



ARCUS

VOLUME I: PART II AMENDMENT REPORT

PROPOSED AMENDMENT OF THE AUTHORISED PAULPUTS WIND ENERGY FACILITY 132KV GRID CONNECTION, NORTHERN CAPE PROVINCE

On behalf of

**PAULPUTS WIND ENERGY FACILITY NORTH (RF) (PTY)
LTD**

JULY 2021

FOR PUBLIC COMMENT



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PROJECT INFORMATION

DFFE Reference No:	14/12/16/3/3/2/1120
Arcus Reference No:	3944 Paulputs WEF Grid Amendment.
Project Title:	Part II Amendment of the Authorised Paulputs Wind Energy Facility 132kV grid connection, Northern Cape Province.
Project Director:	Ashlin Bodasing - Arcus Consultancy Services South Africa (Pty) Ltd
Project Manager & EAP	Ashleigh Blackwell - Arcus Consultancy Services South Africa (Pty) Ltd
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Project Applicant:	Paulputs Wind Energy Facility North (RF) (Pty) Ltd
Report Status:	Part II Amendment Report – Draft for Public Comment

PUBLIC PARTICIPATION PROCESS: INVITATION TO COMMENT

Invitation to Comment: Members of the public, local communities, and stakeholders are invited to comment on the Amendment Report which is made available for public review and comment from **Friday, 30 July 2021 to Monday, 30 August 2021 (both days inclusive)** at the following locations.

Location	Physical Address	Contact person
Hard Copy Location:		
Pofadder Library	108 Water Street, Pofadder	J. Kamies – 054 933 0221
Electronic Copy Location		
Arcus Website	https://arcusconsulting.co.za/projects/	Ashleigh von der Heyden 021 412 1529
Comment Submission		
<p><u>Comments can be submitted to:</u> Arcus Consultancy Services South Africa (Pty) Ltd Office 607 Cube Workspace Icon Building Cnr Long Street and Hans Strijdom Avenue Cape Town 8001 T +27 (0) 21 412 1529 E paulputs@arcusconsulting.co.za</p>		

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- Figure 4 Renewable Energy Projects
- Figure 5 Landowners Map

ABBREVIATIONS, ACRONYMS AND UNITS

BESS	Battery Energy Storage System	MTS	Main Transmission Substation
CA	Competent Authority	MW	Megawatt
CAA	Civil Aviation Authority	NaS	Sodium Sulphur
CARA	Conservation of Agricultural Resources, 1983 (Act No. 43 of 1983)	NDP	National Development Plan
CBA	Critical Biodiversity Area	NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
DFFE	Department of Environment Forestry and Fisheries (National)	NEMBA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
DMRE	Department of Mineral Resources	NFEPA	National Freshwater Ecosystem Priority Area
DoE	Department of Energy	NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
EA	Environmental Authorisation	NPAES	National Parks Area Expansion Strategy
EAP	Environmental Assessment Practitioner	NWA	National Water Act, 1998 (Act No. 36 of 1998)
ECA	Environment Conservation Act, 1989 No. 73 of 1989)	PES	Present Ecological State
EGI	Electricity Grid Infrastructure	PGDS	Provincial Growth and Development Strategy
EIA	Environmental Impact Assessment	PPP	Public Participation Process
EMF	Environmental Management Framework	REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
EMPr	Environmental Management Programme	S&EIA	Scoping and Environmental Impact Assessment
ESA	Ecological Support Area	SABAAP	South African Bat Assessment Advisory Panel
ESA	Early Stone Age	SAHRA	South African Heritage Resources Agency
ESKOM	Eskom Holdings SOC Limited	SANBI	South African National Biodiversity Institute
EWT	Endangered Wildlife Trust	SANRAL	South African National Roads Agency Limited
ft	Measurement: foot	SANS	South African National Standards
GN	Government Notice	SCADA	Supervisory Control and Data Acquisition
GNR	Government Notice Regulation	SDF	Spatial Development Framework
Ha	Hectares	SEA	Strategic Environmental Assessment
HIA	Heritage Impact Assessment	SIA	Social Impact Assessment
I&AP	Interested and Affected Party	WEF	Wind Energy Facility
IDP	Integrated Development Plan		
IPP	Independent Power Producer		
IRP	Integrated Resource Plan		
kV	Kilovolt		
kWh	Kilowatt Hours		
Li-ion	Lithium Ion		
LSA	Late Stone Age		
MSA	Middle Stone Age		

EXECUTIVE SUMMARY

Paulputs Wind Energy Facility (RF) (Pty) Ltd ('PWEF'), a wholly owned subsidiary of WKN Windcurrent SA (Pty) Ltd, was granted environmental authorisation for the 300 MW (75 Turbine) Paulputs Wind Energy Facility (PWEF) and its associated 132 kV grid connection on 11 December 2019 by the Department of Forestry, Fisheries and Environment (DFFE) (DFFE Reference No. 14/12/16/3/3/2/1120) (Figure 1.1).

PWEF are proposing to give permission to Paulputs Wind Energy Facility North (RF) (Pty) Ltd and Paulputs Wind Energy Facility South (RF) (Pty) Ltd to **split and amend** the Environmental Authorisation (EA) into three amendment applications for EA.

The summary of each amendment application is defined below:

- **Paulputs North Grid Connection Amendment:** PWEF give permission to Paulputs Wind Energy Facility North (RF) (Pty) Ltd to remove the authorised 132 kV Grid Connection (Option C) from its authorisation in favour of ownership by Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North' – The Applicant) for use at the Paulputs North WEF site. The approved grid connection will be taken over by Eskom in the future and thus requires its own Environmental Authorisation. This amendment application and report will be referred to as the 'proposed amendment'.
- **Paulputs North Amendment:** Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North' – The Applicant) intends to construct and operate a 150MW WEF1 (Paulputs North WEF) consisting of up to 40 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m. This authorisation will also include the authorised Paulputs WEF preferred on-site substation and a proposed Battery Energy Storage Facility in the area authorised for temporary laydown. All infrastructure is to be located on the north west of the N14 Highway; and
- **Paulputs South Amendment:** Paulputs Wind Energy Facility South (RF) (Pty) Ltd ('Paulputs South') intends to construct and operate a 150MW WEF (Paulputs South WEF) consisting of up to 35 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m.

The focus of this amendment report is on the Paulputs North Grid Connection Amendment.

This proposed amendment application will be submitted to the DFFE (the Competent Authority) and is summarised below:

Table 1: Amendments Applicable to the Authorised 300MW Paulputs WEF and Grid Connection

	Authorised	Amendment
Holder of Authorisation	Paulputs Wind Energy Facility (RE) (Pty) Ltd	Paulputs Wind Energy Facility North (RF) (Pty) Ltd
Name of Development	The 300 MW Paulputs Wind Energy Facility (WEF) and associated 132 kV grid connection, Northern Cape Province.	The Paulputs North WEF 132kV Grid Connection, Northern Cape Province.
Authorised Scope	Megawatt Capacity of 300 MW	Removed
	75 Turbine Wind Turbine Generators	Removed

¹ Paulputs North WEF and Paulputs South WEF will be 150MW each. These WEF's are considered the 'split' of the authorised 300MW Paulputs WEF.

	Authorised	Amendment
	<i>Ancillary Infrastructure</i>	<i>Ancillary Infrastructure</i>
	Single Circuit, 132kV Grid Connection.	Double Circuit, loop-in and loop-out, 132kV Grid Connection.
	132kV on-site Substation	Removed ²

The approved location and technical details of approved grid connection are shown in Table II below.

Table II: Co-ordinates of the Authorised Paulputs North WEF Grid Connection

Reference Point	Latitude	Longitude
Authorised Paulputs WEF 132kV Grid Connection		
Option C - Start	28°58'21" S	19°45'33" E
Option C - Middle	28°53'24" S	19°41'27" E
Option C - End	28°50'45" S	19°41'43" E
Location of the site	35 km northeast of Pofadder, Northern Cape Province. Ward 1 of the Khai Ma Local Municipality of DC6 – Namakwa District Municipality.	
Farm and SG Codes	Scuitklip 92/2	C03600000000009200002
	Scuitklip 92/3	C03600000000009200003
	Scuitklip 92/5	C03600000000009200005
Component	Description/Dimensions	
Approved Paulputs Grid Connection Technical Specifications		
Height of pylons	Maximum of 30 m high	
Length of transmission line	Maximum 12.5 km	
Types of poles used	Both monopoles and lattice structures are being considered	
Area occupied by pylon servitude	Width 31 m x 12.5 km = 39 hectares	
Transmission capacity	132 kV line, evacuating a maximum of 300 MW	
Area occupied by both permanent and construction laydown areas	Laydown areas used are the same as for the WEF	
Area occupied by buildings	The O&M complex will form part of the on-site 200 m x 200 m substation compound	
Length of service road	26.8 km (worst case scenario)	
Width of service road	3 – 6 m wide	
Height of fencing	Maximum 3 m only around on-site substation and buildings	
Type of fencing	Wired mesh / chain link fence not electrified	

² The Approved Paulputs WEF On-Site Substation has been included in the Paulputs North WEF Amendment and included the addition of a Battery Energy Storage System

LEGISLATIVE REQUIREMENTS

To comply with regulation 32(1)aa of the NEMA, 1998 EIA regulations, 2014, as amended and Regulation 660 in terms of the disaster management act the following will be undertaken:

This amendment assessment report has been compiled to assess the removal of the authorised 132 kV Grid Connection (Option C) from its authorisation in favour of use for the Paulputs North WEF. The approved grid connection will be taken over by ESKOM in the future and thus requires its own Environmental Authorisation. Key inclusions in this amendment assessment report are as follow:

1. Statements from specialists confirming whether or not the proposed amendment will change the nature or impact of any of the impacts that were assessed as part of specialist studies for the Authorised Paulputs WEF. Included in Volume II.
2. Statements from specialists to confirm whether or not the proposed amendment within the assessed footprint will result in any additional impacts. Included in Volume II.
3. Statements from specialists to confirm whether any additional management actions or mitigations are applicable to the proposed amendments.
4. A generic EMPr which includes additional management outcomes and actions associated with the grid connection. This is included as Appendix B.

Notification of the availability of the amendment assessment report (incorporating points 1-6 above) will be sent to the following parties:

- (a) The Competent Authority;
- (b) Each organ of state department that administers a law relating to a matter affecting the environment relevant to an application for the amendment of an environmental authorisation;
- (c) all organs of state which have jurisdiction in respect of the activity to which the application for amendment relates;
- (d) all I&AP's that were registered as part of the original EIA process;
- (e) all I&AP's that were registered on other EIA's that took place on the same properties; and
- (f) all neighbouring property owners.

PROJECT TEAM

The majority of the same specialists were commissioned for this amendment report, with exception of the Avifaunal study. The original Avifaunal study for the approved Paulputs WEF EIA was undertaken by Andrew Pearson. Dr Owen Davies has replaced Andrew and undertook an additional site visit in February 2020 to verify the information contained in the approved Paulputs WEF Avifaunal specialist report. Dr Davies avifaunal report and site verification report are contained in Volume II of this report.

Table III: Project EAPs

Name of practitioner	Ms Ashlin Bodasing
Designation	Project Director
Tel no	+27 (0) 21 412 1529
E-mail address	paulputs@arcusconsulting.co.za

Name of practitioner	Mrs Ashleigh von der Heyden
Designation	Project Manager and EAP
Tel no	+27 (0) 21 412 1529
E-mail address	paulputs@arcusconsulting.co.za

SUMMARY OF SPECIALIST IMPACT STATEMENT

- **Aquatic Amendment Assessment** – No additional impacts. Further, no changes to the original mitigations or EMPr recommendations are required.
- **Avifaunal Amendment Assessment** - As this is largely an administrative exercise to ease the transfer of ownership to Eskom, thus this amendment has no significance from an avifaunal perspective and will not result in any changes to the impacts assessed for the original authorization.
- **Terrestrial Ecology Amendment Assessment** – The Paulputs North Grid Connection will occupy the same footprint between the site and the substation to the north-east and will not result in a significant change to the overall impact to terrestrial biodiversity. In terms of the overall impact, there are no changes in the impacts associated with the single Paulputs WEF and the impacts associated with the combined split North, North Grid and South WEF components.
- **Bat Amendment Assessment** - As this is largely an administrative exercise to ease the transfer of ownership to Eskom, thus this amendment has no significance from a bat perspective and will not result in any changes to the impacts assessed for the original authorization.
- **Soil, Land Use and Agricultural Potential Amendment Assessment** - There are no agricultural impacts related to this proposed amendment. In addition, there are no agricultural advantages or disadvantages related to it. The proposed amendment does not require any changes or additions to the mitigation measures for agricultural impacts that were recommended for the authorised Paulputs WEF.
- **Heritage and Paleontology Amendment Assessment** - On the basis of the archaeology seen in the Paulputs North WEF site and of other sites known by the author to occur in the wider area, it is unlikely that the power line construction would result in a change in impacts. Impact remain valid from the authorise Paulputs WEF EIA and are no more than medium intensity.
- **Visual Amendment Assessment** – As this is merely an administrative issue, the proposed amendment has no significance from a visual perspective and will not result in any changes to the visual impacts identified in the original VIA for authorized Paulputs WEF.
- **Noise Amendment Assessment** - As this is merely an administrative issue, the proposed amendment has no significance from a noise perspective and will not result in any changes to the noise impacts identified in the original noise impact assessment for authorized Paulputs WEF.
- **Social Amendment Assessment** - The proposed amendment will not result in any additional impacts, cumulative impacts or residual impact, nor will it change the significance of these impacts. The Paulputs North Grid connection must ensure compliance with the recommendations of Section 4 of the approved SIA for the Paulputs WEF.
- **Traffic Amendment Assessment** – The proposed amendment does not change the Traffic Specialist Report findings and recommendations as stated in the authorised Paulputs WEF EIA. A transport management plan must be compiled and must consider the logistics of transporting abnormal loads to site. This plan must be compiled after preferred bidder is awarded

CONCLUSION

This amendment application is being undertaken to identify and assess environmental impacts, issues and concerns that may result from the proposed amendment to the Environmental Authorisation. The information contained in this report will enable the DFFE to make an informed decision to grant or deny the proposed Environmental Amendment Application.

It is the opinion of the EAP that the proposed project amendment will not affect any change in the impact ratings from those which were assessed during the Paulputs WEF EIA undertaken by Arcus in August 2019. The **proposed amendment can be authorised** subject to Paulputs North adhering to all mitigation and management measures outlined in this report, the approved Paulputs WEF EIA, the Paulputs WEF EMPr as well as the Generic EMPr.

1 INTRODUCTION

Paulputs Wind Energy Facility (RF) (Pty) Ltd ('PWEF'), a wholly owned subsidiary of WKN Windcurrent SA (Pty) Ltd, was granted environmental authorisation for the 300 MW (75 Turbine) Paulputs Wind Energy Facility (PWEF) and its associated 132 kV grid connection on 11 December 2019 by the Department of Forestry, Fisheries and Environment (DFFE) (DFFE Reference No. 14/12/16/3/3/2/1120) (Figure 1.1).

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- **Paulputs North Amendment:** Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North' – The Applicant) intends to construct and operate a 150MW WEF³ (Paulputs North WEF) consisting of up to 40 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m. This authorisation will also include the authorised Paulputs WEF preferred on-site substation and a proposed Battery Energy Storage Facility in the area authorised for temporary laydown. All infrastructure is to be located on the north west of the N14 Highway; and
- **Paulputs South Amendment:** Paulputs Wind Energy Facility South (RF) (Pty) Ltd ('Paulputs South') intends to construct and operate a 150MW WEF (Paulputs South WEF) consisting of up to 35 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m.

The focus of this amendment report is on the Paulputs North Grid Connection Amendment.

As the proposed amendments require Environmental Authorisation (EA) from the Department of Forestry, Fisheries and Environment (acting as the Competent Authority (CA)), Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North') appointed Arcus Consultancy Services South Africa (Pty) Ltd ('Arcus') as the project manager and independent environmental consulting firm to undertake the necessary Part II EA Amendment Applications.

1.1 Objectives of this Amendment Report

The proposed amendment aims to identify and assess the potential increase or decrease of impacts associated with amending the technical details a of the approved Paulputs WEF 132kV grid connection originally assessed as part of the EIA undertaken by Arcus in August 2019.

The findings, including specialist findings, are used by the EAP, Applicant (Paulputs North) and Authorities to obtain an objective view of the potential environmental and social impacts that may/may not arise during the construction, operation and decommissioning of the proposed amendment. Aligned to the '*One Environmental System*'; as well as the

³ Paulputs North WEF and Paulputs South WEF will be 150MW each. These WEF's are considered the 'split' of the authorised 300MW Paulputs WEF.

relevant legislation applicable to an amendment application, this amendment report has been compiled with the following objectives:

The Report Objectives

- To provide the project's I&APs, stakeholders, commenting authorities and the competent authority (CA), with a thorough project description and amendment process description.
- To maintain cordial relationships with local residents, authorities and other stakeholders via sustained open communication.
- To determine the policy and legislative context within which the proposed activity is undertaken and how the activity complies with and responds to the policy and legislative context.
- To provide an objective assessment of the preferred amendment option/s.
- To address the advantages and disadvantages of the proposed amendments through assessing the need and desirability of the project as well as the proposed project impacts

1.2 Assumptions and Limitations

- The following assumptions and limitations are applicable to the proposed amendment:
- The information on which this report is based (baseline studies and project information, as well as existing information) is accurate and correct.
- The assumptions and limitations presented in each specialist report (Volume II of this report) are noted for the amendment report.
- It is assumed that all information provided by PWEF, The Applicant and I&APs to the project team was correct and valid at the time it was provided.
- The recommendations derived from this report would be included in all tender documentation/bidding documentation and the EMPr for implementation.
- It should be emphasised that information, as presented in this amendment report, only has reference to the study area (the grid connection) as indicated on the accompanying figures. Therefore, this information cannot be applied to any other area without detailed investigation.
- The layout and placement of the infrastructure may change from draft reporting to final reporting. Final siting will take place in consultation with ESKOM should the amendment be approved and Paulputs WEF be awarded preferred bidder status.

1.3 Details of EAP and Specialists

As a specialist renewable energy consulting firm, Arcus is a leader in providing environmental and social consulting, advisory and management services. Arcus provides a turn-key consulting service and has considerable experience in renewable energy developments; from site identification and feasibility through to impact assessment and the construction and operational phases.

Based in the United Kingdom and South Africa (Cape Town), our teams have worked on more than 250 renewable energy projects across the world and are highly trained in various environmental disciplines, with significant hands-on experience in an array of projects across various industries.

Arcus focuses on collaborating with the developer to deliver the most cost effective and least impacting project design that meets the needs for future generations. Arcus adopt a communicative and quality-based approach for all projects and have been certified in terms of the Quality Management System ISO 9001 standard for the past four years. This system provides tools, control measures and guidelines for reporting, data management, equipment calibration and management, timeline management, map production and overall project management.

1.3.1 Expertise of the EAP

Ashlin Bodasing (Project Director) is a Technical Director at Arcus. Ashlin will act as Project Director and will be responsible for the overall direction of the project and ensure that all legal requirements are met. Ashlin is a registered EAP with EAPASA, (2020/780)

Having obtained her Bachelor of Social Science Degree (Geography and Environmental Management) from the University of Kwa-Zulu Natal; she has over 16 years' experience in the environmental consulting industry in southern Africa. 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, and environmental due diligence reviews.

Ashleigh Blackwell (Project Manager and EAP) is a Senior Environmental Consultant at Arcus, Cape Town. She is a registered SACNASP Environmental Consultant with 5.5 years working experience in the environmental sector, namely the Renewable Energy and Mining sectors. In addition, she has international reporting experience for the International Finance Corporation (IFC) and Equator Principles (EP) Performance Standards and the World Bank Environmental Guidelines. Ashleigh has a proven track record in managing environmental projects to the required quality standards, timeframes and budgets. Her core responsibilities include client management and project implementation, reporting and execution. Her day-to-day responsibilities include report review, stakeholder engagement and business development.

Ashleigh completed her BSc (Hons) in Conservation Ecology at the University of Stellenbosch and is currently completing her MSc at the University of Witwatersrand. She is a member of the Soil Science Society of South Africa (SSSSA) and is completing her Project Management Professional (PMP) Certification through the Project Management Institute (PMI).

1.3.2 Specialist Team Members

The majority of the same specialists were commissioned for this amendment report, with exception of the Avifaunal study (Table1-1). The original Avifaunal study for the approved Paulputs WEF EIA was undertaken by Andrew Pearson whom is no longer a bird specialist. Dr Owen Davies has replaced Andrew and undertook an additional site visit in February 2020 to verify the information contained in the approved Paulputs WEF Avifaunal specialist report.

Table 1-1: Details of the Specialist Project Team

Technical Discipline	Lead Specialist	Specialist Organisation
Avifauna preconstruction monitoring and impact assessment	Dr Owen Davies	Arcus Consultancy Services SA Pty Ltd
Terrestrial ecology (flora and fauna)	Jamie Pote	Independent Consultant
Soil, land use and agricultural potential	Johann Lanz	Private Consultant
Aquatic / Freshwater	Brian Colloty	EnviroSci Pty Ltd
Heritage, archaeology and palaeontology	Jayson Orton	ASHA Consulting
Socio-Economic	Leandri Kruger	Independent Consultant
Noise	Alan Moore	Arcus Consultancy Services SA Pty Ltd

Visual	Kerry Schwartz	SiVest
Traffic and transportation	Stephen Fautley	TechSO

2 DETAILS OF THE AUTHORISED PAULPUTS WEF AND GRID CONNECTION

The Paulputs WEF EIA was finalised and submitted to the DFFE in August 2019. Paulputs Wind Energy Facility (RF) (Pty) Ltd received a favourable EA, subject to various conditions. As part of this EA, only the preferred grid connection (Option C) and substation (Option A) options were approved – although all options were assessed.

The grid connection is to be located approximately 35 km north-east of Pofadder and approximately 85 km north-west of Kakamas in the Northern Cape Province (Table 2-1). The grid connection is located within Ward 1 of the Khai Ma Local Municipality of DC6 – Namakwa District Municipality.

Table 2-1: Co-ordinates of the Authorised Paulputs North WEF Grid Connection

Reference Point	Latitude	Longitude
Option C - Start	28°58'21" S	19°45'33" E
Option C - Middle	28°53'24" S	19°41'27" E
Option C - End	28°50'45" S	19°41'43" E
Location of the site	35 km northeast of Pofadder, Northern Cape Province. Ward 1 of the Khai Ma Local Municipality of DC6 – Namakwa District Municipality.	
Farm and SG Codes	Scuitklip 92/2 C0360000000009200002 Scuitklip 92/3 C0360000000009200003 Scuitklip 92/5 C0360000000009200005	

The main purpose of the overhead powerline is to connect the proposed Paulputs North WEF to the national grid. Technologies change on a regular basis and the most environmentally friendly, reliable, cost effective and safest technology that is available and meets industry standards will be used. The preferred structure to support the grid connection will be either concrete, steel and/or wood monopoles (Table 2-2).

The grid connection will originate at the Paulputs North WEF and loop-in/loop-out of the existing 132kV overhead powerline⁴. The Grid connection is approximately 12.5km assessed through a 300m corridor. The servitude area assessed by the specialists took into account the worst-case scenario i.e. the longest possible 31m wide servitude of 12.5km (Table 2-2).

Table 2-2: Technical Details of the Authorised Grid Connection

Component	Description/Dimensions
Approved Paulputs Grid Connection	
Height of pylons	Maximum of 30 m high
Length of transmission line	Maximum 12.5 km
Types of poles used	Both monopoles and lattice structures are being considered

⁴ It is not known whether the existing 132kV powerline is a Eskom powerline. This line is approximately 41km long and originates from a small Eskom substation located 14km southeast of Skuitdrift.

Component	Description/Dimensions
Area occupied by pylon servitude	Width 31 m x 12.5 km = 39 hectares
Transmission capacity	132 kV line, evacuating a maximum of 300 MW
Area occupied by both permanent and construction laydown areas	Laydown areas used are the same as for the WEF
Area occupied by buildings	The O&M complex will form part of the on-site 200 m x 200 m substation compound
Length of service road	26.8 km (worst case scenario)
Width of service road	3 – 6 m wide
Height of fencing	Maximum 3 m only around on-site substation and buildings
Type of fencing	Wired mesh / chain link fence not electrified

3 DETAILS OF THE PROPOSED PAULPUTS NORTH WEF GRID CONNECTION AMENDMENT APPLICATION

This section provides the technical details and design parameters of the proposed amendment. Additionally, it serves to provide insight on the choice of preferred location and feasible specifications for the construction and operation of the Grid Connection.

The proposed amendment will be submitted to the DFFE (the Competent Authority) and is summarised in Table 3-1 below as well as Figure 5-1:

Table 3-1: Amendment Applicable to the Authorised 300 MW Paulputs WEF and Grid Connection

	Authorised	Amendment
Holder of Authorisation	Paulputs Wind Energy Facility (Pty) Ltd	Paulputs Wind Energy Facility North (RF) (Pty) Ltd
Name of Development	The 300 MW Paulputs Wind Energy Facility (WEF) and associated 132 kV grid connection, Northern Cape Province.	The Paulputs North WEF 132kV Grid Connection, Northern Cape Province.
Authorised Scope	Megawatt Capacity of 300 MW	Removed
	75 Turbine Wind Turbine Generators	Removed
	<i>Ancillary Infrastructure</i>	<i>Ancillary Infrastructure</i>
	Single Circuit, 132kV Grid Connection.	Double Circuit, loop-in and loop-out, 132kV Grid Connection.
	132kV on-site Substation	Removed ⁵

⁵ The Approved Paulputs WEF On-Site Substation has been included in the Paulputs North WEF Amendment and included the addition of a Battery Energy Storage System

3.1 Activity Description, Applicant Details and Activity Location

The original specifications of the Paulputs 300 MW WEF and associated grid connection Environmental Authorisation stated the following:

<p>Amendment 1: Amendment to the Activity Description</p> <p>The EA of 11 December 2019 has the following description (page 1):</p>
<p><u>Authorised:</u></p> <p>Application for Environmental Authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended: The 300MW Paulputs Wind Energy Facility (WEF) and its associated 132kV Grid Connection, Northern Cape Province.</p>
<p><u>Amended to:</u></p> <p>Application for Environmental Authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended: <u>The 150MW Paulputs North Wind Energy Facility (WEF) 132kV Grid Connection</u>, Northern Cape Province.</p>
<p>Amendment 2: Amendment of the Applicant and Project Location</p> <p>The EA of 11 December 2019 has the following description (page 1):</p>
<p><u>Authorised:</u></p> <p>Holder of the authorisation: Paulputs Wind Energy Facility (RF) (Pty) Ltd</p> <p>Location of Activity Portion 1 of the Farm Lucasvlei 93; Portion 2 of the Farm Lucasvlei 93; Portion 4 of the Farm Lucasvlei 93; Kai !Garib Local Municipality; Namakwa District Municipality; Northern Cape</p>
<p><u>Amended To:</u></p> <p>Holder of the Authorisation: <u>Paulputs Wind Energy Facility North (RF) (Pty) Ltd</u></p> <p>Location of the Activity: <u>Portion 2 of the Farm Scuitklip 92</u> <u>Portion 3 of the Farm Scuitklip 92</u> <u>Portion 5 of the Farm Scuitklip 92</u> Khai-Ma Local Municipality; Namakwa District Municipalities; Northern Cape</p>
<p>Amendment 3: Amendment of the Activity Description</p> <p>The EA of 11 December 2019 has the following description (page 7):</p>

Authorised:

For the 300MW Paulputs Wind Energy Facility (WEF) and its associated 132kV grid connection in the Northern Cape Province, hereafter referred to as “the property”.

Amended To:

For the 132kV Grid Connection for the Paulputs North Wind Energy Facility, in the Northern Cape, hereafter referred to as the “proposed development”

3.2 Listing Notice Activities

In terms of this Amendment, the authorised Listing Notice Activities will be amended from in terms of the below.

Authorised Activities	Activity Description	Amended Activity
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>	132 kilovolt overhead powerlines will be installed to transfer electricity from the on-site substation (included in the Paulputs North WEF Amendment) to the existing on-site Eskom transmission line.
Listing Notice 1 GN R 327 Activity 12	<i>The development of- (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs (a) within a watercourse; (c) if no development setback exists within 32 m of a watercourse, measured from the edge of a watercourse.</i>	Infrastructure such as roads is proposed within 32 m of a watercourse. The cumulative footprint of all proposed development within 32 m of a watercourse will exceed 100 square metres.
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 overhead powerline could 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 will be required.
Listing Notice 1 GN R 327 Activity 24	<i>The development of a road- (ii) with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 meters</i>	Development of a road where no road reserve exists. The construction of the transmission lines will require roads wider than 8 meters
Listing Notice 1 GN R 327 Activity 28	<i>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.</i>	Construction of the proposed development will change the land use from agriculture to mixed - agriculture and electricity generation and transmission. The proposed development is outside an urban area and has a footprint that will exceed 1 ha.
Listing Notice 1 GN R 327 Activity 48	<i>The expansion of- Infrastructure or structures where the physical footprint is expanded by 100 square metres or more; where such expansion occurs- (a) within a watercourse; (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</i>	Existing infrastructure such as roads and bridges within 32 m of a watercourse may require expansion. The cumulative footprint of all proposed development expansion within 32 m of a watercourse will exceed 100 square metres.

<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— (i) where the existing reserve is wider than 13.5 metres; or (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 m in some parts of it.</p>
<p>Activity No(s):</p>	<p>Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3 (GN R985)</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 (ii) Outside urban 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 associated with the grid connection will be constructed, which are wider than 4 m. The site falls outside of an urban area and part of it falls within a CBA 1.</p>
<p>Listing Notice 3 GN R 324 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 (ii) Within critical biodiversity areas identified in bioregional plans;</i></p>	<p>The grid connection will require the clearance of natural vegetation in excess of 300 m² in areas of natural vegetation. Parts of the site fall within CBA 1.</p>
<p>Listing Notice 3 GN R 324 Activity 14</p>	<p><i>The development of— (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; (g) Northern Cape (ii) Outside urban areas: (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>Bridges and infrastructure associated with the transmission lines may be constructed within 32 m of watercourse(s). The site lies outside of an urban area and a portion of the site falls within a CBA 1.</p>
<p>Listing Notice 3 GN R 324 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. (g) Northern Cape (ii) Outside urban areas (ee) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>Existing farm roads and or service roads will need to be widened or lengthened. The site lies outside of an urban area and a portion of the site falls within a CBA 1.</p>

<p>Listing Notice 3 GN R 324 Activity 23</p>	<p><i>The expansion of— (ii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such expansion occurs— (a) within a watercourse; (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; (g) Northern Cape (ee) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>The construction of the transmission lines will include the expansion of existing infrastructure such as roads that are located within 32 m of a watercourse, ESAs and CBAs.</p>
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3.3 Technical Details

For the 300 MW Paulputs Wind Energy Facility (WEF) and its associated 132 kV grid connection, the following was authorised:

Amendment 4: Amendment to the Technical Description

The EA of 11 December 2019 has the following description (page 8):

Authorised:

The WEF will comprise of the following:

- A maximum of 75 turbines with a total generation capacity of 300 MW.
- The maximum height to tip of the blade will be 230m, with a hub height of up to 140m, a rotor diameter of up to 180m and a blade length of up to 90m.
- Foundations, hardstands and permanent laydown areas associated with the wind turbines of approximately 0.8Ha.
- Internal access roads of approximately 80 km in length (mostly 6m wide but up to 12m, average 8m).
- Medium voltage cabling between turbines and the switching station, to be laid underground where technically feasible.
- Overhead medium voltage cables between onsite substations where necessary.
- One onsite substation compound of approximately 4ha consisting of: onsite substation 1.1ha, offices of 0.5ha, permanent laydown 1ha, and temporary construction yard 1.5ha; and,
- An overhead 132kV power line will be constructed over a distance of approximately 12.5km (Option C).

Amended To:

The WEF will comprise of the following:

- Length of access roads of approximately ~ 40km (mostly 6m wide, but up to 12m, average 8m).
- Length of Service Roads ~ 30km (mostly 6m wide, but up to 12m, average 8m).
- Corridor of 300 m
- A double circuit overhead powerline that will be constructed over a distance of approximately 12.5km and loop-in/loop-out of the existing 132kV powerline.

Amendment 5: Amendment of the WEF Technical Details

The EA of 11 December 2019 has the following description (page 8):

Authorised:

WEF Technical Details:

Component	Description/Dimensions
Location of the site	50 km northeast of Pofadder, Northern Cape Province.
Facility Area	The development site is approximately 10 000 hectares. This is the total area covered, in which all components will be located. The actual development footprint will be approximately 2 % of this.
Number of Turbines	Up to 75
Site Access	N14 (NW and SE access - including abnormal loads) and MN759 (NW access only - no abnormal loads)
Hub Height from ground level	Up to 140 m
Blade Length	Up to 90 m
Rotor Diameter	Up to 180 m
Area occupied by inverter transformer stations/substations	Approximately 4 hectares
Capacity of on-site substation	132 kV

Component must be removed from the EA as it is being applied for as part of a separate amendment application for environmental authorisation.

Amendment 6: Amendment of the Grid Connection Technical Details

The EA of 11 December 2019 has the following description (page 9):

Authorised:

Grid Connection Technical Details:

Component	Description/Dimensions
Height of Pylons	Maximum of 30m high
Length of Transmission Line	Maximum of 12.5km
Type of Poles used	Both monopoles and lattice structures are being considered
Area to be occupied by pylon servitude	Width 31m x 12.5km = 39 Hectares
Transmission capacity	132kV line, evacuating a maximum of 300MW
Area occupied by both permanent and construction laydown areas	Laydown areas to be used are the same as the WEF
Areas occupied by buildings	The O&M complex will form part of the on-site 200m x 200m substation compound
Length of service road	26.8km (worst case scenario)

Width of service road	3 – 6m wide
Height of fencing	Maximum of 3m only around on-site substation and buildings
Type of fencing	Wire Mesh / Chain link fence not electrified.
Amended To:	
Component	Description/Dimensions
Height of pylons	Maximum of 30 m high
Length of transmission line	Maximum 12.5 km
Types of poles used	Both monopoles and lattice structures are being considered
Area occupied by pylon servitude	Width 31 m x 12.5 km = 39 hectares
Transmission capacity	Double Circuit, 132 kV line, evacuating a maximum of 150 MW. Loop-in/Loop-out of the exiting 132kV powerline.
Area occupied by both permanent and construction laydown areas	Laydown areas used are the same as for the WEF
Area occupied by buildings	Removed
Length of service road	26.8 km (worst case scenario)
Width of service road	3 – 6 m wide
Height of fencing	Maximum 3 m only around on-site substation and buildings

3.4 Conditions of the Environmental Authorisation to be Retained or Changed

Table 3-2 below includes the project details that are intended to be amended for this application.

Table 3-2: Conditions of the Authorised EA to be Retained or Changed

Condition in EA	Amended, Retained or Removed	Amended Condition (Strikethrough = to be replaced and Underlined = replacement text)
1.	Slight change	Preferred Power line option C and substation location A as part of the development of the <u>150MW Paulputs North Wind Energy Facility (WEF)</u> 300MW Paulputs Wind Energy Facility (WEF) as described above is hereby approved.
2 -3	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
4	Amended	Activities authorised my only be carried out at the property as described <u>in the amendment application</u> .
5-12	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
13	Slight change	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

Condition in EA	Amended, Retained or Removed	Amended Condition (Strikethrough = to be replaced and Underlined = replacement text)
		<p>infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:</p> <p>13.1. Cable routes (where they are not along internal roads);</p> <p>13.2. Position of wind turbines and associated infrastructure;</p> <p>13.3. Internal roads indicating width;</p> <p>13.4. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;</p> <p>13.5. All sensitive features e.g. Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;</p> <p>13.6. Substation(s) inverters and/or transformer(s) sites including their entire footprint;</p> <p>13.7. Connection routes (including pylon positions) to the distribution/transmission network;</p> <p>13.8. All existing infrastructure on the site, such as roads;</p> <p>13.9. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);</p> <p>13.10. Buildings, including accommodation; and,</p> <p>13.11. All "no-go" and buffer areas.</p>
14	Remove	A generic EMPr for the grid connection will accompany this amendment application. Condition 14 will be subject to the CA decision on the provided EMPr's which have been subjected to 30-day Public Review periods.
15-23	Remove	Conditions not Applicable to the Grid Connection.
24-37	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
38.	Slight change	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 <u>two</u> years during the operation of the facility. The results of this monitoring must be made available to the Department of Environmental Affairs (DFFE), Birdlife South Africa (BLSA) and the South African Bat Assessment Advisory Panel (SABAAP) and must further advise the <u>generic</u> EMPr where necessary
39.	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
40 - 41	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
42-53.	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.
54.	Slight change.	The recommendations of the EAP in the EIAR dated August 2019 and the specialist studies attached must be adhered to, and <u>this includes the recommendations of the EAP in the Amendment Report dated November 2020 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.

Condition in EA	Amended, Retained or Removed	Amended Condition (Strikethrough = to be replaced and Underlined = replacement text)
55-56.	No changes. To be retained as is in new EA.	The conditions and wording as per the original EA to be retained as is.

4 CHANGES TO THE ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

This Section aims to detail the proposed amendments and/or additions to the EMPr submission as part of this amendment application and amendment report.

Although an EMPr was compiled as part of the authorised Paulputs WEF EIA (Arcus, August 2019), this EMPr was not authorised in the Environmental Authorisation. There was no EMPr authorised as part of the Paulputs WEF development, and as such, there will be no changes proposed.

A generic environmental management programme (EMPr) for the development has been compiled by Arcus and submitted alongside this application. The generic EMPr is specific to the development and expansion of overhead electricity transmission and distribution infrastructure. This has been included as Appendix B. The objective of the generic EMPr is to prescribe and pre-approve generally accepted impact management outcomes and impact management actions, which can commonly and repeatedly be used for the avoidance, management and mitigation of impacts and risks associated with the development or expansion of overhead electricity transmission and distribution infrastructure. The use of a generic EMPr is intended to reduce the need to prepare and review individual EMPrs for applications of a similar nature.

5 LEGISLATIVE REQUIREMENTS

Plate 5-1 below provides a brief summary of the methodology that is applied in conducting the amendment process.

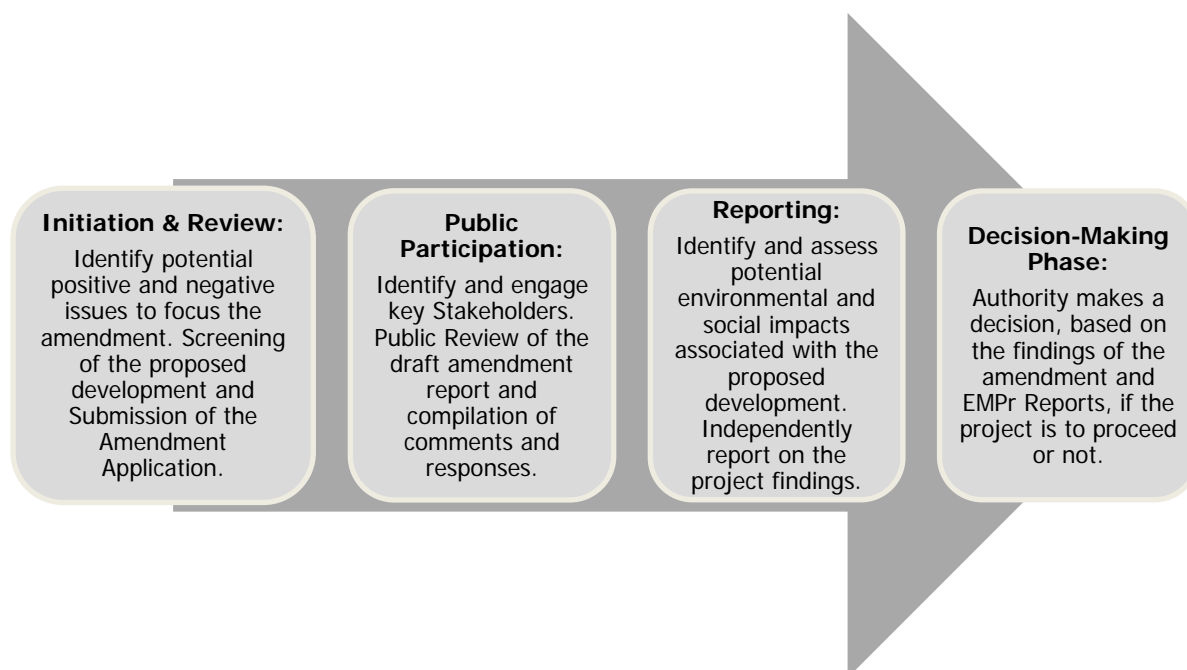


Plate 5-1: Summarised Methodology applied to conducting an amendment process

This EA Amendment Report has been compiled in compliance with the National Environmental Management, 1998 (Act No. 107 of 1998) (NEMA) EIA Regulations 2014, as

amended. Paulputs Wind Energy Facility (Pty) Ltd are applying for an amendment to the EA issued by the DFFE (DFFE Reference No. 14/12/16/3/3/2/1120) in terms of Regulation 31 and 32 of the EIA Regulations. Regulation 31 of the 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 authorised project description and highlighted the advantages and disadvantages of the proposed amendments, and provided further recommendations or mitigation measures if necessary.

Table 5-1: Legislative Requirements of the Amendment Report

CONTENTS OF THE AMENDMENT REPORT	
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 -	Chapter
(a) A report, reflecting –	
An assessment of all impacts related to the proposed change;	Section 10
Advantages and disadvantages associated with the proposed change;	Section 11
Measures to ensure avoidance, management and mitigation of impacts associated with such proposed change; and	Section 12
Any changes to the EMP.	Section 4
Which report –	
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 7
bb. Reflects the incorporation of comments received, including any comments of the competent authority; or	Appendix C
(b) A notification in writing that the report will be submitted within 140 days of receipt of the application by the competent authority, as significant changes have been made or significant new information has been added to the report, which changes or information was not contained in the report consulted on during the initial PPP contemplated in sub-regulation (1) (a) and that the revised report will be subjected to another PPP of at least 30 days.	Not applicable
32 (2) In the event where sub-regulation (1) (b) applies, the report, which reflects the incorporation of comments received, including any comments of the competent authority, must be submitted to the competent authority within 140 days of receipt of the application by the competent authority.	Not applicable

This report has taken cognisance of the following legislation.

Table 5-2: Additional Legislative Requirements of the Amendment Report

Applicable National Legislation and Guidelines used to compile the report
<i>The Constitution of South Africa, 1996 (Act 108 of 1996).</i>
<i>National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)</i>
<i>National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM: WA)</i>
<i>National Water Act, 1998 (Act No. 36 of 1998) (NWA)</i>
<i>National Environmental Management: Biodiversity Act, 2004 (Act No.10 of 2004) (NEM:BA)</i>
<i>National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003 as amended) (NEM:PAA)</i>
<i>Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)</i>
<i>The National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)</i>
<i>National Road Traffic Act, 1996 (Act No. 93 of 1996) (NRTA)</i>
<i>National Forests Act, 1998 (Act No. 84 of 1998) (NFA)) and National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998).</i>
<i>Hazardous Substances Act, 1973 (Act No. 15 of 1973)</i>
<i>Promotion of Access to Information Act, 2000 (Act No. 2 of 2002) (PAIA)</i>
<i>National Dust Control Regulations, 2013</i>
<i>The National Development Plan, 2030</i>
<i>The Public Participation Guidelines in terms of the National Environmental Management Act, 1998 Environmental Impact Assessment Regulations, 2017</i>
<i>Integrated Environmental Management Guideline on Need and Desirability, 2017</i>
<i>South Africa's National Biodiversity Strategy and Action Plan</i>
<i>National Environmental Management Act; National Appeal Regulations, 2014</i>
Applicable Provincial Legislation and Guidelines used to compile the report
<i>The Nature and Environmental Conservation Ordinance No. 19 of 1974; and Northern Cape Nature Conservation Act, 2009 (Act No. 9 of 2009).</i>
<i>Northern Cape Provincial Spatial Development Framework (PSDF), 2012</i>

In addition to the above, the renewable energy industry has substantial support in the South African planning context, which is detailed in the following national and provincial plans:

- National Development Plan;
- National Integrated Energy Plan (2016)
- Renewable Energy Development Zones (REDZ) as read in GNR 114 and GNR 113 of 16 February 2018;
- National Integrated Resource Plan for Electricity, 2019 (2010-2013); and
- National Infrastructure Plan.

6 PUBLIC PARTICIPATION PROCESS

The Public Participation Process (PPP) has been designed to comply with the regulatory requirements set out in the EIA Regulations of 2014 (as amended). In addition, the public participation for this project has been aligned to the NEMA PPP Guidelines (2017) and is not intended to be a substitute for the provisions of the NEMA, the SEMAs or the Regulations, in any way.

Public Participation is an important part of any application and must be done appropriately to prevent the project being at risk from challenge that due process has not been followed.

The aim of PPP for the Amendment Process is outlined below:

- Facilitate I&APs to raise any issues of concern and/or suggestions for enhanced benefits;
- Verify that issues have been recorded and considered in the Amendment process by the project team;
- Host a facilitated public meeting, *if required*;
- Assist in identifying reasonable alternatives;
- Provide relevant local information and knowledge to the environmental assessment;
- Facilitate comment on the findings of the environmental assessments; and
- Obtain information on the outcome, i.e. the competent authority's decision, and how and by when the decision can be appealed.

Arcus encourages stakeholder involvement throughout the project process. Stakeholders can become involved in the project in the following ways:

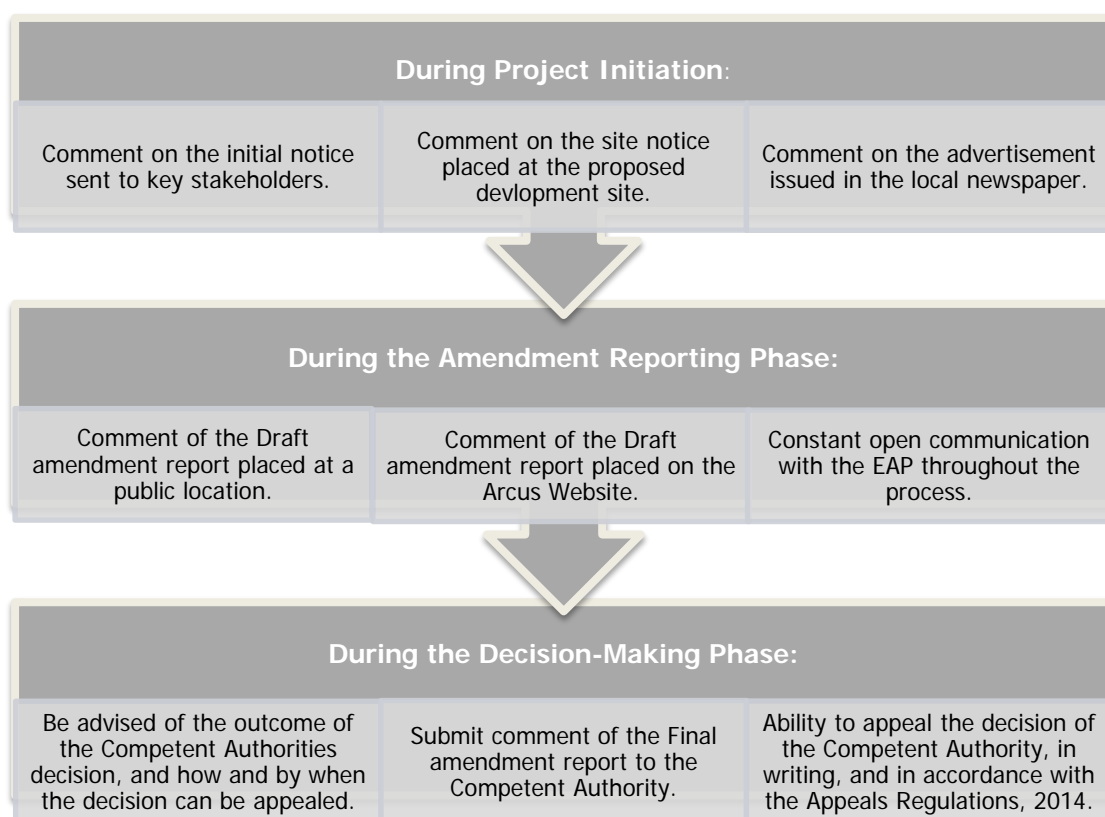


Plate 6-1: Phases in the project where stakeholders are able to be involved in the proposed amendment

A public participation plan (PP Plan) was compiled and submitted to the CA on the 26 August 2020. This plan was submitted in compliance with regulation GNR660 published on 05 June 2020 in terms of the Disaster Management Act (57/2002) and titled: Directions Regarding Measures to Address, Prevent and Combat the Spread of COVID-19 Relating to National Environmental Management Permits and Licences. In compliance with Section 5.1 and Annexure 2 of these regulations, a public participation plan must be presented to the competent authority for approval prior to implementation.

The plan was not granted written approval for the following reason:

“Please note that the Department has no mandate to approve the Public Participation Plan during alert level 2 of Covid-19. The direction that required

submission of PPP during level 3 is no longer applicable in level 2. However, you are required to ensure that the EIA Regulations 2014 as amended are strictly followed and ensure that the disaster management directions which are still applicable are considered”

Despite the above, Arcus have taken the decision to continue to follow the PP Plan that was submitted on 26 August 2020.

This application is for a Part 2 Amendment of an existing EA and is submitted in terms of Regulation 31. The public participation requirements for a Part 2 Amendment are contained in Regulation 32(1)(aa), which requires that the amendment report be subjected to a public participation process, which had been agreed to by the competent authority, and which was appropriate to bring the proposed change to the attention of potential interested and registered interested and affected parties, including organs of state, which have jurisdiction in respect of the relevant activity and the competent authority.

In terms of the above, and in accordance with the submitted Public Participation Plan, the following actions in Section 3.1.1 and Section 3.1.2 will be/have been undertaken for this amendment report.

6.1.1 Identification of Key Stakeholders

The I&AP database of the authorised Paulputs WEF EIA (Arcus, 2019) process was used as a baseline for this amendment application.

The Department of Forestry, Fisheries and Environment (DFFE) will act as the CA on the proposed amendment. A stakeholder database has been compiled and will be updated throughout the environmental regulatory process (Appendix C).

Registration of I&APs will continue throughout the process, and the I&AP database will be updated accordingly, based on comments received and included in the final amendment report.

All comments are included in the 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 Report will be provided in Final EA Amendment Report.

6.1.2 Public Participation Materials

Considering the legislative and good practice requirements, the following have been developed and distributed to stakeholders. The various PPP information materials which were used as part of the Amendment process are included in Appendix C.

- Distribution of the Initial Notification: Letters announcing the Amendment process and inviting I&APs to register on the project database were sent on 21 July 2021.
- Background Information Document (BID): The BID was distributed on 21 July 2021.
- Newspaper Advertisement: Advertisements were placed in the Gemsbok and Die Burger newspapers on 13 November 2020.
- Site Notice: Site notices and posters were erected around the site as well as in the town of Pofadder and Kakamas in February 2020.
- Notification Letter of Draft Report Availability: Notification letters announcing the availability of the amendment report were sent to the I&AP Database on the 30 July 2021.

Invitation to Comment: Members of the public, local communities, and stakeholders are invited to comment on the Amendment Report which is made available for public review and comment from **Friday, 30 July 2021 to Monday, 30 August 2021 (both days inclusive)** at the following locations.

Location	Physical Address	Contact person
Hard Copy Location:		
Pofadder Library	108 Water Street, Pofadder	J. Kamies – 054 933 0221
Electronic Copy Location		
Arcus Website	https://arcusconsulting.co.za/projects/	Ashleigh von der Heyden 021 412 1529
Comment Submission		
<p><u>Comments can be submitted to:</u> Arcus Consultancy Services South Africa (Pty) Ltd Office 607 Cube Workspace Icon Building Cnr Long Street and Hans Strijdom Avenue Cape Town 8001 T +27 (0) 21 412 1529 E paulputs@arcusconsulting.co.za</p>		

Registration of I&APs will continue throughout the amendment application process, and the I&AP database will be updated accordingly, based on comments received and included in the final Amendment Report.

6.1.2.1 Comment and Responses

Comments received throughout the application process will be captured in a Comments and Responses Report (CRR) to form part of the PPP Appendix C.

Comments received before finalisation of this draft amendment report have been included in the Comments and Response trail, and responded to and addressed by the project team, i.e. EAP, Applicant and Specialists as applicable. The Comments and Response Trail will be updated throughout the process as comments are received and will be included in Appendix C of the final Amendment Report.

7 MOTIVATION FOR UNDERTAKING THE PROPOSED AMENDMENT

The authorised layout has been updated due to the project split (Figure 5.1 and Figure 5.2).

Paulputs Wind Energy Facility (Pty) Ltd (PWEF) intend to remove the authorised 132 kV Grid Connection (Option C) from its authorisation in favour of use for the Paulputs North WEF. The approved grid connection will be taken over by ESKOM in the future and thus requires its own Environmental Authorisation.

The findings and assessment of the authorised Paulputs WEF (Arcus, August 2019) indicated that renewable energy is strongly supported at a national, provincial and local level. Therefore, the need and desirability of the authorised Paulputs WEF (Arcus, August 2019) remain valid for this amendment application.

Renewable Energy Focus

The need for the proposed grid connection amendment is supported in terms of meeting the country's climate change goals, and in terms of reducing the country's dependence on fossil fuels as the main source of meeting the country's electricity requirements through the development of the Paulputs North WEF. National, provincial and local policies and planning documents support the development of renewable energy facilities, and the associated socio-economic boost at the local level in an area that is in need of it.

The establishment of the proposed Paulputs North WEF will create direct jobs largely during the construction period. Indirect jobs in accommodation, catering and other services that

would support a wind farm as well as training, business and skill development opportunities will be realised. REIPPPP local economic development requirements are expected to enhance these positive benefits. Several other renewable energy facilities located nearby will result in further enhancement of the positive socio-economic benefits. It is envisioned that the proposed Grid Connection will be crucial to ensuring that the WEF is supported in terms of evacuating generated renewable energy into the National Eskom Grid.

In addition to the above, the Strategic Environmental Assessment for Electricity Grid Infrastructure (EGI) in South Africa identified five Strategic Transmission Corridors, which are considered important to support the large scale electricity transmission and distribution infrastructure. The proposed grid connection falls within the Northern Strategic Transmission Corridor and thus supports the country's needs to further strengthen the electrical grid infrastructure across South Africa.

Grid Connection Need and Desirability

The need and desirability for these types of developments, and within the recommended Strategic Transmission Corridor, play a role in assisting South Africa in meeting its energy and climate change targets and also provides a socio-economic boost at the local level in areas that are in need of it. Both national and provincial policies and planning documents support the development of renewable energy facilities, and the proposed Paulputs North WEF cannot be developed without authorisation of a suitable grid connection.

The establishment of proposed grid connection in the area may place pressure on local services, specifically medical, education and accommodation, associated with the potential influx of people to the area in seek of employment opportunities. The potential impact or pressures on local services can be mitigated by employing local community members and should also be viewed within the context of the potential positive cumulative impacts for the local economy associated with the establishment of such infrastructure, within a Strategic Transmission Corridor, as an economic driver in the area.

South Africa faces serious electricity and water shortages due to its heavy dependency on fossil fuels and increases in demand. There is, therefore, a strong need for additional electricity generation options to be developed and to diversify the sources of energy that feed into the national grid. The purpose of the proposed grid connection, situated within a Strategic Infrastructure Corridor, is to export the renewable energy, generated by the proposed Paulputs North WEF, to the national grid. There are many other socio-economic benefits that could be realised should the project be authorised. These include (but are not limited to):

- Reduced air pollution emissions - burning fossil fuels generates CO₂ emissions which contribute to global warming. In addition, burning fossil fuels produces emissions of sulphurous and nitrous oxides which are hazardous to human health and impact on ecosystem stability;
- Water resource-saving - conventional coal-fired power stations use large quantities of water during their cooling processes. WEFs require limited amounts of water during construction and almost no water during operation. As a water-stressed country, South Africa should be conserving such resources wherever possible;
- Improved energy security - renewables can often be deployed in a decentralised way close to consumers improving grid strength while reducing expensive transmission and distribution losses. They also contribute to a diverse energy portfolio;
- Exploit significant natural renewable energy resources - biomass, solar and wind resources remain largely unexploited;
- Sustainable energy solution - the uptake of renewable energy technology addresses the country's energy needs in a sustainable manner, generating electricity to meet growing demands in a manner which is sustainable for future generations; and

- Employment creation and other local economic benefits associated with support for a new industry in the South African economy.

The proposed amendment site is currently used for low intensity grazing and has little potential for other types of land use. Grazing could continue on the site during the construction and operation of the development. Cumulatively the proportion of land potentially occupied by renewable energy facilities within a 35 km radius of the site is approximately 1 % (Figure 7.1). In an area of low agricultural or other land use potential, and considering the need to meet South Africa's renewable energy generation targets, the proposed amendment is desirable at this time and place.

8 RECEIVING ENVIRONMENT

As the proposed amendment falls within the northern portion previously assessed as part of the authorised footprint of the Paulputs WEF EIA, the site description and attributes associated with this amendment remain unchanged from what was presented in the original environmental assessment.

9 SPECIALIST ASSESSMENT OF THE PROPOSED AMENDMENT

The findings, impacts and mitigations contained in Section 9.2 to Section 9.11 below have been extracted from the EIA conducted by Arcus in 2019 for the authorised Paulputs WEF. The Paulputs WEF Final EIA Report (Arcus, August 2019) concluded that there are no negative high residual impacts, including potential cumulative impacts associated with the proposed amendment.

As agreed with the competent authority during the pre-application meeting, this amendment assessment is supplemented with statements from the specialists outlined in Table 1-1. The same specialists that undertook the studies for the approved Paulputs WEF EIA were commissioned during this EA Amendment process. The findings of each of these specialists relating to the potential impacts of the proposed amendments are summarised in the following sections.

9.1 Environmental Screening Tool

In terms of GN R960 (promulgated on 5 July 2019), and Regulation 16 (1)(b)(v) of the EIA Regulations, 2014 (as amended), the submission of a Screening Report generated from the national web based environmental screening tool is compulsory for the submission of BA, Part II and EIA applications in terms of Regulation 19 and 21 of EIA Regulations, 2014 (as amended).

Arcus finalised the screening tool assessment on 23 July 2021 (Volume II). The tool found that 7⁶ Solar Development Applications have been authorised within a 30km radius of the proposed development Environmental Management Frameworks (EMF). The majority of these are Concentrated Solar Power (CSP) projects. In terms of development incentives, restrictions, exclusions or prohibitions, the tool concluded that the site falls within the Strategic Transmission Corridor – specifically the Northern Corridor.

Based on the identified footprint sensitivities of the proposed development, the requirements for submission of the screening tool report is applicable as it triggers Regulation 19 of the NEMA EIA Regulations, 2014 (as amended). Table 9-1 provides a summary of the specialist assessments identified by the tool, and the response to each assessment in terms of the proposed development.

⁶ The DEFF renewable energy database identifies 11 renewable energy projects within 35km of the proposed grid connection.

Table 9-1: Specialist assessments identified in terms of the national web based screening tool for the proposed development

Identified Specialist Assessment	Identified Screening Tool Sensitivity	Site Verification Statement	Specialist Opinion (Agree with Screening tool or Disagree with Screening tool)
Agricultural Impact Assessment	Medium Sensitivity	<p>The significance of all agricultural impacts is kept low by two important factors. The first is that the actual footprint of disturbance of the wind farm constitutes only a very small proportion of the available grazing land. The second is the fact that the proposed site is on land of very limited agricultural potential that is only viable for grazing.</p> <p>The motivation and evidence for confirming the sensitivity is that the low land capability of the area is predominantly a function of the arid climate. The aridity of the climate is entirely beyond dispute, and there is no particular evidence needed to show this. The differences between medium and low sensitivity on this site are largely insignificant and are more a result of the way the land capability data is generated per pixel, than any practical, on the ground differences in agricultural potential.</p>	Disagree
Archaeological and Cultural Heritage Impact Assessment	Low Sensitivity	<p>The majority of the site is of low sensitivity with only small pockets (where archaeological resources were found) considered to be of medium sensitivity. Since none of the sites were of high cultural significance, these can all be considered as medium sensitivity areas.</p>	Agree
Palaeontology Impact Assessment	Medium Sensitivity	<p>The screening tool report contains no palaeontological map which indicates 100% medium sensitivity. This is in line with the specialist study conducted during the impact assessment phase.</p>	Agree

Identified Specialist Assessment	Identified Screening Tool Sensitivity	Site Verification Statement	Specialist Opinion (Agree with Screening tool or Disagree with Screening tool)
Terrestrial Biodiversity Impact Assessment	Very High Sensitivity	<p>Terrestrial Biodiversity Theme is <u>Very High</u>, with Critical Biodiversity Area 1 & 2, Ecological Support Area, FEPA quaternary catchments and Focus Areas for land-based protected areas expansion (NPAES) indicated as being present by the Screening tool. The site verification report confirms that the terrestrial biodiversity screening tool correctly identifies Critical Biodiversity Area 1 & 2 as well as Ecological Support Area as being within the project footprint. No Focus Areas for land-based protected areas expansion are directly affected, but several are located in the vicinity.</p> <p>The grid connection is located in the same footprint to the original footprint and there are no pulons proposed in High or Very High sensitivity areas, which is in-line with the recommendations of the original EIA study.</p>	Agree
Plant Species Assessment	Medium Sensitivity	The screening tool correctly identifies a single species (Sensitive species 144) as possibly being present, as it is in the general area. The likelihood of <i>Crotalaria pearsonii</i> being present is low, however, it will be investigated further in the plant species assessment	Agree
Animal Species Assessment	Medium Sensitivity	Animal Species Theme is Medium with possibly species including a single bird, <i>Neotis ludwigii</i> . The bird species <i>Neotis ludwigii</i> is not included in the terrestrial biodiversity assessment, as it is assessed independently in the Avifaunal assessment undertaken by Dr Owen Davies. Avian sensitivity as identified by the screening tool is of <u>low</u> sensitivity. No other faunal sensitivities are indicated. No mammals, reptiles, amphibians, or invertebrate species are listed	Agree
Aquatic Biodiversity Impact Assessment	Low Sensitivity	<p>The site is drained by several non-perennial watercourses, hence would be considered to be within FEPA quaternary catchments. Wetland and River features are confirmed to be present.</p> <p>In general aquatic features are avoided as far as possible and are limited to road crossings where necessary.</p>	Agree but avoided

Identified Specialist Assessment	Identified Screening Tool Sensitivity	Site Verification Statement	Specialist Opinion (Agree with Screening tool or Disagree with Screening tool)
Civil Aviation	Low Sensitivity	<p>CAA Theme was listed as having a low sensitivity and no specific assessment protocol has been prescribed. In this instance, as no specific assessment protocol has been prescribed, the required level of assessment must be based on the findings of the Initial Site Sensitivity Verification and must comply with Appendix 6 of the Environmental Impact Assessment Regulations promulgated under sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (The Act), where a specialist assessment is required.</p> <p>The CAA was notified during the initial notification period, and has been provided with the opportunity to comment on the amendment report. Comments received during this review period will be captured in the comments and responses report, to be submitted with the final amendment report. Should permits be required, these will be applied for accordingly in terms of a Civil Aviation Assessment, no assessment is required.</p>	Agree
Defence	Low Sensitivity	<p>Defence Theme was listed as having a low sensitivity and no specific assessment protocol has been prescribed. In this instance. As no specific assessment protocol has been prescribed, the required level of assessment must be based on the findings of the Initial Site Sensitivity Verification and must comply with Appendix 6 of the Environmental Impact Assessment Regulations promulgated under sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (The Act), where a specialist assessment is required.</p> <p>Defence (through the CAA) was notified during the initial notification period, and has been provided with the opportunity to comment on the amendment report. Comments received during this review period will be captured in the comments and responses report, to be submitted with the final amendment report.</p>	Agree

Further, GN R320, promulgated 20 March, states that *'specific procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the NEMA must be included/considered when applying for Environmental Authorisation.'*

GN R320 prescribes the general requirements for undertaking a site sensitivity verification describes certain protocols for the assessment and minimum report content requirements of environmental impacts for environmental themes for activities requiring environmental authorisation.

10 SPECIALIST ASSESSMENT OF THE PROPOSED AMENDMENT

10.1 Aquatic Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

The specialist found that the significance of the impacts as a result of this amendment would remain low after mitigation during the construction, operation and decommissioning phases of the project as the with the exception of road crossings. All the delineated systems with a High Sensitivity, as is required by the Biodiversity Assessment Protocols – Aquatic Theme, will be avoided. A Water Use Licence will be undertaken where Pylon are to cross drainage lines.

In terms of disadvantages, the grid may cross watercourses, in which case a Water Use Licence will be required. This will only be determined should the Paulputs North WEF be deemed a preferred bidder, where-after a final site walkthrough will be undertaken and the pylon micro-siting will be finalised.

10.2 Avifaunal Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

As this is largely an administrative exercise to ease the transfer of ownership to Eskom it has no significance from an avifaunal perspective and will not result in any changes to the impacts assessed for the original authorisation.

The original assessment (Arcus, 2019) found that the activity and abundance of priority species and red data species were found to be very low to low by the pre-construction monitoring conducted by Arcus between Autumn 2018 to the end of Summer 2019. The diversity of these species recorded was also low. Abundances and diversity of small passerines was found to be low as well.

Verreaux's Eagle were confirmed breeding 1.8 km outside of the Paulputs North WEF site boundary, however the species was not recorded flying on site. The Paulputs North WEF site does not contain any important Verreaux's Eagle habitat, even though they may traverse the site or forage there occasionally.

The specialist concluded that the shortest grid connection alternative is the preferred alternative from an avifaunal perspective, and therefore using Substation Option A, together with the grid connection connecting to the existing 132 kV line is preferred. However, all options are acceptable, if correctly mitigated.

In terms of advantages and disadvantages of the proposed amendment, the proposed amendment is advantageous for the development and operation of the Proposed Paulputs North WEF, which intends to evacuate energy generated from the wind turbines, into the National Grid. As the area surrounding the project site is widespread, contiguous, untransformed natural habitat and therefore the small areas that may be impacted upon by the grid connection, thus the impacts of the proposed amendment are considered low.

In terms of disadvantages, the grid may negatively impact Avifauna in terms of collisions and electrocutions. Compared to other WEF sites flight activity of priority species was the lowest recorded on any WEF that the specialists have worked on or are aware of. Therefore the broad project area appears to be well suited for large infrastructure development from an avifaunal perspective. The associated Grid Connection however does have the potential to negatively impact certain species, particularly Ludwig's Bustard. This impact is partially mitigatable and considered acceptable when all mitigations have been applied. The site is

considered to be of low avifaunal sensitivity. The mitigation measures proposed are sufficient to reasonably mitigate the proposed negative impacts.

10.3 Terrestrial Ecology Amendment Assessment

Mr Jamie Pote has been appointed to compile an Amendment Statement, on behalf of the applicant, regarding the potential implications of the proposed amendments on Terrestrial Biodiversity. Simon Todd of 3Foxes Biodiversity Solutions compiled the original Fauna & Flora Specialist Study for the Paulputs WEF EIA, which was authorised on 11 December 2019 by the Department of Environment, Forestry and Fisheries (DEFF, Ref No. 14/12/16/3/3/2/1120). This Amendment Statement will assess the amendment in relation to the impacts as originally undertaken by 3Foxes Biodiversity Solutions.

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

Assessment Findings

Key inclusions in this amendment statement are as follows:

1. Statement from specialists confirming whether or not the proposed amendments will change the nature or impact of any of the impacts that were assessed as part of specialist studies for the Authorised Paulputs WEF.
2. Statements from specialists to confirm whether or not the proposed amendments within the assessed footprint will result in any additional impacts.
3. Statements from specialists to confirm whether any additional management actions or mitigations, inclusive of changes to the EMP_r, are applicable to the proposed amendments.

Project : Paulputs WEF and Grid Connection
 Layout Amendments: Paulputs North Grid Connection

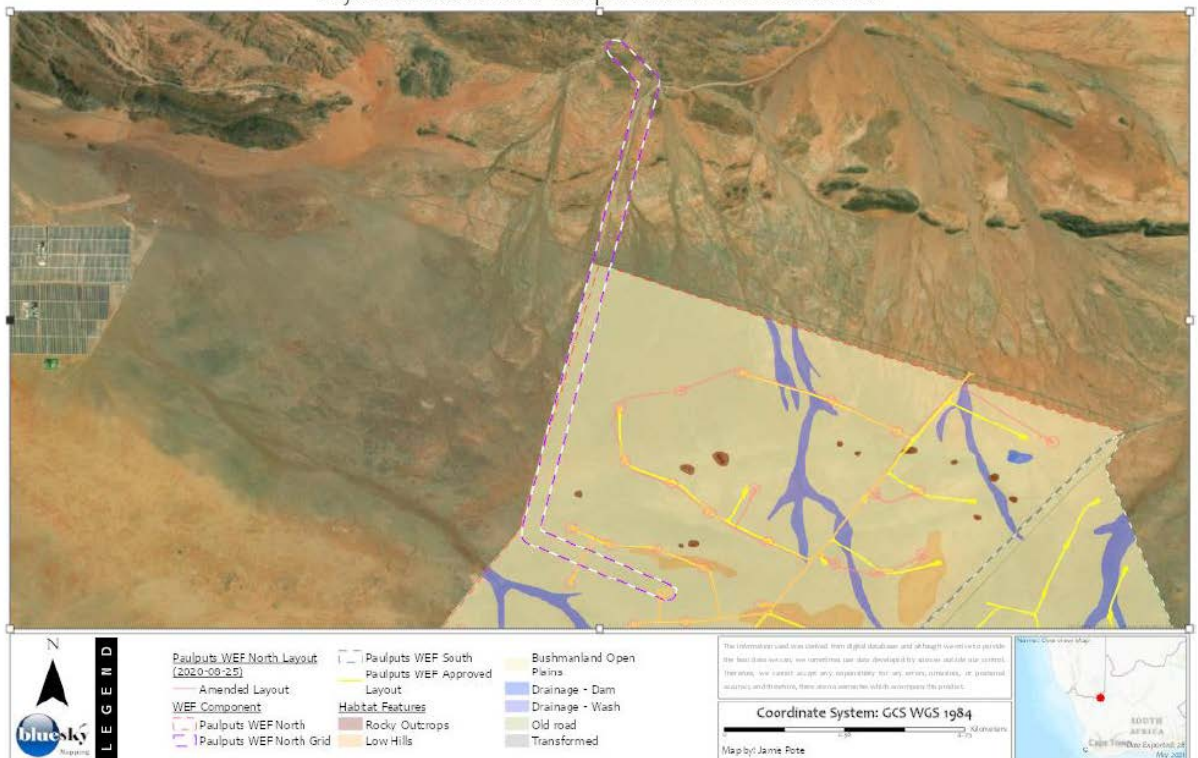


Plate 9-1: Habitat Mapping (as per Todd, 2019) with amended layout (Paulputs North WEF Grid Connection).

With reference to Figure 9-1 above, the following can be deduced regarding the split of the Paulputs WEF into separate Paulputs North, Paulputs North Grid Connection and Paulputs South components:

- The Paulputs North Grid Connection will occupy the same footprint between the site and the substation to the north-east and will not result in a significant change to the overall impact to terrestrial biodiversity.
- In terms of the overall impact, there are no changes in the impacts associated with the single Paulputs WEF and the impacts associated with the combined split North, North Grid and South WEF components.

The specialist found that the 132kV powerline has a nominal terrestrial biodiversity footprint, limited to minor disturbance to construct pylons and an access road, which is usually a two-track type road, which has a nominal footprint and so long as sensitive areas are avoided, and the respective mitigation measures are implemented the effect of this on the overall project impact is deemed to be negligible.

Mitigation / Recommendations

There have been no changes to the layout of the approved overhead powerline for the Paulputs North WEF. The grid connection will be located in the same area to the original footprint and as such, there are no additional impacts as a result of the amendments are anticipated and the amendments are not anticipated to require any additional management actions or mitigation measures, inclusive of changes to the EMPr.

It is recommended that in terms of terrestrial biodiversity that the amendment be approved, subject to implementation of all recommendations in the original assessment inclusive of the Environmental Management Programme (EMPr) and the conditions of the Environmental Authorisation (EA).

No advantages or disadvantages exist from a terrestrial ecology perspective.

10.4 Soil and Agricultural Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

Plate 9-1 shows the uniform landscape of the proposed development site. There are no agricultural impacts related to this proposed amendment. There are no agricultural advantages or disadvantages related to it. The amendment does not require any changes or additions to the mitigation measures for agricultural impacts that were recommended for the authorised WEF, and there are therefore no required changes to the EMPr.

The agricultural impact of the amended project will therefore be identical to the impact for the authorised WEF, that was assessed in my original specialist assessment report. Therefore, from an agricultural impact point of view, the amendment should be authorised.



Plate 9-1: Paulputs North WEF Site

No advantages or disadvantages exist from a terrestrial ecology perspective

10.5 Heritage and Palaeontology Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

Assessment Findings

The study area is generally very flat but with very low rises in places. The exceptions are a number of small, steep rocky hills that dot the landscape. Watercourses are ephemeral and far more common in the north than the south. Vegetation is sparse, but bushy patches do occur, primarily along the watercourses.

The heritage assessment found that numerous Stone Age archaeological resources occur throughout the WEF study area but that they are generally associated with water sources and rocky hills. The power line routes were not physically examined but some sites may be associated with hills or watercourses along the various options. There is still a small chance that isolated water holes with associated archaeological sites can be located in open areas but these could only be identified once the final facility layout is surveyed before construction.

The landscape is more natural than cultural but will experience visual impacts. The important part of this is that, although not a designated tourism route (SiVest 2019, Visual Impact Assessment), the N14 is considered by the heritage specialist to be a route of cultural significance because of the aesthetic and scenic qualities of the landscape through which it passes. The power line presents a far more limited impact and, if the WEF is constructed then the associated power line would have a negligible further impact.

Impacts

The powerline route for the grid connection was not surveyed during the initial assessment because the alignment could not be accessed at the time. Some areas were noted from aerial photography as being potentially of medium sensitivity. The line does cross a few of these areas.

On the basis of the archaeology, it is unlikely that the power line construction would result in impacts of anything more than medium intensity. Once more, the pre-construction survey will be an important part of the project and will ensure that any as yet undocumented sites can be recorded and sampled, if necessary, prior to their destruction.

Mitigation / Recommendations

The recommendations to be carried forward for the proposed amendment are as follows:

- The final authorised layout for the WEF, all internal roads (including the above rerouted section), internal power lines, substation and any other areas to be disturbed must be surveyed by an archaeologist prior to construction in order to identify any remaining potential impacts that may need mitigation;
- Identified sensitive sites must be treated as no-go areas throughout the lifetime of the project; and
- If any archaeological material or human burials are uncovered during the course of development then work in the immediate area should be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.

No advantages or disadvantages exist from a terrestrial ecology perspective

10.6 Visual Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

Assessment Finding

The VIA for Paulputs WEF identified the visual character of the broader study area as being largely natural with pastoral elements and low densities of human settlement. The study area represents a typical Karoo cultural landscape. This is important in the context of potential visual impacts associated with the development of a WEF and associated infrastructure as introducing this type of development could be considered to be a degrading factor in the context of the natural Karoo character of the study area.

In this instance visual impacts on the cultural landscape would be reduced by the fact that the area is relatively remote and there are very few tourism or nature-based facilities in the study area. In addition, although the proposed development will be visible from the N14 national route, the section of this route that traverses the study area does not form part of a designated tourism route.

Impacts

As this is merely an administrative issue, the proposed amendment has no significance from a visual perspective and will not result in any changes to the visual impacts identified in the original VIA for Paulputs WEF.

No advantages or disadvantages exist from a terrestrial ecology perspective

10.7 Noise Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

As proposed amendment involves the removal of infrastructure, it is not possible for the proposed changes to result in an increased noise impact, and are therefore not significant in terms of the EIA Regulations.

No advantages or disadvantages exist from a terrestrial ecology perspective

10.8 Social Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II.

Assessment Findings

The identification and assessment of the key social impacts related the proposed amendment were assessed in detail and included in Section 4 of the full SIA report that formed part of the authorized Paulputs WEF EIA that already received EA by the DEA.

Therefore, the social impacts that were identified and assessed in the full SIA report (that formed part of the full EIA report that was authorised), as well as the mitigation and enhancement measures included in the full SIA report and any social aspects included in the authorised EMP, are still relevant and valid for this proposed amendment.

Impacts

The findings of the full SIA report demonstrated that the proposed establishment of the WEF is supported as it creates a positive social benefit for society.

Mitigation / Recommendations

Paulputs North are required to implement the suggested enhancement and mitigation measures contained in Section 4 of the full SIA report, as well as inputs from other specialist studies for the authorised Paulputs WEF EIA.

No advantages or disadvantages exist from a terrestrial ecology perspective

10.9 Traffic Amendment Assessment

A copy of both the Paulputs WEF EIA specialist report and Impact statement are contained in Volume II

As proposed amendment involves the removal of infrastructure, it is not possible for the proposed changes to result in an increased noise impact, and are therefore not significant in terms of the EIA Regulations. It is also noted that no changes have been made to the internal access roads and as such, no additional impacts exist.

A transport management plan must be compiled and must consider the logistics of transporting abnormal loads to site. This plan must be compiled after preferred bidder is awarded.

No advantages or disadvantages exist from a terrestrial ecology perspective

10.10 Cumulative Impact

The cumulative impact of the facility as a whole was considered and assessed in detail in the authorised Paulputs WEF EIA. The authorised EIA concluded that there are no negative high residual impacts, including potential cumulative impacts associated with the proposed development of the WEF, grid connection option and substation options.

The creation of local employment and business opportunities, skills development and training which can be associated with cumulative impacts, was rated as high positive. With mitigation all potential negative cumulative impacts are reduced to medium or low significance. Potential cumulative negative impacts that remain medium significance after mitigation were identified by the bird, heritage, social and visual specialists while a potential cumulative positive impact of high significance after enhancement was identified by the social specialist. The negative impacts associated with the proposed Paulputs WEF Grid Connection are considered acceptable by the specialist.

11 SPECIALIST IMPACT STATEMENT

- **Aquatic Amendment Assessment** – No additional impacts. Further, no changes to the original mitigations or EMPr recommendations are required.
- **Avifaunal Amendment Assessment** - As this is largely an administrative exercise to ease the transfer of ownership to Eskom, thus this amendment has no significance from an avifaunal perspective and will not result in any changes to the impacts assessed for the original authorization.
- **Terrestrial Ecology Amendment Assessment** – The Paulputs North Grid Connection will occupy the same footprint between the site and the substation to the north-east and will not result in a significant change to the overall impact to terrestrial biodiversity. In terms of the overall impact, there are no changes in the impacts associated with the single Paulputs WEF and the impacts associated with the combined split North, North Grid and South WEF components.
- **Bat Amendment Assessment** - As this is largely an administrative exercise to ease the transfer of ownership to Eskom, thus this amendment has no significance from a bat perspective and will not result in any changes to the impacts assessed for the original authorization.
- **Soil, Land Use and Agricultural Potential Amendment Assessment** - There are no agricultural impacts related to this proposed amendment. In addition, there are no agricultural advantages or disadvantages related to it. The proposed amendment does not require any changes or additions to the mitigation measures for agricultural impacts that were recommended for the authorised Paulputs WEF.
- **Heritage and Paleontology Amendment Assessment** - On the basis of the archaeology seen in the Paulputs North WEF site and of other sites known by the author to occur in the wider area, it is unlikely that the power line construction would result in a change in impacts. Impact remain valid from the authorise Paulputs WEF EIA and are no more than medium intensity.
- **Visual Amendment Assessment** – As this is merely an administrative issue, the proposed amendment has no significance from a visual perspective and will not result in any changes to the visual impacts identified in the original VIA for authorized Paulputs WEF.
- **Noise Amendment Assessment** - As this is merely an administrative issue, the proposed amendment has no significance from a noise perspective and will not result in any changes to the noise impacts identified in the original noise impact assessment for authorized Paulputs WEF.
- **Social Amendment Assessment** - The proposed amendment will not result in any additional impacts, cumulative impacts or residual impact, nor will it change the significance of these impacts. The Paulputs North Grid connection must ensure compliance with the recommendations of Section 4 of the approved SIA for the Paulputs WEF.
- **Traffic Amendment Assessment** – The proposed amendment does not change the Traffic Specialist Report findings and recommendations as stated in the authorised Paulputs WEF EIA. A transport management plan must be compiled and must consider the logistics of transporting abnormal loads to site. This plan must be compiled after preferred bidder is awarded.

12 CONCLUSION

This amendment application is being undertaken to identify and assess environmental impacts, issues and concerns that may result from the proposed amendment to the Environmental Authorisation. The information contained in this report will enable the DFFE to make an informed decision to grant or deny the proposed Environmental Amendment Application.

It is the opinion of the EAP that the proposed project amendment will not affect any change in the impact ratings from those which were assessed during the Paulputs WEF EIA undertaken by Arcus in August 2019. The **proposed amendment can be authorised subject to Paulputs North adhering to all mitigation and management measures outlined in this report, the approved Paulputs WEF EIA as well as the Generic EMPr.**

APPENDIX A: EAP DECLARATION OF INDEPENDENCE AND CV

APPENDIX B: EMPR AND GENERIC EMPR FOR GRID INFRASTRUCTURE

APPENDIX C: PUBLIC PARTICIPATION

