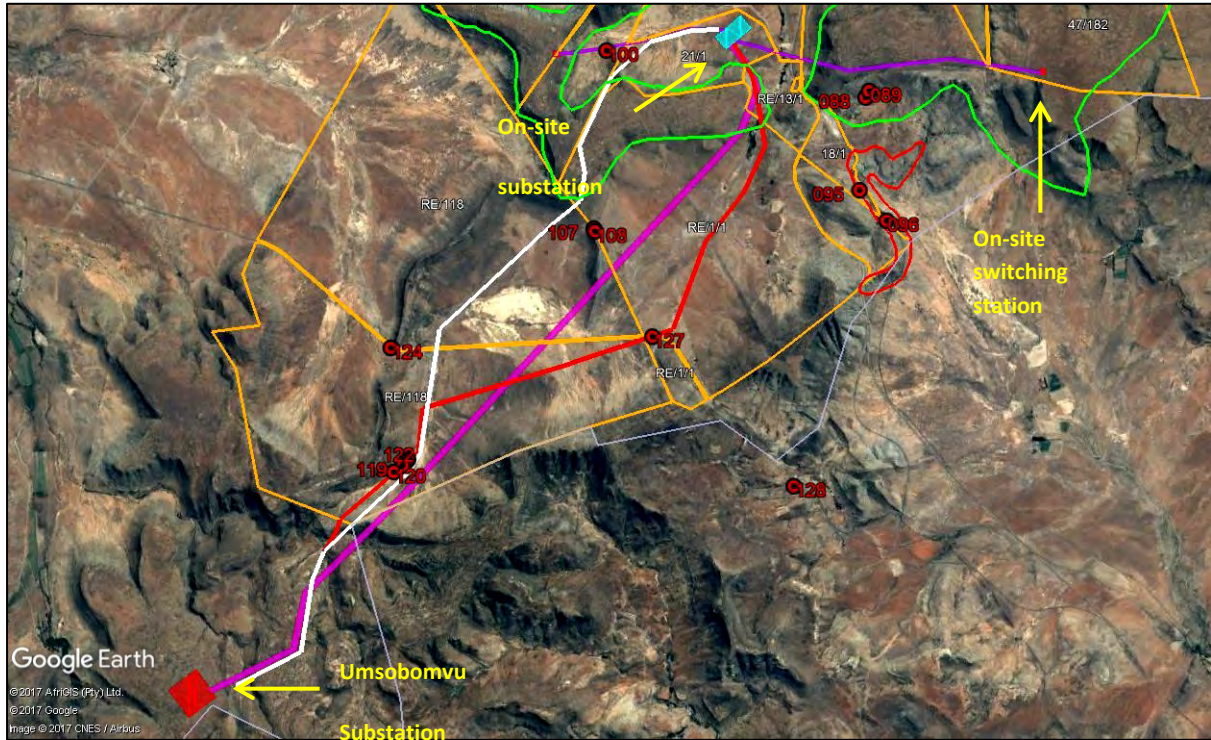


Fig. 38. Google Earth satellite image showing the preferred 132 kV power line connection between the Phezukomoya WEF and the Umsobomvu substation (purple line) as well as two other route options: Alternative 1 (red line) and Alternative 2 (white line).



Fig. 39. Detail of the south-western sectors of the 132 kV powerline routes shown in the previous figure. Alternative 1 (red line) passes through the proposed 50 m-radius protective buffer (yellow shape) surrounding several important fossil vertebrate burrow sites in the Katberg Formation that are exposed in a deeply-incised stream bed (Locs. 119-123). Alternative 2 route option – white. Preferred route option – purple.

In addition to the specialist palaeontological monitoring outlined above, the ECO responsible for the construction phase of the project should be aware of the potential for important fossil finds and the necessity to conserve them for possible professional mitigation (See, for example, Macrae 1999 for a well-illustrated popular account of Karoo fossils). The ECO should monitor all substantial excavations into sedimentary rocks for fossil remains on an on-going basis during the construction phase.

Excellent exposures of mudrocks of the Palingkloof Member (upper Balfour Formation) that are of geoheritage as well as palaeontological significance because of their proximity to the Permo-Triassic boundary are noted here (red shapes in Figs. 36 & 37). One, lying along the railway line at Carlton Heights (Farms RE/1/1 and 18/1), has featured in several scientific publications while the other, close to Hartebeesthoek homestead on Farm RE/182, is currently unstudied. It is anticipated that neither of these two geosites will be directly impacted by the proposed WEF development.

Recommended mitigation of chance fossil finds during the construction phase of the WEF and associated grid connection involves safeguarding of the fossils (preferably *in situ*) by the responsible ECO and reporting of finds to SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) and to ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za). Where appropriate, judicious sampling and recording of fossil material and associated geological data by a qualified palaeontologist may be

required by the relevant heritage regulatory authorities. Any fossil material collected should be curated within an approved repository (museum / university fossil collection) by a qualified palaeontologist. These recommendations should be included within the Environmental Management Programme for the proposed alternative energy project. Given the internationally recognised value of Karoo fossil heritage (*e.g.* Macrae 1999, McCarthy & Rubidge 2005, Choiniere & Rubidge 2016), the known occurrence of scientifically-valuable fossil material in the Noupoort region, as well as the legal protection of all fossil remains under the National Heritage Resources Act (1999), these mitigation measures are considered to be essential.

It is our assertion that all the land parcels have been well-covered and considered in the original project areas and therefore the original conclusions and recommendations for San Kraal and Phezukomoya should continue to stand and be adhered to for the amendment process.

The relevant studies have been uploaded to the SAHRIS website, under the respective case numbers.

It would be duly appreciated if the above can be considered and allowed for by the SAHRA. If there is any further information requested please do not hesitate to contact.

Yours Sincerely,



Ashlin Bodasing
Environmental Assessment Practitioner

15 Appendix B Palaeontological Heritage Report Proposed Mainstream San Kraal Wind Energy Facility near Noupoort, Northern and Eastern Cape

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October 2017

EXECUTIVE SUMMARY

San Kraal Wind Farm (Pty) Ltd are proposing to construct the San Kraal Wind Energy Facility (WEF) with up to 75 wind turbines and an approximately 25 km long grid connection to the Umsobomvu substation. The project area spans the border between the Noupoort District, Northern Cape and Middelburg District, Eastern Cape. Most of the San Kraal WEF footprint will be situated in dissected rocky plateau areas underlain by continental sediments of the Katberg Formation (Upper Beaufort Group / Tarkastad Subgroup, Karoo Supergroup) of earliest Triassic age. Latest Permian sediments of the underlying Balfour Formation crop out along the foot of the Katberg escarpment but are generally mantled by a thick apron of colluvium (sandy and gravelly scree, hillwash) and alluvium. Elsewhere in the Main Karoo Basin these sediments have yielded locally abundant vertebrate fossils, large vertebrate burrows, a small range of invertebrate burrows but only rare plant remains. The uppermost Balfour and Katberg Formations preserve an important record of biological and palaeoenvironmental events on land during the catastrophic Permo-Triassic extinction of 252 Ma (million years ago) and subsequent biotic recovery. Several vertebrate fossil localities in the Noupoort area are noted in the scientific literature but only a few fossil remains were recorded during a four-day field assessment of the San Kraal WEF and associated powerline. These include fragmentary bones and teeth within calcrete breccias as well as several large vertebrate burrows, one with associated disarticulated bones. The paucity of recorded fossil sites here is probably due to (1) the very low exposure levels seen here of overbank mudrocks where most fossils are preserved, and (2) the predominance of amalgamated channel sandstone facies in the upper part of the Katberg Formation building the plateau areas. Scientifically-important fossil remains in the subsurface may well be compromised by the proposed WEF development during the construction phase, notably due to voluminous bedrock excavations for wind turbine footings.

No palaeontological No-Go areas or highly-sensitive fossil sites have been identified within the main WEF development footprint on the Katberg sandstone plateau (Fig. 33). All fossil finds here are assigned a low field rating (Local Resource IIIC) and do not warrant mitigation. A 50 m-radius protective buffer zone is proposed for several vertebrate burrow sites along a stream bed on farm Winterhoek 118 (Field rating Local Resource IIIB). They lie close to the alignment of the Alternative 1 132 kV powerline route which, if chosen, should be moved slightly to the southeast in this sector to lie outside the proposed buffer zone (See Figs. 35 and 36 herein). Alternative 1 is the least-preferred route option from a heritage viewpoint for this reason, with no preference for either one of the other two route options under consideration.

Due to the low extent, inferred moderate severity and permanent duration of potential palaeontological impacts, the impact significance of the proposed WEF is assessed as *medium (negative)* before mitigation. Confidence levels in this assessment are *medium*, given (1) the extensive palaeontological literature on the Karoo bedrocks concerned weighed against (2) very low levels of bedrock exposure within the study area and (3) the unpredictable distribution of well-preserved fossils.

Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (c. 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with recommendations for further specialist monitoring or mitigation (if any), should be submitted by the palaeontologist to SAHRA for comment. This stepwise monitoring approach is recommended because it may well prove impracticable to recognise, record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.

Should the recommended mitigation measures for the construction phase of the WEF development be consistently followed-though, the impact significance would remain *medium (negative)* but would entail both positive and negative impacts. Residual negative impacts from inevitable loss of some valuable fossil heritage would be partially offset by an improved palaeontological database for the study region as a direct result of appropriate mitigation.

Given the comparatively small combined footprint of the alternative energy projects in the broader Noupoot region compared with the very extensive outcrop areas of the fossiliferous Balfour and Katberg Formations, the cumulative impact significance of the San Kraal WEF is assessed as LOW.

There are no fatal flaws in the proposed WEF project from a palaeontological heritage viewpoint and no objects to authorisation of the development, provided that the recommended mitigation measures are incorporated into the EMPr for this project and fully implemented.

1. PROJECT DESCRIPTION & BRIEF

The following list of infrastructural components for the proposed San Kraal WEF has been provided by ARCUS Consulting:

- .

- Up to 78 turbines with a generation capacity between 3 – 5 MW and a rotor diameter of up to 150 m, a hub height of up to 150 m and blade length of up to 75 m;
- Foundations (up to 25 x 25 m) and hardstands associated with the wind turbines;
- Internal access roads of between 8 m (during operation) and 14 m (during construction) wide to each turbine;
- Medium voltage underground electrical cables will be laid to transmit electricity generated by the wind turbines to the on-site switching station or substation;
- Overhead medium voltage cables between turbine rows where necessary;
- An on-site switching station (10 000 m²);
- An 4 km medium voltage overhead line connecting the on-site switching station with the on-site medium voltage/132 kV substation;
- An on-site substation and OMS complex (180 000 m²) to facilitate stepping up the voltage from medium to high voltage (132 kV) to enable the connection of the WEF to the proposed Umsobomvu WEF 132/400 kV Substation, and the generated power will be fed into the national grid;
- A 23 km 132 kV high voltage overhead power line from the on-site substation to the proposed 400 kV Umsobomvu substation to the national grid;
- 3 turn-in options of 45 000 m² – 450 000m² at Eskom MTS SS
- Two 90 000 m² alternative areas for batching plants, temporary laydown area and construction compound
- Temporary infrastructure including a site camp; and
- A laydown area approximately 7500 m² in extent, per turbine.

The total size of the land portions within which the proposed development will be located is 10 511.51 hectares. The footprint of the proposed development is estimated to be less than 1% of this area

Description	Dimensions		
	Length (m)	Breadth (m)	Area (sqm)
Eskom 400kV Umsobomvu substation	150	150	22500
San Kraal 132/33 kV switching station	150	100	15000
OMS Area	150	50	7500
Construction compound	50	40	2000
Container storage area	50	40	2000

The present combined desktop and field-based palaeontological heritage study of the San Kraal WEF study area contributes to the comprehensive Heritage Impact Assessment and heritage aspects of the Environmental Management Programme for the project compiled under the aegis of ACO Associates cc, Cape Town (Contact details: Mr Tim Hart, ACO Associates cc. Unit D17, Prime Park, 21 Mocke Road, Diep River, 7800. Tel: 021 706 4104. E-mail: Tim.Hart@aco-associates.com). The EIA process for the project is being co-ordinated by Arcus Consulting, Cape Town (Contact details: Ms Ashlin Bodasig and Ms Anja Albertyn, Arcus Consulting, Cape Town, Office 220 Cube Workspace. Cnr Long Street and Hans Strydom Road, Cape Town 8001. Tel: 021 412 1533. E-mail: AnjaA@arcusconsulting.co.za or AshlinB@arcusconsulting.co.za).

2. APPROACH TO THE PALAEOLOGICAL HERITAGE STUDY

The approach to this palaeontological heritage study is briefly as follows. Fossil bearing rock units occurring within the broader study area are determined from geological maps and satellite images. Known fossil heritage in each rock unit is inventoried from scientific literature, previous assessments of the broader study region, and the author's field experience and palaeontological database. Based on this data as well as field examination of representative exposures of all major sedimentary rock units present, the impact significance of the proposed development is assessed with recommendations for any further studies or mitigation.

In preparing a palaeontological desktop study the potentially fossiliferous rock units (groups, formations *etc*) represented within the study area are determined from geological maps and satellite images. The known fossil heritage within each rock unit is inventoried from the published scientific literature, previous palaeontological impact studies in the same region, and the author's field experience (consultation with professional colleagues as well as examination of institutional fossil collections may play a role here, or later following field assessment during the compilation of the final report). This data is then used to assess the palaeontological sensitivity of each rock unit to development. The likely impact of the proposed development on local fossil heritage is then determined on the basis of (1) the palaeontological sensitivity of the rock units concerned and (2) the nature and scale of the development itself, most significantly the extent of fresh bedrock excavation envisaged. When rock units of moderate to high palaeontological sensitivity are present within the development footprint, a Phase 1 field assessment study by a professional palaeontologist is usually warranted to identify any palaeontological hotspots and make specific recommendations for any monitoring or mitigation required before or during the construction phase of the development.

On the basis of the desktop and Phase 1 field assessment studies, the likely impact of the proposed development on local fossil heritage and any need for specialist mitigation are determined. Adverse palaeontological impacts normally occur during the construction rather than the operational or decommissioning phase. Phase 2 mitigation by a professional palaeontologist – normally involving the recording and sampling of fossil material and associated geological information (*e.g.* sedimentological data) may be required (a) in the pre-construction phase where important fossils are already exposed at or near the land surface and / or (b) during the construction phase when fresh fossiliferous bedrock has been exposed by excavations. To carry out mitigation, the palaeontologist involved will need to apply for palaeontological collection permits from the relevant heritage management authorities, *i.e.* ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za) and SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za). It should be emphasized that, *providing appropriate mitigation is carried out*, the majority of developments involving bedrock excavation can make a *positive* contribution to our understanding of local palaeontological heritage.

2.1. Information sources

The information used in this scoping palaeontological heritage study was based on the following:

1. A short project description, maps and kmz files kindly provided by ARCUS Consulting and ACO Associates, Cape Town;
2. A review of the relevant satellite images, topographical maps and scientific literature, including published geological maps and accompanying sheet explanations, as well as several previous desktop and field-based palaeontological assessment studies in the broader Noupoot – Middelburg study region (e.g. Almond 2011, 2012, 2015, 2017, Butler 2014, 2016 and Gess 2012a, 2012b);
3. The author's previous field experience with the formations concerned and their palaeontological heritage;
4. A four-day palaeontological reconnaissance field assessment of the San Kraal WEF project area on 3-6 October 2017 by the author and one assistant.

2.2. Assumptions & limitations

The accuracy and reliability of palaeontological specialist studies as components of heritage impact assessments are generally limited by the following constraints:

1. Inadequate database for fossil heritage for much of the RSA, given the large size of the country and the small number of professional palaeontologists carrying out fieldwork here. Most development study areas have never been surveyed by a palaeontologist.
2. Variable accuracy of geological maps which underpin these desktop studies. For large areas of terrain these maps are largely based on aerial photographs alone, without ground-truthing. The maps generally depict only significant ("mappable") bedrock units as well as major areas of superficial "drift" deposits (alluvium, colluvium) but for most regions give little or no idea of the level of bedrock outcrop, depth of superficial cover (soil *etc*), degree of bedrock weathering or levels of small-scale tectonic deformation, such as cleavage. All of these factors may have a major influence on the impact significance of a given development on fossil heritage and can only be reliably assessed in the field.
3. Inadequate sheet explanations for geological maps, with little or no attention paid to palaeontological issues in many cases, including poor locality information.
4. The extensive relevant palaeontological "grey literature" - in the form of unpublished university theses, impact studies and other reports (e.g. of commercial mining companies) - that is not readily available for desktop studies.
5. Absence of a comprehensive computerized database of fossil collections in major RSA institutions which can be consulted for impact studies. A Karoo fossil vertebrate database is now accessible for impact study work.

In the case of palaeontological desktop studies without supporting Phase 1 field assessments these limitations may variously lead to either:

- (a) *underestimation* of the palaeontological significance of a given study area due to ignorance of significant recorded or unrecorded fossils preserved there, or
- (b) *overestimation* of the palaeontological sensitivity of a study area, for example when originally rich fossil assemblages inferred from geological maps have in fact been destroyed by tectonism or weathering, or are buried beneath a thick mantle of unfossiliferous “drift” (soil, alluvium *etc*).

Since most areas of the RSA have not been studied palaeontologically, a palaeontological desktop study usually entails *inferring* the presence of buried fossil heritage within the study area from relevant fossil data collected from similar or the same rock units elsewhere, sometimes at localities far away. Where substantial exposures of bedrocks or potentially fossiliferous superficial sediments are present in the study area, the reliability of a palaeontological impact assessment may be significantly enhanced through field assessment by a professional palaeontologist.

In the case of the San Kraal WEF study area near Noupoot in the Northern and Eastern Cape preservation of potentially fossiliferous bedrocks is favoured by the semi-arid climate and sparse vegetation but bedrock exposure is very limited by extensive superficial deposits (sandy soils, scree), especially in areas of low relief such as the plateau areas where the majority of the WEF infrastructure will be placed. Vehicle access to most of the upland plateau areas is currently challenging and very limited.

In practice, approximately two thirds of the fieldwork time was spent traversing the core WEF project area on the Katberg sandstone plateau – uniformly regarded as palaeontologically uninformative due to superficial sediment cover - and perhaps some 10% of time in the powerline project area. However, it is considered that sufficient bedrock and cover sediment exposures were examined during the course of this study to assess the broader palaeontological heritage sensitivity of the study area (See Appendix). Comparatively few academic palaeontological studies or field-based fossil heritage impact studies have been carried out in the region, so any new data from impact studies here are of scientific interest.

2.3. Legislative context for palaeontological assessment studies

The San Kraal WEF alternative energy project is located in an area that is underlain by potentially fossiliferous sedimentary rocks of Late Palaeozoic to Mesozoic and younger, Late Tertiary or Quaternary, age (Sections 3 and 4). The construction phase of the proposed development will entail substantial excavations into the superficial sediment cover and locally into the underlying bedrock as well. These include, for example, excavations for the wind turbine foundations, hard standing areas, internal access roads, underground cables, transmission line pylon footings, electrical substations, operations and services workshop area/office building, laydown areas and construction site camp. All these developments may adversely affect potential fossil heritage within the study area by destroying, disturbing or permanently sealing-in fossils at or beneath the surface of the ground that are then no longer available for scientific research or other public good. The operational and decommissioning phases of the wind energy facility are unlikely to involve further adverse impacts on local palaeontological heritage, however.

The present combined desktop and field-based palaeontological heritage study contributes to the consolidated Heritage Assessment for the San Kraal WEF project and falls under the South African Heritage Resources Act (Act No. 25 of 1999). It will also inform the Environmental Management Programme for this project.

The various categories of heritage resources recognised as part of the National Estate in Section 3 of the National Heritage Resources Act include, among others:

- geological sites of scientific or cultural importance;
- palaeontological sites;
- palaeontological objects and material, meteorites and rare geological specimens.

According to Section 35 of the National Heritage Resources Act, dealing with archaeology, palaeontology and meteorites:

(1) The protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority.

(2) All archaeological objects, palaeontological material and meteorites are the property of the State.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

(c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

(5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may—

(a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;

(b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;

(c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and

(d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

Minimum standards for the palaeontological component of heritage impact assessment reports (PIAs) have recently been published by SAHRA (2013).

3. GEOLOGICAL CONTEXT

The San Kraal WEF study area is situated in dissected, semi-arid mountainous terrain of the Agter-Renosterberg – Kikvorsberg Ranges which are situated within the Upper Karoo geomorphic province of the RSA (Partridge *et al.* 2010). The core WEF development area where most of the infrastructure will be situated, including wind turbines and access roads, is located on an undulating, grassy sandstone plateau reaching elevations of c. 1840 m amsl. (Figs. 5, 6, 33 & 34). The steep margins of the plateau are incised by several narrow stream valleys reflecting erosional down-cutting during more pluvial periods in the geological past.

The geology of the Noupoot study region is shown on 1: 250 000 sheet 3124 Middelburg (Cole *et al.* 2004) (Fig. 2) and has been briefly described in a previous WEF palaeontological assessment for the Noupoot area by Almond (2012). Most of the study area, including the core development area, is underlain by Early Triassic (c. 250 Ma = million years old) fluvial sediments of the **Katberg Formation (TRk)**, yellow with red stipple in Fig. 2) which forms the lowermost subunit of the Tarkastad Subgroup (Upper Beaufort Group, Karoo Supergroup). Levels of tectonic deformation in this region are very low, as shown by recorded dips here of only two to three degrees within the Tarkastad Subgroup, with most of the succession being subhorizontal.

Very small outcrop areas of Karoo sediments assigned to the underlying **Adelaide Subgroup (Pa)**, pale blue in Fig. 2) are mapped in the western foothills of the Kikvorsberg close to the N9 and Noupoot town. These older bedrocks belong to the uppermost portion of the **Balfour Formation**, namely the **Palingkloof Member** of Latest Permian to Earliest Triassic age. According to Cole *et al.* (2004) this succession consists largely of reddish mudrocks and has a thickness of only some 20 m or so in the Noupoot area (*e.g.* Carlton Siding). Given their location at the foot of the Katberg escarpment, the Adelaide Subgroup rocks here are largely covered by colluvial debris (gravelly scree, hillwash sands) and are furthermore unlikely to be directly impacted by the Noupoot wind farm development, with the possible exception of a access roads in lowland areas. For these reasons, the Balfour Formation rocks will not be treated in any detail in this study. It should be noted, however,

that they are of considerable palaeontological significance elsewhere in the Main Karoo Basin since they record the catastrophic end-Permian mass extinction event and ensuing biotic recovery among continental biotas (e.g. Smith & Ward 2001, Smith *et al.* 2002, Retallack *et al.* 2003 and 2006, Ward *et al.* 2005, Smith & Botha 2005, Botha & Smith 2007, Smith & Botha-Brink 2014, Smith *et al.* 2012). Good erosion gulley exposures of Palingkloof Member mudrocks and thin-bedded sandstones are seen on Hartebeest Hoek 182, just outside the San Kraal WEF study area (Fig. 3).

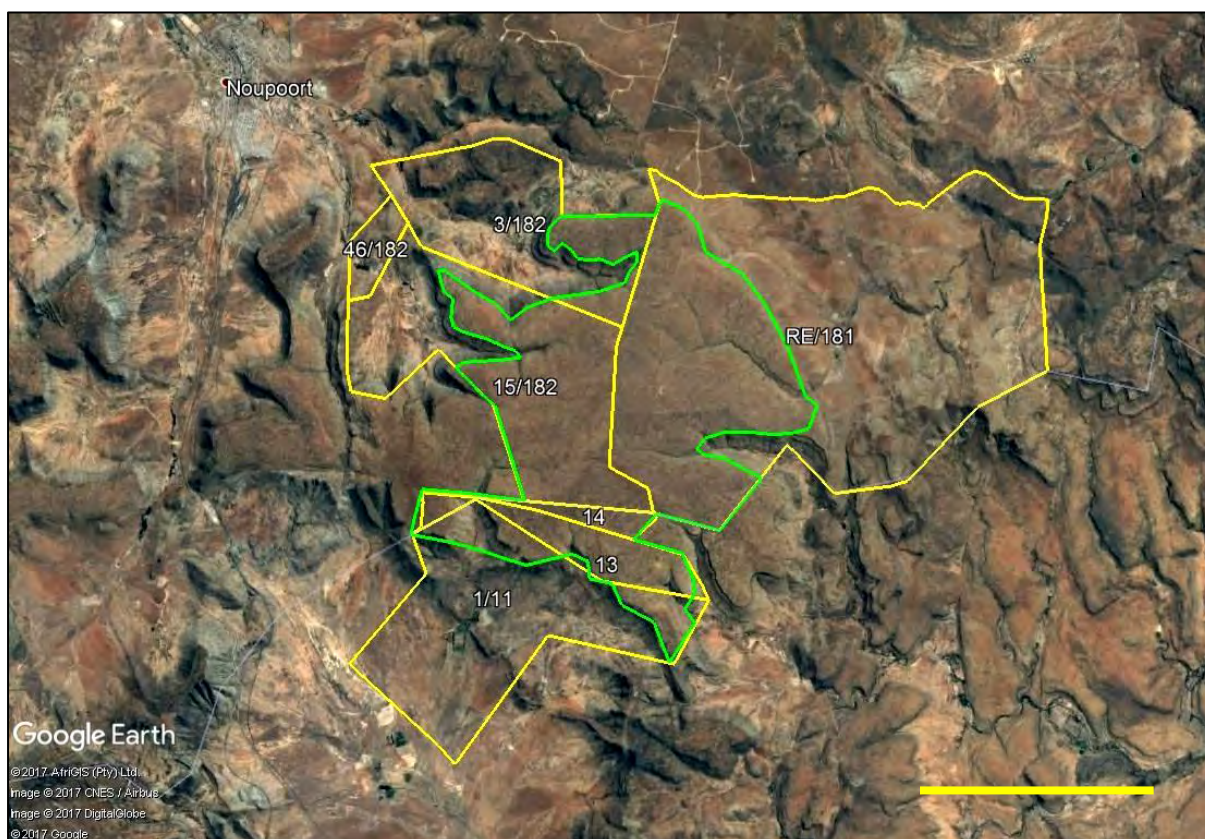


Fig. 1. Google Earth© satellite image of the region to the south-east of Noupoot showing the study area for the proposed San Kraal WEF (yellow polygon) as well as an outline of plateau areas where the majority of the WEF infrastructure will be sited (green polygon). Scale bar = 5 km. North towards the top of the image.

The Katberg Formation forms the regionally extensive, sandstone-rich lower portion of the Tarkastad Subgroup (Upper Beaufort Group) that can be traced throughout large areas of the Main Karoo Basin. In the Middelburg sheet area it reaches a maximum thickness of some 400 m, but close to Noupoot thicknesses of 240-260 m are more usual. The predominant sediments are (a) prominent-weathering, pale buff to greyish, tabular or ribbon-shaped sandstones up to 60 m thick (Figs. 4, 7 & 8) that are interbedded with (b) recessive-weathering, reddish or occasionally green-grey mudrocks (Figs. 17 & 18). Up to four discrete sandstone packages can be identified within the succession. In the Noupoot area the overall sandstone:mudrock ratio is close to 1:1. Katberg channel sandstones are typically rich in feldspar and lithic grains (*i.e.* lithofeldspathic). They build laterally extensive, tabular, multi-storey units with an erosional base that is often marked by intraformational conglomerates up to one meter or more thick consisting of mudrock pebbles, reworked calcrete nodules and occasional rolled fragments of bone (Figs. 14 to 16, 30). While the

basal Katberg succession is often marked by a major cliff-forming sandstone unit, in the Noupoot area there is a transitional relationship with the underlying Adelaide Subgroup that is marked by a broadly upward-thickening series of sandstone sheets (Fig. 4). The cliff-forming uppermost part of the Katberg Formation in the study area that underlies the plateau areas is composed of amalgamated channel sandstone facies with only a small proportion of overbank mudrocks. Internally the moderately well-sorted sandstones are variously massive, horizontally-laminated or tabular to trough cross-bedded while heavy mineral laminae occur frequently. Sphaeroidal carbonate concretions up to 10 cm across, sometimes secondarily ferruginised, are common. The predominantly purple-brown Katberg mudrocks are typically massive with horizons of pedoconcrete nodules (calcretes) and mudcracks but packages of thin-bedded grey-green and purple-brown mudrocks passing up into heterolithic successions of interbedded grey-green fine sandstone and siltstone are also occasionally seen (Fig. 17). Mudrock exposure within the study area is very limited indeed due to extensive mantling of these recessive-weathering rocks by superficial sediments (soils, scree, downwasted gravels, hillwash *etc*).

The highland plateau areas that form the great majority of the WEF project area vary from fairly grassy and featureless to rugged terrain with numerous low *kranzes* and pavements of Katberg sandstone (Figs. 5 to 7, 9). Karstic (solution-weathering) features such as polygonal cracks (tessellation / alligator cracking), rock basins (*gnammas*) and rock doughnuts are well-developed on some of the better-exposed sandstone *kranzes* and sandstone pavements in these (*cf* Grab *et al.* 2011) (Figs. 10 to 12). Another interesting feature observed on weathered sandstone surfaces are shallow subcircular to irregular etched depressions generated by epilithic lichens that have been well-studied on younger Clarens Formation feldspathic sandstones in the Golden Gate National Park (*ibid.* and refs. therein) (Fig. 13). The lichen etching appears to postdate the karstic weathering and associated case-hardening and continues to the present day, especially on more shaded, south-facing surfaces.

The Karoo Supergroup sedimentary rocks in the Noupoot study area are extensively intruded by Early Jurassic (183 ± 2 Ma) igneous intrusions of the **Karoo Dolerite Suite (Jd)** (Cole *et al.* 2004, Duncan & Marsh 2006) (Fig. 19). The sills and dykes have thermally metamorphosed or baked the adjacent mudrocks and sandstones to resistant-weathering hornfels and quartzite respectively (Figs. 20-21).

In most parts of the study area, including both the flatter-lying plateau regions and low-lying *vlaktes* as well as steeper hillslopes, the Permo-Triassic bedrocks are mantled with a variety of **superficial deposits** of probable Late Cenozoic (mostly Quaternary to Recent) age. A wedge-shaped prism or apron of sandy to gravelly colluvium and hillwash mantles the foot of the Katberg escarpment (piedmont fans) (Fig. 23), while the escarpment slopes themselves are largely obscured by sandstone scree, apart from the thicker, prominent-weathering Katberg channel sandstone bodies (Fig. 4). Thick sandy to gravelly alluvial deposits are encountered in more major stream valleys at the foot of the Katberg escarpment, where they are often incised by deep erosional *dongas*, while thick sandy alluvium is seen in shallow palaeovalleys on the plateaux (Figs. 24 & 25). The Katberg sandstones underlying the buildable plateau areas in the study region are largely overlain by thin, orange-brown sandy soils as well as angular, poorly-sorted gravels of downwasted sandstone (Fig. 22). Well-developed Late Cenozoic pedoconcretions (*e.g.* calcrete) were not encountered during the field study, although modest creamy calcrete is seen locally in the vicinity of dolerite intrusions.

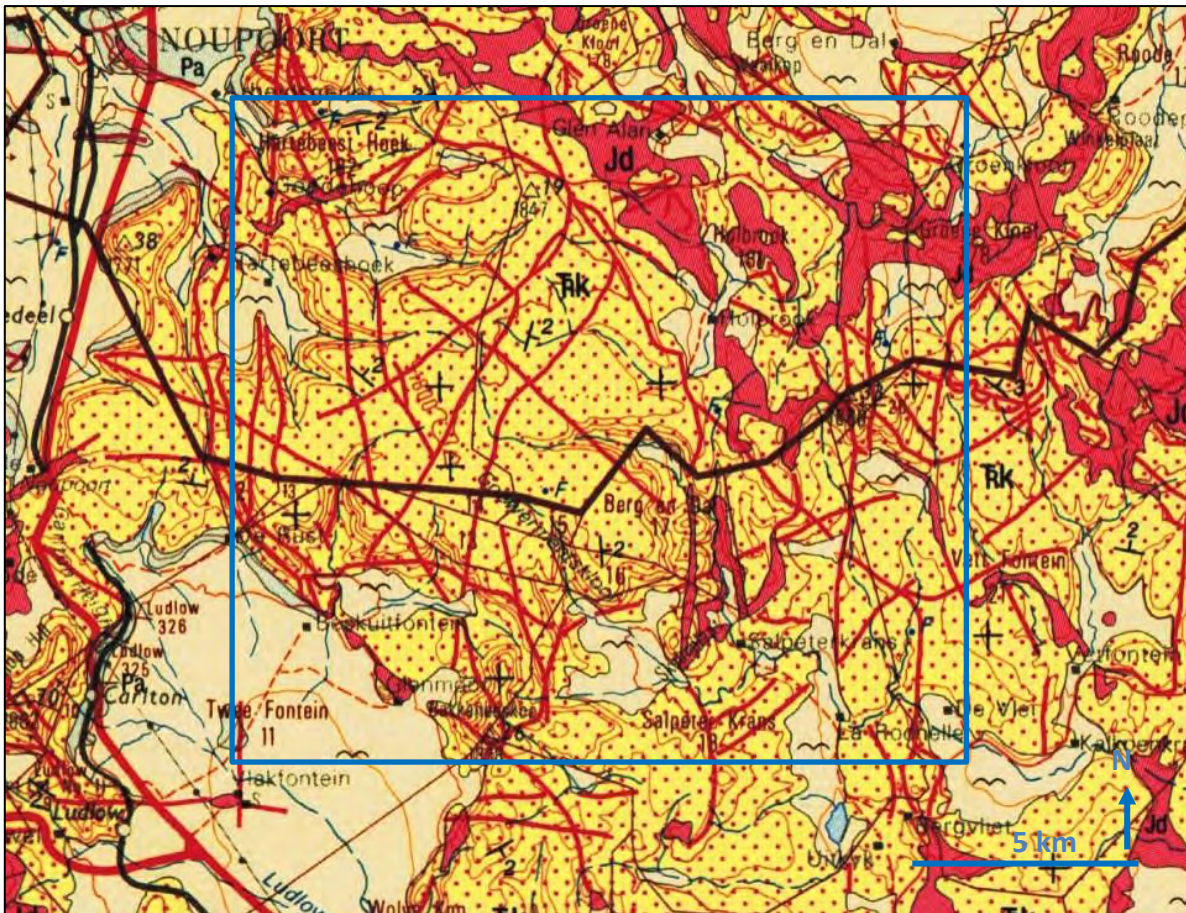


Fig. 2. Extract from 1: 250 000 geology sheet 3124 Middelburg (Council for Geoscience, Pretoria) showing *approximate* outline of the San Kraal WEF study area to the southeast of Noupoort, Northern & Eastern Cape (blue rectangle). The main geological units represented here are:

Pa (pale blue) = Late Permian to Earliest Triassic Adelaide Subgroup (Lower Beaufort Group, Karoo Supergroup)

TRk (yellow with red stipple) = Early Triassic Katberg Formation of the Tarkastad Subgroup (Upper Beaufort Group, Karoo Supergroup)

Jd (red) = Early Jurassic Karoo Dolerite Suite

Pale brown areas with “flying bird” symbol = Quaternary to Recent alluvium

N.B. Other Caenozoic superficial deposits such as colluvium (scree etc), soils and surface gravels are not depicted here but in fact cover much of the landscape.



Fig. 3. Excellent erosion gully and hillslope exposures of colour-banded overbank mudrocks and thin sandstones of the uppermost Balfour Formation (Palingkloof Member) underlying the prominent-weathering channel sandstones of the Katberg Formation, Hartebeest Hoek 182 (Loc. 073).



Fig. 4. Northwest-facing escarpment of the Katberg Formation on the southern side of Oorlogspoort, Hartebeest Hoek 182, showing spaced, laterally-persistent channel sandstones with intervening overbank mudrocks largely obscured by sandstone scree (Loc. 023). Note cliff of amalgamated Katberg channel sandstones on the horizon.



Fig. 5. View north-eastwards across grassy upland plateau on Farm RE14 showing area with very little bedrock exposure (Loc. 038). Surface mantled by sandy soils and downwasted sandstone gravels.



Fig. 6. Sandstone plateau area on Holbrook 181 showing shallow incised stream valley, rocky Katberg sandstone outcrops and rubbly sandstone surface rubble (Loc. 055).



Fig. 7. *Kranz* built by thick cross-bedded Katberg channel sandstones on Tweefontein 1/11 (Loc. 033).



Fig. 8. Large scale tabular current cross-bedding within the Katberg Formation on Holbrook 181 (Loc. 048).



Fig. 9. Extensive Katberg sandstone pavement on Hartebeest Hoek 182 showing large-scale jointing as well as karstic weathering features (Loc. 063).



Fig. 10. Detail of pavement seen in previous illustration to show polygonal jointing, shallower surface cracks as well as solution hollows (Loc. 063).



Fig. 11. Typical karstic tessellation or alligator cracking shown by Katberg sandstone surface on Tweefontein 1/11 (Loc. 036) (Scale = 15 cm).



Fig. 12. Small, steep-sided rock basin or *gnamma* resulting from karstic weathering of Katberg sandstone on farm RE14 (Loc. 038).



Fig. 13. Good example of lichen weathering on Katberg sandstone surface, Holbrook 181 (Loc. 046) (Scale is c. 15 cm long).



Fig. 14. Cross-bedded, secondarily-ferruginised, fine-grained calcrete channel breccio-conglomerate at the base of a thick Katberg channel sandstone, Hartebeest Hoek 182 (Loc. 069) (Hammer = 27 cm).



Fig. 15. Extensive exposure of thick, greyish calcrete nodule breccio-conglomerate within Katberg Formation on Holbrook 181 (Loc. 045) (Hammer = 27 cm). The breccio-conglomerate contains sparse reworked bone and tooth fragments (See Fig. 30).



Fig. 16. Thick coarse mudstone intraclast breccio-conglomerates towards base of a Katberg channel sandstone, Oorlogspoort, Hartebeest Hoek 182 (Loc. 062) (Hammer = 27 cm).



Fig. 17. Upward-coarsening package of irregularly colour-banded overbank mudrocks and thin-bedded sandstones exposed in a borrow pit in Oorlogspoort, Hartebeest Hoek 182 (Loc. 056) (Hammer = 27 cm).



Fig. 18. Streambed exposure of interbedded thin crevasse-splay sandstones and grey-green overbank mudrocks, probably within the lower Katberg Formation, Tweefontein 1/11 (Loc. 029). Note overlying thick alluvial gravels.



Fig. 19. Typical rubble weathering with boulder-sized corestones of dolerite dyke intruding the Lower Beaufort Group country rocks on Hartebeest Hoek 182 (Loc. 026).



Fig. 20. Thick, columnar-jointed dolerite dyke containing baked rafts or xenoliths of Katberg sedimentary rocks, Hartebeest Hoek 182 (Loc. 060) (Hammer = 27 cm).



Fig. 21. Katberg thin-bedded channel sandstone sharply overlying dark grey overbank mudrocks, here baked by dolerite intrusion to form quartzite and hornfels, Hartebeest Hoek 182 (Loc. 071) (Hammer = 27 cm).



Fig. 22. Downwasted surface gravels of sandstone overlying Katberg sandstone pavement, Tweefontein 1/11 (Loc. 035).



Fig. 23. Thick, eroded piedmont fan of sandy and gravelly colluvial and alluvial deposits mantling foot of the Katberg escarpment, Hartebeest Hoek 182 (Loc. 025).



Fig. 24. Erosion gully exposure of thick sandy alluvium in stream valley on Katberg plateau, Holbrook 181 (Loc. 049) (Hammer = 27 cm).



Fig. 25. Sandy soils with well-developed stone line overlying weathered Katberg mudrocks and overlain in turn by dark grey modern carbonaceous soils, Farm RE13 (Loc. 037) (Hammer = 27 cm).

4. PALAEOLOGICAL HERITAGE

The fossil heritage within each of the major rock units that are represented within the San Kraal WEF study area is outlined here, together with a brief account of Beaufort Group fossil records from the Noupoot region itself. Note that a separate account of fossils from the uppermost Adelaide Subgroup (Pa) is not given because the upper part of the Palingkloof Member (Balfour Formation) belongs to the same assemblage zone (*i.e.* the *Lystrosaurus* AZ) as the overlying Katberg Formation. Occasional limited exposures of Palingkloof Member rocks were identified in the field (Fig. 3) but these do not fall within the WEF project area and are very unlikely to be impacted by the proposed development.

GPS data for geological and fossil localities mentioned in the text and figure legends are provided separately in the Appendix to this report.

4.1. Fossil heritage in the Katberg Formation and uppermost Adelaide Subgroup

The Katberg Formation is known to host a diverse and palaeontologically important terrestrial fossil biota of Early Triassic (Scythian / Induan - Early Olenekian) age, *i.e.* around 252 million years old (Groenewald & Kitching 1995, Rubidge 2005, Smith *et al.* 2012). The biota is dominated by a range of therapsids (“mammal-like reptiles”), amphibians and other tetrapods, with rare vascular plants and trace fossils, and has been assigned to the ***Lystrosaurus* Assemblage Zone (LAZ)**. This surprisingly rich fossil assemblage characterizes Early Triassic successions of the upper part of the Palingkloof Member

(Adelaide Subgroup) as well as the Katberg Formation. It should also be noted that while the dicynodont *Lystrosaurus* is also recorded from the uppermost beds of the Latest Permian *Dicynodon* Assemblage Zone it only becomes super-abundant in Early Triassic times (e.g. Smith & Botha 2005, Botha & Smith 2007 and refs. therein).

Useful illustrated accounts of LAZ fossils are given by Kitching (1977), Keyser and Smith (1977-1978), Groenewald and Kitching (1995), MacRae (1999), Hancox (2000), Smith *et al.* (2002), Cole *et al.* (2004), Rubidge (2005 *plus* refs therein), Damiani *et al.* (2003a), Smith *et al.* (2012) among others. These fossil biotas are of special palaeontological significance in that they document the recovery phase of terrestrial ecosystems following the catastrophic end-Permian Mass Extinction of 252 million years ago (e.g. Smith & Botha 2005, Gastaldo *et al.* 2005, Botha & Smith 2007, Smith & Botha-Brink 2014 and refs. therein). They also provide interesting insights into the adaptations and taphonomy of terrestrial animals and plants during a particularly stressful, arid phase of Earth history in the Early Triassic.

Key tetrapods in the *Lystrosaurus* Assemblage Zone biota are various species of the medium-sized, shovel-snouted dicynodont *Lystrosaurus* (by far the commonest fossil form in this biozone, contributing up to 95% of fossils found), the small captorhinid parareptile *Procolophon*, the crocodile-like early archosaur *Proterosuchus*, and a wide range of small to large armour-plated “labyrinthodont” amphibians such as *Lydekkerina* (Figs. 26 and 27). Botha and Smith (2007) have charted the ranges of several discrete *Lystrosaurus* species either side of the Permo-Triassic boundary. Also present in the LAZ are several genera of small-bodied true reptiles (e.g. owenettids), therocephalians, and early cynodonts (e.g. *Galesaurus*, *Thrinaxodon*). Animal burrows are attributable to various aquatic and land-living invertebrates, including arthropods (e.g. *Scoyenia* and *Katbergia* scratch burrows), as well as several subgroups of fossorial tetrapods such as cynodonts, procolophonids and even *Lystrosaurus* itself (e.g. Groenewald 1991, Damiani *et al.* 2003b, Abdala *et al.* 2006, Modesto & Brink 2010, Bordy *et al.* 2009, 2011). Vascular plant fossils are generally rare and include petrified wood (“*Dadoxylon*”) as well as leaves of glossopterid progymnosperms and arthropyte ferns (*Schizoneura*, *Phyllothea*). An important, albeit poorly-preserved, basal Katberg palaeoflora has recently been documented from the Noupport area (Carlton Heights) by Gastaldo *et al.* (2005). Plant taxa here include sphenopsid axes, dispersed fern pinnules and possible peltasperm (seed fern) reproductive structures. Pebbles of reworked silicified wood of possible post-Devonian age occur within the Katberg sandstones in the proximal outcrop area near East London (Hiller & Stavrakis 1980, Almond unpublished obs.). Between typical fossil assemblages of the *Lystrosaurus* and *Cynognathus* Assemblage Zones lies a possible *Procolophon* Acme Zone characterized by abundant material of procolophonids and of the amphibian *Kestrosaurus* but lacking both *Lystrosaurus* and *Cynognathus* (Hancox 2000 and refs. therein).

Most vertebrate fossils are found in the mudrock facies rather than channel sandstones. Articulated skeletons enclosed by calcareous pedogenic nodules are locally common, while intact procolophonids, dicynodonts and cynodonts have been recorded from burrow infills (Groenewald and Kitching, 1995). Fragmentary rolled bone and teeth (e.g. dicynodont tusks) are found in the intraformational calcrete nodule conglomerates at the base of some the channel sandstones. Vertebrate burrows occur within both mudrock and sandstone facies.

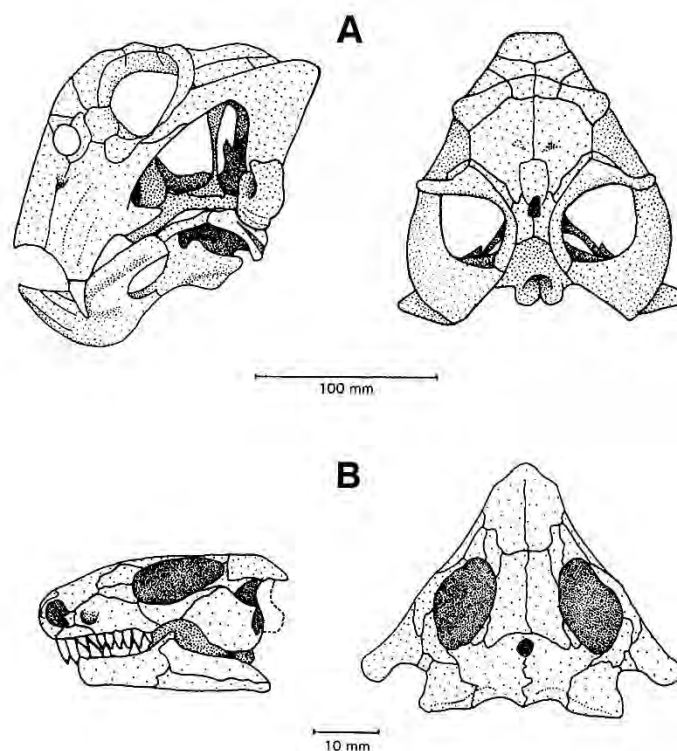


Fig. 26. Skulls of two key tetrapod genera from the Early Triassic *Lystrosaurus* Assemblage Zone of the Main Karoo Basin: the pig-sized dicynodont *Lystrosaurus* (A) and the small primitive reptile *Procolophon* (B) (From Groenewald and Kitching, 1995).

Several Karoo vertebrate fossil sites are reported from the Katberg Formation and underlying rocks in the Middelburg – Noupport region by Kitching (1977; see Karoo biozonation map in Fig. 28 herein as well as updated Karoo vertebrate fossil site map of Nicolas 2007 abstracted in Fig. 29). For example, Kitching recorded as many as five different species of *Lystrosaurus* from good mountain slope exposures as well as road and railway cuttings in the Carlton Heights area near Noupport. Abundant lystrosaurids, including three species of the genus, were found at Edenvale and on Noupport Commonage (*ibid.*, pp. 89-100). It is interesting that the spectrum of *Lystrosaurus* species recorded by Kitching (1977) in the Noupport region – if correctly identified - suggests that Latest Permian beds referable to the *Dicynodon* Assemblage Zone may in fact be present here (*cf.* Botha & Smith 2007). This is supported by a recent search for fossil records from the Noupport area in the Karoo fossil database at the BPI (Wits University) kindly undertaken by Mr Mike Day. Sites on the farms Naauwport 1, Bergendal 179, New Jakkalsfontein 172 and Carolus Poort 167 have yielded abundant material of *Lystrosaurus* together with *Procolophon*, *Tetracynodon* and a few specimens of *Dicynodon*. An unusually diverse LAZ assemblage has recently been recorded from Barendskraal near Middelburg by Damiani *et al.* (2003a). The spectrum of nine or more tetrapod species found here includes *Lystrosaurus* (albeit with low abundance), therocephalians, archosaurs and several procolophonid reptiles. The poorly-preserved fossil flora recorded by Gastaldo *et al.* (2005) from the basal Katberg at Carlton Heights near Noupport is of special interest because plant fossils are so rare in this stratigraphic interval. Scrappy compressions of reedy plants within Katberg sandstones were illustrated by Almond (2015) from the Umsobomvu WEF project area southwest of Noupport.

Sparse, highly-weathered postcranial remains as well as poorly-preserved *Lystrosaurus* skull material was reported just to the SW of Noupoot by Butler (2014). Gess (2012b) recorded locally abundant vertebrate body fossils, including *Lystrosaurus* and a small cynodont, plant stems, vertebrate burrows and *Katbergia* (“roots”) on Portion 1 of Naauw Poort Farm 1 located c. 11 km south of Noupoot. On farm Blydefontein 168, situated just to the north of the San Krall WEF study area, Almond (2012) recorded fragmentary reworked skeletal remains, including disarticulated skulls, postcrania and teeth (especially dicynodont tusks) within greyish calcrete conglomerates. Some of the fossils were clearly encased in ferruginous pedogenic calcrete *before* they were exhumed and reworked. Overlying massive grey-green siltstones contain rare “bone-bed” concentrations (e.g. *Lystrosaurus* skull and postcrania) and horizons of large ferruginous calcrete nodules representing palaeosols. A small number of, mostly fragmentary, vertebrate fossils were reported from Katberg overbank mudrocks and calcrete breccia beds in the Umsobomvu WEF study area southwest of Noupoot by Almond (2015); they did include one well-articulated lystrosaurid skeleton with associated skull, however.

Low-diversity trace fossil assemblages recorded from Katberg rocks in the Noupoot area – for example south of the Oologspoort road - include locally abundant vertical cylindrical structures attributed to *Skolithos* in the literature (e.g. Almond 2012) but more plausibly interpreted as plant stem casts, as well as small meniscate back-filled burrows (“*Taenidium*”). Numerous examples of the cm-wide subcylindrical invertebrate burrow *Katbergia* were observed by Almond (2012) in fresh road cuttings through the Katberg Formation along the N9 at Carlton Heights and localities further to the SW (Gess 2012, Almond 2015). These distinctive burrows penetrate down through grey-green mudrocks at an oblique angle and show surface scratch markings; they have been tentatively attributed to decapod crustaceans (Gastaldo & Rolerson 2008, Bordy *et al.* 2010). Several much larger, straight, gently-sloping vertebrate burrow casts cutting down through thin-bedded overbank mudrocks within the lower Katberg Formation are recorded from road cuttings on farm Naauw Poort 1 (Almond 2015). Further vertebrate burrow casts recorded on farm Winterhoek 118 are described and illustrated in the palaeontological report for the Phezukomoya WEF southwest of Noupoot (Almond 2017).

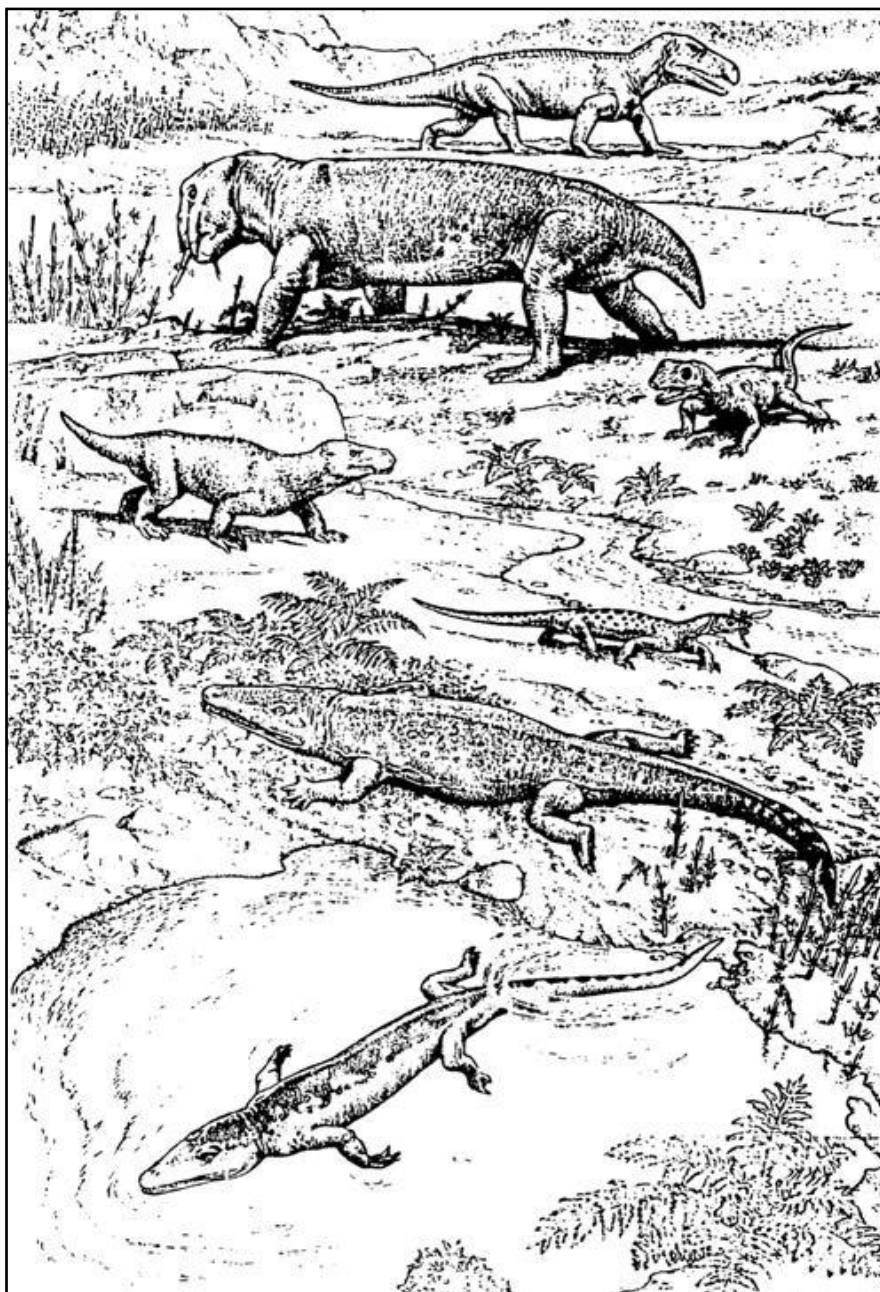


Fig. 27. Reconstruction of Early Triassic biotas of the *Lystrosaurus* Assemblage Zone (From Benton 2003 *When life nearly died*). Animals illustrated here include the crocodile-like archosaur reptile *Proterosuchus* (top) and below this the dominant, pig-sized dicyodont *Lystrosaurus*, a small predatory therocephalian therapsid (middle left), several small lizard-like reptiles such as procolophonids (middle right), and two large amphibians (bottom). Plants shown here include several ferns and reedy horsetails.

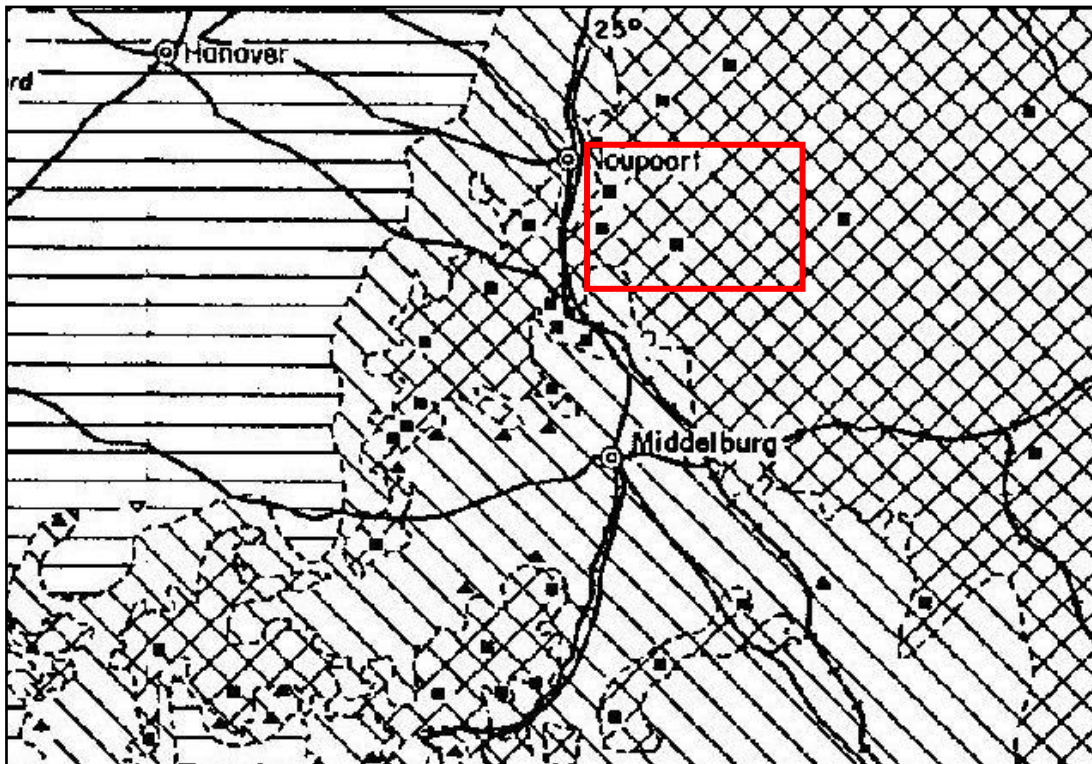


Fig. 28. Fossil zonation map of the Middelburg – Noupoort region showing the occurrence of several vertebrate fossil localities in the area to the southeast of Noupoort (red rectangle). Black squares here refer to fossils of the Early Triassic *Lystrosaurus* Assemblage Zone (mainly within the Katberg Formation). Triangles to the southwest are *Daptocephalus* (*Dicynodon*) AZ fossils within Late Permian rocks of the Adelaide Subgroup. Figure modified from Karoo biozonation map of Kitching (1977).

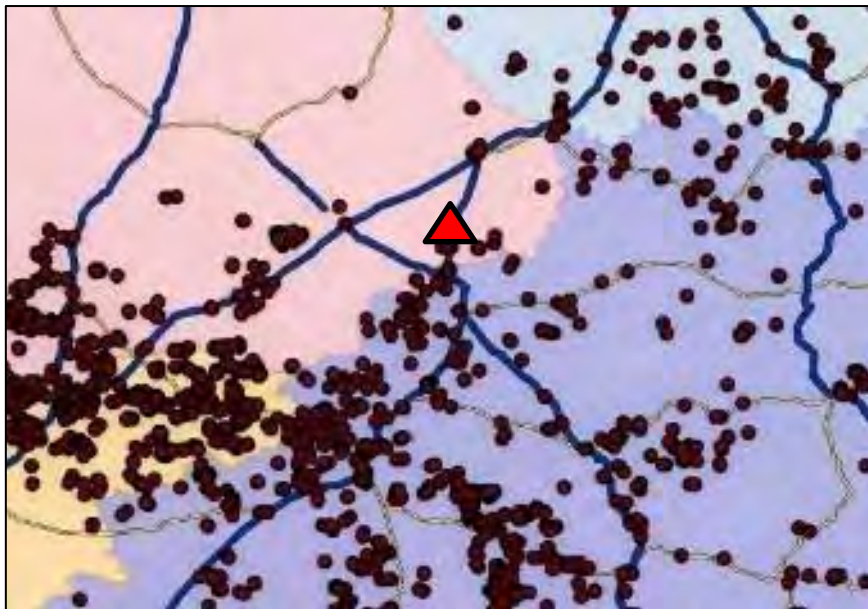


Fig. 29. Map of Beaufort Group vertebrate fossil localities in the vicinity of Noupoort (red triangle), abstracted from Nicolas (2007). Pink – N. Cape. Dark blue – Eastern Cape.

4.2. New palaeontological records in the WEF study area

No substantial, well-articulated Karoo vertebrate fossil remains were observed during the present field study of the San Kraal WEF study area near Noupoot. Since abundant and diverse vertebrate remains have been recorded from the same stratigraphic units elsewhere in the Main Karoo Basin (see refs. above), this lack of fossil finds is largely attributed to the paucity of overbank mudrock exposures that are the main locus of fossil preservation within the Permo-Triassic sedimentary bedrocks represented here. These mudrocks are only rarely seen along the escarpment areas, and almost never exposed on the sandstone plateaux where most of the WEF infrastructure will be situated (Figs. 4-6). The only vertebrate body fossils recorded here comprise a few isolated fragments of bone and teeth – most likely of therapsid affinity (and probably *Lystrosaurus* for the most part) – found embedded within calcrete nodule breccio-conglomerates that are associated with the bases of major sandstone packages of the Katberg Formation (Fig. 30 a-f, satellite images 33 & 34). These fossils represent vertebrate remains lying on the floodplain surface or already embedded within subsurface pedogenic calcrete palaeosols (fossil soils) that were re-exhumed or entrained by floods during episodes of major denudation of the arid Early Triassic landscape.

A series of indubitable to poorly-preserved and ambiguous, large vertebrate burrow casts (c. 30-50 cm diameter) have been recorded on the farm Winterhoek 118 close to one of the 132 kV grid connection routes for the San Kraal WEF (Locs. 119, 120, 122 and 123; see satellite maps Figs. 35 and 36). These are described and illustrated in the palaeontological report for the Phezukomoya WEF (Almond, 2017). One of the burrow casts is associated with disarticulated bones. Because of their scientific interest (Field Rating IIIB), it is recommended that the fossil burrow sites be protected by a 50 m-wide buffer zone.

Equivocal vertebrate burrows cross-cutting colour-banded overbank mudrocks are seen in the lower Katberg along Oorlogspoort (Fig. 31) but these require further study before their fossil burrow status is accepted; colouration may be deceptive, secondary (diagenetic) and unrelated to meaningful grain-size contrast. In the same area thin calcareous sandstones displaying numerous closely-spaced, vertical cylindrical traces are now interpreted as casts of reedy plant stems rather than *Skolithos* invertebrate burrows (*cf* Almond 2012) (Fig. 32).

Apart from the Winterhoek 118 vertebrate burrows, all these fossil occurrences belong to categories that have been widely recorded within the extensive Katberg Formation outcrop area of the Main Karoo Basin and do not present obvious unique features. Their palaeontological research and conservation value is therefore assessed as LOW and they are assigned a provisional Field Rating IIIC Local Resource (Appendix 1).

The central Karoo superficial or “drift” deposits have been comparatively neglected in palaeontological terms. However, they may occasionally contain important fossil biotas, notably the bones, teeth and horn cores of mammals as well as remains of reptiles like tortoises. Other late Caenozoic fossil biotas from these superficial deposits include non-marine molluscs (bivalves, gastropods), ostrich egg shells, tortoise remains, trace fossils (e.g. calcretised termitaria, coprolites, invertebrate burrows), and plant material such as peats or palynomorphs (pollens) in organic-rich alluvial horizons and diatoms in pan sediments. No fossil remains were recorded from the various Late Caenozoic superficial deposits examined during the present field assessment. Occasional embedded stone

artefacts are of interest in constraining their age to the Middle Pleistocene or Holocene, *i.e.* the last c. 300 000 years.



Fig. 30. Fragmentary vertebrate fossils recorded from calcrete nodule breccio-conglomerates within the Katberg Formation: (a) Well-exposed fossiliferous breccia on Holbrook 181 (Loc. 045) (Hammer = 27 cm). (b) Small bone fragment, 20 mm long. (c) Small bone fragment, 35 mm long. (d) Bones enclosed in pedogenic calcrete prior to reworking (arrows; scale in mm). (e) Fragment of jaw bone with tusk, 38 mm long. (f) Fragment of tooth, 10 mm long. Fossils all from Loc. 045 with exception of tooth in (f) from Loc. 056 (See satellite images 33 and 34).



Fig. 31. Colour-banded overbank mudrocks within the lower Katberg Formation showing *equivocal*, mudrock-infilled “vertebrate burrow” (outlined), Oorlogspoort (Loc. 056) (Hammer = 27 cm).



Fig. 32. Thin calcareous sandstone with small cylindrical traces interpreted as stem casts of reedy vegetation, such as equisetalean ferns (Loc. 056) (Scale in cm).

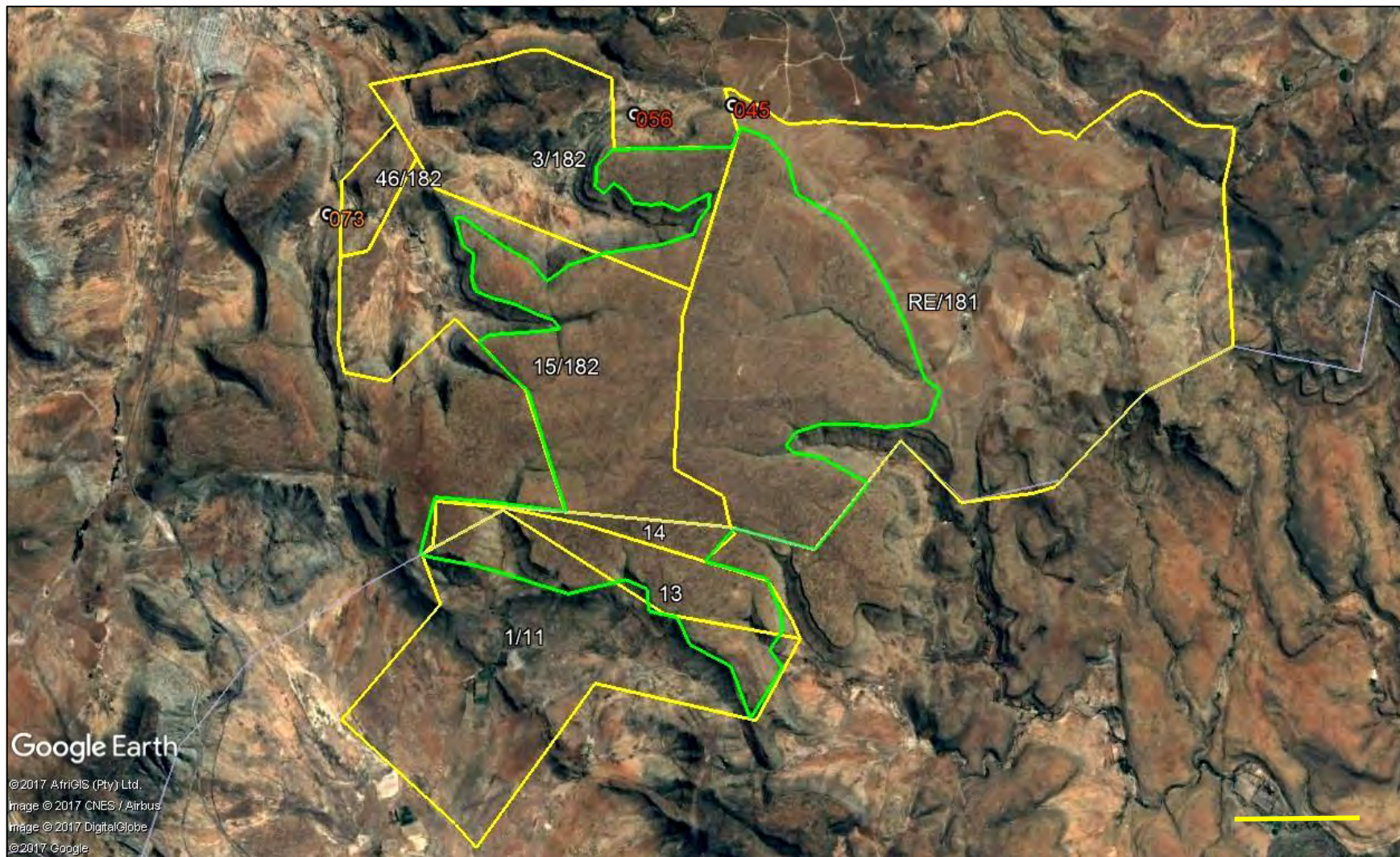


Fig. 33. Google earth© satellite image of the San Kraal WEF project area showing numbered Katberg Formation fossil localities (045, 056 in red) and good exposure of the Palingkloof Member of the Balfour Formation (073 in orange). All these sites lie outside the core WEF development area that is mainly located on the sandstone plateau (green polygon). See Appendix for locality details. Scale bar = 2 km.



Fig. 34. Satellite image of northern sector of the San Kraal project area (yellow polygon) showing numbered vertebrate fossil localities (045, 056) within the Katberg Formation to the south of the Oorlogspoort dust road. A good escarpment section through the sharp-based Katberg Formation (Fig. 4) is present in the area outlined in red. The low-lying *vlaektes* to the west of the escarpment here are underlain by the Palingkloof Member (uppermost Balfour Formation) but mantled by thick alluvium and colluvium. Note rocky Katberg sandstone terrain on the plateau where most of the WEF infrastructure will be constructed (area outlined in green).

5. EVALUATION OF IMPACTS ON PALAEOLOGICAL HERITAGE

The San Kraal WEF study area is located in a region of the Great Karoo that is underlain by potentially fossiliferous sedimentary rocks of Permo-Triassic and younger, Late Tertiary or Quaternary, age (Sections 3 & 4). The construction phase of the proposed wind energy facility will entail substantial excavations into the superficial sediment cover and locally into the underlying bedrock as well. These include, for example, surface clearance and excavations for the wind turbine foundations, laydown and hardstanding areas, internal access roads, underground cables, transmission line pylon footings, electrical substations, operations and services workshop area/office building and construction camps. All these developments may adversely affect potential fossil heritage within the study area by destroying, disturbing or permanently sealing-in fossils preserved at or beneath the surface of the ground that are then no longer available for scientific research or other public good.

The inferred impact of the proposed San Kraal WEF on local fossil heritage resources – including the 132 kV grid connection - is briefly evaluated here, based on the system used by ARCUS Consulting. This assessment applies only to the construction phase of the development since further significant impacts on fossil heritage during the planning, operational and decommissioning phases of the facilities are not anticipated.

In general, the destruction, damage or disturbance out of context of fossils preserved at the ground surface or below ground that may occur during construction represents a *negative* impact that is limited to the development footprint (*local / within site boundary*). Such impacts can often be mitigated but cannot be fully rectified or reversed (*i.e. long-term, irreversible*). Most of the sedimentary formations represented within the study area contain fossils of some sort. The pervasive mantle of alluvium, scree and soil covering the vast majority of the potentially-fossiliferous overbank mudrocks within the WEF study area - including the sandstone plateau areas where most of the infrastructure will be situated – is almost certainly largely responsible for the lack of significant fossil finds here during the present field study. Fossils may be expected in the subsurface and negative impacts at some level on fossil heritage are therefore considered *certain*.

Most fossil occurrences represent taxa that probably occur widely within the study region (*i.e. not unique / irreplaceable*). However, occasional exceptional, scientifically-valuable fossils - such as well-preserved, well-articulated vertebrate skeletons as well as vertebrate burrows - have been recorded in the broader study region around Noupoort. Furthermore, the Beaufort Group bedrock succession underlying the WEF project area records major palaeoecological and evolutionary events across the Permo-Triassic boundary (catastrophic mass extinction event) which are an important focus of ongoing academic studies in Karoo palaeontology. The severity / intensity of anticipated impacts on palaeontological heritage before mitigation is assessed as *moderate (negative)*, given the predicted occurrence of sparse but scientifically-valuable (and potentially *irreplaceable*) fossils in the subsurface within the development footprint. Due to the low extent, moderate severity and permanent duration of potential impacts, the impact significance of the proposed WEF is assessed as *medium (negative)* before mitigation. Confidence levels in this assessment are *medium*, given (1) the extensive palaeontological literature on the Karoo bedrocks concerned weighed against (2) very low levels of bedrock exposure within the study area and (3) the unpredictable distribution of well-preserved fossils in the subsurface.

It should be noted that, should the recommended mitigation measures for the construction phase of the WEF development, as outlined in Section 6 of this report, be consistently followed-though, the impact significance would remain *medium (negative)* but would entail both positive and negative impacts. Residual negative impacts from inevitable loss of some valuable fossil heritage would be partially offset by an improved palaeontological database for the study region as a direct result of appropriate mitigation. This is a *positive* outcome because any new, well-recorded and suitably-curated fossil material from this palaeontologically little-known region would constitute a useful addition to our scientific understanding of Karoo Basin fossil heritage.

There are no fatal flaws in the proposed WEF project from a palaeontological heritage viewpoint and no objects to authorisation of the development, provided that the recommended mitigation measures are fully implemented.

5.1. Power line connection to the national grid

The San Kraal WEF will be connected to the National Grid *via* a c. 25 km-long 132 kV high voltage overhead power line from the on-site switching station to the proposed Umsobomvu substation situated some 23 km southwest of Noupoort (Fig. 35). A preferred powerline route option together with two alternative routes, Alternatives 1 and 2, are briefly assessed here based on palaeontological field experience of the region (adjoining Umsobomvu, San Kraal and Phezukomoya WEF field study areas) as well as recent field examination of short sectors of the powerline corridors.

All three route options traverse similar geological terrain underlain by Beaufort Group bedrocks with occasional elongate, steeply-dipping dolerite intrusions (See geological map, Fig. 2). Apart from the thicker channel sandstones, the Karoo bedrocks are rarely exposed and in low-lying areas are mantled by several meters of, at most, very sparsely-fossiliferous alluvial deposits, such as exposed in areas of deep *donga* erosion and along incised stream beds. With all three power line route options, direct impacts on surface or subsurface fossils as a result of the powerline construction (notably pylon footings, clearance for new access roads) are likely to be similar and minor (low impact significance), especially given the short length of the power line. The proposed sites for the on-site substation, switching station and connecting overhead powerline on the Katberg sandstone plateau within the main WEF project area are unproblematic from a palaeontological view (low impact significance).

As shown in Figure 36, the south-western sector of the powerline Alternative 1 passes close to an extensive stream bed exposure of Katberg Formation bedrocks which contain a scientifically interesting assemblage of large fossil vertebrate burrows, at least one of which is associated with disarticulated bones, possibly of the trace-maker itself (These occurrences are illustrated and described in the separate palaeontological report for the Phezukomoya WEF, Almond 2017). It is recommended that these fossil sites are protected by a 50 m-wide buffer zone (yellow shape) which would then be transgressed by the Alternative 1 powerline route. This is accordingly the least preferred route option on palaeontological heritage grounds. There is no preference between the currently preferred route and the Alternative 2 route. Should the Alternative 1 route be chosen on other grounds, it is recommended that

the sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed where the fossil vertebrate burrows are exposed.

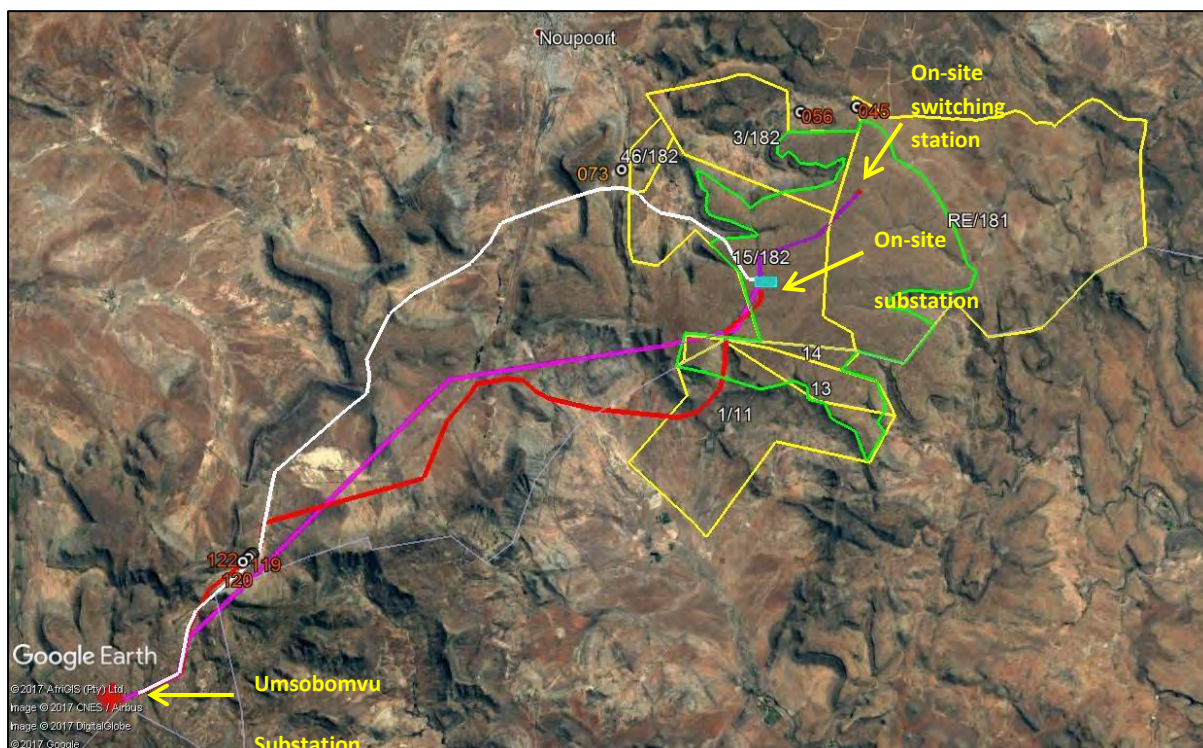


Fig. 35. Google Earth satellite image showing the preferred 132 kV power line connection between the San Kraal WEF and the Umsobomvu substation (purple line) as well as two other route options: Alternative 1 (red line) and Alternative 2 (white line).

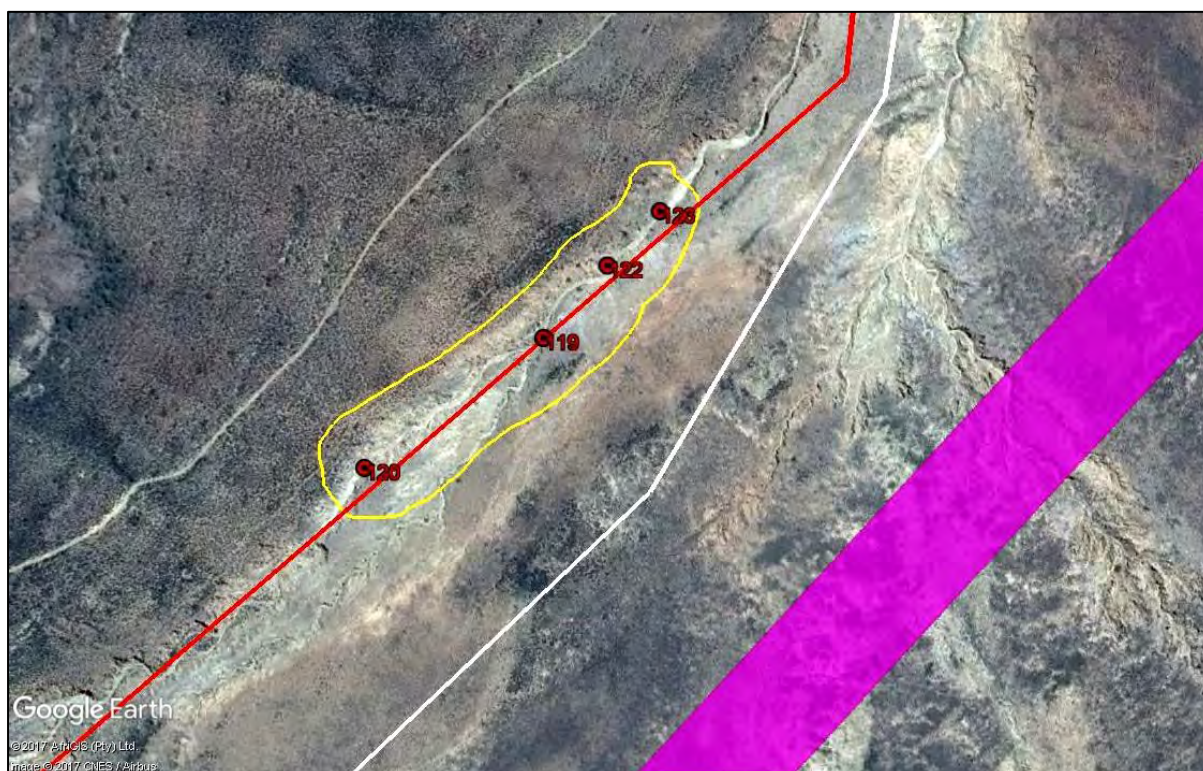


Fig. 36. Detail of the south-western sectors of the 132 kV powerline routes shown in the previous figure. Alternative 1 (red line) passes through the proposed 50 m-radius protective buffer (yellow shape) surrounding several important fossil vertebrate burrow sites in the Katberg Formation that are exposed in a deeply-incised stream bed (Locs. 119-123). Alternative 2 route option – white. Preferred route option – purple.

5.2. Cumulative impact assessment

Previous palaeontological assessments (PIAs) for several proposed or authorized alternative energy projects within a 35 km radius of the San Kraal WEF project area have been briefly reviewed (Note that heritage assessments for some projects have been accepted without a PIA; e.g. Dida Solar Energy Facility on the farm Rietfontein north of Noupoot). These include field-based assessments for the Noupoot WEF (Almond 2012), the Umsobomvu WEF (Almond 2015), the Phezukomoya WEF (Almond 2017) as well as several solar projects near Noupoot and Middelburg (Gess 2012a, 2012b, Butler 2016).

In the author's opinion:

- Palaeontological impact significances inferred for these projects that range from low (Noupoot and Umsobomvu WEFs) to medium (San Kraal and Phezukomoya, Naauwpoort 1 solar project) to unassessed reflect different assessment approaches rather than contrasting palaeontological sensitivities and impact levels;
- Meaningful cumulative impact assessments require comprehensive data on *all* major developments within a region, not just those involving alternative energy, as well as an understanding of the extent to which recommended mitigation measures are followed through;
- Trying to assess cumulative impacts on fossil assemblages from different stratigraphic units (in this case, Late Permian fossils from the Adelaide Subgroup and Early Triassic assemblages from the Tarkastad Subgroup) has limited value.

Given the comparatively small combined footprint of the alternative energy projects under consideration compared with the very extensive outcrop areas of the Balfour and Katberg Formations, the cumulative impact significance of the San Kraal WEF is assessed as LOW.

6. RECOMMENDATIONS FOR MONITORING AND MITIGATION

Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (c. 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with any recommendations for further specialist monitoring or mitigation, should be submitted by the palaeontologist to SAHRA for comment. This

stepwise approach is recommended because it may well prove impracticable to recognise record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.

No palaeontological No-Go areas or fossil sites requiring mitigation have been identified within the main WEF development footprint on the Katberg sandstone plateau. In the grid connection study area several vertebrate burrows exposed in a stream bed on Farm Winterhoek 118 close to 132 kV power line route Alternative 1 (Fig. 36) should be protected by a 50m-radius buffer zone. Should the Alternative 1 route rather than the currently preferred route be finally chosen, it is recommended that that sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed.

In addition to the specialist palaeontological monitoring outlined above, the ECO responsible for the construction phase of the project should be aware of the potential for important fossil finds and the necessity to conserve them for possible professional mitigation (See, for example, Macrae 1999 for a well-illustrated popular account of Karoo fossils). The ECO should monitor all substantial excavations into sedimentary rocks for fossil remains on an on-going basis during the construction phase.

Recommended mitigation of chance fossil finds during the construction phase of the WEF and associated grid connection involves safeguarding of the fossils (preferably *in situ*) by the responsible ECO and reporting of finds to SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) and to ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za). Where appropriate, judicious sampling and recording of fossil material and associated geological data by a qualified palaeontologist may be required by the relevant heritage regulatory authorities. Any fossil material collected should be curated within an approved repository (museum / university fossil collection) by a qualified palaeontologist. These recommendations should be included within the Environmental Management Programme for the proposed alternative energy project.

Given the internationally recognised value of Karoo fossil heritage (e.g. Macrae 1999, McCarthy & Rubidge 2005, Choiniere & Rubidge 2016), the known occurrence of scientifically-valuable fossil material in the Noupoot region, as well as the legal protection of all fossil remains under the National Heritage Resources Act (1999), these mitigation measures are considered to be essential.

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9. QUALIFICATIONS & EXPERIENCE OF THE 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 in Germany, and has carried out palaeontological research in Europe, North America, the Middle East as well as North and South Africa. 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 palaeontological impact assessments for developments and conservation areas in the Western, Eastern and Northern Cape, Mpumalanga, Free State, Limpopo, Northwest and Kwazulu-Natal under the aegis of his Cape Town-based company *Natura Viva* cc. He has been a long-standing 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.
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APPENDIX: GPS LOCALITY DATA

All GPS readings were taken in the field using a hand-held Garmin GPSmap 60CSx instrument. The datum used is WGS 84.

Loc. No.	GPS DATA	COMMENTS
023	S31° 12' 43.4" E25° 00' 54.6"	Hartebeest Hoek 182. Good views of Katberg Fm succession on southern side of Oorlogspoort dust road. Lower part of succession with well-spaced, prominent-weathering, laterally-extensive, tabular, grey-green to pale brownish-weathering sandstones, with intervening thick mudrock packages largely obscured by sandstone scree. Closely-spaced to amalgamated channel sandstones towards top of Katberg succession form cliff around rim of plateau.
024	S31° 13' 50.6" E24° 59' 14.2"	Hartebeest Hoek 182. Alluvial-mantled <i>vlaktes</i> south of Hartebeest Hoek homestead. Views of Katberg escarpment.
025	S31° 14' 07.7" E24° 59' 28.4"	Hartebeest Hoek 182. Thick prism or apron of Late Caenozoic mixed colluvial, alluvial and sheetwash deposits along foot of Katberg escarpment. Gently-sloping, laterally-coalescent alluvial (piedmont) fans centred on stream gullies down escarpment. Poorly-sorted, semi-consolidated sandy and gravelly sediments exposed by donga erosion beneath mantle of rubbly, downwasted surface gravels of platy to blocky sandstone (majority), dolerite corestones, diagenetic calcareous concretions. Some clasts secondarily ferruginised / impregnated with manganese minerals.
026	S31° 12' 53.7" E24° 59' 10.9"	Hartebeest Hoek 182. Steep dolerite dyke with rubbly corestone-strewn surface in nek between Goedehoop and Hartebeest Hoek homesteads. Late Caenozoic calcrete development in superficial deposits in vicinity of dolerite (e.g. in farm tracks).
027	S31° 16' 52.3" E25° 01' 35.4"	Twefontein 1/11 / Beskuitfontein. Views of west-facing steep Katberg escarpment cut by occasional steep, thick dolerite dykes (route of most tracks up to Katberg plateau). Almost no mudrock exposure of Lower Beaufort Group in escarpment or <i>vlaktes</i> .
028	S31° 17' 16.7" E25° 02' 13.2"	Twefontein 1/11 / Beskuitfontein. Stream bed exposures of Lower Beaufort Group (probably upper Adelaide Subgroup) bedrocks – yellowish-green channel sandstones overlain by c. 2.5 m of alluvium including thin basal alluvial sandstone gravels and then well-sorted brownish sandy alluvium.
029	S31° 17' 16.2" E25° 02' 09.6"	Twefontein 1/11 / Beskuitfontein. Extensive stream bed exposures of Lower Beaufort Group (probably Katberg Fm) bedrocks overlain by coarse rubbly alluvial gravels and finer, thick-bedded sandy alluvium with gravel lenticles. Yellowish-brown channel and crevasse-splay sandstones with thin (to 20 cm) lenticular mudflake breccio-conglomerates interbedded with thin-bedded grey-green overbank siltstones. Sharp basal sandstone contacts. Irregular rounded, pale creamy-coloured siliceous nodules and vugs are probably a consequence of nearby dolerite intrusion. Bedding planes with current ripple marks.
030	S31° 17' 34.7" E25° 02' 37.8"	Twefontein 1/11 / Beskuitfontein. Nek in pass up to Katberg plateau. Views of Katberg escarpment showing thick, amalgamated channel sandstone package towards top of succession. Hillslope exposure of thin-bedded, tabular, purple-brown and blue-green overbank siltstone package with horizon of large, rusty-brown pedogenic calcrete concretions just below finely-gravelly, rusty-brown calcrete breccio-conglomerate horizon. Probably a finer-grained package within the Katberg Formation but with some facies resemblance to Palingkloof Member of Adelaide Subgroup. Overlying thick-bedded tabular channel sandstone with erosional base is Katberg-like.
031	S31° 17' 33.1" E25° 02' 41.4"	Twefontein 1/11 / Beskuitfontein. Hillslope and farm track exposure through thick (several m) massive to thin-bedded, purple-brown overbank mudrocks. Overlying cross-bedded channel sandstone with well-developed (c. 1.5 to 2m thick), grey, massive to vaguely horizontally-bedded basal calcrete breccio-conglomerate – mainly composed of rounded to subangular reworked pedogenic calcrete clasts up to a few cm diameter. No reworked bone fragments seen.
032 John E. Arnold (2017)	S31° 17' 29.0" E25° 02' 41.4"	Twefontein 1/11 / Beskuitfontein. Farm track exposure of thick, massive, purple-brown overbank mudrock package. Mudrocks weathered in place surface.
033	S31° 16' 51.5"	Twefontein 1/11 / Beskuitfontein. Prominent-weathering kranz of massive,

	E25° 02' 31.1"	thick-bedded, horizontal- to low-angle cross-bedded, Katberg channel sandstones on plateau. Karstic weathering features (e.g. polygonal solution cracks or tessellation / alligator cracking, case hardening). Downwasted sandstone surface gravels, some ferruginised, and orange-brown sandy soils.
034	S31° 16' 54.9" E25° 02' 31.2"	Tweefontein 1/11 / Beskuitfontein. Good examples of large-scale tabular to trough cross-bedding within Katberg channel sandstones.
036	S31° 16' 40.6" E25° 02' 23.9"	Tweefontein 1/11 / Beskuitfontein. Katberg tabular channel sandstones showing extensive good examples of complex etched surfaces due to lichen weathering (cf Grab <i>et al.</i> 2011). These features occur widely on the Katberg sandstone plateau areas, especially on damper south-facing slopes. Karstic weathering features also well seen here, including "rock doughnuts" with raised annular rim surrounding a central steep-edged depression, and other forms of rock basins (<i>ibid.</i>).
037	S31° 16' 27.4" E25° 02' 43.7"	Farm RE13. Artificial "adit" into thick, dark grey, sandy carbonaceous upper soils on hillslope besides dam. Underlying sandy subsoil with well-developed stone line grade down into weathered mudrock saprolite and fresher hackly-weathering grey-green and purple-brown siltstone.
038	S31° 16' 13.9" E25° 02' 17.0"	Farm RE14. Quarry site for joint blocks of Katberg sandstone used as fence poles etc. Circular solution hollows in sandstone nearby.
039	S31° 16' 04.8" E25° 01' 44.0"	Farm RE14. Good horizontal bedding within Katberg sandstones at top of kloof.
040	S31° 15' 52.9" E25° 00' 25.7"	Farm RE14. Viewpoint across deep kloof at Katberg escarpment. Flat-bedded to gently-dipping Katberg succession with no exposure of mudrock intervals.
041	S31° 16' 28.7" E25° 01' 19.7"	Farm RE13 (western tip).Sphaeroidal carbonate concretions within massive sandstones locally abundant.
042	S31° 16' 43.8" E25° 01' 15.8"	Tweefontein 1/11 / Beskuitfontein. Exposure of Katberg grey-green overbank mudrocks with deformed sandstone lenses (perhaps burrow casts).
043	S31° 12' 13.5" E25° 02' 38.6"	Holbrook 181. Bedding plane exposures of ferruginised mudflake intraclast breccio-conglomerates capped by sandstone within Katberg Fm.
044	S31° 12' 12.8" E25° 02' 40.6"	Holbrook 181. Extensive exposure of major (up to c. 3 m thick), grey to greenish-blue, medium to thick-bedded, clast-supported, pebbly calcrete breccio-conglomerate composed of reworked, predominantly well-rounded pedogenic calcrete clasts in a calcareous sandy matrix. Some elongate or platy clasts. Sharply overlain by thin-bedded sandstone and cut by occasional thin (dm) dolerite dykes.
045	S31° 12' 14.2" E25° 02' 40.9"	Holbrook 181. Same calcrete conglomerate bed as above. Sparse fragmentary bone and tusk fragments among calcrete clasts, as well occasional bones embedded within reworked calcrete concretions. Field Rating IIIC Local Resource
046	S31° 12' 50.8" E25° 02' 41.7"	Holbrook 181. Good example of lichen-weathered surfaces on Katberg sandstones.
047	S31° 13' 22.0" E25° 02' 27.0"	Holbrook 181. Karstified, jointed bedding plane exposures of Katberg sandstone showing alligator tessellation, case hardening, solution hollows etc. Large-scale trough cross-bedding (palaeocurrents towards the N).
048	S31° 13' 30.1" E25° 02' 24.2"	Holbrook 181. Large-scale sinuous tabular and trough cross-sets within Katberg sandstone (main palaeocurrents towards the S).
049	S31° 15' 55.4" E25° 02' 41.3"	Holbrook 181. Gully wall exposures of thick (> 3 m) pale brown sandy alluvium with thin, fine-grained gravel lenses, occasional dispersed sandstone blocks, in shallow perched stream valley near escarpment edge , capped by dark brown carbonaceous soils and then modern orange-brown sandy soils.
050	S31° 16' 01.2" E25° 03' 12.0"	Holbrook 181 Erosion gully exposures of dark, carbonaceous soils in shallow stream valley. Contain small-scale meniscate bioturbation fabrics perhaps attributable to termites or other invertebrates.
051	S31° 15' 38.1" E25° 03' 55.8"	Holbrook 181.Viewpoint eastwards of deeply-incised Katberg escarpment with steeply-dipping dolerite intrusion cutting through tabular channel

		sandstones.
052	S31° 15' 21.9" E25° 03' 26.1"	Holbrook 181. Viewpoint into deeply-incised kloof with only occasional small exposures of purple-brown mudrock facies. Most of escarpment slopes mantled by sandstone scree and soil.
053	S31° 14' 58.8" E25° 02' 07.0"	Holbrook 181. Karstified Katberg sandstone bedding planes, alligator tessellation, solution hollows, lichen-etched surfaces.
054	S31° 13' 46.0" E25° 03' 07.3"	Holbrook 181. View across Katberg sandstone plateau with no mudrock exposure, scattered low sandstone ridges.
055	S31° 12' 47.4" E25° 03' 09.9"	Holbrook 181. Karstic (e.g. small mushroom pedestals / chicken heads) and lichen weathering patterns in locally well-jointed Katberg sandstone exposures.
056	S31° 12' 18.8" E25° 01' 40.2"	Hartebeest Hoek 182 (on southern side of Oorlogspoort dust road, just outside project area). Elongate borrow pit exposure into horizontal, thin-bedded purple-brown and grey-green mudrocks and thin, fine-grained sandstones of the lower Katberg Formation (with some facies resemblances to the Palingkloof Member, Balfour Formation, Adelaide Subgroup). Occasional flat-topped sandstone lenses and thin-bedded, more heterolithic packages, locally with sand-infilled desiccation cracks. Colour banding secondary, at least in part. Overlying channel sandstone fairly flat but with locally gullied base. <i>Possible</i> but equivocal vertebrate burrow cast by siltstone (requires confirmation). Float blocks of thin-bedded sandstone containing dense assemblages of cylindrical, vertical, sand-infilled casts – probably of reedy plant stems (e.g. equisetaleans). Towards base of exposed succession is thin (few cm), prominent-weathering bed of ferruginised, fine-grained calcrete breccia with rare tooth fragments Some of calcrete bodies are elongate, vermiform and may be calcretised rhizoliths. Field Rating IIIC Local Resource
057	S31° 12' 24.9" E25° 01' 25.7"	Hartebeest Hoek 3/182. Lower escarpment slopes on south side of Oorlogspoort dust road. Prominent-weathering tabular channel sandstones intercalated with thick purple-brown to grey-green mudrock packages as seen in previous locality (but here mostly obscured by sandstone scree). Base of exposed succession is major pale brown channel sandstone seen in stream bed and banks besides road, also assigned to Katberg Fm. Mudrock packages show well-developed sand-infilled polygonal desiccation cracks, horizons of sphaeroidal to irregular, rusty-brown pedogenic calcrete nodules, becoming more heterolithic with thin sandstone interbeds towards top. Base of channel sandstones sharp, flat to often gullied on a small scale, associated with thick (up to 0.5 m) coarse reworked mudclast and ferruginous calcrete breccias (occasionally cross-bedded), fluted sandstone soles, lenticular, pale grey calcrete breccio-conglomerates (e.g. infilling gully bases). Sandstones massive to horizontally- and thin-bedded or low angle cross-bedded.
058	S31° 13' 37.8" E24° 58' 32.8"	Hartebeest Hoek 182. Good hillslope kranz exposures of well-bedded, tough, locally vuggy, baked, thin- to medium-bedded Katberg mudrocks that here have been metamorphosed to brownish-weathering hornfels within the thermal aureole of large dolerite dyke.
059	S31° 13' 38.6" E24° 58' 31.5"	Hartebeest Hoek 182. Columnar-jointed dolerite. Rafts of bedded Katberg sediment enclosed within the dolerite intrusion represent large xenoliths of pale grey metaquartzite and darker grey hornfels. Abundant dark grey flaked hornfels stone artefacts in the vicinity and possible evidence for Stone Age quarrying.
060	S31° 13' 39.9" E24° 58' 30.2"	Hartebeest Hoek 182. Contacts between thermally metamorphosed Katberg country rocks and intrusive dolerite.
061	S31° 13' 38.9" E24° 58' 34.0"	Hartebeest Hoek 182. Surface gravels dominated by angular blocks of pale brownish-grey quartzite (some flaked).
062	S31° 14' 31.4" E24° 58' 33.3"	Hartebeest Hoek 182. Extensive bedding plane and vertical sections through a well-jointed, thick, brownish-weathering, partially-ferruginised and baked calcrete basal breccia within the Katberg Fm, forming base of major sandstone package. Composite several m-thick section with interbedded horizons and lenses of breccia (fine- and coarse-grained calcrete gravels

		and mudrock intraclasts) and sandstone. Upper surface of bed shows karstified polygonal crack pattern.
063	S31° 15' 19.9" E25° 00' 08.9"	Hartebeest Hoek 182. Katberg plateau with extensive karstified sandstone bedding surfaces – polygonal alligator cracking, steep-walled subrounded solution hollows (rock basins / gnammas), plus lichen weathering features on some joint blocks but not others (clearly post-dated karstification and case-hardening).
064	S31° 15' 04.5" E25° 00' 22.1"	Hartebeest Hoek 182. Katberg sandstone exposures showing trough cross-bedding. Downwasted rubbly, angular sandstone gravels overlying rocky areas. Lichen weathering.
067	S31° 15' 04.4" E24° 58' 56.6"	Hartebeest Hoek 182. Good examples of lichen weathering with living lichens <i>in situ</i> . Viewpoint towards west across eastern portion of Phezukomoya project area – dissected upland plateau area with occasional exposures of Katberg channel sandstone but not of intervening mudrocks.
068	S31° 14' 29.5" E24° 58' 34.0"	Hartebeest Hoek 182. Stream bed exposure of brownish-weathering, cross-laminated basal calcrete breccia sharply capped by sandstone, as well as mudflake breccias. Overhang of thick-bedded Katberg channel sandstone.
069	S31° 14' 29.9" E24° 58' 36.1"	Hartebeest Hoek 182. Extensive hillslope exposures of cross-bedded, ferruginised, finely gravelly calcrete basal breccia (several m thick). No sign of fossil bone observed. Sharply capped by thick channel sandstone package.
070	S31° 14' 29.7" E24° 58' 37.6"	Hartebeest Hoek 182. Base of thick Katberg cross-bedded channel sandstone package overlying c. 1m-thick coarse basal mudrock breccias – laterally equivalent to the thick calcrete basal breccias observed just to the west (Phezukomoya project area); <i>i.e.</i> calcrete breccias are lenticular in geometry.
071	S31° 13' 42.7" E24° 58' 30.5"	Hartebeest Hoek 182. Low (sev m) kranz of well-bedded, thermally-metamorphosed quartzite and hornfels within dolerite thermal aureole. Angular quartzitic surface rubble.
072	S31° 13' 10.4" E24° 58' 32.6"	Hartebeest Hoek 182. Extensive gently-sloping hillslope exposures of hackly-weathering purple-brown and grey-green overbank mudrocks – probably upper part of thick latest Permian Palingkloof Member mudrock package (Balfour Fm, Adelaide Subgroup). Horizons of brownish pedogenic calcrete concretions, very thin to thin grey-green crevasse-splay sandstones (heterolithic tops of few m-thick upward-coarsening packages), isolated lenticular sandstone bodies (gully infills or possibly vertebrate burrows – highly equivocal), patches of small-scale wave ripples (playa ponds). Field Rating IIC Local Resource
073	S31° 13' 10.7" E24° 58' 27.7"	Hartebeest Hoek 182. Excellent stream gully exposures of lower part of Palingkloof Member succession showing colour-banded mudrocks and fine, thin-bedded sandstones in vertical profile. Shallow erosional cut-and-fill structures picked out by colour banding. Packages of massive mudrocks passing up into thinly-interbedded sandstone and siltstone couplets. Occasional prominent-weathering thin sandstones (probable crevasse splays) and brownish-weathering palaeocalcrete lenses within coarser grey-green tops of cycles. No large brown pedocrete nodules seen.
074	S31° 12' 35.6" E24° 58' 31.0"	Hartebeest Hoek 182. Extensive area of erosion-gullied, thick alluvial deposits north of farm dam wall. Several m-thick succession of well-bedded, occasionally laminated, brown sandy alluvium with occasional poorly-sorted gravel lenses and horizons. Downwasted coarser gravels at surface.
119	S31° 19' 08.0" E24° 51' 46.3"	Winterhoek 118. Stream bed exposure of pale buff Katberg Fm sandstones and grey-green overbank mudrocks showing several well-preserved, gently-to quite steeply-sloping, subcylindrical sandstone casts of vertebrate burrows (c. 30 cm wide) (See Almond 2017). Proposed Field Rating 111B Local Resource. 50 m-radius buffer zone recommended. Katberg Fm bedrocks are overlain here by thick alluvial succession with coarse gravels at base, brown sandy alluvium above and pale grey modern alluvium at the top.
120	S31° 19' 11.5"	Winterhoek 118. Stream bed exposure of baked Katberg Fm channel or

	E24° 51' 40.3"	thick crevasse-splay sandstone with probable baked sandstone casts of subhorizontal large (30-40 cm wide) vertebrate burrows exposed on the upper surface (See Almond 2017). Proposed Field Rating 111B Local Resource. 50 m-radius buffer zone recommended.
122	S31° 19' 06.0" E24° 51' 48.5"	Winterhoek 118. Stream bed exposure of hackly, grey-green Katberg overbank mudrocks with several probable sandstone casts of large vertebrate burrows (up to 60 cm diameter, compressed ellipsoidal cross-section) – perhaps a warren. Occasional small-scale (1 cm –diam.) <i>Katbergia</i> scratch burrows in area (See Almond 2017).. Proposed Field Rating 111B Local Resource. 50 m-radius buffer zone recommended.
123	S31° 19' 04.5" E24° 51' 50.3"	Winterhoek 118. Stream bed exposure of Katberg Fm mudrocks with baked sandstone cast of vertebrate burrow and associated, disarticulated skeletal remains – mainly limb bones - of a medium-sized tetrapod (probably therapsid). Proposed Field Rating 111B Local Resource. 50 m-radius buffer zone recommended (See Almond 2017).

Palaeontological assessment.

From: Projects
To: Gerry Pienaar; Alistair McMaster
Subject: RE: Phezukomoya WEF Amendments and Basic Assessment Process
Date: Wednesday, October 2, 2019 10:02:00 AM
Attachments: 28036430 - Gerry Pienaar Bisho.msa
image002.png
image003.png

Good Morning Gerry

The courier had just advised me that when attempting to deliver the package to the address which you have provided me, i.e. Global Life Building, Bisho, they are not willing to sign for it.

Please can you confirm that the address and contact number is correct. Or please provide me with an alternate contact number for the courier to contact you once they are at the building to deliver the package.

Thank You
Aneesah Alwie

From: Gerry Pienaar [mailto:Gerry.Pienaar@dedea.gov.za]
Sent: Monday, September 30, 2019 12:45
To: Projects <Projects@arcusconsulting.co.za>; Alistair McMaster <Alistair.McMaster@dedea.gov.za>
Subject: RE: Phezukomoya WEF Amendments and Basic Assessment Process

CD not yet received, will have to check.

From: Projects <Projects@arcusconsulting.co.za>
Sent: 30 September 2019 12:43
To: Alistair McMaster <Alistair.McMaster@dedea.gov.za>
Cc: Gerry Pienaar <Gerry.Pienaar@dedea.gov.za>
Subject: RE: Phezukomoya WEF Amendments and Basic Assessment Process

Dear Alistair,

Thank you for your email. The proposed amendments and basic assessment process application(s) are available on the Arcus Website. Furthermore, an electronic CD copy was delivered to Mr. Gerry Pienaar, which should have been received on Wednesday, 25 September 2019.

Here is the link to the project on the Arcus website: <https://arcusconsulting.co.za/projects/proposed-san-kraal-and-phezukomoya-amendments/>

Please let me know if you have any further trouble accessing the project.

Kind Regards

Aneesah Alwie
Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529
Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd
Office 220 Cube Workspace
Cnr Long Street and Hans Strijdom Ave
Cape Town
8001

www.arcusconsulting.co.za



From: Alistair McMaster [mailto:Alistair.McMaster@dedea.gov.za]
Sent: Monday, September 30, 2019 10:52
To: Projects <Projects@arcusconsulting.co.za>
Cc: Gerry Pienaar <Gerry.Pienaar@dedea.gov.za>
Subject: Phezukomoya WEF Amendments and Basic Assessment Process

Good day

In respect to the Phezukomoya WEF Amendments and Basic Assessment Process, the notification indicates that documents are available for review on your website. However, links to these documents do not appear to be obviously available on the site? Please assist with a link or the correct URL to the project documents.

Kind regards
Alistair

Alistair McMaster
Sustainable Energy

Tel: +27 (0)43 707 4091 | **Mobile:** +27 (0)71 865 3771 | **Email:** alistair.mcmaster@dedea.gov.za



Province of the
EASTERN CAPE
ECONOMIC DEVELOPMENT,
ENVIRONMENTAL AFFAIRS & TOURISM



From: [Charlene Jones-Dennis X International](#)
To: [Anesah Alwe](#)
Cc: nedwaan@xint.co.za; "Shanton"
Subject: 28036430 - Gerry Pienaar, Bisho
Date: Wednesday, October 2, 2019 9:57:49 AM
Attachments: [image001.png](#)
Importance: High

Good day Anesa.

As per our East London office, they are not able to get hold of Gerry Pienaar to arrange for delivery and when he goes to the address, because they cant get hold of him, they refuse to sign for the package.

I was asked this morning to furnish alternative contact details to make arrangements for delivery.

Please can you assist.

Thank you.

X International Couriers (Pty) Ltd
Reg No: 194550183/2017

LOCATION TEL FAX
S.A. (CPT) +27 21 511 0110 +27 21 511 7077
S.A. (JHB) +27 11 597 8332 +27 11 597 4267
S.A. (DUR) +27 31 488 4488

28036430
NO DELIVERIES TO A P.O. BOX

TO: RECIPIENT: **GERRY PIENAAR**
**DEPARTMENT OF ECONOMIC DEVELOPMENT,
ENVIRONMENTAL AFFAIRS AND TOURISM**
GLOBAL LIFE BUILDING
BISHO, 6605

CONTACT: TEL: CONTACT **GERRY PIENAAR** TEL: **043 606 7061**

INTERNATIONAL DOMESTIC
COURIER DOCUMENTS AIR FREIGHT TO DOOR RAMP DAY OVERNIGHT by 305000
COURIER NOW DOC AIR FREIGHT TO TERMINAL OVERWRITE by 0800 AIR FREIGHT
SALE DAY
ROAD FREIGHT

These transit times are not applicable to regional areas

INSURANCE VALUE
YES NO

FULL DESCRIPTION OF CONTENTS / SPECIAL INSTRUCTIONS

46x36x3

SENDER: PRINT NAME: **ANESAH ALWE** COLLECTED BY: **SHEPHERD** SERVICE CHARGES
SIGNATURE: *[Signature]* SIGNATURE: *[Signature]* INSURANCE CHARGES
DATE: TIME: DATE: **20/09/19** TIME: DATE: TIME: TOTAL

Signature Charlene

2

Sophie Williams

From: Projects
Sent: 15 October 2019 17:19
To: Constance Musemburi; Ashlin Bodasing; Projects
Cc: sheldon.vandrey@edf-re.co.za; EIAadmin
Subject: RE: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1
Attachments: 1029 San Kraal EA Certified Copy.pdf; 1029 San Kraal EA Amendment Certified Copy.pdf; San_Kraal_Letter_of_Consent-signed.pdf; Hartebeesthoek_Letter_of_Consent-signed.pdf; Appendix 7_Application_Letter_of_Undertaking.pdf

Good Day Constance

RE: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1 – Additional Information

The hard copy of the documents as requested in the letter(s) of acknowledgement will be delivered to your offices on Wednesday, 16 October 2019.

RE: ACKNOWLEDGMENT OF RECEIPT FOR SAN KRAAL WIND ENERGY FACILITY

Following submission of the application for amendment of environmental authorisation (EA) and draft amendment report for the abovementioned project on 26 September 2019, the acknowledgement of receipt letter, dated 2 October 2019, requested submission of the documents as below, please find this attached:

- Originally signed 'Letter of Signatory' and 'Letter of Undertaking' dated 26 August 2019; and
- Originally certified copies of the EA and subsequent amendment.

RE: ACKNOWLEDGMENT OF RECEIPT FOR HARTEBEESTHOEK EAST WIND ENERGY FACILITY

Following submission of the application for amendment of environmental authorisation (EA) and draft amendment report for the abovementioned project on 26 September 2019, the acknowledgement of receipt letter, dated 15 October 2019 requested submission of the documents as below, please find this attached:

- Originally signed 'Letter of Signatory' and 'Letter of Undertaking' dated 26 August 2019; and
- Originally certified copies of the EA and subsequent amendment.

Thank You.

Kind Regards

Aneesah Alwie

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 607 Cube Workspace
Cnr Long Street and Hans Strijdom Ave
Cape Town
8001

www.arcusconsulting.co.za



From: Constance Musemburi [mailto:CMusemburi@environment.gov.za]

Sent: Tuesday, October 15, 2019 12:03

To: Ashlin Bodasing <AshlinB@arcusconsulting.co.za>; Projects <Projects@arcusconsulting.co.za>; sheldon.vandrey@edf-re.co.za

Subject: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1

Dear All

Please find attached acknowledgement letters for the abovementioned applications. Apologies for late acknowledgements.

Regards

Constance

Department of Environmental Affairs
Directorate: Priority Infrastructure Projects
Tel: 012 399 9416
Email: cmusemburi@environment.gov.za

'Please consider the environment before you print this email'

This message and any attachments transmitted with it are intended solely for the addressee(s) and may be legally privileged and/or confidential. If you have received this message in error please destroy it and notify the sender. Any unauthorized usage, disclosure, alteration or dissemination is prohibited. The Department of Environmental Affairs accepts no responsibility for any loss whether it be direct, indirect or consequential, arising from information made available and actions resulting there from. The views and opinions expressed in this e-mail message may not necessarily be those of Management.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DEA Reference: 14/12/16/3/3/2/1029/2/AM1

Enquiries: Ms Constance Musemburi

Tel: 012 399 9416 **E-mail:** Cmusemburi@environment.gov.za

Ashlin Bodasing
Arcus Consultancy Services South Africa (Pty) Ltd
Office 607, Icon Building
Cube Work Space
24 Hans Strijdom Avenue
CAPE TOWN
8001

Tel: 021 412 1529

Email: ashlinb@arcusconsulting.co.za / projects@arcusconsulting.co.za

PER EMAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT OF APPLICATION FOR AMENDMENT OF ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 FOR THE PROPOSED CONSTRUCTION OF THE 390MW HARTEBEESTHOEK ENERGY FACILITY AND ASSOCIATED 132KV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE.

The Department confirms having received the application for amendment of environmental authorisation (EA) and draft amendment report for the abovementioned project on 26 September 2019. You have submitted these documents to comply with the Environmental Impact Assessment Regulations, 2014.

You are requested to submit the following documents via hardcopy and email (to the writer and CC EIAadmin@environment.gov.za):

- Originally signed 'Letter of Consent of Signatory' and 'Letter of Undertaking' dated 26 August 2019;
- Originally certified copies of the EA and subsequent amendment;
- Kindly mark the information as below for submission to the department:

14/12/16/3/3/2/1029/2/AM1– Additional Information

Attention: Constance Musemburi: Integrated Environmental Authorisations

Department of Environmental Affairs

Private Bag X447

Pretoria

0001

Please note that your application for amendment of environmental authorisation falls within the ambit of amendments to be applied for in terms of Part 2 of Chapter 5 of the Environmental Impact Assessment Regulations (2014). You are therefore referred to regulation 32.

You are also advised that the Public Participation Process must be conducted as outlined in Chapter 6 of the EIA Regulations, 2014, as amended.

All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Office Hours which is visible on the Departmental gate. 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.

Yours sincerely



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs:

Letter signed by: Ms Constance Musemburi

Designation: Environmental Officer: Prioritised Infrastructure Projects

Date: 15/10/2019

CC: Sheldon Vandrey	Hartebeesthoek Wind Power (Pty) Ltd	Email: Sheldon.vandrey@edf-re.co.za
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26 August 2019

To : Department of Environmental Affairs
473 Steve Biko Road,
Arcadia
Private Bag X 447
Pretoria
0001

Dear Sir/Madam,

LETTER OF CONSENT OF SIGNATORY

I, Louis Dewavrin, hereby confirm that San Kraal Wind Power (Pty) Ltd, Registration no. 2012/185566/07 is a wholly owned subsidiary of EDF Renewable (Pty) Ltd, Registration No. 2008/004442/07. I also confirm that Sheldon Vandrey has the authority to act as a signatory on behalf of San Kraal Wind Power (Pty) Ltd.

Should you require any additional information, please feel free to contact me. I appreciate your time on this matter.

I trust that the above is in order.

Yours sincerely,

A handwritten signature in black ink, appearing to be "LD", written over a horizontal line.

Louis Dewavrin
Head of Development

Tel: +27 (0)41 506 4900
Mobile: +27 (0) 71 917 0452
Email: louis.dewavrin@edf-re.co.za

26 August 2019

To: Department of Environmental Affairs
Environment House
473 Steve Biko Road
Arcadia, Pretoria
Att: Chief Director – Integrated Environmental Authorisations

Dear Sir/Madam,

LETTER OF UNDERTAKING

RE: SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SPLIT AMENDMENT
DEA REFERENCE: 14/12/16/3/3/2/1029 AND 14/12/16/3/3/2/1029/AM1

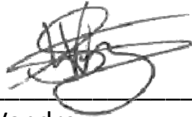
This letter serves to inform you that San Kraal Wind Power (Pty) Ltd (Registration number: 2012/185566/07) and Hartebeesthoek Wind Power (Pty) Ltd (Registration number: 2019/070085/07) are wholly owned subsidiaries of EDF Renewables (Pty) Ltd. As such EDF Renewables, hereby confirms that it authorises the current San Kraal Environmental Authorisation (“EA”) (Ref: 14/12/16/3/3/2/1029) issued in the name of San Kraal Wind Power (Pty) Ltd, to be amended and split into two separate EA’s:

- The San Kraal Wind Energy Facility EA (to be owned by San Kraal Wind Power (Pty) Ltd), and
- The Hartebeesthoek East Wind Energy Facility EA (to be owned by Hartebeesthoek Wind Power (Pty) Ltd)

San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd are two legal entities that were registered by EDF Renewables to own and operate the San Kraal and Hartebeesthoek East wind energy projects. EDF Renewables (Pty) Ltd is the sole shareholder in these companies and confirms to the Department that as a new holder of the EA, San Kraal Wind Power (Pty) Ltd and Hartebeesthoek Wind Power (Pty) Ltd undertake to take on the full responsibility of the EA and may be held liable for non-compliance.

Should you require any additional information, please feel free to contact me. I trust that the above is in order and await your reply.

Yours sincerely,



Sheldon Vandrey
Project Manager

Tel: +27 (0)41 506 4900
Mobile: +27 (0) 82 325 6062
Email: sheldon.vandrey@edf-re.co.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DEA Reference: 14/12/16/3/3/2/1029

Enquiries: Ms Mmamohale Kabasa

Telephone: 012-399-9420 E-mail: MKabasa@environment.gov.za

Mr Louis Dewavrin
San Kraal Wind Power (Pty) Ltd
PO Box 71664
PORT ELIZABETH
6000

Tel: (041) 506 4910
Email: ldewavrin@innowind.co

PER E-MAIL / MAIL

Dear Mr Dewavrin

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998), AS AMENDED (NEMA); GOVERNMENT NOTICES. R982, R983, R984 AND R985, AS AMENDED: CONSTRUCTION OF THE 390MW SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED 132KV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND THE INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant an Environmental Authorisation (EA) to you. The Environmental Authorisation and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the National Environmental Management Act (NEMA): the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing within 14 (fourteen) days of the date of this EA, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, 2013 (Act no. 4 of 2013) which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (Act No. 107 of 1998) National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed.



26 Aug 2018
CERTIFIED A TRUE COPY
OF THE ORIGINAL

Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appealsdirector@environment.gov.za;

By hand: Environment House
473 Steve Biko Street
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

COMMISSIONER OF OATHS (RSA)
JAN LODEWIKUS WESSELS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA)
SAIPA REGISTRATION NUMBER - 33041
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Please note that in terms of Section 43(7) of the NEMA, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with any activity authorised in the EA until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at <https://www.environment.gov.za/documents/forms#legal-authorisations> or request a copy of the documents at appealsdirector@environment.gov.za.

Yours faithfully



Mr Vusi Skosana
Acting Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs
Date: 28/06/2018

CC:	A Bodasing	Arcus Consultancy Services South Africa (Pty) Ltd.	Tel: 021 412 1529	Email: Michael@exigo3.com
	D Moleko	Northern Cape Department of Environment and Nature Conservation	Tel: 053 807 7467	Email: dmoleko@ncpg.gov.za
	G Pienaar	Eastern Cape Department of Finance, Economic Development, Environmental Affairs and Tourism	Tel: 043 605 7051	Email: Gerry.plenaar@dedea.gov.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014

The 390MW San Kraal Wind Energy Facility (WEF) and associated 132kV grid connection transmission line south east of the town of Noupoort within the Umsobomvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province

Pixley ka Seme and Chris Hani District Municipalities

Authorisation register number:	<i>14/12/16/3/3/2/1029</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>San Kraal Wind Power (Pty) Ltd</i>
Location of activity:	<i>Remainder of Farm Holbrook No. 181; Portion 1 of Tweefontein No. 11; Remainder of Farm No. 13; Portions 3, 15 and 46 of Hartebeeshoek No. 182; Farm No. 14; Portions 15, 46 and the Remainder of Farm No. 182; Portions 12, 21, Remainder of Portion 11 and Remainder of Portion 1 of Farm No. 1; Remainder of Farm No. 118; Remainder of Farm 136; Remainder of Farm No. 135; Umsobomvu Local Municipality; Inxuba Yethemba Local Municipality; Eastern Cape Province; Northern Cape Province.</i>

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

SAN KRAAL WIND POWER (PTY) LTD

(hereafter referred to as the holder of the authorisation)

with the following contact details –

Mr Louis Dewavrin
PO Box 71664
PORT ELIZABETH
6000


Telephone Number: (041) 506 4910
Cell phone Number: (071) 917 0452
Fax Number: (041) 585 1325
Email: ldewavrin@innowind.co



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to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 as amended (GN R. 983, 984 and 985 as amended):

Activity number	Activity description
<p>GN R. 983 Item 11:</p> <p><i>"The development of facilities or infrastructure for the transmission and distribution of electricity –</i></p> <p><i>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV."</i></p>	<p>The WEF will require transmission lines in order to connect to the grid. Electrical reticulation will be installed to transfer electricity from the turbines to an on-site substation. Cables will be installed underground where feasible.</p>
<p>GN R. 983 Item 14:</p> <p><i>"The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic meters or more but not exceeding 500 cubic meters."</i></p>	<p>Estimated volume of hazardous materials stored on site for the 78 turbines over a construction period of 24 months: construction phase 176.64m³ and operational phase 197.62m³.</p>
<p>GN R. 983 Item 19:</p> <p><i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse."</i></p> <div style="border: 1px solid red; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; font-size: small;">COMMISSIONER OF OATHS (RSA) JAN LODEWIKUS WESSELS EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA) SAIPA REGISTRATION NUMBER - 33041 1 OAKDALE ROAD, NEWLANDS, CAPE TOWN REPUBLIC OF SOUTH AFRICA</p> </div> <p style="text-align: center; margin-top: 10px;">26 Aug 2019 CERTIFIED A TRUE COPY OF THE ORIGINAL</p> 	<p>The construction of the WEF will include the excavation of soil in watercourses/drainage line areas, and infilling/deposition may exceed 5 cubic metres and in some instances may exceed 10 cubic metres. Borrow pits for the sourcing of aggregate material may be required. The construction of associated infrastructure, such as access tracks crossing watercourses may require excavation and/or infilling of watercourse areas.</p>
<p>GN R. 983 Item 24:</p> <p><i>"The development of a road—</i></p> <p><i>(ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres."</i></p>	<p>Access roads will be required between turbines. These roads will be unsealed and will likely be between 8 - 14m in width. The roads will be up to 14m wide during construction, but will be reduced during operation.</p>


<p>GN R. 983 Item 56:</p> <p><i>"The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre-</i></p> <p><i>(i) where the existing reserve is wider than 13,5 meters; or</i></p> <p><i>(ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas."</i></p>	<p>Existing farm access roads will be widened or lengthened. These roads would currently have no road reserve and may be wider than 8 meters in some areas.</p>
<p>GN R. 984 Item 1:</p> <p><i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more."</i></p>	<p>The WEF will consist of a number of wind turbines for electricity generation of more than 20 megawatts (up to 390MW).</p>
<p>GN R. 984 Item 6:</p> <p><i>"The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent."</i></p>	<p>The construction of the WEF may require a Water Use License in terms of the National Water Act, 1998 (Act No. 36 of 1998).</p>
<p>GN R. 984 Item 9:</p> <p><i>"The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."</i></p>	<p>The construction of a 132/400kV substation yard at the proposed Umsobomvu Substation.</p>
<p>GN R. 984 Item 15:</p> <p><i>"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-</i></p>	<p>The construction of the WEF will require the clearance of approximately 150 hectares of vegetation in total across the site.</p>
<p>GN R. 985 Item 4:</p> <p><i>"The development of a road wider than 4 metres with a reserve less than 13, 5 metres.</i></p> <p>a. <u>Eastern Cape:</u></p> <p>i. Outside urban areas:</p> <p>(bb) National Protected Area Expansion Strategy Focus areas;</p>	<p>Internal and external access roads will be constructed, which are wider than 4m. The site falls outside of an urban area and parts of the site fall within a National Protected Area Expansion Strategy Focus area.</p>

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<p>g. <u>Northern Cape:</u> <i>Outside urban areas:</i> <i>(bb) National Protected Area Expansion Strategy Focus areas;</i> <i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans..."</i></p>	
<p>GN R. 985 Item 12: <i>"The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</i> g. <u>Northern Cape:</u> ii. <i>Within critical biodiversity areas identified in bioregional plans;"</i></p>	<p>The development will require the clearance of natural vegetation in excess of 300m² in areas of natural vegetation. A small portion of the WEF is located within a Critical Biodiversity Area in the Northern Cape.</p>
<p>GN R. 985 Item 18: <i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i> a. <u>Eastern Cape:</u> i. <i>Outside urban areas:</i> <i>(bb) National Protected Area Expansion Strategy Focus areas;</i> g. <u>Northern Cape:</u> ii. <i>Outside urban areas:</i> <i>(bb) National Protected Area Expansion Strategy Focus areas;</i> <i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans</i> <i>such setback line has been determined;"</i></p>	<p>Existing farm roads will to be widened or lengthened. The site lies outside urban areas, and contains NPAESF areas in the Northern Cape and Eastern Cape, and the CBAs in the Northern Cape Section.</p> <div style="border: 1px solid red; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; margin: 0;">COMMISSIONER OF OATHS (RSA) JAN LODEWIKUS WESSELS EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA) SAIPA REGISTRATION NUMBER - 33041 1 OAKDALE ROAD, NEWLANDS, CAPE TOWN REPUBLIC OF SOUTH AFRICA</p> </div> <p style="text-align: center; margin: 10px auto;">26 Aug 2019 CERTIFIED A TRUE COPY OF THE ORIGINAL</p> 

as described in the Environmental Impact Assessment Report (EIAr) dated March 2018 at:

Alternative (preferred site)	Latitude	Longitude
North-West Corner	-31.2063	24.9859
North-East Corner	-31.2071	25.1307
South-West Corner	-31.3137	24.9994
South-East Corner	-31.2463	25.1151
Substation location (centre point)	-31.2485	25.0171
Construction camp/laydown area	-31.22331	25.04544
Construction camp/laydown area	-31.20918	25.05522
Preferred powerline route (Preferred Alternative)		
Start	-31.24968	25.015103
Middle	-31.28241	24.908770
End	-31.3550	24.825598
Access to site	-31.20165	25.043173

- for the proposed 390MW San Kraal WEF and associated infrastructure including electrical grid connection located south east of the town of Noupoort, within the Umsobomvu Local Municipality in the Northern Cape Province, and a small portion within the Inxuba Yethemba Local Municipality in the Eastern Cape Province, hereafter referred to as "the property".

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The facility will comprise the following:

- A maximum generating capacity of 390MW in total;
- 78 turbines with a generation capacity between 3 – 5 MW and a rotor diameter of 150m, a hub height of 150m and blade length of 75m (all maximums);
- Foundations (25 x 25m) and hardstands associated with the wind turbines;
- Internal access roads of between 8m (during operation) and 14m (during construction) wide to each turbine;
- Medium voltage cabling between turbines and the on-site switching station (10000m²), to be laid underground where technically feasible;
- Overhead medium voltage cables between the on-site switching station and on-site substation (approximately 4km in length) and between turbine rows where necessary;

- An on-site substation & OMS complex (180000m²) to facilitate stepping up the voltage from medium to high voltage (132 kV) to enable the connection of the WEF to the national grid; .
- A 25km 132 kV high voltage overhead powerline from the on-site substation to the proposed Umsobomvu Substation to the national grid;
- Temporary infrastructure including a construction camp with batching plant (40000m²); and
- A laydown area approximately 7500m² in extent, per turbine.

Technical details of the proposed facility:

Component	Description/ Dimensions
Location of the site	Approximately 6km south east of the town of Noupoort
Farm and SG Codes	» RE 181 Holbrook: C02100000000018100000 » 1/11 Beskuitfontein: C04800000000001100001 » RE/13 Beskuitfontein: C04800000000001300000 » 15/182 Hartebeeshoek: C02100000000018200000 » 3/182 Hartebeeshoek: C02100000000018200003 » 14 Hartebeeshoek: C04800000000001400000 » 46/182 Hartebeeshoek: C02100000000018200046
Site access	An existing public gravel road (the Oorlogpoort Road) will be used to access the site. The road is situated off the N9 south of the town of Noupoort, to the north of the site.
Export capacity	390 MW
Proposed technology	Wind turbines
Number of Turbines	78
Hub height from ground level	150m
Rotor diameter	150m
Width and length of internal roads	Internal roads width: Up to 14m during construction and up to 8m during operation Internal roads length: Approximately 53km

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Technical details of the proposed powerline:

Component	Description/ Dimensions
Location of the site	Approximately 9km south of Noupoort
Length	Approximately 25km
Farm and SG Codes	15/182 C02100000000018200000 47/182 C02100000000018200047 RE/13 C04800000000001300000 3/1 C0480000000000100003 RE/11/1 C0480000000000100011 18/1 C0480000000000100018 RE/1/1 C0480000000000100001 RE/118 C03000000000011800000 RE/136 C03000000000013600000 RE/135 C03000000000013500000
Preferred site access	Existing gravel road on Farm Hartebeeshoek (owned by Umsobomvu Municipality) off N9 at -31.195366°; 24.961452°
Export capacity	132kV
Proposed technology	Eskom specifications (concrete or steel monopole or lattice towers)
Height of poles	A max of 30m
Width and length of required servitude	34m in width and 25km in length

Conditions of this Environmental Authorisation

Scope of authorisation

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1. The 390MW San Kraal Wind Energy Facility and one on-site substation south east of the town of Noupoort within the Umsobomvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province as described above is approved.
2. The Preferred Alternative (~23 km) powerline corridor as depicted by Figure 7.1 Reference 2244/REP/052 by Arcus Consulting and dated 22 January 2018 is approved.

3. The access road as depicted by Figure 4-1: Site Access Options to San Kraal WEF of the Traffic Impact Assessment by C Xhobiso and G Van Jaarsveld SMEC South Africa (Pty) Ltd and dated January 2018 is approved for access during construction and for the future operation and ultimate decommissioning phase of the facility.
4. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
5. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
6. The activities authorised may only be carried out at the property as described above.
7. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
8. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
9. This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
10. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

11. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.

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12. The notification referred to must –
 - 12.1. specify the date on which the authorisation was issued;
 - 12.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 12.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 12.4. give the reasons of the competent authority for the decision.
13. The holder of the authorisation must publish a notice –
 - 13.1. informing interested and affected parties of the decision;
 - 13.2. informing interested and affected parties where the decision can be accessed; and
 - 13.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.

Commencement of the activity


14. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

15. A copy of the final site layout map must be made available for comments by registered interested and affected parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
 - 15.1. Cable routes (where they are not along internal roads);
 - 15.2. Position of wind turbines and associated infrastructure;
 - 15.3. Internal roads indicating width;
 - 15.4. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;



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- 15.5. All sensitive features e.g. Critical Biodiversity Areas, National Protected Area Expansion Strategy (NPAES) areas, Ecological Support Areas, heritage sites, wetlands, and pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 15.6. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 15.7. Connection routes (including pylon positions) to the distribution/transmission network;
 - 15.8. All existing infrastructure on the site, such as roads;
 - 15.9. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - 15.10. Buildings, including accommodation; and,
 - 15.11. All "no-go" and buffer areas.
16. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko
Arcadia
Pretoria



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For Attention: Mr Muhammad Essop

Integrated Environmental Authorisations

Strategic Infrastructure Developments

Telephone Number: (012) 399 9406

Email Address: MEssop@environment.gov.za

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17. The Environmental Management Programme (EMPr) submitted as part of the EIAr is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments by registered interested and affected parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved the EMPr must be implemented and adhered to.
18. The EMPr amendment must include the following:
 - 18.1. The requirements and conditions of this authorisation.
 - 18.2. All recommendations and mitigation measures recorded in the EIAr.
 - 18.3. All mitigation measures as listed in the specialist reports within the EIAr.
 - 18.4. The final site layout map.
 - 18.5. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
 - 18.6. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
 - 18.7. A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
 - 18.8. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
 - 18.9. A construction and operational avifauna and bat monitoring plan.

- 18.10. A heritage conservation management plan which must have been submitted to SAHRA for review and comment.
- 18.11. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- 18.12. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- 18.13. An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- 18.14. A fire management plan to be implemented during the construction and operational phases.
- 18.15. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
- 18.16. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 18.17. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the turbine as stated in the EIAR and this authorisation.
19. The final amended EMPr (once approved) must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
20. Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.
21. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAR be discovered.

Frequency and process of updating the EMPr

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22. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 29 below, indicate insufficient mitigation of environmental impacts associated with the

undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.

23. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
24. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
25. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R. 982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
26. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

27. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
 - 27.1. The ECO must be appointed before commencement of any authorised activities.
 - 27.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 27.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 27.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

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Recording and reporting to the Department

28. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
29. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
30. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
31. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
32. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
33. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

34. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

35. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

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Site closure and decommissioning

36. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

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Turbines positions

37. Up to 78 wind turbines are approved.
38. All wind turbines must avoid all areas designated as "no-go" areas as well as their buffers.
39. The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by ecological, avifaunal, bat, surface water and heritage specialists.
40. Exclusion of sensitive ecological, avifaunal, bat, surface water and heritage areas from construction activities must inform micro siting of all development activities.
41. Should any occupied farm buildings be affected by shadow flicker, the holder of this Environmental Authorisation must provide mitigation measures to reduce the impact to an acceptable level as advised by a suitably qualified specialist.

Avifauna and bats

42. A 500m no development buffer zone must be maintained around each of the two pans at FP3 at 31°14'15.02"S 25° 2'44.17"E and FP4 at 31°13'55.42"S 25° 2'50.37"E to protect the pair of Blue Cranes from disturbance.
43. The appointed ECO must be trained by an avifaunal specialist to identify the signs that indicate possible breeding by priority species.
44. A 2.5km pre-cautionary no-go buffer must be maintained around the Verreaux's Eagle nest at FP1 (31°12'59.66"S 24°57'26.08").
45. No turbines must be constructed in no-go areas, while associated infrastructure (roads, powerlines and substations) must be avoided where possible in these areas.
46. Prior to construction, an avifaunal specialist must conduct a site walkthrough, covering the final road and powerline routes as well as the final turbine positions, to identify any nests/breeding/roosting activity of priority species, as well as any additional sensitive habitats. The results thereto must inform the final construction schedule in close proximity to that specific area, including reducing construction time, scheduling activities around avian breeding and/or movement schedules, and lowering levels of associated noise.

47. Care must be taken not to create habitat for prey species that could draw priority raptors into the area and expose them to collision risk. Rock piles must be covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie).
48. A 150m no-turbine set-back buffer zone (other infrastructure is allowed) is required around the escarpment to minimise the risk of collisions for slope soaring species.
49. A construction monitoring plan must be submitted as part of the EMPr to survey impacts resulting from the infrastructure installation on the bird and bat communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as to continue to gather information on the birds and bats communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years during operation.
50. Curtailment must be applied from the start of operation on all turbines for every night of the year from dusk until dawn at ninety degree feathering of blades below manufacturer's cut-in speed so it is exactly parallel to the wind direction as to minimize free-wheeling blade rotation as much as possible without locking the blades.
51. Should robust and scientifically defensible data gathered during the operational study phase reveal higher bat mortalities than currently anticipated, the mitigation table below should be applied to the turbines identified as causing the highest impacts.

Terms of mitigation implementation	
Peak activity (times to implement curtailment/mitigation)	1 October – 15 November; sunset – 20:30
Environmental conditions in which to implement curtailment/mitigation	Wind speed below 4.5m/s <u>and simultaneously</u> Temperature above 11°C
Peak activity (times to implement curtailment/mitigation)	15 February – 31 March; sunset – 04:00
Environmental conditions in which to implement curtailment/mitigation	Wind speed below 5m/s <u>and simultaneously</u> Temperature above 14°C

52. A construction and operational avifauna and bat monitoring plan must be developed and implemented according to the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa and the latest South African Bat Assessment Advisory Panel's (SABAAP) guidelines.
53. As an absolute minimum, avifauna and bat monitoring, to survey impacts resulting from the infrastructure on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as bird collisions and continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures, must occur

during the construction period and continue for at least three years during the operation of the facility. The results of this monitoring must be made available to the Department of Environmental Affairs (DEA), Birdlife South Africa (BLSA) and the South African Bat Assessment Advisory Panel (SABAAP) and must further advise the EMPr where necessary.

54. The results of the pre-construction bird and bat monitoring assessments including all recommendations proposed by the reports dated March 2018, must inform the final layout and the construction schedule of the facility.
55. The facility must be designed in a manner that prevents infrastructure components from being used as perching or roosting substrates by birds and bats, as such is prohibited.
56. The holder of this environmental authorisation must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.
57. Anti-collision devices such as bird flappers must be installed where powerlines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams). The input of an avifaunal specialist must be obtained for the fitting of the anti-collision devices onto specific sections of the powerline once the exact positions of the towers have been surveyed and pegged. Additional areas of high sensitivity along the preferred alignment must also be identified by the avifaunal specialist for the fitment of anti-collision devices. These devices must be according to Eskom's Transmission and EWT's Guidelines.
58. A pre-construction walk through of the approved powerline alignment and turbine positions by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that the micro-siting of the turbines, pylons and powerline alignments have the least possible impact, there are no nest sites of priority species on or close to the construction corridor and all protected plant species impacted are identified.

Vegetation, wetlands and water resources

59. All internal powerline/cables must follow internal access roads.
60. All powerlines linking the turbines to the onsite substation must be buried.
61. The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.
62. An aquatic specialist must conduct an in-depth site walkover prior to the construction phase commencing, after the proposed construction footprint has been confirmed and demarcated. This is to assess the footprint for any freshwater habitats, allowing for slight alterations in the footprint, to prevent any impacts on the freshwater habitats due to the actions conducted during the construction phase.
63. Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).
64. Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and


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from the relevant provincial departments for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.

65. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
66. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.
67. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
68. No exotic plants must be used for rehabilitation purposes; only indigenous plants of the area must be utilised.
69. No activities will be allowed to encroach into a water resource without a Water Use License being in place from the Department of Water and Sanitation.
70. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
71. Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).
72. Contractors and construction workers must be clearly informed of the no-go areas.
73. Where roads pass right next to major water bodies, provisions must be made for fauna such as toads to pass under the roads by using culverts or similar structures.
74. Bridge design must be such that it minimises impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.
75. The final development area should be surveyed for species suitable for search and rescue, which should be trans-located prior to the commencement of construction.
76. Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and tortoises to pass through, but still remain effective as a security barrier.
77. Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.
78. Wetlands, rivers and river riparian areas must be treated as "no-go" areas and demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision of the ECO, except for rehabilitation work in these areas.
79. Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and wetland areas and this awareness must be promoted throughout the construction phase.
80. Freshwater ecosystems located in close proximity to the construction areas must be inspected on a regular basis (but especially after rainfall) by the ECO for signs of disturbance, sedimentation and pollution

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from construction activities. If signs of disturbance, sedimentation or pollution are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.

81. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
82. If construction areas are to be pumped of water (e.g. after rains), this water must be pumped into an appropriate settlement area, and not allowed to flow into any rivers or wetland areas.
83. Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.

Roads and transportation

84. The access road as depicted by Figure 4-1: Site Access Options to San Kraal WEF of the Traffic Impact Assessment by C Xhobiso and G Van Jaarsveld SMEC South Africa (Pty) Ltd and dated January 2018 is approved for access during construction and for the future operational and ultimate decommissioning phase of the facility.
85. Existing road infrastructure must be used as far as possible for providing access to the proposed turbine positions. Where no road infrastructure exists, new roads must be placed within existing disturbed areas or environmental conditions must be taken into account to ensure that minimum amount of damage is caused to natural habitats.
86. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration must be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
87. Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed such that they do not decrease channel stability or increase water velocity.
88. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
89. Signage must be erected at appropriate points warning of turning traffic and the construction site.
90. Necessary permits must be obtained for the oversized construction vehicles to transport turbine components.
91. Construction vehicles carrying materials to the site must avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
92. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information to minimize impacts on possible faunal species.
93. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.

94. Roads must be designed such that changes to surface water runoff are avoided and erosion is not initiated.
95. All construction vehicles must adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.


Noise

96. The potential noise impact must be re-evaluated should the layout be changed such that any wind turbines are located closer than 1000m from a confirmed noise sensitive area.
97. Routine noise measurements must be conducted during the operation of the facility and a complaints register must be opened and made available to affected parties and to the Department on request.
98. The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA wear ear protection equipment.
99. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
100. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
101. Construction staff must be trained in actions to minimise noise impacts.
102. The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.

Visual resources

103. The holder of this authorisation must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques and restoring exposed soil as closely as possible to their original contour and vegetation.
104. A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce visual impacts associated with glare and light trespass.
105. Lighting of main structures (turbines) and ancillary buildings must be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
106. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
107. Commercial messages and graffiti on turbines are prohibited.



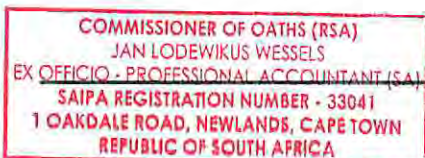

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Human health and safety


108. A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the energy facility. The programme must establish a safety zone for wind turbines from residences and occupied buildings, roads, right-of-ways and other public access areas that is sufficient to prevent accidents resulting from the operation of the wind turbines.
109. Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
110. The holder of this authorisation must obtain approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment, especially the radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.
111. The holder of this authorisation must ensure that the operation of the wind facility complies with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio and television transmissions.
112. The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment, especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.
113. The holder of this authorisation must train safety representatives, managers and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.
114. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
115. No unsupervised open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

116. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
117. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
118. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.
119. No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.
120. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.



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121. Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, a drainage line with or without an extensive floodplain or hillside wetlands.
122. Temporary bunds must be constructed around chemical storage to contain possible spills.
123. Spill kits must be made available on-site for the clean-up of spills.
124. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
125. The holder of this authorisation must provide sanitation facilities within the construction camps and along the road so that workers do not pollute the surrounding environment. These facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste disposal site.
126. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014 as amended.

Excavation and blasting activities

127. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
128. Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.
129. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
130. Anti-erosion measures such as silt fences must be installed in disturbed areas.

Air emissions

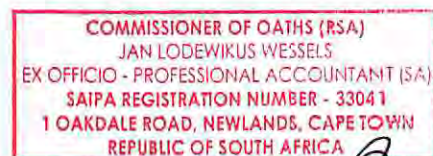
131. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
132. Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.

Historical / cultural / paleontological resources

133. Should construction activities be within 100 metres from archaeological sites and historical sites, the sites must be demarcated and fenced off.
134. A 30m no-go buffer must be applied around identified burial grounds. Should it not be possible to retain the burial grounds in situ, a consultation process in terms of Section 36 of the NHRA and Chapter XI of the NHRA Regulations be undertaken.
135. If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that a systematic and professional investigation / excavation can be undertaken.
136. Construction managers/foremen must be informed before construction starts of the possible types of heritage sites and cultural material that may be encountered and the procedures to follow when they find sites.
137. All buffers and no-go areas stipulated in the EIAR must be adhered to for both the facilities and all roads and powerlines.
138. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) must be kept out of the buffer zones.
139. The final layout must be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

General

140. The recommendations of the EAP in the EIAR dated March 2018 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
141. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 141.1. at the site of the authorised activity;
 - 141.2. to anyone on request; and
 - 141.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.



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142. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 28/08/2013



Mr Vusi Skosana

Acting Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

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Annexure 1: Reasons for Decision

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1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 23 August 2017 and amended on 14 March 2018.
- b) The information contained in the draft Scoping Report received on 23 August 2017.
- c) The information contained in the final Scoping Report received on 04 October 2017.
- d) The information contained in the draft EIA received on 29 January 2018.
- e) The information contained in the final EIA received on 15 March 2018.
- f) The comments received from the following authorities: the Northern Cape Department of Agriculture, Forestry and Fisheries: Forestry Management (J Mans); Telkom: Network Transformation and Planning (L Shaw); Eskom: Land Development (J Geeringh); SANRAL: Statutory Control Western Region 1 (R de Kock); SA Civil Aviation Authority: Air Navigation Services (L Stroh); the Department of Water and Sanitation: Mzimvubu to Tsitsikamma Proto-CMA EWULAAS (O Vongwe); the South African Heritage Resources Agency: Archaeology, Palaeontology and Meteorites Unit (N Higgitt); the Department of Rural Development and Land Reform: Land Restitution Support-Northern Cape (R Oliver) and SKA South Africa: Head of Strategy and Business Systems (Dr A Tiplady).
- g) The information contained in the specialist studies contained within the appendices of the final EIA dated March 2018 and as appears below:

Specialist study	Responsible Specialist/Company
Ecological Impact Assessment	Simon Todd of Simon Todd Consulting
Hydrological Impact Assessment	Dr Brian Colloty of Scherman Colloty & Associates
Avifaunal Impact Assessment	Chris van Rooyen Consulting
Bat Impact Assessment	D Burger and W. Marais of Animalia Zoological & Ecological Consultation (Pty) Ltd
Agriculture and soil assessment	DG Paterson of ARC-Institute for Soil, Climate and Water
Heritage Impact Assessment	T Hart of ACO Associates cc
Noise Impact Assessment Enviro	M de Jager and S Weinberg of ENVIRO-ACOUSTIC RESEARCH
Visual Impact Assessment	K Schwartz and A Gibb of SiVest Environmental Division

Social Impact Assessment	T Barbour and S van der Merwe of Tony Barbour Environmental Consulting and Research
Transport Impact Assessment	C Xhobiso and G Van Jaarsveld of SMEC South Africa (Pty) Ltd.
Wake Effect Analysis	O Yildirimlar of 3E

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project stems from the provision of electricity to the national grid.
- c) The EIAr dated March 2018 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The methodology used in assessing the potential impacts identified in the EIAr dated March 2018 and the specialist studies have been adequately indicated.
- e) The findings of the site inspection held on 22 and 23 May 2018.
- f) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 (as amended) for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIAr dated March 2018 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the EIAr dated March 2018 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr and will be implemented to manage the identified environmental impacts during the construction phase.

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In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

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environmental affairs

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Mr. Vusi Skosana
Director: Strategic co-ordination planning and support

Dear Mr. V Skosana

APPOINTMENT AS ACTING CHIEF DIRECTOR: INTEGRATED ENVIRONMENTAL AUTHORISATIONS FOR THE PERIOD 18 JUNE 2018 UNTIL 29 JUNE 2018 (2 WEEKS).

I hereby inform you that I have decided to appoint you as the Acting Chief Director: Integrated environmental authorisations for the period 18 June 2018 until 29 June 2018 whilst Mr. Sebiso Moleza is on Annual Leave.

All the correspondence and other documents that are usually signed by the Chief Director: Integrated Environmental Authorisations must be signed under Acting Chief Director: Integrated Environmental Authorisations during the above-mentioned period.

Your appointment in the above acting position remains subject to the provisions of the Public Service Act, 1994 (Proclamation No. 103 of 1994), as amended, the Government Employees Pension Fund Act, 1998 (Proclamation No. 21 of 1998), the regulations promulgated under these Acts and relevant circulars.

In the execution of your duties and the exercising of the powers delegated to you, you will furthermore be subjected to the provisions of the Public Finance Management Act, compliance with the Promotion of Access to Information Act, Promotion of Administrative Justice Act, the Minimum Information Security Standard, Departmental Policies and other applicable legislations with the Republic of South Africa. You are therefore advised to make yourself familiar with the provisions of this legislations and policies and the amendments thereof. (Copies of Departmental policies can be obtained from the Human Resource Office).

Please accept my heartfelt gratitude for all your assistance on behalf of the department.

Yours sincerely

Mr Ismael Abader

DDG : LACE

Date:

14/06/2018

COMMISSIONER OF OATHS (RSA)
JAN LODEWIKUS WESSELS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA)
SAIPA REGISTRATION NUMBER - 33041
1 OAKDALE ROAD, NEWLANDS, CAPE TOWN
REPUBLIC OF SOUTH AFRICA

26 Aug 2019

CERTIFIED A TRUE COPY
OF THE ORIGINAL

ACKNOWLEDGEMENT

I ACCEPT / DO NOT ACCEPT appointment as Acting Chief Director: Integrated environmental authorisations

Signed:

Date: 14/06/2018



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko Road · Arcadia · PRETORIA
Tel (+ 27 12) 399 9372

DEA Reference: 14/12/16/3/3/2/1029/AM1

Enquiries: Ms Mmamohale Kabasa

Telephone: (012) 399 9420 E-mail: MKabasa@environment.gov.za

Mr Louis Dewavrin
San Kraal Wind Power (Pty) Ltd
PO Box 71664
PORT ELIZABETH
6001

Telephone Number: (041) 506 4910
Email Address: ldewavrin@innowind.co



26 Aug 2019
CERTIFIED A TRUE COPY
OF THE ORIGINAL

PER E-MAIL / MAIL

Dear Mr Dewavrin

AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 FOR THE CONSTRUCTION OF THE 390MW SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED 132kV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND THE INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE

The Environmental Authorisation (EA) issued for the abovementioned project by this Department on 28 June 2018 and the request for amendment of the EA received by the Department on 10 July 2018, refer.

In terms of Regulation 27(4) of the Environmental Impact Assessment (EIA) Regulations, 2014, as amended this Department has decided to initiate the amendment to the abovementioned EA to correct administrative errors as follows:

Amendment to the EAP email address as it appears on the cover letter of the EA to:

- ashlinb@arcusconsulting.co.za

Deletion of the following duplicate entries on page 1 of the EA:

- "Portion 46 of Farm No. 182", and
- "Portion 15 of Farm No. 182"

Amendment to page 6 of the EA to include the additional access point for the grid access:

- Access Point 2: -31.195366; 24.961452

Amendment to the technical details table of the proposed powerline on page 8 of the EA to include the following affected land parcels:

- Farm 2: C0480000000000200000
- RE/13/1: C0480000000000100013
- 8/3: C0480000000000300008
- 14: C04800000000001400000

Amendment to the technical details table of the proposed powerline on page 8 of the EA to reflect the correct height of poles:

- Height of poles: A maximum of 45m

This amendment letter must be read in conjunction with the EA issued on 28 June 2018.

Yours faithfully



Mr Vusi Skosana
Acting Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Date: 06/08/2018

CC:	A Bodasing	Arcus Consultancy Services South Africa (Pty) Ltd.	Tel: 021 412 1529	ashlinb@arcusconsulting.co.za
	D Moleko	Northern Cape Department of Environment and Nature Conservation	Tel: 053 807 7467	dmoleko@ncpg.gov.za
	G Pienaar	Eastern Cape Department of Finance, Economic Development, Environmental Affairs and Tourism	Tel: 043 605 7051	Gerry.pienaar@dedea.gov.za

COMMISSIONER OF OATHS (RSA)
JAN LODEWIKUS WESSELS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA)
SAIPA REGISTRATION NUMBER - 33041
1 OAKDALE ROAD, NEWLANDS, CAPE TOWN
REPUBLIC OF SOUTH AFRICA

26 Aug 2018
CERTIFIED A TRUE COPY
OF THE ORIGINAL





environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 PRETORIA 0001 Environment House - 473 Steve Biko Road, Arcadia- PRETORIA
Tel: (+27 12) 369 6972

Enquiries: Mr Ishaam Abader Telephone: 012 399 8330 E-mail: labader@environment.gov.za

COMMISSIONER OF OATHS (RSA)
JAN LODEWIKUS WESSELS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (SA)
SAIPA REGISTRATION NUMBER - 33041
1 OAKDALE ROAD, NEWLANDS, CAPE TOWN
REPUBLIC OF SOUTH AFRICA

26 Aug 2018
CERTIFIED A TRUE COPY
OF THE ORIGINAL

Mr. Vusi Skosana
Director: Strategic co-ordination, planning and support

Dear Mr. V Skosana

APPOINTMENT AS ACTING CHIEF DIRECTOR: INTEGRATED ENVIRONMENTAL AUTHORISATIONS FOR THE PERIOD 06 AUGUST 2018 UNTIL 08 AUGUST 2018 (3 DAYS).

I hereby inform you that I have decided to appoint you as the Acting Chief Director: Integrated environmental authorisations for the period 06 August 2018 until 08 August 2018 whilst Mr. Sabelo Malaza will be attending the workshop in Windhoek (Namibia)

All the correspondence and other documents that are usually signed by the Chief Director: Integrated Environmental Authorizations must be signed under Acting Chief Director: Integrated Environmental Authorisations during the above-mentioned period.

Your appointment in the above acting position remains subject to the provisions of the Public Service Act, 1994 (Proclamation No. 103 of 1994), as amended, the Government Employees Pension Fund Act, 1996 (Proclamation No. 21 of 1996), the regulations promulgated under these Acts and relevant circulars.

In the execution of your duties and the exercising of the powers delegated to you, you will furthermore be subjected to the provisions of the Public Finance Management Act, compliance with the Promotion of Access to Information Act, Promotion of Administrative Justice Act, the Minimum Information Security Standard, Departmental Policies and other applicable legislations with the Republic of South Africa. You are therefore advised to make yourself familiar with the provisions of this legislations and policies and the amendments thereof. (Copies of Departmental policies can be obtained from the Human Resource Office).

Please accept my heartfelt gratitude for all your assistance on behalf of the department.

Yours sincerely

Mr Ishaam Abader
DDG : LACE

Date:

2/08/2018

ACKNOWLEDGEMENT

I ACCEPT / DO NOT ACCEPT appointment as Acting Chief Director: Integrated environmental authorisations

Signed: Ishaam Abader

Date: 3/08/2018

Sophie Williams

From: Projects
Sent: 30 October 2019 16:28
To: Aneesah Alwie
Subject: Fw: 14/12/16/3/3/2/1029/2/AM1
Attachments: 14-12-16-3-3-2-1029-2-AM1.pdf

From: EIAAdmin <EIAAdmin@environment.gov.za>
Sent: Wednesday, October 30, 2019 9:31 AM
To: Ashlin Bodasing <AshlinB@arcusconsulting.co.za>; Projects <Projects@arcusconsulting.co.za>; Sheldon Vandrey <Sheldon.vandrey@edf-re.co.za>; D. Moleko <dmoleko@ncpg.gov.za>; mpela@umsobomvumun.co.za <mpela@umsobomvumun.co.za>; Gerry Pienaar <Gerry.Pienaar@dedea.gov.za>
Cc: Constance Musemburi <CMusemburi@environment.gov.za>; EIAAdmin <EIAAdmin@environment.gov.za>
Subject: 14/12/16/3/3/2/1029/2/AM1

Good day.

Please find herein the attached letter for the above mentioned.

I hope you find all in order.

Thank you.

Kind Regards,
Integrated Environmental Authorisations:
IEM Systems and Tools Coordination
Tel (012) 399 8630 / 9370 / 9367
Email: EIAAdmin@environment.gov.za



Please be informed that the Departmental EIA related templates were updated. It can be downloaded from the Departmental web address at https://www.environment.gov.za/documents/forms#legal_authorisations.

'Please consider the environment before you print this email'

This message and any attachments transmitted with it are intended solely for the addressee(s) and may be legally privileged and/or confidential. If you have received this message in error please destroy it and notify the sender. Any unauthorized usage, disclosure, alteration or dissemination is prohibited. The Department of Environmental Affairs accepts no responsibility for any loss whether it be direct, indirect or consequential, arising from information made available and actions resulting there from. The views and opinions expressed in this e-mail message may not necessarily be those of Management.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447- PRETORIA · 0001· Environment House · 473 Steve Biko Road, Arcadia, · PRETORIA

DEA Reference: 14/12/16/3/3/1029/2/AM1

Enquiries: Ms Constance Musemburi

Telephone: (012) 399 9416 E-mail: CMusemburi@environment.gov.za

Ashlin Bodasing
Arcus Consultancy Services South Africa (Pty) Ltd
Office 607
Icon Building
Cube Work Space
24 Hans Strijdom Avenue
CAPE TOWN
8001

Telephone Number: (021) 412 1529

Email Address: ashlinb@arcusconsulting.co.za / projects@arcusconsulting.co.za

PER MAIL / E-MAIL

Dear Ms Bodasing

COMMENTS ON THE DRAFT AMENDMENT REPORT FOR THE APPLICATION FOR SPLIT AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 FOR THE PROPOSED CONSTRUCTION OF THE 390MW SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED 132KV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE.

The Environmental Authorisation (EA) issued for the above application by this Department on 28 June 2018 (14/12/16/3/3/2/1029); the Application for Environmental Authorisation (EA) and Draft Amendment report received by the Department on 26 September 2019 and the acknowledgement letter from the Department dated 15 October 2019, refer.

The application for amendment of the EA addresses the following:

- i. The applicant, San Kraal Wind Power (Pty) Ltd intends to split the EA for 14/12/16/3/3/2/1029 into two smaller projects within the authorized boundary.
- ii. In addition, the applicant intends to amend the following
 - a. Split of the authorised San Kraal WEF into two smaller projects within the authorised boundary i.e San Kraal WEF Split 1 and Hartebeesthoek East WEF Split 2;
 - b. Change the name and coordinates of the development;
 - c. Change to the holder of the Hartebeesthoek East WEF Split 2 to Hartebeesthoek Wind Power (Pty) Ltd;
 - d. Change Hub Height up to 137m, rotor diameter of 175m and turbine output of up to 6.2MW;
 - e. Project output of up to 74.4MW;
 - f. Turbine numbers reduced to 35 turbines and

- g. A new final layout.
- iii. The amendment is requested as the authorized technology is no longer the most efficient turbine model and it will ensure their project is amongst the forefront of technological advancements. The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 275 MW.
- iv. There are no amendments being applied for in terms of the grid connection and associated infrastructure related to the original EA with reference number 14/12/16/3/3/2/1029.
- v. Two Separate amendment applications and reports have been submitted to the Department in order to facilitate the split of the EA. The applications are currently registered with the Department as 14/12/16/3/3/2/1029/1/AM1 and 14/12/16/3/3/2/1029/2/AM1.

The Department has the following comments on the abovementioned application (14/12/16/3/3/2/1029/2/AM1):

- a. Please ensure that the following information as a minimum in terms of Regulation 32(1)(a) of the EIA Regulations, 2014:
 - an assessment of all impacts related to the proposed changes;
 - advantages and disadvantages associated with the proposed changes;
 - measures to ensure avoidance, management and mitigation of impacts associated with such proposed change in turbine specification and any other components proposed for amendment; and
 - any changes to the EMPr subsequent to additional mitigation recommendations by the specialist studies for the proposed project specifications.
- b. Please ensure that you submit the Layout Plan as authorised with the EA, as well as the Layout Plan for the proposed amendments.
- c. Please ensure that the final reports must include a motivation specific to the proposed amendment. The report must contain all the necessary information that is relevant to the changes applied for.
- d. The EAP must provide confirmation that the proposed amendment or and the changes does not, on its own, constitute a listed or specified activity in terms of the EIA Regulations, 2014 as amended;
- e. Please ensure that a list of registered interested and affected parties as per Regulation 42 of the NEMA EIA Regulations, 2014, as amended is provided;
- f. Please ensure that copies of original comments received from I&APs and organs of state, which have jurisdiction in respect of the proposed activity are submitted to the Department with the final Amendment Report. Kindly ensure that the Square Kilometer Array (SKA) comments and comments from this Departments Biodiversity and Conservation Directorate are included in the document.
- g. Proof of correspondence with the various stakeholders, including organs of state which have jurisdiction in respect of the proposed activity, must be included in the final Amendment Report. Should you be unable to obtain such comments, proof should be submitted to the Department of the attempts that were made to obtain the comments.
- h. All issues raised and comments received during the circulation of the draft Amendment Report from I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final Amendment Report, including comments from this Department, and must be incorporated into a Comments and Response Report;

- i. All comments from I&APs must be adequately responded to. Please note that a response such as "noted" is not regarded as an adequate response to an I&AP's comments.
- j. The requirements of the acknowledgement letter 15 October 2019 must also be fulfilled.
- k. The Department requires that you clearly indicate which conditions in the EA are applicable to the above project i.e. 14/12/16/3/3/2/1029/2/AM1. Ensure that the Environmental Management Programme (EMPr) has mitigations and measures applicable only to the abovementioned project as well.
- l. Please ensure that confirmation must be obtained from all the specialists that undertook studies from the original EIA process that there will be no new impacts that will arise from the proposed amendments. The specialists used as part of the original EIA process must provide comment.
- m. Further, clearly indicate whether conditions for the grid infrastructure are to be removed in entirety or retained to some extent. It would be best to list which conditions of the EA are relevant to amendment process.
- n. You are requested to submit one (1) unprotected electronic copy (1 USB) and one (1) hard copy of the final Amendment Report to the Department. Please ensure that this copy contains an electronic version of the amendment application form.

You are also advised to comply with the requirements of the Regulations 32 of the EIA Regulations 2014, as amended.

Further note that in terms of Regulation 45 of the EIA Regulations 2014, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of the these Regulations, unless an extension has been granted in terms of Regulation 3(7).

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs
Letter signed by: Mr Lerato Mokoena
Designation: Assistant Director: Prioritised Infrastructure Projects
Date: 28/10/2019

CC: Sheldon Vandrey	Hartebeesthoek Wind Power (Pty) Ltd	Email: Sheldon.vandrey@edf-re.co.za
Dineo Moleko	Northern Cape Department of Environment and Nature Conservation	Email: dmoleko@ncpg.gov.za
Amos Mpela	Umsobomvu Local Municipality	Email: mpela@umsobomvumun.co.za
Gerry Pienaar	Eastern Cape Department of Finance, Economic Development, Environmental Affairs and Tourism	Email: Gerry.pienaar@dedea.gov.za

Sophie Williams

From: Projects
Sent: 22 October 2019 10:32
To: Busang Sethole
Cc: Musa Baloye
Subject: Re: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Good Day Busang,

Thank you for your email. The downloadable links to the basic assessment reports are available.

Please follow this direct link to the project on the Arcus website:

<https://arcusconsulting.co.za/projects/proposed-san-kraal-and-phezukomoya-amendments/>

Please do not hesitate to contact should you have any further queries.

Please note that the comment period closes on 25 October 2019, please confirm that your comment will be received in due time.

Thank You,
Regards
Aneesah Alwie

From: Busang Sethole <bsethole@ska.ac.za>
Sent: Monday, October 21, 2019 12:05 PM
To: Projects <Projects@arcusconsulting.co.za>
Cc: Musa Baloye <mbaloye@ska.ac.za>
Subject: Fwd: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Good Day Aneesha

I am not sure if it is only me, but I am not able to find any downloadable documents on the link you have provided. Please may you kindly provide us with the full link where we can have this documents downloaded.

BR,

Busang Sethole
Spectrum and Telecommunications Analyst
South African Radio Astronomy Observatory (SARAO)
Address: 17 Baker Street,
Rosebank, Johannesburg, 2196
Tel: [+27 \(0\) 11 268 3449](tel:+270112683449) | Cell [+27 \(0\) 79 465 5064](tel:+270794655064)
Email: bsethole@ska.ac.za
Website: www.ska.ac.za

----- Forwarded message -----

From: Adrian Tiplady <atiplady@ska.ac.za>
Date: Fri, Sep 27, 2019 at 4:59 PM

Subject: Fwd: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

To: Selaelo Matlhane <smatlhane@ska.ac.za>, Busang Sethole <bsethole@ska.ac.za>, mbaloye@ska.ac.za <mbaloye@ska.ac.za>

----- Forwarded Message -----

Subject:Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Date:Thu, 26 Sep 2019 07:02:56 +0000

From:Projects <Projects@arcusconsulting.co.za>

To:Projects <Projects@arcusconsulting.co.za>

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The Draft Basic Assessment and Amendment Reports for the San Kraal and Phezukomoya Wind Energy Facility (WEF) and Grid Connection is available for public comment and review.

The following is available for public review:

Volume I - Draft Basic Assessment Report (BAR) for the Grid Connection and associated infrastructure, Eastern and Northern Cape Province

Volume II - Specialist Impact Assessment Reports

Volume I - San Kraal Wind Energy Facility Environmental Authorisation (EA) Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek East Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Phezukomoya Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

Volume I - Hartebeesthoek West Wind Energy Facility EA Amendment, Eastern and Northern Cape Province

Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupoort Library, and website: www.arcusconsulting.co.za.

Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 220 Cube Workspace

Cnr Long Street and Hans Strijdom Ave

Cape Town

8001

www.arcusconsulting.co.za

Sophie Williams

From: Projects
Sent: 22 October 2019 10:43
To: Gerry Pienaar; Projects
Cc: ncumisa.manyonga@dedea.gov.za
Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: 3329 San Kraal and Phezukomoya WEF Amendments and BA Process Notificatio....pdf

Dear Gerry Pienaar,

Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, please can you confirm if the Department of Economic Development Environmental Affairs and Tourism, Eastern Cape Provincial Department, will be providing comment on the mentioned reports.

If you have any questions or queries please do not hesitate to contact me.

Thank You,
Regards
Aneesah Alwie

From: Projects <Projects@arcusconsulting.co.za>
Sent: Thursday, September 26, 2019 7:02 AM
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

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Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 220 Cube Workspace

Cnr Long Street and Hans Strijdom Ave

Cape Town

8001

www.arcusconsulting.co.za

Sophie Williams

From: Projects
Sent: 22 October 2019 10:48
To: D. Moleko; Projects
Cc: denc@ncpg.gov.za
Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: 3329 San Kraal and Phezukomoya WEF Amendments and BA Process Notificatio....pdf

Dear Dineo Moleko

Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, please can you confirm if the Department of Environment and Nature Conservation, Northern Cape Provincial Department, will be providing comment on the mentioned reports.

If you have any questions or queries please do not hesitate to contact me.

Thank You,
Regards
Aneesah Alwie

From: Projects <Projects@arcusconsulting.co.za>
Sent: Thursday, September 26, 2019 7:02 AM
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

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Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

Tel: +27 (0) 21 412 1529

Email: projects@arcusconsulting.co.za

Arcus Consultancy Services South Africa (Pty) Ltd

Office 220 Cube Workspace

Cnr Long Street and Hans Strijdom Ave

Cape Town

8001

www.arcusconsulting.co.za

Sophie Williams

From: Projects
Sent: 22 October 2019 10:56
To: pmakitla@environment.gov.za; slekota@environment.gov.za; Projects
Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process
Attachments: 3329 San Kraal and Phezukomoya WEF Amendments and BA Process Notificatio....pdf

Dear Biodiversity Control Officers,

Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, please can you confirm if the Department of Environment, Forestry & Fisheries: Biodiversity Conservation Directorate, Department of Environmental Affairs, will be providing comment on the mentioned reports.

If you have any questions or queries please do not hesitate to contact me.

Thank You,
Regards
Aneesah Alwie

From: Projects <Projects@arcusconsulting.co.za>
Sent: Thursday, September 26, 2019 7:02 AM
To: Projects <Projects@arcusconsulting.co.za>
Subject: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process

Dear Interested and Affected Party

Notice is hereby given of a Public Participation Process (PPP) to be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

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Volume II - Specialist Amendments Reports

The **Draft Basic Assessment Report** and the **four Draft EA Amendment Reports** are available for public review and comment for 30 days from the **26 September 2019** to the **25 October 2019 (both days inclusive)**, at the Noupport Library, and website: www.arcusconsulting.co.za.

Please find attached a letter with further information regarding the availability of the San Kraal and Phezukomoya WEF Amendments and Grid Connection Basic Assessment Reports.

Kind Regards

Aneesah Alwie

Public Participation Assistant, South Africa

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APPENDIX H: COMMENTS AND RESPONSES TABLE

Ref.	Name and Organisation	Date and Method	Comment	Response
Draft Amendment Report Phase				
1	Mario Bratz I&AP	7 September 2019 by Email	<p>From: Mario Bratz [mailto:mario.bratz@yahoo.com] Sent: Saturday, September 7, 2019 13:59 To: Projects <Projects@arcusconsulting.co.za> Subject: Ref:3329 Projects (fencing/civil works)</p> <p>No email context, only an attachment (see Vol. I, Appendix G)</p>	<p>From: Projects Sent: Thursday, September 12, 2019 6:57 AM To: mario.bratz@yahoo.com <mario.bratz@yahoo.com> Subject: RE: Ref:3329 Projects (fencing/civil works)</p> <p>Good Day Mario</p> <p>Thank you for your email and telephone call on 11 September 2019 requesting to be registered as an I&AP.</p> <p>You have been included as an I&AP for the San Kraal and Phezukomoya amendment and basic assessment application process.</p> <p>Kind Regards Aneesah Alwie Public Participation Assistant, South Africa</p>
2	Alfranzo Smit I&AP Local and SMME Owner	11 September 2019 by Email	<p>From: Sherieve [mailto:alfranzosmit@gmail.com] Sent: Wednesday, September 11, 2019 11:10 To: Projects <Projects@arcusconsulting.co.za> Subject: I&AP</p> <p>Good Morning</p> <p>I would like to register as an I&AP for the projects around the Noupoot-Middleburg area.</p> <p>I'm a local from the area and a SMME owner.</p> <p>For both the wind energy and the solar energy projects. Hear from you soon.</p> <p>WARM REGARDS Alfranzo 0795008361 RIEVE SURVEYS (pty ltd)</p>	<p>From: Projects Sent: Thursday, September 12, 2019 6:58 AM To: Sherieve <alfranzosmit@gmail.com> Subject: RE: I&AP</p> <p>Good Day Alfranzo</p> <p>Thank you for your email. You have been included on the I&AP Database for the San Kraal and Phezukomoya WEF amendment and basic assessment application process.</p> <p>Kind Regards Aneesah Alwie Public Participation Assistant, South Africa</p>
3	John Geeringh Senior Consultant Environmental Management Eskom Transmission Division: Land & Rights	27 September 2019 by Email	<p>From: John Geeringh <GeerinJH@eskom.co.za> Sent: Friday, September 27, 2019 8:09 AM To: Projects <Projects@arcusconsulting.co.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Please find attached the latest Eskom setbacks document with regard to renewable energy infrastructure in relation to Eskom infrastructure. Please ensure the applicant is aware of this document and its contents in terms of this amendment application. Should you have any queries, please contact me.</p> <p>Kind regards John Geeringh (Pr Sci Nat)</p>	<p>No response required by EAP. Email was forwarded onto the applicant for awareness.</p>

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			Senior Consultant Environmental Management Eskom Transmission Division: Land & Rights Megawatt Park, D1Y42, Maxwell Drive, Sunninghill, Sandton. P O Box 1091, Johannesburg, 2000. Tel: 011 516 7233 Cell: 083 632 7663 Fax: 086 661 4064 E-mail: john.geeringh@eskom.co.za	
	Natasha Higgitt SAHRA	27 September 2019 by Email	From: Natasha Higgitt [mailto:nhiggitt@sahra.org.za] Sent: Friday, September 27, 2019 11:14 To: Projects <Projects@arcusconsulting.co.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process Good afternoon, Thank you for the notification. Please upload all documents to the relevant SAHRIS applications and change the status of the cases to SUBMITTED once completed. Kind regards,	From: Projects Sent: Tuesday, October 15, 2019 11:31 AM To: Natasha Higgitt <nhiggitt@sahra.org.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process Dear Natasha, The Draft Basic Assessment Report and the four Draft EA Amendment Reports were uploaded to SAHRIS and status changed to SUBMITTED. Kind Regards Aneesah Alwie Public Participation Assistant, South Africa
4	Natasha Higgitt SAHRA	28 October 2019 Via SAHRA website	Enquiries: Natasha Higgitt Tel: 021 462 4502 Email: nhiggitt@sahra.org.za CaseID: 14389 Interim Comment In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999) <u>Attention:</u> Mr Sheldon Vandrey Mainstream Renewable Power South Africa (Pty) Ltd EA amendment application for San Kraal WEF Arcus Consultancy Services South Africa (Pty) Ltd has been appointed by Hartebeesthoek Wind Power (Pty) Ltd to undertake an Environmental Authorisation (EA) Amendment Application to amend the authorised San Kraal Wind Energy Facility (WEF), near Noupoot in the Northern and Eastern Cape Province (DEA Ref. No. 14/12/16/3/3/2/1029 and 14/12/16/3/3/2/1029/AM1). A draft Motivation Report has been submitted in terms of the National Environmental Management Act, No 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations. The proposed	SAHRA - South African Heritage Resources Agency 111 Harrington Street Cape Town 8001 ATT: Natasha Higgitt Tel: 021 462 4502 Email: nhiggitt@sahra.org.za SAHRA CASE NUMBER: 14386, 14388 and 14389 22 November 2019 RE: MOTIVATION FOR ACCEPTANCE OF THE 2017 PALAEOLOGICAL ASSESSMENT FOR THE PROPOSED AMENDMENTS OF THE PROPOSED SAN KRAAL SPLIT 1, HARTEBEESTHOEK EAST AND PHEZUKOMOYA SPLIT 1 WIND ENERGY FACILITIES, NORTHERN AND EASTERN CAPE PROVINCES Dear Ms Natasha Higgitt, Interim Comment was received from the South African Heritage Resources Agency ('SAHRA') on the 28 October 2019. Responses to this Interim Comment is provided by the independent environmental assessment practitioner (EAP) Arcus Consultancy Services South Africa (Pty) Ltd ('Arcus') in this letter and will be included as part of the comments and

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			<p>amendments include splitting the authorised San Kraal WEF into two project areas (San Kraal Split 1 and Hartebeesthoek East). The Hartebeesthoek WEF will consist of 20 turbines with an amended layout.</p> <p>ACO Associates cc were appointed to provide the heritage specialist component as part of the EA Amendment application in terms of section 24(4)b(iii) of the NEMA and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).</p> <p><i>Gribble, J and Euston-Brown, G. 2019. Archaeological Amendment Report: San Kraal Wind Energy Facility, Noupoot, Northern Cape.</i></p> <p>The amendment layout was assessed by the heritage specialists and it was found that no disadvantages arising from the revised WEF layout were identified with respect to archaeological resources.</p> <p>The following recommendations have been provided in the report:</p> <ul style="list-style-type: none"> • The 2018 Environmental Management Programme Report for the San Kraal WEF must be amended in respect of the assessment of impacts on archaeological sites and materials within the Hartebeesthoek East WEF; • Provided that the mitigation measures recommended in this report are implemented, the overall impact of the construction of the Hartebeesthoek WEF is tolerable and generally of low significance and, from a heritage perspective, the proposed amendments are considered acceptable. <p>Interim Comment</p> <p><i>*Please note that this comment is issued for the Northern Cape section of the development only. Eastern Cape Provincial Heritage Resources Authority (ECPHRA) must be consulted with regards to comments for the Eastern Cape section of the propose development.</i></p> <p>The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit requests that an assessment of the impact of the proposed amendments to palaeontological resources be conducted as part of the EA Amendment application.</p> <p>SAHRA advises the applicant to extend the EA Amendment Application process in terms of section 32(1)b of the NEMA EIA regulations in order to comply with the comment.</p> <p>Further comments will be issued upon receipt of the requested study.</p> <p>Should you have any further queries, please contact the designated official using the case number quoted above in the case header.</p> <p>Yours Faithfully Natasha Higgitt Heritage Officer</p>	<p>response in the submission of the Final Amendment Report(s) to the Department of Environmental Affairs (DEA).</p> <p>In the Interim Comment, in terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999), issued by SAHRA on the 28 October 2019, for each Case ID referenced above, the following was stated:</p> <p><i>'Please note that this comment is issued for the Northern Cape section of the development only. Eastern Cape Provincial Heritage Resources Authority (ECPHRA) must be consulted with regards to comments for the Eastern Cape section of the propose development.</i></p> <p><i>The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit requests that an assessment of the impact of the proposed amendments to palaeontological resources be conducted as part of the EA Amendment application.</i></p> <p><i>SAHRA advises the applicant to extend the EA Amendment Application process in terms of section 32(1)b of the NEMA EIA regulations in order to comply with the comment.</i></p> <p><i>Further comments will be issued upon receipt of the requested study.'</i></p> <p>Response to comment:</p> <p>The EAP understands that this interim comment received is issued for the Northern Cape section of the development only. The ECPHRA has been consulted via the SAHRIS website.</p> <p>An assessment of the impact of the proposed amendments to palaeontological resources was not conducted as part of the EA Amendment applications as the existing study, done by Dr. John Almond, October 2017, on San Kraal and Phezukomoya is still considered to be valid.</p> <p>Dr. John Almond ('Almond') has taken impact assessments in the area for the Noupoot Wind Farm to the East and bordering directly on the San Kraal parcel. He also undertook the San Kraal and Phezukomoya assessment, all of which involved broad field work components prospecting any likely areas outside and within the land parcels involved. He does this to find locales where the underlying palaeontology may be exposed and visible which is not always the case in the actual project areas themselves. Almonds conclusions were therefore based on a solid desktop knowledge of the local geology and palaeontology, reinforced by field observation. It would be worthwhile noting that palaeontological finds on the three large land parcels that he has surveyed are minimal due to the depleted nature of the mountain-top Katberg deposits, and that all the finds he has made have been on the sides of slopes and gullies where mud strata are exposed. It is based on the general geology of the area that Almonds recommendations and conclusions are derived. The geology throughout</p>

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				<p>the original and amended project areas are similar – the same formations are involved.</p> <p>As reference, an extract of the recommendations for monitoring and mitigation of the existing San Kraal and Phezukomoya assessments, October 2017, by Dr. John Almond, is included below.</p> <p>San Kraal</p> <p>Chapter 6. RECOMMENDATIONS FOR MONITORING AND MITIGATION (of the Palaeontological Study, October 2017, by Dr. John Almond)</p> <p>Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (c. 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with any recommendations for further specialist monitoring or mitigation, should be submitted by the palaeontologist to SAHRA for comment. This stepwise approach is recommended because it may well prove impracticable to recognise record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.</p> <p>No palaeontological No-Go areas or fossil sites requiring mitigation have been identified within the main WEF development footprint on the Katberg sandstone plateau. In the grid connection study area several vertebrate burrows exposed in a stream bed on Farm Winterhoek 118 close to 132 kV power line route Alternative 1 (Fig. 36) should be protected by a 50m-radius buffer zone. Should the Alternative 1 route rather than the currently preferred route be finally chosen, it is recommended that that sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed.</p>

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Draft Amendment Report Phase

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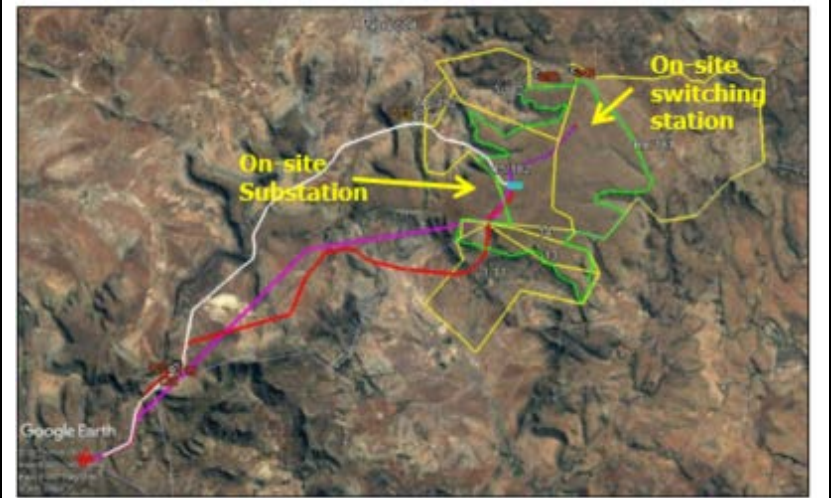


Fig. 35. Google Earth satellite image showing the preferred 132 kV power line connection between the San Kraal WEF and the Umsobomvu substation (purple line) as well as two other route options: Alternative 1 (red line) and Alternative 2 (white line).

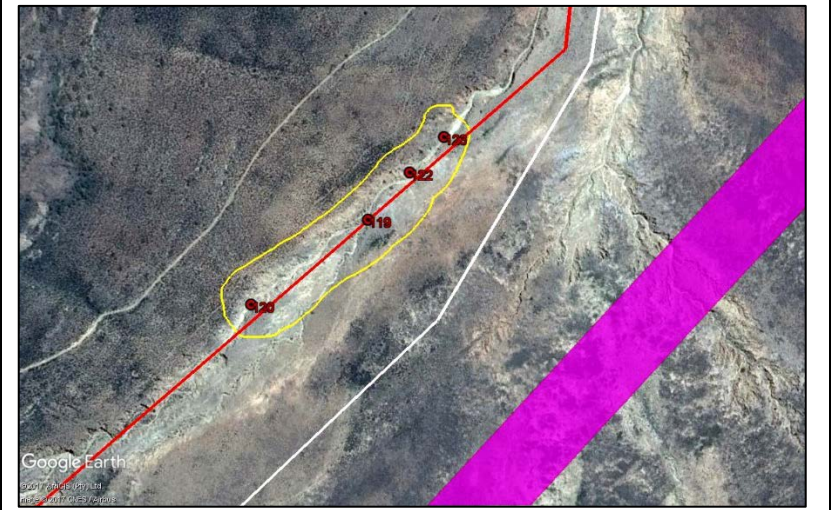
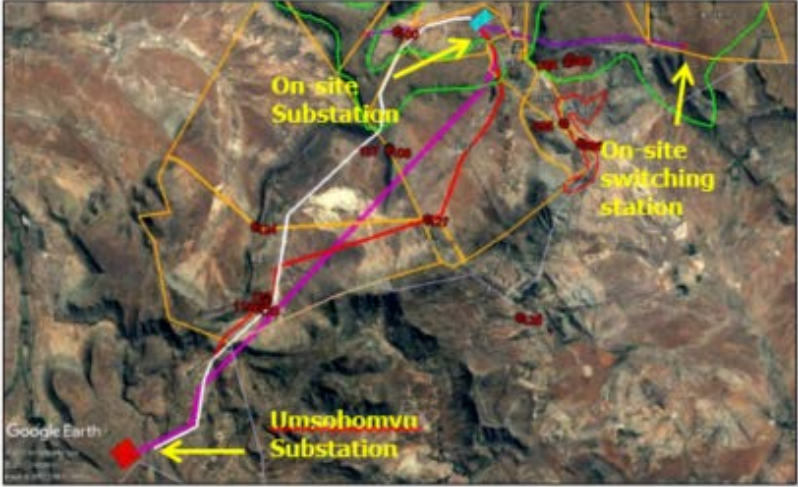




Fig. 36. Detail of the south-western sectors of the 132 kV powerline routes shown in the previous figure. Alternative 1 (red line) passes through the proposed 50 m-radius protective buffer (yellow shape) surrounding several important fossil vertebrate burrow sites in the Katberg Formation that are exposed in a

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Draft Amendment Report Phase				
				<p>deeply-incised stream bed (Locs. 119-123). Alternative 2 route option – white. Preferred route option – purple.</p> <p>In addition to the specialist palaeontological monitoring outlined above, the ECO responsible for the construction phase of the project should be aware of the potential for important fossil finds and the necessity to conserve them for possible professional mitigation (See, for example, Macrae 1999 for a well-illustrated popular account of Karoo fossils). The ECO should monitor all substantial excavations into sedimentary rocks for fossil remains on an on-going basis during the construction phase.</p> <p>Recommended mitigation of chance fossil finds during the construction phase of the WEF and associated grid connection involves safeguarding of the fossils (preferably <i>in situ</i>) by the responsible ECO and reporting of finds to SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) and to ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za). Where appropriate, judicious sampling and recording of fossil material and associated geological data by a qualified palaeontologist may be required by the relevant heritage regulatory authorities. Any fossil material collected should be curated within an approved repository (museum / university fossil collection) by a qualified palaeontologist. These recommendations should be included within the Environmental Management Programme for the proposed alternative energy project.</p> <p>Given the internationally recognised value of Karoo fossil heritage (<i>e.g.</i> Macrae 1999, McCarthy & Rubidge 2005, Choiniere & Rubidge 2016), the known occurrence of scientifically-valuable fossil material in the Noupport region, as well as the legal protection of all fossil remains under the National Heritage Resources Act (1999), these mitigation measures are considered to be essential.</p> <p>Phezukomoya</p> <p>Chapter 6. RECOMMENDATIONS FOR MONITORING AND MITIGATION (of the Palaeontological Study, October 2017, by Dr. John Almond)</p> <p>Given (1) the significant potential for scientifically-valuable fossils being disturbed, damaged or destroyed during the construction phase of the WEF as well as (2) the high level of uncertainty regarding fossil distribution in the subsurface, a precautionary approach to palaeontological mitigation is considered appropriate here. Following discussions with SAHRA (Dr Ragna Redelstorff, Oct. 2017), it is therefore proposed that initially a representative sample (<i>c.</i> 10%) of excavations for wind turbine footings be monitored by a professional palaeontologist during the early construction phase. The monitoring protocol should be developed by the palaeontologist</p>

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				<p>appointed in consultation with the developer and SAHRA so as to maximise the palaeontological outcome without interfering unduly with the construction program. On completion of this initial phase of monitoring, a Phase 2 palaeontological report, with any recommendations for further specialist monitoring or mitigation, should be submitted by the palaeontologist to SAHRA for comment. This stepwise approach is recommended because it may well prove impracticable to recognise record and sample useful fossil material from turbine excavations due to factors such as excessive fragmentation of the bedrock and fossils, obscuring of freshly-excavated bedrock by soil or dust, or safety considerations.</p> <p>No palaeontological No-Go areas or fossil sites requiring mitigation have been identified within the main WEF development footprint on the Katberg sandstone plateau. In the grid connection study area. Several vertebrate burrows exposed in a stream bed on Farm Winterhoek 118 close to 132 kV power line route Alternative 1 (Fig. 39) should be protected by a 50m-radius buffer zone. Should the Alternative 1 route rather than the currently preferred route be finally chosen, it is recommended that that sector passing close to the fossil sites be moved south-eastwards to run at least 25 m from the stream bed where the fossil burrows are exposed.</p>  <p>Fig. 38. Google Earth satellite image showing the preferred 132 kV power line connection between the Phezukomoya WEF and the Umsobomvu substation (purple line) as well as two other route options: Alternative 1 (red line) and Alternative 2 (white line).</p>

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Draft Amendment Report Phase				
				 <p>Fig. 39. Detail of the south-western sectors of the 132 kV powerline routes shown in the previous figure. Alternative 1 (red line) passes through the proposed 50 m-radius protective buffer (yellow shape) surrounding several important fossil vertebrate burrow sites in the Katberg Formation that are exposed in a deeply-incised stream bed (Locs. 119-123). Alternative 2 route option – white. Preferred route option – purple.</p> <p>In addition to the specialist palaeontological monitoring outlined above, the ECO responsible for the construction phase of the project should be aware of the potential for important fossil finds and the necessity to conserve them for possible professional mitigation (See, for example, Macrae 1999 for a well-illustrated popular account of Karoo fossils). The ECO should monitor all substantial excavations into sedimentary rocks for fossil remains on an on-going basis during the construction phase.</p> <p>Excellent exposures of mudrocks of the Palingkloof Member (upper Balfour Formation) that are of geoheritage as well as palaeontological significance because of their proximity to the Permo-Triassic boundary are noted here (red shapes in Figs. 36 & 37). One, lying along the railway line at Carlton Heights (Farms RE/1/1 and 18/1), has featured in several scientific publications while the other, close to Hartebeesthoek homestead on Farm RE/182, is currently unstudied. It is anticipated that neither of these two geosites will be directly impacted by the proposed WEF development.</p> <p>Recommended mitigation of chance fossil finds during the construction phase of the WEF and associated grid connection involves safeguarding of the fossils (preferably <i>in situ</i>) by the responsible ECO and reporting of finds to SAHRA for the Northern Cape (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Phone:</p>

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				<p>+27 (0)21 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) and to ECPHRA for the Eastern Cape (ECPHRA contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za). Where appropriate, judicious sampling and recording of fossil material and associated geological data by a qualified palaeontologist may be required by the relevant heritage regulatory authorities. Any fossil material collected should be curated within an approved repository (museum / university fossil collection) by a qualified palaeontologist. These recommendations should be included within the Environmental Management Programme for the proposed alternative energy project. Given the internationally recognised value of Karoo fossil heritage (<i>e.g.</i> Macrae 1999, McCarthy & Rubidge 2005, Choiniere & Rubidge 2016), the known occurrence of scientifically-valuable fossil material in the Noupoot region, as well as the legal protection of all fossil remains under the National Heritage Resources Act (1999), these mitigation measures are considered to be essential.</p> <p>It is our assertion that all the land parcels have been well-covered and considered in the original project areas and therefore the original conclusions and recommendations for San Kraal and Phezukomoya should continue to stand and be adhered to for the amendment process.</p> <p>The relevant studies have been uploaded to the SAHRIS website, under the respective case numbers.</p> <p>It would be duly appreciated if the above can be considered and allowed for by the SAHRA. If there is any further information requested please do not hesitate to contact.</p> <p>Yours Sincerely,</p>  <p>Ashlin Bodasing Environmental Assessment Practitioner</p>
5	Gerry Pienaar DEDEA: Eastern Cape Provincial Authority	30 September 2019 by Email	From: Gerry Pienaar [mailto:Gerry.Pienaar@dedea.gov.za] Sent: Monday, September 30, 2019 12:45 To: Projects <Projects@arcusconsulting.co.za>; Alistair McMaster <Alistair.McMaster@dedea.gov.za> Subject: RE: Phezukomoya WEF Amendments and Basic Assessment Process CD not yet received, will have to check	From: Projects Sent: Wednesday, October 2, 2019 10:02 AM To: Gerry Pienaar <Gerry.Pienaar@dedea.gov.za>; Alistair McMaster <Alistair.McMaster@dedea.gov.za> Subject: RE: Phezukomoya WEF Amendments and Basic Assessment Process Good Morning Gerry The courier had just advised me that when attempting to deliver the package to the address which you have provided me, i.e. Global Life Building, Bisho, they are not willing to sign for it.

Ref.	Name and Organisation	Date and Method	Comment	Response
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				<p>Please can you confirm that the address and contact number is correct. Or please provide me with an alternate contact number for the courier to contact you once they are at the building to deliver the package.</p> <p>Thank You Aneesah Alwie</p>
6	<p>Constance Musemburi</p> <p>DEA: Integrated Environmental Authorisations</p>	<p>2 October 2019</p> <p>by Email</p>	<p>From: Constance Musemburi [mailto:CMusemburi@environment.gov.za] Sent: Tuesday, October 15, 2019 12:03 To: Ashlin Bodasing <AshlinB@arcusconsulting.co.za>; Projects <Projects@arcusconsulting.co.za>; sheldon.vandrey@edf-re.co.za Subject: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1</p> <p>Dear All</p> <p>Please find attached acknowledgement letters for the abovementioned applications. Apologies for late acknowledgements.</p> <p>Regards Constance Department of Environmental Affairs Directorate: Priority Infrastructure Projects Tel: 012 399 9416 Email: cmusemburi@environment.gov.za</p>	<p>From: Projects Sent: Tuesday, October 15, 2019 2:18 PM To: Constance Musemburi <CMusemburi@environment.gov.za>; Ashlin Bodasing <AshlinB@arcusconsulting.co.za>; Projects <Projects@arcusconsulting.co.za> Cc: sheldon.vandrey@edf-re.co.za <sheldon.vandrey@edf-re.co.za>; EIAAdmin <EIAAdmin@environment.gov.za> Subject: RE: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1</p> <p>Good Day Constance</p> <p>RE: 14/12/16/3/3/2/1029/1/AM1 & 14/12/16/3/3/2/1029/2/AM1 – Additional Information</p> <p>The hard copy of the documents as requested in the letter(s) of acknowledgement will be delivered to your offices on Wednesday, 16 October 2019.</p>
<p>Email attachment (2)</p>			<p>Ashlin Bodasing Arcus Consultancy Services South Africa (Pty) Ltd Office 607, Icon Building Cube Work Space 24 Hans Strijdom Avenue CAPE TOWN 8001</p> <p>Tel: 021 412 1529 Email: ashlinb@arcusconsulting.co.za / projects@arcusconsulting.co.za PER EMAIL Dear Sir/Madam</p> <p>ACKNOWLEDGEMENT OF RECEIPT OF APPLICATION FOR AMENDMENT OF ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 FOR THE PROPOSED CONSTRUCTION OF THE 390MW HARTEBEESTHOEK ENERGY FACILITY AND ASSOCIATED 132KV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE.</p> <p>The Department confirms having received the application for amendment of environmental authorisation (EA) and draft amendment report for the</p>	<p><u>RE: ACKNOWLEDGMENT OF RECEIPT FOR HARTEBEESTHOEK EAST WIND ENERGY FACILITY</u></p> <p>Following submission of the application for amendment of environmental authorisation (EA) and draft amendment report for the abovementioned project on 26 September 2019, the acknowledgement of receipt letter, dated 15 October 2019 requested submission of the documents as below, please find this attached:</p> <ul style="list-style-type: none"> Originally signed 'Letter of Signatory' and 'Letter of Undertaking' dated 26 August 2019; and Originally certified copies of the EA and subsequent amendment. <p>(attachment included in Vol I: Appendix G)</p>

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			<p>abovementioned project on 26 September 2019. You have submitted these documents to comply with the Environmental Impact Assessment Regulations, 2014.</p> <p>You are requested to submit the following documents via hardcopy and email (to the writer and CC EIAAdmin@environment.gov.za):</p> <ul style="list-style-type: none"> • Originally signed 'Letter of Consent of Signatory' and 'Letter of Undertaking' dated 26 August 2019; • Originally certified copies of the EA and subsequent amendment; • Kindly mark the information as below for submission to the department: <p><i>14/12/16/3/3/2/1/1029/2/AM1- Additional Information</i></p> <p><i>Attention: Constance Musemburi: Integrated Environmental Authorisations Department of Environmental Affairs Private Bag X447 Pretoria 0001</i></p> <p>Please note that your application for amendment of environmental authorisation falls within the ambit of amendments to be applied for in terms of Part 2 of Chapter 5 of the Environmental Impact Assessment Regulations (2014). You are therefore referred to regulation 32.</p> <p>You are also advised that the Public Participation Process must be conducted as outlined in Chapter 6 of the EIA Regulations, 2014, as amended.</p> <p>All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Office Hours which is visible on the Departmental gate. 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.</p> <p>Yours sincerely</p> <p>Mr Sabelo Malaza Chief Director: Integrated Environmental Authorisations Department of Environmental Affairs: Letter signed by: Ms Constance Musemburi Designation: Environmental Officer: Prioritised Infrastructure Projects Date: 15/10/2019</p>	
	EIA Admin DEA: Integrated	30 October 2019 by Email	From: EIAAdmin < EIAAdmin@environment.gov.za > Sent: Wednesday, October 30, 2019 9:31 AM To: Ashlin Bodasing < AshlinB@arcusconsulting.co.za >; Projects < Projects@arcusconsulting.co.za >; Sheldon Vandrey	Response provided to the attachment below and in Section 3.1 of the Final Amendment Report.

Ref.	Name and Organisation	Date and Method	Comment	Response
Draft Amendment Report Phase				
	Environmental Authorisations		<p><Sheldon.vandrey@edf-re.co.za>; D. Moleko <dmoleko@ncpg.gov.za>; mpela@umsobomvumun.co.za <mpela@umsobomvumun.co.za>; Gerry Pienaar <Gerry.Pienaar@dedea.gov.za> Cc: Constance Musemburi <CMusemburi@environment.gov.za>; EIAAdmin <EIAAdmin@environment.gov.za> Subject: 14/12/16/3/3/2/1029/2/AM1</p> <p>Good day.</p> <p>Please find herein the attached letter for the above mentioned.</p> <p>I hope you find all in order.</p> <p>Thank you.</p> <p>Kind Regards,</p> <p>Integrated Environmental Authorisations: IEM Systems and Tools Coordination Tel (012) 399 8630 / 9370 / 9367 Email: EIAAdmin@environment.gov.za</p>	
	Email attachment 14/12/16/3/3/2/1029/2/AM1		<p>DEA Reference: 14/12/16/3/3/1029/2/AM1 Enquiries: Ms Constance Musemburi Telephone: (012) 399 9416 E-mail: CMusemburi@environment.gov.za</p> <p>Ashlin Bodasing Arcus Consultancy Services South Africa (Pty) Ltd Office 607 Icon Building Cube Work Space 24 Hans Strijdom Avenue CAPE TOWN 8001 Telephone Number: (021) 412 1529 Email Address: ashlinb@arcusconsulting.co.za / projects@arcusconsulting.co.za</p> <p>PER MAIL / E-MAIL</p> <p>Dear Ms Bodasing</p> <p>COMMENTS ON THE DRAFT AMENDMENT REPORT FOR THE APPLICATION FOR SPLIT AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 FOR THE PROPOSED CONSTRUCTION OF THE 390MW SAN KRAAL WIND ENERGY FACILITY AND ASSOCIATED 132KV GRID CONNECTION TRANSMISSION LINE SOUTH EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE.</p> <p>The Environmental Authorisation (EA) issued for the above application by this Department on 28 June 2018 (14/12/16/3/3/2/1029); the Application</p>	

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			<p>for Environmental Authorisation (EA) and Draft Amendment report received by the Department on 26 September 2019 and the acknowledgement letter from the Department dated 15 October 2019, refer.</p> <p>The application for amendment of the EA addresses the following:</p> <ul style="list-style-type: none"> i. The applicant, San Kraal Wind Power (Pty) Ltd intends to split the EA for 14/12/16/3/3/2/1029 into two smaller projects within the authorised boundary. ii. In addition, the applicant intends to amend the following: <ul style="list-style-type: none"> a) Split of the authorised San Kraal WEF into two smaller projects within the authorised boundary i.e. San Kraal Split 1 and Hartebeesthoek East WEF Split 2; b) Change the name and coordinates of the development; c) Change to the holder of the Hartebeesthoek East WEF Split 2 to Hartebeesthoek Wind Power (Pty) Ltd; d) Change Hub Height up to 137m, rotor diameter of 175m and turbine output of up to 6.2MW; e) Project output of up to 74.4MW; f) Turbine numbers reduced to 35 turbines and g) A new final layout. iii. The amendment is requested as the authorised technology is no longer the most efficient turbine model and it will ensure their project is amongst the forefront of technological advancements. The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 275 MW. iv. There are no amendments being applied for in terms of the grid connection and associated infrastructure related to the original EA with reference number 14/12/16/3/3/2/1029. v. Two Separate amendment applications and reports have been submitted to the Department in order to facilitate the split of the EA. The applications are currently registered with the Department as 14/12/16/3/3/2/1029/1/AM1 and 14/12/16/3/3/2/1029/2/AM1. 	<p>This is true and correct.</p> <p>Points a) to d) is true and correct.</p> <p>The project output of the Hartebeesthoek East WEF is 124 MW. Comment (e) must be corrected to state the following: "Project output of up to 124 MW"</p> <p>The turbine number for the Hartebeesthoek East WEF was reduced to 20 turbines. Comment (f) must be corrected to state the following: "Turbine numbers is reduced to 20 turbines for Hartebeesthoek East WEF"</p> <p>True and correct.</p> <p>..... The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 275 MW. Comment (iii) must be corrected to state the following: "The amendment will result in fewer turbines with increased MW that would be less than or equal to the overall authorised 390 MW".</p> <p>Point iv. and v. is true and correct.</p>

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			<p>The Department has the following comments on the abovementioned application (14/12/16/3/3/2/1029/1/AM1):</p> <p>a. Please ensure that the following information as a minimum in terms of Regulation 32(1)(a) of the EIA Regulations, 2014:</p> <ul style="list-style-type: none"> • an assessment of all impacts related to the proposed changes • advantages and disadvantages associated with the proposed changes; • measures to ensure avoidance, management and mitigation of impacts associated with such proposed change in turbine specification and any other components proposed for amendment; and • any changes to the EMPr subsequent to additional mitigation recommendations by the specialist studies for the proposed project specifications. <p>b. Please ensure that you submit a Layout Plan as authorised with the EA, as well as the Layout Plan for the proposed amendments.</p> <p>c. Please ensure that the final reports must include a motivation specific to the proposed amendment. The report must contain all necessary that is relevant to the changes applied for.</p> <p>d. The EAP must provide confirmation that the proposed amendment or and the changes does not, on its own, constitute a listed or specified activity in terms of the EIA Regulations, 2014 as amended;</p> <p>e. Please ensure that a list of registered interested and affected parties as per Regulation 42 of the NEMA EIA Regulations, 2014, as amended is provided;</p> <p>f. Please ensure that copies of original comments received from I&APs and organs of state, which have jurisdiction in respect of the proposed activity are submitted to the Department with the final Amendment Report. Kindly ensure that the Square Kilometer Array (SKA) comments</p>	<p>Specialists were requested to identify changes, if any, to the impact significance ratings, recommendations and mitigation measures contained in the previous EIA. These were assessed and provided in a report or letter by each specialist and is in Section 6 of the Amendment Report and Volume II – Specialist Report.</p> <p>Based on specialist assessments, the advantages and disadvantages is provided in a table in Section 7 of the Amendment Report and Volume II – Specialist Report.</p> <p>Revised mitigation measures was recommended by the Heritage and Avifauna specialist, this was considered and changes was implemented before drafting the Draft Amendment Report. These changes are reflected in Section 6.5 and 6.7 of the Amendment Report.</p> <p>Changes to the EMPr was based on revised mitigation measures from the Avifauna and Heritage specialist report. These changes are reflected in Section 9 of the Amendment Report and Appendix B.</p> <p>Layout plan as authorised with the EA and the layout plan for the proposed amendments is presented in figures 1.1, 2.1 and 5.1 in the Amendment Report.</p> <p>A descriptive motivation is provided in Section 5 of the Amendment Report.</p> <p>No further listed activity is triggered by the proposed amendments. The listed activities as provided in Section 3.1 of the Amendment Report, are those activities already authorised.</p> <p>The list of registered interested and affected parties has been updated and is included in Appendix D, as per Regulation 42 of the NEMA EIA Regulations, 2014, as amended.</p> <p>All original comments received from organs of state and from I&APs in respect of the proposed activity have been included in this final submission for authorisation in Appendix G and H. Where comments were not received from an organ of state within the comment period, the EAP followed up to</p>

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			<p>and comments from this Departments Biodiversity and Conservation Directorate are included in the document.</p> <p>g. Proof of correspondence with the various stakeholders, including organs of state which have jurisdiction in respect of the proposed activity, must be included in the final Amendment Report. Should you be unable to obtain such comments, proof should be submitted to the Department of the attempts that were made to obtain the comments.</p> <p>h. All issues raised and comments received during the circulation of the draft Amendment Report from I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final amendment report, including comments from this Department, and must be incorporated into a Comments and Response Report;</p> <p>i. All comments from I&APs must be adequately responded. Please note that a response such as "noted" is not regarded as an adequate response to an I&AP's comments.</p> <p>j. The requirements of the acknowledgement letter 15 October 2019 must also be fulfilled.</p> <p>k. The Department requires that you clearly indicate which conditions in the EA are applicable to the above project i.e. 14/12/16/3/3/2/1029/2/AM1. Ensure that the Environmental Management Programme (EMPr) has mitigations and measures applicable only to the abovementioned project as well.</p> <p>l. Please ensure that confirmation must be obtained from all the specialists that undertook studies from the original EIA process that there will be no new impacts that will arise from the proposed amendments. The specialists used as part of the original EIA process must provide comment.</p> <p>m. Further, clearly indicate whether conditions for the grid infrastructure are to be removed in entirety or retained to some extent. It would be best to list which conditions of the EA are relevant to amendment process.</p>	<p>request comment. Proof of this correspondence is also included in this final submission in Appendix G and H.</p> <p>Proof of all correspondence during the amendment application process is included in this final amendment report submission in Appendix G and H.</p> <p>All issues raised and comments received during the comment period have been included in this report and responded to where applicable. The comments and response table (Appendix H) has been updated to reflect this.</p> <p>The EAP has not summarised any comments received. All comments included in the comments and response table, are included as they were received. Copies of the comments received have also been included to ensure that nothing has been misrepresented, see Appendix G and H.</p> <p>The requirements included in the acknowledgement letter dated 15 October 2019 have been fulfilled.</p> <p>The EAP has indicated which condition in the original EA are applicable to this project in Section 2.1 of the Amendment Report. The EMPr contained the mitigation measures applicable to this project.</p> <p>The team of specialists to support the project team are the same as the original specialists. The only new specialist is the bat specialist. Each specialist reviewed the amendments to the authorised development and provided an opinion and assessment of the changes. Where necessary, additional site work was conducted in order to assess the potential impacts of the proposed amendments. During the amendment process the original bat specialist was not available to conduct the assessment or provide comment on the amendment letter provided by the new bat specialist.</p> <p>Clarification is provided within this Final Amendment Report.</p>

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			<p>n. You are requested to submit one (1) unprotected electronic copy (1 USB) and one (1) hard copy of the final Amendment Report to the Department. Please ensure that this copy contains an electronic version of the amendment application form.</p> <p>You are also advised to comply with the requirements of the Regulations 32 of the EIA Regulations 2014, as amended.</p> <p>Further note that in terms of Regulation 45 of the EIA Regulations 2014, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of the these Regulations, unless an extension has been granted in terms of Regulation 3(7).</p> <p>You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.</p> <p>Yours sincerely Mr Sabelo Malaza Chief Director: Integrated Environmental Authorisations Department of Environmental Affairs Letter signed by: Mr Lerato Mokoena Designation: Assistant Director: Prioritised Infrastructure Projects Date: 28/10/2019</p>	<p>One USB and one hard copy of the final report is submitted. The amendment application form has been included as requested.</p> <p>The EAP has complied with the requirements of the Regulations 32 of the EIA Regulations 2014, as amended.</p> <p>This is acknowledged and the EAP will ensure that the final report is submitted within the regulated timeframes.</p> <p>The applicant has been made aware of the Section 24F of NEMA, 1998, as amended.</p>
7	<p>Busang Sethole</p> <p>Spectrum and Telecommunications Analyst South African Radio Astronomy Observatory (SARAO)</p>	<p>21 October 2019</p> <p>by Email</p>	<p>From: Busang Sethole <bsethole@ska.ac.za> Sent: Monday, October 21, 2019 12:05 PM To: Projects <Projects@arcusconsulting.co.za> Cc: Musa Baloye <mbaloye@ska.ac.za> Subject: Fwd: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Good Day Aneesha</p> <p>I am not sure if it is only me, but I am not able to find any downloadable documents on the link you have provided. Please may you kindly provide us with the full link where we can have this documents downloaded.</p> <p>BR</p> <p>Busang Sethole Spectrum and Telecommunications Analyst South African Radio Astronomy Observatory (SARAO) Address: 17 Baker Street, Rosebank, Johannesburg, 2196 Tel: +27 (0) 11 268 3449 Cell+27 (0) 79 465 5064</p>	<p>From: Projects <Projects@arcusconsulting.co.za> Sent: Tuesday, October 22, 2019 7:31 AM To: Busang Sethole <bsethole@ska.ac.za> Cc: Musa Baloye <mbaloye@ska.ac.za> Subject: Re: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Good Day Busang,</p> <p>Thank you for your email. The downloadable links to the basic assessment reports are available.</p> <p>Please follow this direct link to the project on the Arcus website: https://arcusconsulting.co.za/projects/proposed-san-kraal-and-phezukomoya-amendments/</p> <p>Please do not hesitate to contact should you have any further queries.</p> <p>Please note that the comment period closes on 25 October 2019, please confirm that your comment will be received in due time.</p> <p>Thank You, Regards</p>

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			Email: bsethole@ska.ac.za Website: www.ska.ac.za	Aneesah Alwie
8	Aneesah Alwie EAP Assistant Arcus	22 October 2019 by Email	<p>From: Projects <Projects@arcusconsulting.co.za> Sent: Tuesday, October 22, 2019 7:43 AM To: Gerry Pienaar <Gerry.Pienaar@dedea.gov.za>; Projects <Projects@arcusconsulting.co.za> Cc: ncumisa.manyonga@dedea.gov.za <ncumisa.manyonga@dedea.gov.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Dear Gerry Pienaar,</p> <p>Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the 26 September 2019 to the 25 October 2019 (both days inclusive), please can you confirm if the Department of Economic Development Environmental Affairs and Tourism, Eastern Cape Provincial Department, will be providing comment on the mentioned reports.</p> <p>If you have any questions or queries please do not hesitate to contact me.</p> <p>Thank You, Regards Aneesah Alwie</p>	No response received from Department of Economic Development Environmental Affairs and Tourism, Eastern Cape Provincial Department.
9	Aneesah Alwie EAP Assistant Arcus	22 October 2019 by Email	<p>From: Projects <Projects@arcusconsulting.co.za> Sent: Tuesday, October 22, 2019 7:48 AM To: D. Moleko <dmoleko@ncpg.gov.za>; Projects <Projects@arcusconsulting.co.za> Cc: denc@ncpg.gov.za <denc@ncpg.gov.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Dear Dineo Moleko</p> <p>Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the 26 September 2019 to the 25 October 2019 (both days inclusive), please can you confirm if the Department of Environment and Nature Conservation, Northern Cape Provincial Department, will be providing comment on the mentioned reports.</p> <p>If you have any questions or queries please do not hesitate to contact me.</p> <p>Thank You, Regards Aneesah Alwie</p>	No response received from Department of Environment and Nature Conservation, Northern Cape Provincial Department.

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10	Aneesah Alwie EAP Assistant Arcus	22 October 2019 by Email	<p>From: Projects <Projects@arcusconsulting.co.za> Sent: Tuesday, October 22, 2019 7:56 AM To: pmakitla@environment.gov.za <pmakitla@environment.gov.za>; slekota@environment.gov.za <slekota@environment.gov.za>; Projects <Projects@arcusconsulting.co.za> Subject: RE: Notification of Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Process</p> <p>Dear Biodiversity Control Officers,</p> <p>Following notification of the Availability of the San Kraal and Phezukomoya WEF Amendments and Basic Assessment Reports, from the 26 September 2019 to the 25 October 2019 (both days inclusive), please can you confirm if the Department of Environment, Forestry & Fisheries: Biodiversity Conservation Directorate, Department of Environmental Affairs, will be providing comment on the mentioned reports.</p> <p>If you have any questions or queries please do not hesitate to contact me.</p> <p>Thank You, Regards Aneesah Alwie</p>	<p>No response received from Department of Environment, Forestry & Fisheries: Biodiversity Conservation Directorate, Department of Environmental Affairs.</p>