



ENVIRONMENTAL CLOSE OUT AUDIT REPORT

Brandvalley Wind Energy Facility, Matjiesfontein, Western and Northern
Cape Province

**In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the
Environmental Impact Assessment Regulations, 2014 (as amended)**

PREPARED FOR:

Red Rocket South Africa (Pty) Ltd

Brandvalley Wind Farm (RF) (Pty) Ltd

Department of Forestry, Fisheries, and the Environment: Compliance Monitoring

DATED:

February 2025

PREPARED BY:

NCC Environmental Services

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DECLARATION OF INDEPENDENCE

I, Nick Gates, as duly authorised representative of NCC Environmental Services (Pty) Ltd ("**NCC**"), hereby confirm my independence (as well as that of NCC) as an auditor and declare that neither I nor NCC have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which Brandvalley Wind Farm (RF) (Pty) Ltd has appointed NCC as Environmental Control Officer ("**ECO**"), other than fair remuneration for worked performed, specifically in connection with the Environmental Authorisations and Environmental Management Programmes. I further declare that I am confident in the results of the audit undertaken and the findings as a result of it – as are described in this report.

Signed:

A handwritten signature in black ink, appearing to be 'Nick Gates', is located below the 'Signed:' text.

Nick Gates

March 2025

Environmental Control Officer

NCC Environmental Services (Pty) Ltd

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DOCUMENT CONTROL

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ECO	NCC Environmental Services (Pty) Ltd
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ABBREVIATIONS

CA	Competent Authority
DFFE	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESCO	Environmental Site Compliance Officer
kV	Kilovolt
MVA	Megavolt Amperes
MW	Megawatt
NCC	NCC Environmental Services
NCR	Non-Compliance Report
NEMA	National Environmental Management Act (No. 107 of 1998)
NWA	National Water Act (No. 36 of 1998)
OHPL	Overhead Power Line
SDC	Safe Disposal Certificate
SDS	Safety Data Sheet
SHE	Safety, Health and Environment
SS	Substation
TBC	To Be Confirmed
WEF	Wind Energy Facility

1 INTRODUCTION

1.1 Project Background

Brandvalley Wind Farm (RF) (Pty) Ltd was granted Environmental Authorisation ("**EA**"), dated 23 November 2016, by the Department of Forestry, Fisheries and the Environmental ("**DFFE**") (EA Reference: 14/12/16/3/3/2/900) to construct a Wind Energy Facility ("**WEF**") north of the town of Matjiesfontein within the Karoo Hoogland, Witzenberg and Lainsburg Local Municipalities in the Western Cape and Northern Cape Province. Subsequent amendments thereto were authorised by the DFFE dated *14 February 2019, 11 October 2021, 23 August 2022 and 25 May 2023*.

In addition, the DFFE granted EA for the construction of a 123KV distribution powerline and substation for the abovementioned Wind Energy Facility. The Brandvalley Wind Farm (RF) (Pty) Ltd was issued with an EA, by the DFFE, on *23 November 2016*, with subsequent amendments thereto dated *18 October 2021 and 25 July 2022*.

An EA was also issued for the construction of the **Bon Espirange to Komsberg 132KV powerline** (EA Reference: *14/12/16/3/3/1/2471*), dated *19 April 2022*. Approved Environmental Management Programmes ("**EMPr's**") also form part of the approved environmental authorisations for this development.

1.2 Legal Framework

In terms of section 24N of the National Environmental Management Act 107 of 1998 ("**NEMA**") the holder of an environmental authorisation *"must manage all environmental impacts in accordance with his or her approved environmental management programme" and "monitor and audit compliance with the requirements of the environmental management programme"*.

Regulation 34 of the 2014 NEMA EIA Regulations (as amended) further states that the holder of an environmental authorisation must, for the period during which the EA and EMPr, and where applicable the closure plan, remain valid —

- a) *Ensure that the compliance with the conditions of the EA and the EMPr, and where applicable the closure plan, is audited; and*
- b) *Submit an environmental audit report to the relevant competent authority.*

The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.

1.3 Environmental Audit Report Requirements

Appendix 7 of the NEMA EIA Regulations, 2014 (as amended) contains the required contents of an Environmental Audit Report. The checklist below serves as a summary of how these requirements were incorporated into this Environmental Audit Report.

Requirement	Report Reference	Section
1. The environmental audit report must provide for recommendations regarding the need to amend the EMPr and the closure plan in the case of a closure activity.	Section 6	
2. The objective of the environmental audit report is to- (a) report on- (i) the level of compliance with the conditions of the environmental authorisation and the EMPr and the closure plan in the case of a closure activity; and (ii) the extent to which the avoidance, management and mitigation measures provided for in the EMPr and closure plan achieve the objectives and outcomes of the EMPr and closure plan;	Section 3 and Section 6	
2(b) identify and assess any new impacts and risks as a result of undertaking the activity;	Section 6	
2(c) evaluate the effectiveness of the EMPr, and the closure plan in the case of a closure activity;	Section 6	
2(d) identify shortcomings in the EMPr, and the closure plan in the case of a closure activity; and	Section 6	
(e) identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr, and the closure plan in the case of a closure activity.	Section 6	
(1) An environmental audit report prepared in terms of these Regulations must contain-		
(a) Details of – (i) The independent person who prepared the environmental audit report; and (ii) The expertise of independent person that compiled the environmental audit report.	Section 2	
(b) A declaration that the independent auditor is independent in a form as may be specified by the competent authority.	Page 2 of this report.	
(c) An indication of the scope of, and the purpose for which, the environmental audit report was prepared.	Section 1.4	
(d) A description of the methodology adopted in preparing the environmental audit report.	Section 1.6	
(e) An indication of the ability of the EMPr, and where applicable the closure plan to – (i) Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an on-going basis; (ii) Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and (iii) Ensure compliance with the provisions of environmental authorisation, EMPr, and where applicable, the closure plan.	Section 6	
(f) A description of any assumptions made, and any uncertainties or gaps in knowledge	Section 1.5	
(g) A description of any consultation process that was undertaken during the course of carrying out the environmental audit report.	Section 1.6	
(h) A summary and copies of any comments that were received during any consultation process.	Section 4 and 7	
(i) Any other information requested by the competent authority.	Not applicable	

1.4 Scope, Purpose and Objective of the Audit

The objective of the audit is to satisfy **Condition 30** of the issued EA's which is referenced in the section titled *Recording and Reporting to the Department* and relates to the completion of construction and the completion of rehabilitation and states the following:

"The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities."

The project undertook rehabilitation in a phased approach which commenced whilst construction activities were still being undertaken and was completed shortly after the facility was commissioned/completion of construction hence this report is aimed at addressing both reports referenced in the EA and is drafted to address both the completion phase and rehabilitation activities.

This report is specifically drafted for the Brandvalley Wind Energy Facility, excluding the overhead head powerlines and associated substations. The overhead powerlines and substations have been included in a separate close out audit and were submitted to the Department on 11 December 2024.

In addition, this audit sets out to report whether the objectives and outcomes of the EMPr were achieved, whether any new impacts or risks were identified in relation to the project and whether the EMPr adequately responds to known impacts.

The audit and this report relate only to the conditions of approval and related EMPr for the following approval:

Document Title	Reference Number	Date of Issue
The 140 MW Brandvalley Wind Energy Facility (WEF) within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province	14/12/16/3/3/2/900 (first issue) 14/12/16/3/3/2/900/AM1 14/12/16/3/3/2/900/AM2 14/12/16/3/3/2/900/AM3 14/12/16/3/3/2/900/AM5	23 November 2016. 14 February 2019 11 October 2021 23 August 2022 24 May 2023
Brandvalley Wind Energy Facility (Ref: 14/12/16/3/3/2/900) Amended Environmental Management Programme (EMPr)		28 JUNE 2022

1.5 Assumptions, Limitations and Gaps in Knowledge

The assumption is made that all information received from Brandvalley Wind Farm (RF) (Pty) Ltd, their representatives and the Environmental Site Compliance Officer (“**ESCO**”) on which this audit report is based, is accurate and correct.

No public consultation was undertaken as part of this external audit. In the opinion of the auditor, this was not required for the purposes of conducting the audit.

The holder of the EA will distribute this report to the DFFE, in line with the obligation of Regulation 34.

A change of ECO occurred during the transition from construction and during rehabilitation.

The auditor had access to all the information necessary to compile this audit report. There are no gaps in knowledge that would suggest any level of uncertainty in the findings of the auditor.

Note that NCC Environmental Services (Pty) Ltd are indemnified against any claim for damages that may result from this report and its recommendations.

1.6 Audit Methodology

The following methodology was employed for this compliance audit:

1.6.1 Pre-Audit Tasks

Review of the approvals / documents relevant to the proposed development, namely:

- EA and amendments, issued by the DFFE.
- Environmental Management Programme (EMPr) approved by DFFE.
- Independent ECO audit reports prepared to date.
- Preparation to inform the auditor’s enquiries during the on-site inspection.

1.6.2 Onsite Audit

The site was visited on 24 February 2025. The site walkabout served to give the auditor an understanding of the environmental setting and the specific aspects of the proposed development, especially as it relates to the relevant approvals. All key components of the facility and site were inspected, and interviews were held with key parties in relation to compliance aspects.

1.6.3 Reporting

Compilation of the audit report based on the information obtained during the audit inspection and any subsequent follow up liaison with the representative of the holder of the EAs as well as the ESCO. The final report will be issued to the client (electronically).

The client remains responsible for submission of the report to the authorities, as prescribed in Regulation 34 of the EIA Regulations.

2 AUDITOR BACKGROUND

NCC is a multi-disciplinary environmental consulting company based in South Africa which adopts a 'values driven' approach with a common purpose to conserve and create sustainable environments that enable people, planet and business to thrive. We are a trusted partner to major engineering and construction firms, mines, parastatals, film, sports and event production companies, municipalities, provincial and national government, and conservation organisations. Drawing on our years of experience on a wide range of projects, NCC works with our clients to develop, implement, and monitor customised services that add real value.

The auditor, Nick Gates, is a senior environmental manager with more than 16 years' experience currently employed with NCC. Nick has experience in a number of environmental fields including environmental compliance monitoring and auditing, due diligence assessment, environmental impact and risk assessment, environmental management systems (ISO 14001), and compilation of environmental management plans/programmes.

Table 1: Auditor Details

Company	NCC Environmental Services (Pty) Ltd
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Qualifications	B Soc Sci
Expertise	A detailed CV can be provided on request

3 RECORD OF COMPLIANCE AND AUDIT FINDINGS

3.1 Audit Tables and Compliance Ratings

The audit table captures observations and recommendations made in relation to the conditions stipulated in the Environmental Authorisations. It provides the reader with more detailed information in terms of what the stipulated requirements are in relation to the organisation's assessed current compliance status, according to the observations recorded by the auditor.

Ratings are calculated based on a scoring system whereby each auditable condition is provided with a score as highlighted in **Table 2** below.

Table 2: Compliance Rating and Scoring

Status	Compliance Rating		Scoring	Description
	Abbreviation	Symbol		
<i>Compliant</i>	C	✓✓	2	<i>No improvements required</i>
<i>Partially-Compliant</i>	PC	✓	1	<i>Minor improvements required</i>
<i>Non-Compliant</i>	NC	x	0	<i>Major improvements required</i>
<i>Not Applicable / Not Audited</i>	NA	-	-	<i>No improvements required and / or the condition is either not, not yet or no longer relevant at the time of the audit</i>
<i>Informative</i>	info	-	-	<i>These relate to informative elements that provide either useful information or are descriptive in the explanation and understanding of statements or concepts in the audit criteria</i>

Each condition has been ascribed a colour-coded status indicator of Compliant (green), Partially Compliant (orange), non-compliant (red), Not Auditable/Audited (grey) and Informative (blank/white) to assist the reader in determining aspects that require attention to improve on compliance achieved, if and where applicable. No compliance scoring is attributed any of the audit criteria information pertaining to the latter two audit status symbols, namely 'NA' and 'info' as they were either not auditable and/or were not applicable/relevant at the time the audit was undertaken. In other words, they are excluded from the overall compliance rating calculations.

An overall compliance rating is calculated as a percentage to provide the reader with an overview of compliance to the relevant audit criteria however each condition should be considered on its own merits as the ratings do not necessarily portray the severity or impact of the reported finding relating to a condition.

No.	THE 147 MW BRANDVALLEY WIND ENERGY FACILITY NORTH OF THE TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900) FIRST ISSUE	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
Date of Authorisation: 23 November 2016.							
SCOPE OF AUTHORISATION							
1	The 140 MW Brandvalley Wind Energy Facility as described above is hereby approved.					-	
2	Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.					-	
3	The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes <i>any</i> person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant, or person rendering a service to the holder of the authorisation.					-	
4	The activities authorised may only be carried out at the property as described above.	✓✓					Correctly implemented
5	<i>Any</i> changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations <i>may</i> be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.	✓✓					An amendment to the EA was issued on 14 February 2019 amending the contact details of the holder of the EA and technical specifications of the wind turbines (DFFE Ref.: 14/12/16/3/3/1/900/AM1). The EA was further amended on 11 October 2021 to extend the validity period of the EA (DFFE Ref.: 14/12/16/3/3/2/900/AM2). On 23 August 2022 the EA was amended to change the number of turbines, generation capacity per turbine, the area occupied by each turbine and the hard standing area, the turbine hub height and rotor diameter, the width of the internal roads, construction camp details and coordinates, and the holder of the EA (DFFE Ref.: 14/12/16/3/3/2/900/AM3). The Environmental Management Programme and final layout were also approved in AM3. Amendment 5 (DFFE Ref: 14/12/16/3/3/1/900/AM5), amended the contact details of the holder of the authorisation and well as some road realignment. Date of amended decision is 24 May 2023. The amendment must be read in conjunction with the original EA dated 23 November 2016.
6	The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.	✓✓					No change of ownership rights has taken place.
7	This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.	✓✓					Written correspondence to the DFFE, informing the DFFE about commence of construction in a letter dated 25 November 2022.
8	Construction must be completed within five (05) years of the commencement of the activity on site.	✓✓					Construction completed within the 5 years.
9	Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.	✓✓					Correctly implemented.
NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL							
10.	The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.	✓✓					Correctly implemented as part of EIA process.
11	The notification referred to must -						
11.1	specify the date on which the authorisation was issued;						
11.2	inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;	✓✓					
11.3	advise the interested and affected party that a copy of the authorisation will be furnished on request; and						
11.4	give the reasons of the competent authority for the decision.						
12.	The holder of the authorisation must publish a notice -						
12.1.	informing interested and affected parties of the decision;						
12.2	informing interested and affected parties where the decision can be accessed; and	✓✓					
12.3	drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.						
COMMENCEMENT OF ACTIVITY							
13	The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.	✓✓					The Appeals Directorate received appeals against the decision of the Department on 22 December 2016 and 06 January 2017. The grounds of appeal by the appellants were provided to the applicant, who submitted responding statements thereto on 25 and 26 January 2017.

No.	THE 147 MW BRANDVALLEY WIND ENERGY FACILITY NORTH OF THE TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900) FIRST ISSUE	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
							In a decision letter dated 28 July 2017 the appeal was dismissed, and the issued EA upheld.
MANAGEMENT OF THE ACTIVITY							
14	A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:	✓✓					As part of the finalisation of the EMPr process a final development layout (compliant with the requirements of this condition) has been compiled and is included in Chapter 3 (Figure 3-3) of the EMPr and Appendix B of this EMPr, dated June 2022. This EMPr and final development layout map was released for a 30-day comment period (19 May 2022 to 21 June 2022), and comments received from I&APs was incorporated into the Final EMPr for submission to the Department in order to comply with this condition. The EMPr dated 28 June 2022 submitted as part of the application for amendment of the EA, which is submitted to fulfil the requirements of Condition 16 of the EA dated 23 November 2016, as amended and the final layout Map appended under appendix B of the EMPr is hereby approved. Amended EA dated 23 August 2022.
14.1	Cable routes (where they are not along internal roads);						
14.2	Position of wind turbines and associated infrastructure;						
14.3	Internal roads indicating width;						
14.4	Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;						
14.5	All sensitive features e.g. Important Bird Areas, Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;						
14.6	Substation(s) inverters and/or transformer(s) sites including their entire footprint;						
14.7	Connection routes (including pylon positions) to the distribution/transmission network;						
14.8	All existing infrastructure on the site, such as roads;						
14.9	Soil heaps (temporary for topsoil and subsoil and permanently for excess material);						
14.10	Buildings, including accommodation; and,						
14.11	All "no-go" and buffer areas.						
15	Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:	✓✓					A shapefile of the approved final development layout, developed as part of this EMPr update was submitted to the Department as required post the approval of this EMPr and final layout.
16	The Environmental Management Programme (EMPr) submitted as part of the EIAr is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments by registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved the EMPr must be implemented and adhered to.	✓✓					The EMPr dated 28 June 2022 submitted as part of the application for amendment of the EA, which is submitted to fulfil the requirements of Condition 16 of the EA dated 23 November 2016, as amended and the final layout Map appended under appendix B of the EMPr is hereby approved. Amended EA dated 23 August 2022.
17	The EMPr amendment must include the following:						
17.1.	The requirements and conditions of this authorisation.						Correctly implemented. The ECO verified that the EMPr contained the conditions of this authorisation.
17.2	All recommendations and mitigation measures recorded in the EIAr.	✓✓					The EMPr has been updated to include the requirements of these conditions, measures included in the EIAr and relevant specialist assessments (refer to Chapter 7) of the EIAr Relevant specialist walkdowns were undertaken in fulfilment of certain conditions contained in this EA, as well as for the generation of the applicable listed plans.
17.3	All mitigation measures as listed in the specialist reports must be included in the EMPr and implemented.	✓✓					
17.4	The final site layout map.	✓✓					This EMPr was amended to include an updated final layout. Figure 3-3) and Appendix B. The environmental sensitivities identified during the EIA phase, informed by the specialist assessments, as well as those identified during the specialist walkdown, were used to inform the final site layout developed in the EMPr.
17.5	An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.	✓✓					An alien and invasive management plan, in line with this condition is included in Chapter 8 (Section 8.1) of the EMPr.
17.6	A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.	✓✓					A plant rescue and protection plan has been compiled and is informed by the findings and identified listed and protected species and recommendations included in the Ecology & Biodiversity Walkdown undertaken for this project. Refer to Section 8.2 of the EMPr for this information.

No.	THE 147 MW BRANDVALLEY WIND ENERGY FACILITY NORTH OF THE TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900) FIRST ISSUE	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
17.7	A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.	✓✓					A re-vegetation and habitat rehabilitation plan, in line with this condition, is included Section 8.3 of the EMPr.
17.8	A traffic management plan for the site access roads to ensure that no hazards would results from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.	✓✓					Appendix C of the EMPr contains the traffic and transport management plan for the site access roads in line with this condition.
17.9	The construction and operational avifaunal monitoring plan that is in line with Birdlife South Africa/Endangered Wildlife Trust's most recent guideline.	✓✓					The construction and operational avifaunal monitoring plan, considering Birdlife guidelines, is included in Appendix D of the EMPr.
17.10	A conservation management plan as required by SAHRA.	✓✓					Appendix F of the approved EMPr contains the conservation management plan compiled for this project.
17.11	A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.	✓✓					A conceptual stormwater management plan (SWMP) is outlined in Section 8.4 of the approved EMPr and will be updated and/or built into the detailed engineering design SWMP.
17.12	An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.	✓✓					An erosion management plan is included in Section 8.5 of this EMPr.
17.13	An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.	✓✓					A hazardous substances leakage or spillage monitoring system is included in Section 8.6 of this EMPr.
17.14	A fire management plan to be implemented during the construction and operational phases.	✓✓					A fire management plan is included in Section 8.7 of this EMPr.
17.15	Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.	✓✓					A plan to protect hydrological features and sensitive areas is included in Section 8.8 of this EMPr.
17.16	An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.	✓✓					Refer to Figure 5-2 and Figure 5-3 (Chapter 5) of the EMPr for an environmental sensitivity map compiled during the EIA process.
17.17	A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the turbine as stated in the EIAr and this authorisation.	✓✓					Refer to Figure 5-2 and Figure 5-3 (Chapter 5) of the approved EMPr for a map combining the final layout map overlain onto the environmental sensitivity map. This map reflects amended turbine positions amended post the EA in developing the final layout map. A map detailing the location of the turbines as stated in the EIAr and this EA is included in Figure 3-2.
18	The final amended EMPr (once approved) must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.	✓✓					The EMPr forms part of all contractual documentation between the holder of the environmental authorisation and its contractors.
19	Changes to the EMPr must be submitted to this Department for approval before such changes could be effected.					-	Noted
20	The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAr be discovered.					-	Noted
FREQUENCY AND PROCESS OF UPDATING THE EMPR							
21	The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 28 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.	✓✓					No changes to the EMPr required yet and/or submitted
22	The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.				-		No changes to the EMPr required yet and/or submitted
23	The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EM Pr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EM Pr to the Department for approval.				-		No changes to the EMPr required yet and/or submitted
24	In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.				-		No changes to the EMPr required yet and/or submitted
25	The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The holder must notify the Department of its intention to amend the EMPr at least 60 days prior to submitting such amendments to the EMPr to the Department for approval. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.				-		No changes to the EMPr required yet and/or submitted
MONITORING							
26	The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.	✓✓					Nick Gates from NCC environmental services was appointed as ECO and subsequently Sumaya Arendse also from NCC environmental services was appointed as ECO.

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26.1	The ECO must be appointed before commencement of any authorised activities.	✓✓					Nick Gates was appointed before the commencement of construction.
26.2	Once appointed, the name and contact details of the ECO must be submitted to the <i>Director: Compliance Monitoring</i> of the Department.	✓✓					Correctly implemented and verified by appointment letter and correspondence sent to the Department dated 29 April 2024.
26.3	The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.	✓✓					Summarised in each monthly report and facilitated by the onsite ESCO.
26.4	The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.	✓✓					The onsite ESCO and ECO was retained until rehabilitation was complete
RECORDING AND REPORTING TO THE DEPARTMENT							
27	All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the <i>Director: Compliance Monitoring</i> of the Department.	✓✓					
28	The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the <i>Director: Compliance Monitoring</i> of the Department.	✓✓					The ECO submits monthly reports to the compliance directorate.
29	The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.	✓✓					Audits were conducted and submit monthly by the ESCO
30	The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.	✓✓					This report satisfies this condition
31	The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.	✓✓					This report satisfies this condition
32	Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.	✓✓					All reports were made available to the ECO
NOTIFICATION TO AUTHORITIES							
33	A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.	✓✓					Proof of compliance verified by means of email correspondence to the compliance monitoring directorate dated 25 November 2022.
OPERATION OF ACTIVITY							
34	A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.				-		Although the Wind Energy Facility construction has been completed, and energised the site is not yet operational. The DFFE be notified prior to operation.
SITE CLOSURE AND DECOMMISSIONING							
35	Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.	✓✓					Not required to date.
SPECIFIC CONDITIONS							
Avifauna and bats							
36	A uniform 200m buffer applies to all identified bat 'no-go' areas. No turbines are to be located on the edge of the buffer.	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivities map
37	The results of the pre-construction bird monitoring assessment including all recommendations proposed by the reports dated September 2016, must inform the final layout and the construction schedule of the energy facility.	✓✓					A summary of the finding from the avifauna specialist walkdown is included in section 5 of the EMPr. Recommendations and measures of the of the 2016 study and 2021 specialist walkdown have been incorporated into this EMPr (Chapter 7). Compliance has also been demonstrated within the final layout plan, overlain over an environmental sensitivities map.
38	A construction and operation monitoring plan must be developed and be implemented to survey impacts resulting from the infrastructure installation on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years during operation.	✓✓					Birds and Bats Unlimited was commissioned to compile the required construction and operation monitoring plan. Appendix D.
39	The following curtailment measures must be implemented: SM4: Turbines 28-31; Snydersberg: Turbines 42, 43, 44, 45; Barendskraal NW: Turbines 14.					-	info
40	A bat monitoring program to determine the actual impacts on the bat community for a minimum of three years must be developed and be implemented. This must be done according to the latest SABAAP's guidelines.	✓✓					Animalia Consulting was commissioned to compile the required bat monitoring plan. Appendix E of the approved EMPr.

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41	All bird monitoring must be conducted in accordance with the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa.	✓✓					
42	The facility must be designed in a manner such that infrastructure components that could be used as perching or roosting substrates by birds and bats must be prohibited.	✓✓					
43	The holder of this environmental authorisation must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.	✓✓					
44	Anti-collision devices such as bird flappers must be installed where powerlines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams). The input of an avifaunal specialist must be obtained for the fitting of the anti-collision devices onto specific sections of the line once the exact positions of the towers have been surveyed and pegged. Additional areas of high sensitivity along the preferred alignment must also be identified by the avifaunal specialist for the fitment of anti-collision devices. These devices must be according to Eskom's Transmission and EWT's Guidelines.	✓✓					Birds and Bats Unlimited provided input into the final layout design, which includes input into the location of anti-collision measures
45	A pre-construction walk through of the approved powerline alignment and turbine positions by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that the micro-siting of the turbines, pylons and powerline alignment have the least possible impact, there are no nests sites of priority species on or close to the construction corridor and all protected plant species impacted are identified.	✓✓					An avifauna specialist, Birds and Bats Unlimited; bat specialist, Animalia Consultants; and ecology specialist, Trusted Partners were commissioned to complete the required pre-construction walk through. A summary of the findings of these specialist walkdowns is included in Chapter 5 of the approved EMPr.
Vegetation, wetlands and water resources							
46	The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivity map
47	All watercourses and associated wetlands are regarded as sensitive. All developments within 500m of watercourses must comply with National Water Act.	✓✓					WUL available for activities within watercourses and watercourse buffers.
48	No powerline towers, substations and construction camps must be placed within the delineated water courses as well as their respective buffers without obtaining the required approvals. A 32m buffer must be applied along all identified watercourses and a 50m buffer must be applied along all identified wetlands.	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivity map
49	No substations, construction camps, temporary or permanent laydown areas or any activities associated with the development are to be located within the National Protected Areas Expansion Strategy focus area (NPAES).	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivity map
50	A pre-construction survey of the final development footprint must be conducted by a qualified floral specialist to identify protected species affected by the proposed development. Prior to the commencement of construction, a rescue and rehabilitation operation for these species which could survive translocation must be conducted.	✓✓					Trusted Partners, ecology specialists, did the required pre-construction walk through (Appendix I). A summary of the findings of these specialist walkdown is included in Chapter 5 of this EMPr. S&R done Dec 2022 and Feb 2023.
51	Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be made available on request.	✓✓					CapeNature permits CN37-28-23169; CN37-28-23154 and CN37-28-23167 - dated 22/11/2022.
52	Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.	✓✓					Measures were put in place to prevent encroachment into areas not designated for construction.
53	All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.				-		Rehabilitation was undertaken as per the rehabilitation plan drafted for the facility. Seeding will only be undertaken during the winter period.
54	Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.	✓✓					Topsoil was observed to be used for rehabilitation purposes.
55	No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.	✓✓					No exotics were observed to be used for rehab.
56	No activities will be allowed to encroach into a water resource without a Water Use License being in place from the Department of Water and Sanitation.	✓✓					Water use licence is in place (Licence No: 01/E22A/CICIACI/12409)
57	Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.	✓✓					Any cleared vegetation was stored with topsoil for use during rehabilitation.
58	Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).	✓✓					Removal of invasive species was undertaken throughout construction and will continue into operations
59	Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).	✓✓					Cape Nature permits available: CN37-28-23169 issued 2022/11/22
60	Contractors and construction workers must be clearly informed of the no-go areas.	✓✓					Regularly enforced via toolbox talks
61	Where roads pass right next to major water bodies, provision shall be made for fauna such as toads to pass under the roads by using culverts or similar structures.	✓✓					Culverts and pipes were installed for the flow of water and movement of fauna.
62	Bridge design must be such that it minimises impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.	✓✓					The most appropriate size and fit for purpose designs were observed to be utilized.

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63	The final development area should be surveyed for species suitable for search and rescue, which should be trans-located prior to the commencement of construction.	✓✓					S&R done by B Colloty in Dec 2022, 7-11 Feb 2023 & Mar 2023.
64	Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and tortoises to pass through, but still remain effective as a security barrier.				-		No electric fencing on site.
65	Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.	✓✓					Rehabilitation is ongoing as works are completed.
66	Wetlands, rivers and rivers riparian areas must be treated as "no-go" areas and appropriately demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen, or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.	✓✓					All aquatic areas were treated as no-go areas and designated as such. Toolbox talks highlighting environmental sensitivities were issued by contractor to staff.
67	Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and in wetland areas and this awareness must be promoted throughout the construction phase.	✓✓					Toolbox talks highlighting environmental sensitivities were issued by contractor to staff
68	Freshwater ecosystems located in close proximity to the construction areas must be inspected on a regular basis by the ECO for signs of disturbance from construction activities. If signs of disturbance are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.	✓✓					Both the on-site ESCO and ECO inspected freshwater ecosystems during the construction phase.
69	No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.	✓✓					
70	If construction areas are to be pumped of water (e.g. after rains), this water must be pumped into an appropriate settlement area and not allowed to flow into any rivers or wetland areas.				-		No evidence the pumping of water was undertaken during construction.
71	Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.	✓✓					Environmental awareness and toolbox talks are ongoing. Site induction also includes environmental topics.
72	Freshwater ecosystems located in close proximity to the site must be inspected on a regular basis (but especially after rainfall) by the ECO for signs of sedimentation and pollution. If signs of sedimentation or pollution are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.				-		Repeat of condition 68.
Roads and transportation							
73	Access road Alternative 1 as described above is approved as the site access to the development area.					-	Noted
74	Internal access roads and internal powerlines/cables that pass through the NPAES must be confined to existing roads and any upgrades must be limited to no more than 9m with a 30m clearly demarcated buffer zone.	✓✓					Internal roads were observed to be within the limitations stipulated.
75	Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.	✓✓					Signage was observed within the project area. The ESCO highlighted that measures were in place during construction.
76	All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.	✓✓					Culverts and pipes were appropriately installed for the flow of water and movement of fauna.
77	A designated access to the site must be created and clearly marked to ensure safe entry and exit.	✓✓					Access to site was gained off the R354. Signage was made present
78	Signage must be erected at appropriate points warning of turning traffic and the construction site.	✓✓					Signage was erected throughout the site
79	Construction vehicles carrying materials to the site should avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.	✓✓					Only designated site access roads where utilized.
80	Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.	✓✓					Vegetation size was observed as appropriate.
81	Roads must be designed so that changes to surface water runoff are avoided, and erosion is not initiated.	✓✓					Roads were constructed to allow for adequate run-off.
82	All construction vehicles should adhere to a low-speed limit to avoid collisions with susceptible species such as snakes and tortoises.	✓✓					Speed control measures were implemented which included speed camera.
Noise							
83	The potential noise impact must be re-evaluated should the layout be changed such that any wind turbines are located closer than 1,000m from a confirmed noise sensitive area.				-		No layout out changes were observed
84	Routine noise measurements must be conducted during the operation of the facility and a complaints register must be opened and made available to affected parties and to the Department on request.				-		Noise measuring will commence during the operation phase.
85	Additional monitoring must be undertaken at wind turbine 52 and wind turbine 53 should any noise complaints be received. The noise investigation must be done by an independent acoustic consultant and if the noise level is found to be of unacceptable levels, noise mitigation measures should be implemented to cushion those that are affected.				-		Noise measuring will commence during the operation phase.

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86	The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA must wear ear protection equipment.	✓✓					Any activities relating to health and safety were monitored by the on-site health & safety officer. Appropriate PPE was issued to all site staff.
87	The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.	✓✓					Vehicles that entered site had to undertake a vehicle inspection before being allowed access.
88	The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.	✓✓					Notifications were sent to all affected persons when blasting activities were undertaken.
89	Positions of turbines jeopardizing compliance with accepted noise levels should be revised during the micro-siting of the units in question and predicted noise levels re-modelled by the noise specialist, in order to ensure that the predicted noise levels are less than 45dB(A).				-		
90	Construction staff must be trained in actions to minimise noise impacts.				-		
Visual resources							
91	The holder of this authorisation must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques and restoring exposed soil as closely as possible to their original contour and vegetation.	✓✓					
92	A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce visual impacts associated with glare and light trespass.				-		
93	Lighting of main structures (turbines) and ancillary buildings should be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.	✓✓					All turbines were designed to meet the standards as stipulated by Civil Aviation
94	Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.				-		
95	Commercial messages and graffiti on turbines are prohibited.				-		
Human health and safety							
96	A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the energy facility. The programme must establish a safety zone for wind turbines from residences and occupied buildings, roads, rights-of-way and other public access areas that is sufficient to prevent accidents resulting from the operation of the wind turbines.	✓✓					EMPr Section 8.11 and Power OHAHS Plan rev01
97	The holder of this authorisation must ensure that the operation of the wind facility shall comply with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio, and television transmissions.				-		
98	Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.				-		
99	The holder of this authorisation must obtain approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment, especially the radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.	✓✓					Letter of no objection dated 2020/02/24
100	The holder of this authorisation must obtain approval from the South Africa Weather Services (Weather SA) that the energy facility will not interfere with the performance of their equipment, especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.	✓✓					Letter of no objection dated 2022/02/07
101	The holder of this authorisation must train safety representatives, managers, and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.	✓✓					A Health & Safety Officer was designated on site for the duration of the project.
102	Liaison with landowners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.	✓✓					All communications with landowners were conducted with a Community Liaison Officer.
103	No unsupervised open fires for cooking or heating must be allowed on site.	✓✓					No fires were observed on site.
Hazardous materials and waste management							
104	Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.	✓✓					2023/04/25: Bund completed and in use. Has been inspected and fire safety certificate issued on 2023/03/29.
105	Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.	✓✓					Various mitigate measures were implemented during construction which included the bunding of fuel
106	Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.	✓✓					Waste manifest and safe disposal certificates verified.
107	No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.	✓✓					Designated waste management areas allocated within contractors site camp.
108	Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.	✓✓					Designated hazardous store areas were allocated within contractors site camp.
109	Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored, nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, a drainage line with or without an extensive floodplain or hillside wetlands.	✓✓					Designated hazardous store areas were allocated within contractors site camp.

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110	Temporary bunds must be constructed around chemical storage to contain possible spills.	✓✓					Designated hazardous store areas were allocated within contractors site camp which included bunding measures.
111	Spill kits must be made available on-site for the clean-up of spills.	✓✓					Spill kits were observed on site.
112	An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).	✓✓					Designated waste management areas allocated within contractors site camp. Waste manifest and safe disposal certificates were collected and verified.
113	The holder of this authorisation must provide sanitation facilities within the construction camps and along the road so that workers do not pollute the surrounding environment. These facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste disposal site.	✓✓					Toilet facilities were provided to all staff on site and were serviced by a service provider.
114	The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014.	✓✓					All site camps and laydown areas were observed to be located in approved areas.
Excavation and blasting activities							
115	Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.	✓✓					Underground cables run adjacent to internal roads.
116	Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.	✓✓					All excavate material was stored adjacent to excavations and reused for backfilling.
117	Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.	✓✓					Permit: WC/30/5/1/3/2/10191MP
118	Anti-erosion measures such as silt fences must be installed in disturbed areas.	✓✓					Anti-erosion measure such as silt fences and water berms were implemented on site.
Air emissions							
119	Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.	✓✓					Wet suppression was conducted by water bowser trucks.
120	Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.	✓✓					Wet suppression method used for dust suppression.
Historical / cultural / paleontological resources							
121	A 30m buffer must be applied around all identified archaeological sites.	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivities map.
122	After initial vegetation clearance has taken place but before the ground is levelled for construction, a professional palaeontologist must undertake a walkthrough and document any identified paleontological findings. The survey/walkthrough must be conducted as per the South African Heritage Resources Agency (SAHRA) requirements.				-		CTS undertook an initial pre-construction walkthrough in September 2021 as part of the EMPr & Final Layout approval process. PGS Heritage provided a further specialist verification in February 2023 as part of the AM5 road re-alignment. Both the approved EMPr from 2022 and the updated EMPr from 2023 make the following statement: "Specialist palaeontological mitigation for this project is not deemed necessary or recommended. In the unlikely event of a fossil discovery the chance find procedure as detailed above must be implemented and the appropriate provincial authority notified." (Ref 37 on Page 83/84).
123	Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, SAHRA must be informed, and the services of an accredited heritage professional obtained for an assessment of the heritage resources to be made	✓✓					
124	Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may be encountered and the procedures to follow when they find sites.	✓✓					Toolbox talks on heritage matters are conducted as well as a chance find procedure in place.
125	All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and powerlines.	✓✓					Buffers for all sensitivities were included in the final site design.
126	Should any human remains be uncovered during development they must be immediately protected in situ and reported to the heritage authorities or to an archaeologist. The remains will need to be exhumed at the cost of the developer.	✓✓					It was indicated that no remains were uncovered.
127	All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) should be kept out of the buffer zones.	✓✓					Regular toolbox talks were conducted highlighting adherence to no-go areas.
128	The final layout should be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.	✓✓					Final layout plan was approved.
Turbines position							

No.	THE 147 MW BRANDVALLEY WIND ENERGY FACILITY NORTH OF THE TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900) FIRST ISSUE	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
129	The approved turbines must be placed in a manner to avoid all designated, "no-go" areas as well as its buffers.	✓✓					Compliance is demonstrated within the final layout plan, overlain over an environmental sensitivity map
130	The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by botanical and avifaunal specialists.	✓✓					Construction was as per the approved design plan
131	Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro siting of all development activities.	✓✓					Construction was as per the approved design plan
132	Turbines must be positioned in such a way that shadow flicker does not affect any farm buildings.	✓✓					Construction was as per the approved design plan
General							
133.1	A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying- at the site of the authorised activity;	✓✓					
133.2	to anyone on request; and						
133.3	where the holder of the environmental authorisation has a website, on such publicly accessible website.						A dedicated website is available for the facility https://brandvalleywindfarm.energy/
134	National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation, or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.						
		Summary calculation					
		126	0	0	19	8	153 (total no. of conditions)
		✓✓	✓	x	-	-	127 (audited) 26 (NA)
		126	0	0			Audit Score (%) = [(126x2) +(0x1) +(0x1)] / (126x2) x100
		EA Compliance					100%

No.	AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 23 NOVEMBER 2016 FOR THE PROPOSED 140 MW BRANDVALLEY WIND ENERGY SOLAR FACILITY NORTH OF LAINSBURG WITHIN THE LAINSBURG AND WITZENBERG LOCAL MUNICIPALITIES WITH THE WESTERN AND NORTHERN CAPE PROVINCES. (DEA Reference: 14/12/16/3/3/2/900/AM1)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
Date of Authorisation: 14 February 2019							
SCOPE OF AUTHORISATION							
1	Change to the name of the holder of the EA: From Mr Khangelani Methuli Mbanjwa to Dr Kilian Hagerman.					-	
2	To amend the technical specifications of the wind turbines from rotor diameter 140m to <u>rotor diameter up to 160m.</u>					-	
3	To amend the technical specifications of the wind turbines from <u>Hub height from ground level 120m</u> to amend to <u>hub height from ground level to 125m.</u>					-	
4	To amend the technical specifications of the associated wind measuring masts: from 4x120m to <u>4x125m tall wind measuring masts</u> strategically placed.					-	
5	To amend the technical specifications of the wind turbines from generation capacity 1.5 – 4MW to generation capacity 2 – 5.5MW.					-	
6	To amend the layout of the WEF: micro siting of single turbine (number 58) within the development layout.					-	
NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL							
7	In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations 2014, as amended (the EIA regulations), you are instructed to notify all registered and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Departments as well as the provisions regarding the submission of appeals that are contained in the Regulations.	✓✓					The Appeals Directorate received an appeal on 07 March 2019, on behalf of the three appellants, against the amendment decision taken by the Department. A copy of the appeal was provided to the applicant, who submitted a responding statement on 27 March 2019. On 12 April 2019, the appellants submitted an answering statement, and thereafter comments on the grounds of appeal were thereafter received from the Department on 12 April 2019. The appeal was dismissed in a decision document dated 07 August 2019, and the issued EA amendment upheld.

No.	AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 23 NOVEMBER 2016 FOR THE PROPOSED 140 MW BRANDVALLEY WIND ENERGY SOLAR FACILITY NORTH OF LAINSBURG WITHIN THE LAINSBURG AND WITZENBERG LOCAL MUNICIPALITIES WITH THE WESTERN AND NORTHERN CAPE PROVINCES. (DEA Reference: 14/12/16/3/3/2/900/AM1)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
		Summary calculation					
		1	0	0	0	6	7 (total no. of conditions)
		✓✓	✓	x	-	-	7 (audited) 0 (NA)
		1	0	0			Audit Score (%) = [(1x2) +(0x1) +(0x1)] / (1x2) x100
		EA Compliance					100%

No.	AMENDMENT OF THE ENVIRONMENTAL AUTHORSATION ISSUED ON 23 NOVEMBER 2016 FOR THE CONSTRUCTION OF 147MW BRANDVALLEY WIND ENERGY FACILITY WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900/AM3)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
Date of Authorisation: 23 August 2022							
1	Amendment to the authorised number of turbines on page 7 of the EA From 58 wind turbines with a maximum generating capacity of 140MW in total to <u>32 wind turbines</u> with a maximum generating capacity of in total of up to <u>7MW capacity each</u> .	✓✓					These amendments are proposed in order to increase the efficiency of the facility and consequently the economic competitiveness thereof, in turn reducing the electricity tariffs to be charged by the facility which would benefit electricity consumers at large.
2	Amendment to the generation capacity per turbine as specified on page 2 of the EA amendment dated 14 February 2019.From Generating Capacity: 2 – 5MW is hereby amended to generating capacity up to 7MW	✓✓					The increase in generation capacity per turbine is as a result of the advances in turbine technology.
3	Amendment to the area occupied by each turbine and the hard standing area on page 7 of EA. Laydown areas of approximately 70mx50m per turbine (total 20.3ha) is hereby amended to laydown area of approximately 0.45ha per turbine.	✓✓					The increase in generation capacity per turbine to a maximum of up to 7MW will result in a reduced number of turbine positions being utilised on site. The exact orientation, position and dimensions of the hardstands will be subject to minor change pending the final selection of the TSA. The increased maximum allowable size of the hard standing will allow for these changes should they be required.
4	Amendment to the turbine height on page 8 of the EA. From hub height from ground level 120m is hereby amended to 125m.	✓✓					Installing wind turbines generators with a higher hub height will increase the overall performance of the WEF. This amendment will increase the economic competitiveness of the WEF, in turn reding the electricity tariffs to be charged by the facility which would benefit electricity consumers at large.
5	Amendment to the rotor diameter on page 8 of the EA. From rotor diameter 140m is hereby amended to up to 180m.	✓✓					The larger the diameter of swept area/rotor dimeter of swept area/rotor diameter of the blades, the more power, it is capable of extracting from the wind.
6	Amendment to the width of internal roads on page 8 of the EA. From internal roads width to 9mm wide is hereby amended to up to 12m. wide	✓✓					The final layout makes provision for roads with a maximum width of between 9 and 12m to ensure suitable access to site for all required vehicles and equipment.
7	Amendment to the details of construction camp under technical details on page 8 of EA. The following description of the construction camo as indicated on page 8 of the EA is hereby removed from the EA: “Construction camp of 10ha and onsite batching plant of 1ha”	✓✓					The holder of the authorisation has utilised the existing Roggeveld Wind Project construction camp for the Brandvalley WEF. The location of the Roggeveld Wind project construction has been included in the final layout.
8	Removal of the construction camp co-ordinates Construction camp co-ordiantes removed	✓✓					The holder of the authorisation has utilised the existing Roggeveld Wind Project construction camp for the Brandvalley WEF. The location of the Roggeveld Wind project construction has been included in the final layout.
9	Amend the holder of the EA on pages 1,2 and 3 of the EA From Brandvalley Wind Farm (Pty) Ltd to Brandvalley Wind Farm (RF) Ltd	✓✓					Amendment required to an administrative error.
10	Approval of Environmental Management Programme (EMPr) and Layout Map: The EMPr dated 28 June 2022 submitted as part of this application for amendment of the EA, which is submitted to fulfil the requirements of Condition 16 of the EA dated 23 November 2016, as amended and the final layout Map appended under appendix B of the EMPr is hereby approved. The approved EMPr must be implemented and adhered to. This EMPr approval must be read in conjunction with the conditions contained within the abovementioned EA dates 23 November 2016, as amended.	✓✓					

No.	AMENDMENT OF THE ENVIRONMENTAL AUTHORSATION ISSUED ON 23 NOVEMBER 2016 FOR THE CONSTRUCTION OF 147MW BRANDVALLEY WIND ENERGY FACILITY WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900/AM3)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL							
11	In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations 2014, as amended (the EIA regulations), you are instructed to notify all registered and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Departments as well as the provisions regarding the submission of appeals that are contained in the Regulations.	✓✓					Proof of email notifying registered I&APs of amendment.
							Summary calculation
							11 (total no. of conditions)
							11 (audited) 0 (NA)
							Audit Score (%) = [(11x2) +(0x1) +(0x1)] / (11x2) x100
							EA Compliance 100%

No.	AMENDMENT OF THE ENVIRONMENTAL AUTHORSATION ISSUED ON 23 NOVEMBER 2016 FOR THE PROPOSED REALIGNMENT OF SECTIONS B2, B11 AND B16 OF THE INTERNAL ROAD NETWORK TO THE AUTHORISED BRANDVALLEY WIND ENERGY FARM LOCATED NIRTH OF THE TOWN MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE. (DEA Reference: 14/12/16/3/3/2/900/AM5)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
Date of Authorisation: 24 May 2023							
SCOPE OF AUTHORISATION							
1	Change to the name of the holder of the EA: From Dr Kilian Hagerman to Matteo Brambilla	✓✓					The amendment is of an administrative nature in order to update the name and details of the relevant contact person representing the holder of the EA to ensure that the information contained in the EA is up to date and accurate.
2	Minor realignments to the authorised roads B2, B11 and B16, as per the amended layout maps in the Brandvalley WEF – Amendment Motivation report dated April 2023.	✓✓					Safety risks for the transportation of abnormal loads or infrastructure were identified which necessitated the need for the minor design adjustments.
NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL							
	In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations 2014, as amended (the EIA regulations), you are instructed to notify all registered and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Departments as well as the provisions regarding the submission of appeals that are contained in the Regulations.	✓✓					
							Summary calculation
							3 (total no. of conditions)
							3 (audited) 0 (NA)
							Audit Score (%) = [(3x2) +(0x1) +(0x1)] / (3x2) x100
							EA Compliance 100%

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
DATED: 28 JUNE 2022							
Brandvalley Environmental and Social Management System							
1	An ESMS shall be implemented by the project.	✓✓					Correctly implemented, as verified by the ESCO and ESMS reports verified.
2	All the ESMS documents with the EA, EMPr and any other legislated permits will become the management system/tool for the project.					-	Noted
6.Implementation of the EMPr							
6.1 Organisation, Structure and Responsibility							
	Holder of the EA	✓✓					Each of these positions are aware of the specifications, legal constraints pertaining to the project with regards to the environment. Fully conversant with the conditions of the EA and the EMPr.
	Project Manager						
	Site Manager						
	Environmental Officer (EO)						
	Environmental Site Compliance Officer (ESCO)						
	Environmental Control Officer (ECO)						
	Contractors, Staff and Service Providers						
6.2 Reporting							
6.2.1	Before the contractor begins each construction activity, the contractor shall give to the ECO and Project Manager a written Method Statement setting out the following:	✓✓					A sample of Methods statements were reviewed as proof of compliance
	The type of construction activity. — Locality where the activity will take place. — Identification of impacts that might result from the activity. — Identification of activities or aspects that may cause an impact. — Methodology and/or specifications for impact prevention for each activity or aspect. — Methodology and/or specifications for impact containment for each activity or aspect. — Emergency/disaster incident and reaction procedures; and — Treatment and continued maintenance of impacted environment.	✓✓					
6.2.2	The contractor shall undertake ‘good housekeeping’ practices during construction.	✓✓					
6.2.3	The ESCO and the ECO will continuously monitor the contractor’s adherence to the approved impact prevention procedures and the ESCO or ECO shall issue to the contractor a notice of non- compliance whenever transgressions are observed. This should be documented to record the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions.	✓✓					
6.2.4	The contractor shall ensure that documents are periodically reviewed and revised, where necessary, and that current versions are available at all locations where operations essential to the functioning of the EMPr are performed. All documents shall be made available to the independent external auditor.	✓✓					
6.2.5	The ESCO and/or ECO must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.	✓✓					
	The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness.	✓✓					Awareness training material and toolbox talks verified and well as attendance registers.
	Contractor shall provide evidence that such induction courses have been presented. If required, the ESCO can assist with presenting these environmental induction courses.	✓✓					
6.2.6	The contractor shall comply with the emergency preparedness and incident and accident reporting requirements, as required by the Occupational Health and Safety Act (OHSA, Act No. 85 of 1993) and the 2014 Construction Regulations (GN R 84), the NEMA (Act No 107 of 1998), the National Water Act (Act No. 36 of 1998) and the National Veld and Forest Fire Act (Act No. 101 of 1998) as amended and/or any other relevant legislation.	✓✓					Contractors has all the required emergency preparedness plans in place.
6.2.7	Non-compliance with the specifications of the EMPr and/or conditions of the EA, both of which will be present on-site at all times, constitutes a breach of contract for which the Contractor may be liable to pay penalties to be determined by the ESCO, for approval by the ECO, and implementation by the Project Manager. The contractor shall act immediately when a notice of non-compliance is received and correct whatever was the cause for the issuing of the notice. The ECO’s decision with regard to what is considered a violation, its seriousness, and the action to be taken against the contractor shall be final. Failure to redress the cause shall be reported to the relevant authority. The responsible provincial or national authorities shall ensure compliance and impose penalties relevant to the transgression as allowed for within its statutory powers.	✓✓					Penalty system in place
	The Contractor will ensure that a dedicated complaints register is kept on site at all times. The register will contain the details of the person who made the complaint, the nature of the complaint received, the date on which the complaint was made, and the response noted with the date and action taken. The register will be kept in accordance with the requirements of the ECO. This record shall be submitted with the monthly reports and an oral report given at the monthly site meetings.	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	Ongoing visual inspections will be conducted daily by the ESCO. The ESCO will spend the bulk of his/her time on site on the lookout for any unsafe acts and activities that transgress the requirements as specified in the EMPr. The ESCO compiles the site register, and the ECO maintains the complaints register and any other records required in the environmental authorisation (the ESCO would also have input into this as well, as he/she would be site based).	✓✓					The ESCO undertakes daily inspections and documents the daily observations.
	The ESCO and ECO shall be authorised to impose spot fines for any of the transgressions detailed below: — Littering on site. — Lighting of illegal fires on site. — Any persons, vehicles or equipment related to the contractor's operations found within the designated 'no go' areas (especially for significant cultural resources such as nearby graves etc.). — Creating dust or noise. — Possession or use of intoxicating substances or weapons on site. — Trapping, hunting, or trading of fauna and / or plants on site. — Any vehicles being driven in excess of designated speed limits. — Unauthorised removal and/or damage to fauna, flora or cultural or heritage objects on site; and — Urination and defecation anywhere other than using the toilet facilities that have been provided. These activities, along with the appropriate guidelines to determining the fines, shall be agreed to by Brandvalley Wind Farm (Pty) Ltd, the Project Manager and the Contractor. Such fines will be issued in addition to any remedial costs incurred as a result of non-compliance with the environmental specifications and or legal obligations. Brandvalley Wind Farm (Pty) Ltd will inform the contractor of the contravention and the amount of the fine.	✓✓					
	Where environmental damage is caused or a pollution incident, and/or failure to comply with any of the environmental specifications contained in the EMPr, the Contractor shall be liable to pay a penalty fine. The following transgressions should be penalised: — Hazardous chemical/oil spill. — Damage to sensitive environments. — Damage to cultural and historical sites. — Unauthorised removal/damage to indigenous trees and other vegetation, particularly in identified sensitive areas. — Uncontrolled/unmanaged erosion. — Unauthorised blasting activities; and — Violation of environmental authorisation conditions.	✓✓					Fines have been imposed for environmental damage.
	Where the monitoring data and the inspections highlight any problems, an internal audit will be initiated by the ECO. The purpose of the audit is to ascertain the source of the problem and to define what action shall be taken to rectify the problem and prevent its reoccurrence. Audit reports shall conform to the requirements as per the 2014 EIA regulations					-	
	If a leakage or spillage of hazardous substances occurs on site, the local emergency services must be immediately notified of the incident (within 24 hours). The following information must be provided: — The location. — The nature of the load; and — The status at the site of the accident itself (i.e. whether further leakage is still occurring, whether the vehicle or the load is on fire). Written records must be kept on the corrective and remedial measures decided upon and the progress achieved therewith over time. Such progress reporting is important for monitoring and auditing purposes. The written reports may be used for training purposes in an effort to prevent similar future occurrences.					-	
	Verbal instructions are likely to be the most frequently used form of corrective action and are given in response to transgressions that are evident during routine site inspections by the ESCO and/or ECO. Verbal instructions are also used to create further awareness amongst employees as often transgressions are a function of ignorance rather than vindictiveness. Workers must obey verbal instructions through formally recording the actions taken to resolve the matter so that the instruction could be successfully finalised and recorded. Maximum allowable response time: two working days.	✓✓					This is implemented by the ESCO during the daily interactions with various contractors on site.
	Written instructions will be given following an audit. The written instructions will indicate the source or sources of the problems identified on site and propose solutions to those problems. The implementation of solutions will be assessed in a follow-up audit and further written instructions issued if required. Maximum allowable response time: four working days.	✓✓					
	During the construction phase of the project, the contractor shall be responsible for erecting information boards, in the position, quantity, design and dimensions approved by the Project Manager. The information boards shall contain relevant information regarding the construction activity and the relevant contact details to assist persons who wish to submit complaints regarding construction activities.	✓✓					
6.3 Review and Amendment of the EMPr							
	A formal management review needs to be conducted on a regular basis in which the audit reports written by the ECO based on frequent inspections and interactions with the ESCO, will be reviewed. The purpose of the review is to critically examine the effectiveness of the EMPr and its implementation and to decide on potential modifications to the EMPr as and when necessary. The process of management review is in keeping with the principle of continual improvement.					-	Not yet required

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
7 Environmental Specifications for the Project Lifecycle							
7.1	Planning and Design Phase Mitigation Measures						
	NO LONGER APPLICABLE						
7.2	CONSTRUCTION PHASE MITIGATION MEASURES						
20	Environmental training and awareness						
	The Contractor shall inform all staff of the need to be vigilant against any practice that will have a harmful effect on vegetation. This information shall form part of the Environmental Education Programme to be effected by the Contractor.	✓✓					
	All staff shall attend environmental awareness training.	✓✓					
	Proof of attendance for all staff members shall be submitted by the Contractor to the ESCO.	✓✓					Attendance registers verified
	Refresher courses for permanent staff members shall be attended on a regular basis as required by the ECO and Project Manager.	✓✓					
	All personnel should undergo environmental induction with regards to fauna and in particular awareness about not harming or collecting species such as snakes, tortoises and owls which are often persecuted out of superstition.	✓✓					
21	Habitat clearance						
	The natural vegetation encountered on the site is to be left as intact as far as possible.	✓✓					Habitat clearances monitored by the ESCO where required
	A flora and fauna search and rescue (relocation) must be undertaken before commencement of vegetation clearing.	✓✓					
	Keep removal of vegetation to a minimum. All vegetation clearing must be done in a phased manner.	✓✓					
	Vegetation to be cleared on a needs basis to avoid large tracks of land laying bare for long periods of time	✓✓					
	All no-go areas as indicated in the sensitivity map included in the previous chapters, must be avoided, demarcated if works are proposed in close proximity.	✓✓					
	Ongoing re-vegetation of disturbed areas no longer used must be undertaken with indigenous species and in accordance with the instructions issued by the ECO.	✓✓					
	An approved Method Statement shall be in place prior to clearing the natural vegetation and soil.	✓✓					
	The contractor shall be responsible for the re-establishment of vegetation all areas disturbed during construction, operation and decommissioning phases.	✓✓					
	Minimise the development footprint as far as possible and rehabilitate disturbed areas that are no longer required by the operational phase of the development.	✓✓					
	The illegal collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden by anyone expect landowners with the appropriate permits where required.	✓✓					
	A low cover of vegetation should be left wherever possible within the construction footprint to bind the soil, prevent erosion and promote post disturbance recovery of an indigenous ground cover.	✓✓					
	All cleared areas should be revegetated with indigenous perennial shrubs and grasses from the local area. These can be cut when dry and placed on the cleared areas if natural recovery is slow.	✓✓					
	All construction vehicles should adhere to a low-speed limit (40km/h for cars and 30km/h for trucks) to avoid collisions with susceptible species such as snakes and tortoises and rabbits or hares. Speed limits should apply within the facility as well as on the public gravel access roads to the site.	✓✓					
	All disturbed and cleared areas should be revegetated with indigenous perennial shrubs and grasses from the local area.	✓✓					
	All erosion problems observed should be rectified as soon as possible, using the appropriate erosion control structures and revegetation techniques	✓✓					
	All hazardous materials should be stored in the appropriate manner to prevent contamination of the site. Any accidental chemical, fuel and oil spills that occur at the site should be cleaned up in the appropriate manner as related to the nature of the spill.	✓✓					
	All roads and other hardened surfaces should have runoff control features which redirect water flow and dissipate any energy in the water which may pose an erosion risk.	✓✓					
	Any potentially dangerous fauna such snakes or fauna threatened by the maintenance and operational activities should be removed to a safe location.	✓✓					As and when required.
	Avoid impact to potential corridors such as the riparian corridors associated with the larger drainage lines within the facility area.	✓✓					
	Demarcate all areas to be cleared with construction tape or similar material. However, caution should be exercised to avoid using material that might entangle fauna.	✓✓					
	Disturbance near to drainage lines should be avoided and sensitive drainage areas near to the construction activities should demarcated as no-go areas.	✓✓					
	During construction any fauna directly threatened by the construction activities should be removed to a safe location by the ECO or other suitably qualified person.	✓✓					
	Dust suppression and erosion management should be an integrated component of the construction approach.	✓✓					Implemented daily
	Ensure that lay-down and other temporary infrastructure is within low sensitivity areas, preferably previously transformed areas if possible.	✓✓					
	Erosion management at the site should take place according to the Erosion and Rehabilitation Plan.	✓✓					
	If any parts of site such as construction camps must be lit at night, this should be done with low-UV type lights (such as most LEDs), which do not attract insects, and which should be directed downwards.	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	If parts of the facility are to be fenced, then no electrified strands should be placed within 30cm of the ground as some species such as tortoises are susceptible to electrocution from electric fences as they do not move away when electrocuted but rather adopt defensive behaviour and are killed by repeated shocks. Alternatively, the electrified strands should be placed on the inside of the fence and not the outside.				-		No electrified fencing on site
	No dogs or cats should be allowed on site apart from that of the landowners.	✓✓					
	No fires should be allowed within the site as there is a risk of runaway veld fires.	✓✓					
	No fuelwood collection should be allowed on-site.	✓✓					
	No unauthorized persons should be allowed onto the site and site access should be strictly controlled and vehicles which need to roam around the site should be accompanied by the ECO or security personnel.	✓✓					Security access-controlled entrances on site.
	Sediment traps may be necessary to prevent erosion and soil movement if there are topsoil or other waste heaps present during the wet season.					-	
	The illegal collection, hunting or harvesting of any plants or animals at the site should be strictly forbidden. Personnel should not be allowed to wander off the construction site.	✓✓					
	Wherever excavation is necessary for decommissioning, topsoil should be set aside and replaced after construction to encourage natural regeneration of the local indigenous species	✓✓					
	Due to the disturbance at the site as well as the increased runoff generated by the hard infrastructure, alien plant species are likely to be a long-term problem at the site and a long-term control plan will need to be implemented. Problem woody species such as Prosopis are already present in the area and are likely to increase rapidly if not controlled.				-		
	Regular alien clearing should be conducted using the best-practice methods for the species concerned. The use of herbicides should be avoided as far as possible.	✓✓					Regular alien clearing in place.
	Regular monitoring for alien plants within the development footprint as well as adjacent areas which receive runoff from the facility as there are also likely to be prone to invasion problems.	✓✓					
	Regular monitoring for erosion problems along the access roads and other cleared areas.	✓✓					
	Runoff management and erosion control should be integrated into the project design	✓✓					Correctly implemented.
22	Alien invasive species						
	Any proclaimed weed or alien species that germinates during the contract period shall be managed according to the alien invasive management plan (see Chapter 8 of the EMPr)	✓✓					Regular monitoring by the ESCO
	A strict monitoring plan must be implemented to prevent the additional spread and the continued removal of alien species, which were already present on site or that become established on areas that were disturbed during construction.	✓✓					
23	Construction activities disturbing fauna						
	During construction, sensitive habitats must be avoided by construction vehicles and equipment, wherever possible. Only necessary damage may be caused and, for example, unnecessary driving around in the veld or bulldozing natural habitat outside of the development footprint are not allowed.	✓✓					All permits obtained prior to construction commencing. Monitoring weekly by the ESCO
24	Solid and liquid waste						
	The Contractor's intended methods for waste management and waste minimisation must be implemented at the outset of the contract, and approved by the ECO.	✓✓					
	All personnel shall be instructed to dispose of all waste in the proper manner. Contractors must also provide disposal records to prove that waste was not just dumped somewhere. These disposal certificates must be kept on file by the ESCO.	✓✓					
	No waste from construction or otherwise, may be disposed of or burned on site.	✓✓					
	Hazardous waste must be managed as per the Hazardous substances plan below (Chapter 9).	✓✓					
	All waste generated on site, must be removed from the site and disposed of at a licensed waste disposal site. In this regard, adequate litter drums or other suitable containers must be located on site to ensure that waste generated on site is disposed of in suitable and timeous manner.	✓✓					
	Where possible, some of the construction waste should be recycled.	✓✓					
	Solid waste shall be stored in a designated area within the site area in covered, tip proof drums for collection and final disposal or recycling.	✓✓					
	All refuse containers must be free of any holes and in good condition. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the ESCO and/or ECO.	✓✓					
	As far as possible, general waste (including paper, glass, plastics, aluminium, etc.) shall be sorted for recycling.	✓✓					
	Any water contaminated by cement shall not be allowed to flow freely into the environment. Instead, it must be contained, and solids allowed to settle out. Thereafter, the solid material shall be disposed of to a landfill site with other solid waste.	✓✓					
	Hazardous waste such as bitumen, oils, oily rags, paint tins, chemicals etc. Shall be disposed of at a registered hazardous landfill site. Special care should be taken to avoid spillage of hazardous waste from entering the ground or contaminating water. In the event of the above occurring, the affected areas shall be promptly cleaned to the satisfaction of the ESCO/ECO. Spill kits to be kept onsite.	✓✓					
	In the event of a substantial spill, the ECO and Project Manager shall be notified immediately to provide input as required to the corrective action.	✓✓					
	As far as possible, maintenance of machinery and vehicles on site should be avoided. Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery should be collected in a holding tank and returned to the supplier.	✓✓					

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	The Contractor shall ensure that an emergency preparedness plan is in place for implementation in the case of a spill or substances which can be harmful to an individual or the receiving environment.	✓✓					
	All used filter materials should be stored in a secure bin for disposal off site. Hazardous waste shall not be stored or stockpiled in any area other than that designated on the construction site layout.	✓✓					
	Any contaminated soil should be removed and replaced. Soils contaminated by oils and lubricants should be collected and disposed of at a facility registered to accept contaminated materials.	✓✓					
	Washing of vehicles on the construction site should not be permitted as this is likely to result in release of hydrocarbon-contaminated wash water into the environment.	✓✓					
	Storage areas must be located more than 50 m away from the watercourse.	✓✓					
25	Litter						
	No littering by construction workers must be allowed.	✓✓					Litter picks up runs on the site are undertaken by the contractors and rotated between them.
	During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter. Fines shall be implemented for persons found littering.	✓✓					
	Clean-ups shall be undertaken if required	✓✓					
	Measures shall be taken by the Contractor to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse.	✓✓					
	At all places of work, the Contractor shall provide litter collection facilities for later safe disposal at registered waste disposal site.	✓✓					
26	Safety						
	No open fires should be permitted on the site.	✓✓					
	Where fires are unavoidable, the Contractor shall ensure the management of fires emanating from construction camps and that education of the work force concerning management of fires is undertaken.	✓✓					
	The Contractor shall ensure that campfires at construction sites are strictly controlled to ensure that no veld fires are caused. This is especially important where fires may affect sensitive habitats.	✓✓					
	Fires shall only be allowed in facilities or equipment specially constructed for this purpose and these must be located in areas that are sheltered from the prevailing winds.	✓✓					
	No smoking outside of designated smoking areas.	✓✓					
	Firefighting equipment must be present on site at all times.	✓✓					
	A firebreak shall be cleared and maintained around the perimeter of the camp and office sites at all times. The location of this firebreak shall be decided with input from a local botanist and the ECO.	✓✓					
	If parts of the facility are to be fenced, then no electrified strands should be placed within 30cm of the ground as some species such as tortoises are susceptible to electrocution from electric fences as they do not move away when electrocuted but rather adopt defensive behaviour and are killed by repeated shocks. Alternatively, the electrified strands should be placed on the inside of the fence and not the outside				-		
	Ensure that all personnel are aware of the fire risk and the need to extinguish cigarettes before disposal, in appropriate waste disposal container.	✓✓					
	The risk of fire is highest in the late summer and autumn months, during high wind velocities and dry periods. To avoid and manage fire risk the following steps should be implemented:	✓✓					
	Have on site fire-fighting equipment and ensure that all personnel are educated how to use it and procedures to be followed in the event of a fire.	✓✓					
	Identify the relevant authorities and structures responsible for fighting fires in the area and shall liaise with them regarding procedures should a fire commence.	✓✓					
	Ensure that all the necessary telephone numbers etc. are posted at conspicuous and relevant locations in the event of an emergency.	✓✓					
	Should a contractor be found responsible for the outbreak of a fire, he shall be liable for any associated costs.	✓✓					
	No open fires shall be allowed on site for the purpose of cooking or warmth. Bona fide braai fires (such braai fires shall be limited to the traditional "month end" braais and not individual daily cooking fires) may be lit within the construction camp or site.	✓✓					
	The Contractor shall take all reasonable steps to prevent the accidental occurrence or spread of fire.	✓✓					
	The Contractor shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire.	✓✓					
	The Contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire. The appointed fire officer shall notify the Fire and emergency Services in the event of a fire and shall not delay doing so until such time as the fire is beyond his / her control.	✓✓					
	The Contractor shall ensure that there is basic fire-fighting equipment on site at all times. This equipment shall include fire extinguishers and beaters. The Contractor shall pay the costs incurred by organisations called to put out fires started by himself/herself, his/her staff or any sub-contractor. The Contractor shall also pay the costs incurred to reinstate burnt areas as deemed necessary by the PM.	✓✓					
	Any work that requires the use of fire may only take place at that designated area and as approved by the PM. Fire-fighting equipment shall be available in these areas.	✓✓					
	The Contractor shall ensure that the telephone number of the local Fire and Emergency Service are displayed at the site offices.	✓✓					

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	The Independent Contractor is to ascertain the fire requirements and shall submit a fire contingency plan Method Statement to the PM and ECO.	✓✓					
27	Topsoil						
	Topsoil shall be removed from all areas where physical disturbance of the surface would occur and shall be stored and adequately protected.	✓✓					
	Topsoil is considered to be the natural soil covering, and to include all organic matter. Depth may vary at each site and must be determined on a site-specific basis and removed accordingly. The areas to be cleared of topsoil shall include the storage areas and site camps.	✓✓					
	All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds (only) appearing on the stockpiled topsoil shall be removed by hand and disposed of appropriately. The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water such that damming or erosion is caused, or itself be eroded through the action of water.	✓✓					
	Stockpiles of topsoil shall not exceed a height that is unstable, and if they are to be left for longer than 6 months shall be analysed and, if necessary, nutrient levels replenished before replacement.	✓✓					
	The Contractor shall ensure that minimal amounts of topsoil are lost due to erosion, either by wind or water. This can be facilitated through the grassing of topsoil stockpiles. Areas to be top-soiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns.	✓✓					
28	Surface water features						
	The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities.	✓✓					
	Before a site is developed or expanded, the effect on the drainage pattern as a result of this development or expansion shall be established.	✓✓					
	The boundaries of footprint areas, including contractor laydown areas, are to be clearly defined and it should be ensured that all activities remain within defined footprint areas. Edge effects will need to be extremely carefully controlled.	✓✓					
	Wetlands, rivers and river riparian areas must be treated as "no-go" areas and appropriately demarcated as such, as required in the EA conditions. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.	✓✓					
	Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and in wetland areas and this awareness must be promoted throughout the construction phase.	✓✓					
	Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.	✓✓					
	Freshwater ecosystems located in close proximity to the construction areas must be inspected on a regular basis by the ECO for signs of disturbance and pollution from construction activities. If signs of disturbance, sedimentation or pollution are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.	✓✓					
	All construction camps, laydown areas, batching plants and storage areas must be more than 50m from any demarcated water courses	✓✓					
	Recognised water users/receivers must not be adversely affected by the expansion or re-development.					-	
	If construction areas are to be pumped of water (e.g. after rains), this water must be pumped into an appropriate settlement area, and not allowed to flow into any rivers or wetland areas.				-		
	Wetlands, rivers and river riparian areas must be treated as "no-go" areas and appropriately demarcated as such, as required in the EA conditions. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.	✓✓					
	During construction the Contractor shall protect areas susceptible to erosion by installing necessary temporary and permanent drainage works as soon as possible and by taking other measures necessary to prevent the surface water from being concentrated in streams and from scouring the slopes, banks or other areas.	✓✓					
	All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.	✓✓					
	The Contractor shall submit in writing to the Project Manager and ECO his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature, or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff such that they function correctly under heavy rain conditions.	✓✓					
	Measures shall be put in place to protect the hill slopes on site against erosion as a precaution in areas affected by the exposing of unconsolidated soils during construction of the wind energy facility.	✓✓					
	Storage containers must be regularly inspected so as to prevent leaks.	✓✓					
	Weather forecasts from the South African Weather Bureau of up to 7 days in advance must be monitored on a weekly basis to avoid exposing soil or building works or materials during a storm event and appropriate action must be taken in advance to protect construction works should a storm event be forecasted.	✓✓					
	All construction materials including fuels and oil should be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination. Washing and cleaning of equipment should also be done in berms or bunds, in order to trap any cement and prevent excessive soil erosion.	✓✓					

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	Mechanical plant and bowzers must not be refuelled or serviced within or directly adjacent to any channel. It is therefore suggested that all construction camps, lay down areas, batching plants or areas and any stores should be more than 50m from any demarcated water courses.	✓✓					
	All solid waste collected must be disposed of at a registered waste disposal site. A certificate of disposal must be obtained and kept on file. The disposal of waste must be in accordance with all relevant legislation. Under no circumstances may solid waste be burnt or buried on site.	✓✓					
	All hazardous chemicals as well as stockpiles should be stored on bunded surfaces and have facilities constructed to control runoff from these areas	✓✓					
	It must be ensured that all hazardous storage containers and storage areas comply with the relevant SABS standards to prevent leakage.	✓✓					
	An incident/complaints register must be established and maintained on-site.	✓✓					
	Any excavation, including those for cables, must be supervised by the ESCO and communicated to the ECO for verifying and confirmation. Disturbance of vegetation and topsoil must be kept to a practical minimum.	✓✓					The ESCO monitors this work activity on a daily basis.
	Any spills must immediately receive the necessary clean-up action. If required, bioremediation kits are to be kept on-site and used to remediate any spills that may occur. Appropriate arrangements to be made for appropriate collection and disposal of all cleaning materials, absorbents and contaminated soils (in accordance with a waste management plan).	✓✓					
	Any storage and disposal permits/approvals which may be required will be obtained, and the conditions attached to such permits and approvals must be complied with.	✓✓					
	Appropriate ablution facilities should be provided for construction workers during construction and on-site staff during the operation of the facility, and all waste removed to an appropriate waste facility.	✓✓					
	Construction contractors must provide specific detailed waste management plans to deal with all waste streams	✓✓					Contractors have waste management plans in place.
	Construction equipment must be refuelled within designated refuelling locations, or where remote refuelling is required, appropriate drip trays must be utilised.	✓✓					Fuelling occurs at aboveground diesel storage tanks located in the main contractors site camp. An environmental authorisation is in place for this activity.
	Construction machinery must be stored in an appropriately sealed area.	✓✓					
	Corrective action must be undertaken immediately if a complaint is received, or potential/actual leak or spill of polluting substance identified. This includes stopping the contaminant from further escaping, cleaning up the affected environment as much as practically possible and implementing preventive measures.	✓✓					
	Disposal of waste must be in accordance with relevant legislative requirements, including the use of licensed contractors.	✓✓					
	Documentation (waste manifest) must be maintained detailing the quantity, nature and fate of any hazardous waste.	✓✓					
	Fuel storage areas must be inspected regularly to ensure bund stability, integrity and function.	✓✓					
	Hazardous and non-hazardous waste must be separated at source. Separate waste collection bins must be provided for this purpose. These bins must be clearly marked and appropriately covered.	✓✓					
	Hydrocarbon waste must be contained and stored in sealed containers within an appropriately bunded area.	✓✓					
	Identify and demarcate construction areas for general construction work and restrict construction activity to these areas. Prevent unnecessary destructive activity within construction areas (prevent over-excavations and double handling)	✓✓					
	Improve the current stormwater and energy dissipation features not currently found along the tracks and roads within the region	✓✓					
	In the event of a major spill or leak of contaminants, the relevant administering authority must be immediately notified as per the notification of emergencies/incidents.					-	
	Install properly sized culverts with erosion protection measures at the present road / track crossings	✓✓					
	Manage grazing or exclude livestock from watercourses that are showing signs or erosion or bank instability.					-	
	Oily water from bunds at the substation must be removed from site by licensed contractors					-	
	Routine servicing and maintenance of vehicles is not to take place on-site (except for emergency situations or large cranes which cannot be moved offsite). If repairs of vehicles must take place on site, an appropriate drip tray must be used to contain any fuel or oils.	✓✓					
	Specific areas must be designated on-site for the temporary management of various waste streams, i.e. general refuse, construction waste (wood and metal scrap) and contaminated waste. Location of such areas must seek to minimise the potential for impact on the surrounding environment, including prevention of contaminated runoff, seepage, and vermin control.	✓✓					
	Stockpile topsoil for re-use in rehabilitation phase. Maintain stockpile shape and protect from erosion. All stockpiles must be positioned at least 50 m away from water courses. Limit the height of stockpiles as far as possible in order to reduce compaction.	✓✓					
	Storage areas must be located more than 50 m away from the watercourse.	✓✓					
	Strict control over the behaviour of construction workers.	✓✓					
	Strict management of potential sources of pollution (e.g. litter, hydrocarbons from vehicles & machinery, cement during construction, etc.).	✓✓					
	In the event of a vehicle breakdown, maintenance of vehicles must take place with care and the recollection of spillage should be practiced near the surface area to prevent ingress of hydrocarbons into topsoil and subsequent habitat loss.	✓✓					
	During construction of the surface infrastructure within the 100 m/500m GN509 Zone of Regulation (but outside the watercourses), regular spraying of non-potable water or the use of chemical dust suppressants, that are approved for use near watercourses must be implemented to reduce dust and to ensure no	✓✓					

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	smothering of vegetation within the watercourses occurs from excessive dust settling. It must be noted that specifics as to what type of dust suppressant (grey water vs. chemical dust suppressant) that will be utilised as part of the proposed development was not available at the time of assessment. Should this detail become available, it is recommended that the freshwater ecologist provide a statement on the suitability of the use of the proposed dust suppressant;	✓✓					
	The watercourses outside the construction footprint not having authorised road crossings must be considered as no-go areas. No construction vehicles, nor construction personnel or vehicles may traverse through these watercourses (except on approved road crossings);	✓✓					
	As far as possible, existing roads must be utilised to gain access to sites	✓✓					
	Contractor laydown areas, and material storage facilities to remain outside of the 100 m/500 m GN509 ZoR	✓✓					
	All vehicle re-fuelling is to take place outside of the 100 m/500 m GN509 ZoR;	✓✓					
	No vegetation may be removed from the 100 m/500 m GN509 ZoR surrounding the watercourse where no infrastructure is planned, as this provides a natural buffer zone around the watercourses which disperse surface runoff into the watercourses, and thus prevents sedimentation and erosion thereof.	✓✓					
	The reaches of the watercourses where no activities are planned to occur must be considered no-go areas. These no-go areas can be marked at a maximum distance of 5 m upstream and downstream of the proposed road upgrade crossing. This 5 m buffer area would allow for construction personal, vehicles (if applicable) to enter the watercourse crossing where the road is proposed to be upgraded					-	
	Strict use and management of all hazardous materials used on site.	✓✓					
	Supply waste collection bins at construction equipment and construction crew camps.	✓✓					
	The storage of flammable and combustible liquids such as oils must be in designated areas which are appropriately bunded, and stored in compliance with MSDS files, as defined by the SHE Representative / ECO.	✓✓					
	Transport of all hazardous substances must be in accordance with the relevant legislation and regulations.	✓✓					
	Vegetation clearing should occur in a phased manner in accordance with the construction programme to minimise erosion and/or run-off. Large tracts of bare soil will either cause dust pollution or quickly erode and then cause sedimentation in the lower portions of the catchment.	✓✓					
	Waste and surplus dangerous goods must be kept to a minimum and must be transported by approved waste transporters to sites designated for their disposal.	✓✓					
	Waste disposal records must be available for review at any time.	✓✓					
	Where possible, construction and general wastes on-site must be reused or recycled. Bins and skips must be available on-site for collection, separation, and storage of waste streams (such as wood, metals, general refuse etc).	✓✓					
29	Excavation, hauling and placement						
	The contractor shall provide the Project Manager and ECO with detailed plans of his intended construction processes prior to starting any excavations.	✓✓					
	The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment, including nearby houses.	✓✓					
	The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity.	✓✓					
	Minimize earthworks and fills.	✓✓					
	With regards to ground-breaking activities outside the delineated extent of a watercourse, but within the 100 m/500 m GN509 ZoR: — • During excavation activities, the topsoil and vegetation should be stockpiled separately from other material outside the delineated extent of the watercourses. — • Excavated materials should not be contaminated, and it should be ensured that the minimum surface area is taken up by any stockpiled materials. The mixture of the lower and upper layers of the excavated soil should be kept to a minimum, so as for later use as backfill material after construction has commenced. — • All exposed soils must be protected from wind using tarpaulins for the duration of the construction phase to prevent potential erosion and sedimentation of the watercourses. — • Suitable drainage should be insured along the crane pads and specifically the construction camp (associated with an existing furrow connected to natural watercourses), in order to ensure that water does not pond or drain in a concentrated manner into the nearby watercourses. This must be considered as part of the stormwater management plan and be overseen by a freshwater ecologist. Construction of the proposed surface infrastructure may result in disturbance to the natural buffer zone surrounding the watercourses which may result in the reduction of surface roughness. This can be mitigated by ensuring that no concentrated runoff from the surface infrastructure construction areas enter the watercourses by installing silt traps or placing haybales down gradient of the construction footprint (until suitable basal vegetation cover has been restored) to ensure no sediment laden or concentrated runoff generates from the construction footprint; and — It is highly recommended that an alien vegetation management plan be compiled during the planning phase and implemented concurrently with the commencement of construction.	✓✓					
	Use existing road network and access tracks.	✓✓					
	Rehabilitation of affected areas (such as revegetation, mechanical	✓✓					

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	stabilization). Correct engineering design and construction of gravel roads and water crossings. Control stormwater flow						
30	Spoil sites						
	The Contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used, proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the Project Manager for review and ECO for approval	✓✓					Zero spoil sites within 500m of drainage channels or water features for construction phase; Monthly ECO monitoring
	No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after revegetation.	✓✓					
	The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited. The same shall apply for the disposal of solid waste generated from the various camp establishments.	✓✓					
	Ideally, the storage of excavated material on site should be minimised to avoid unnecessary impacts to the local environment. As soon as practical after excavation, if not simultaneously, all excavated material that is not required for construction or rehabilitation shall be removed from the site for disposal at an appropriate location. This location must be agreed between the Holder of the EA, Project Manager and local municipal officials prior to initiation of excavation.	✓✓					
31	Stockpiles						
	The Contractor shall plan his activities so that excavated materials, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the Project Manager and ECO for their approval, together with the Contractor's proposed measures for prevention, containment, and rehabilitation against environmental damage. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are: — Positioned and sloped to create the least visual impact. — Constructed and maintained so as to avoid erosion of the material, generation of dust and contamination of surrounding environment; and — Kept free from all alien/undesirable vegetation.	✓✓					
	No stockpiling of topsoil is to take place within the recommended buffer zone around the watercourses (unless specified otherwise), and all stockpiles must be protected with a suitable geotextile to prevent sedimentation of the watercourses.	✓✓					
32	Blasting						
	Wherever blasting activity is required on the site the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shockwaves and expected limits of fly-rock to the Project Manager for review and ESCO and ECO for approval.				-		
	The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard, but to ensure due regard was applied satisfactorily prior to blasting commencing.				-		
	The Contractor shall also indicate to the Project Manager the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast. The Contractor shall be responsible for obtaining all necessary permits required for blasting activities.				-		
33	Batching						
	Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the DFFE, regardless of where they are sited.				-		
	Crushing plants and concrete batching plants shall be subject to the requirements of the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the ECO and relative authorities during the life of the project. The Contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities and linings to drainage channels. All sites shall adhere to the following requirements:				-		
34	Spillages						
	Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.	✓✓					
	Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her ESCO, ECO or to the Project Manager.	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	The ESCO will assess the situation in consultation with the Project Manager and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the ESCO, ECO and the Project Manager. Areas cleared of hazardous waste shall be re-vegetated according to the Project Manager's instructions	✓✓					
	Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the Project Manager. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.	✓✓					
35	Dust						
	Appropriate dust-suppression techniques as approved by the Project Manager and ECO shall be implemented on all exposed surfaces during periods of high wind. Such measures shall include wet suppression, chemical stabilisation, use of wind fence covering surfaces with straw or chippings, and the re-vegetation of open areas.	✓✓					
	Water used for dust suppression must be applied in quantities small enough not to generate run-off and result in soil erosion.	✓✓					
	Mitigation actions such as the reduction of vehicle speed and proper signage shall also be implemented.	✓✓					
	Blasting must be restricted to periods of calm wind conditions to minimise the potential for dust dispersion.	✓✓					
	Vegetation cover should be maintained, and vegetation cover only removed until such time as soil stripping is required.	✓✓					
	Exposed soil that has the potential for generating dust shall be re-vegetated or stabilised as soon as possible after construction work is completed or kept damp until re-vegetation occurs.	✓✓					
	Excavation, handling and transport of topsoil and spoil shall be avoided during periods of excessive wind as far as possible.	✓✓					
	Adequate water carts shall be available on site to meet demands throughout the duration of the contract.	✓✓					
	The Contractor shall ensure that loose building materials and excavated material stockpiles are adequately protected against the wind by a covering of some description, such as canvas.	✓✓					
	Stockpiles may also be dampened to minimise dust generation.	✓✓					
	Construction vehicles and machinery will be serviced on a monthly basis, with a major service every six months.	✓✓					
	Construction vehicles and machinery shall be inspected for excessive emissions.	✓✓					
36	Archaeological heritage and palaeontological sites						
	All resulting micro-sitting mitigation measures identified during the Brandvalley WEF heritage walkdown must be strictly adhered to.	✓✓					Zero damage to heritage resources throughout construction phase.
	If the layout of the turbines, roads and other associated infrastructure proposed for the Northern Cape section of the development is altered, a heritage walk-down including a palaeontological walk-down must be conducted prior to construction.	✓✓					
	A Walk-Down report must be submitted to SAHRA for comment. No construction may commence without comments from SAHRA;	✓✓					
	If any evidence of archaeological sites or remains (e.g. remnants of stonemade structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal, and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted.					-	
	If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Itumeleng Masiteng/Mimi Seetelo 012 320 8490), must be alerted immediately.					-	
	A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings.					-	
	If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required					-	
	If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Project Manager of such discovery.					-	
	The South African Heritage Resources Agency (SAHRA) or Heritage Western Cape (HWC) shall be contacted, and they will appoint an archaeological consultant to record the site and excavate if necessary. Work may only resume once clearance is given in writing by the archaeologist					-	
	No development should occur within 20 m – 30 m of these features (Stone Walling Features (BV_SW1 - BV_SW17) and associated Historical Artefact Scatters (BV_Hist1 – BV_Hist3). The features should be clearly demarcated before any development activities begin to avoid any negative impact. The layout of any infrastructure should be reconsidered to preserve these heritage resources.	✓✓					
	The graveyard is already fenced off; however, the area should be clearly demarcated, and the upgrade of the road be to the west or the road be diverted further away to avoid any possible negative impact to the graveyard. (Graves (formal and informal burials) (HV_G1 – BV_G2))	✓✓					
	No turbines are to be located on Tafelkop or Spitskop.	✓✓					
	During the construction phase all major clearance operations (e.g. for new access roads, turbine placements) and deeper (> 1 m) excavations should be monitored for fossil remains on an on-going basis by the ESCO	✓✓					
	Should substantial fossil remains - such as vertebrate bones and teeth, or petrified logs of fossil wood - be encountered at surface or exposed during construction, the ECO should safeguard these, preferably in situ. They should then alert the relevant provincial heritage management authority as soon as possible					-	

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	The occurrence of very rare tetrapod burrows and associated skeletal remains within the Abrahams kraal Formation along the Kabeltou Pass (Muishond Rivier 161) represents a highly sensitive area (outlined in green in Fig. 2 in the Paleontological Impact Assessment report), which lies within the Western Cape and outside the WEF development footprint, should not be disturbed					-	
37	Fossil Site						
	Specialist palaeontological mitigation for this project is not deemed necessary or recommended. In the unlikely event of a fossil discovery the chance find procedure as detailed above must be implemented and the appropriate provincial authority notified.					-	Zero damage to fossil resources throughout construction phase Monthly ECO monitoring
38	Graves and middens						
	If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the Project Manager informed of the discovery. The Project Manager shall contact the ECO and HWC or SAHRA to determine the way forward.					-	Zero damage to fossil resources throughout construction phase Monthly ECO monitoring
39	Erosion and agricultural						
	The following areas should also be regarded as being of high erosion risk: — Slopes > 20 degrees. — Slopes with convergent sub-surface drainage (percolines). — Road culverts. — Cut and fill slopes in areas of slope instability or erodable geology					-	
	The removal of the natural vegetation cover must be avoided and where this cannot be done, minimised.	✓✓					
	Agricultural drainage methods must be used in fill materials to remove water that could trigger slumping.				-		
	Perched water tables must be identified early and adequate drainage for these trigger-points provided.					-	
	The disturbance of the natural soil structure must be prevented, and excavations planned carefully.	✓✓					
	The moving of heavy machinery into areas unnecessarily must be avoided.	✓✓					
	All fill material must be very well compacted and innovative use of geotextile materials in the retention of soil fill areas made.				-		
	Rainwater runoff from cut slopes must be prevented as far as possible.	✓✓					
	Sufficient storm water takes off points must be created in such a way that water does not have an opportunity to gather momentum.	✓✓					
	Storm water ditches must contain structures that will reduce velocity of the runoff.	✓✓					
	The use of vegetated swales must be investigated in less steep areas.					-	
	Particular care must also be taken to ensure that no existing infrastructure such as water and sewerage reticulation lines is damaged during construction activities.				-		
	Machinery must be properly maintained to keep oil leaks in check.	✓✓					
	If a spill occurs on a permeable surface (e.g. Soil), a spill kit must be used to immediately reduce the potential spread of the spill.	✓✓					
	If a spill occurs on an impermeable surface such as cement or concrete, the surface spill must be contained using oil absorbent materials.	✓✓					
	Contaminated remediation materials must be carefully removed from the area of the spill so as to prevent further release of hazardous chemicals to the environment and stored in adequate containers until appropriate disposal in a licenced landfill site.	✓✓					
	Ensure that all personnel are aware of the fire risk and the need to extinguish cigarettes before disposal, in appropriate waste disposal containers.	✓✓					
	Smoking will only be allowed in demarcated areas with easy access to firefighting equipment.	✓✓					
	Welding and other construction activities requiring open flames shall be done in a designated area containing firefighting equipment.	✓✓					
	The risk of fire is highest in the late summer and autumn months, during high wind velocities and dry periods. To avoid and manage fire risk the following steps should be implemented:	✓✓					
	Have on site fire-fighting equipment and ensure that all personnel are educated how to use it and procedures to be followed in the event of a fire	✓✓					
	Identify the relevant authorities and structures responsible for fighting fires in the area and shall liaise with them regarding procedures should a fire commence.	✓✓					
	Ensure that all the necessary telephone numbers (including local Farmers Association Fire Marshall) to use in a case of an emergency are displayed at conspicuous and relevant locations.	✓✓					
	No open fires shall be allowed on site for the purpose of cooking or warmth. Cooking fires must only be lit in designated cooking areas.	✓✓					
	The contractor shall take all reasonable steps to prevent the accidental occurrence or spread of fire.	✓✓					
	The contractor shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire.	✓✓					
	The contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire. The appointed fire officer shall notify the Fire and Emergency Services in the event of a fire and shall not delay doing so until such time as the fire is beyond his / her control.	✓✓					
	The contractor shall ensure that there is basic fire-fighting equipment on site at all times. This equipment shall include fire extinguishers and beaters.	✓✓					
	Any work that requires the use of fire may only take place within designated areas. Fire-fighting equipment shall be available in these areas.	✓✓					
	Develop and implement a Rehabilitation and Monitoring Plan to monitor rehabilitated areas.	✓✓					
	Ensure that topsoil does not get buried by subsoil during stockpiling. Failure to comply may result in topsoil sterilisation.	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	Implement measures such as windbreaks, swales and watering as required aiding the initial growth of primary vegetation.	✓✓				-	
	Fertile topsoil must not be stockpiled for periods exceeding 12 months or exceeding 2m in height to avoid topsoil sterilization. If unavoidable, the appointed ECO must monitor topsoil stockpile fertility to avoid sterility of soils.	✓✓					
	Topsoil may be supplemented with an indigenous seed mix.	✓✓					
	The upper 15-20 cm of topsoil must be stripped and stockpiled as topsoil where possible. It should be retained for re-spreading over disturbed surfaces during rehabilitation.	✓✓					
	All other soil excavated will be stockpiled separately from topsoil as subsoil.	✓✓					
	Ensure that topsoil does not get buried by subsoil during backfilling. Failure to comply may result in topsoil sterilisation.	✓✓					
	An ECO must monitor all excavations to ensure backfilling with subsoil first and then topsoil afterwards takes place.	✓✓					
	An ECO must monitor depth and cover of topsoil spreading during rehabilitation to ensure a 20cm depth in valleys. Rocky areas do not require topsoil but must be monitored by the ECO during rehabilitation.	✓✓					
	Topsoil allocated for rehabilitation must not be mixed with other materials, such as building rubble, rock, subsoil, etc.	✓✓					
	Topsoil stockpiles are to be handled only twice – once during clearing and stockpiling and once during rehabilitation/backfilling unless input is required as advised by the ECO.	✓✓					
	Construction activities must only occur within the demarcated construction footprint.	✓✓					
	The construction footprint must be approved by the landowner/occupier prior to commencement of construction activities.	✓✓					
	All run-off water from hard surface areas (e.g. roads, hardstands etc.) and construction impacted areas must be collected, channelled and disposed of in an appropriate manner.	✓✓					
	Anti-erosion features must be installed where required.	✓✓					
	Ensure that all cleared and impacted land is rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.	✓✓					
40	Agricultural land/activities						
	As far as possible restrict disturbance to the development footprint during construction and confine all activities to the demarcated areas only	✓✓					
41	Birds						
	As far as possible construction activities should be kept to a minimum in terms of space and time.	✓✓					
	Avoid the construction of roads or powerlines within 500-m of active nests of Red Data species during the early breeding season. For Verreaux's Eagles this is May-July and again in August-September when small vulnerable nestlings are present (Simmons 2005).				-		
	During construction habitat destruction should be kept to a minimum, especially so in the valley bottoms and lower slopes where resources, and so bird numbers, are greatest. An ECO, with a brief that includes minimization of habitat destruction, should be appointed to manage this.	✓✓					
	Disturbance is inevitable during the construction period. As far as possible construction activities should be kept to a minimum in terms of space and time. Construction of sub-stations in the valleys, where in this region most birds occur, should as far as possible, be timed to avoid the main breeding season for local birds which is the period August to October inclusive.	✓✓					
	Construction of sub-stations in the valleys, where in this region most birds occur, should as far as possible, be timed to avoid the main breeding season for local birds which is the period August to October inclusive.				-		
	At 1) the saddle between the two Snydersberg plateaux and 2) the col in the ridge between the Ou Mure and Fortuin farm valleys, no turbines should be erected within 100 m of the lowest point in the saddle/col and b) overhead lines should have bird diverters of a type visible by day and night set at 2 m intervals along the line.				-		
	Away from these two localities, where overhead powerlines cross valleys, bird flight diverters should be placed on the line at a spacing of 5m.				-		
	Lines across the two specified localities to have day-night diverters at 2 m intervals.				-		
	Lines across valleys to have diverters at 5 m intervals.				-		
42	Bats						
	Keep to designated areas when storing building materials, resources, turbine components and/or construction vehicles and keep to designated roads with all construction vehicles.	✓✓					
	Avoid areas of High bat sensitivity and their buffers as well as preferably avoid areas of Moderate bat sensitivity and their buffers.	✓✓					
	Adhere to the sensitivity maps.	✓✓					
43	Invasive alien plants						
	Alien Invasive management plan approved and implemented (Chapter 8)	✓✓					
44	Noise and light						
	No construction piling should occur at night. Piling should only occur during the daytime.				-		
	All noise-making equipment shall be turned off when not in use.					-	

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	All equipment shall be kept in good working order.	✓✓					
	All equipment shall be operated within specifications and capacity (i.e. do not overload machines).	✓✓					
	The Contractor will familiarise himself or herself with, and adhere to, any local bylaws and regulations regarding the generation of noise.	✓✓					
	The Contractor will endeavour to keep noise generating activities associated with construction activities to a minimum.	✓✓					
	Modern low noise emission vehicles and equipment shall be favoured on site. The details of all construction machinery and vehicles must be determined prior to construction in order to identify potentially noisy machinery and to seek possible alternatives. These details will include the manufacturer, type and noise emission data of each machinery/vehicle and how many will be used at any time.	✓✓					
	The size of explosive charges used for blasting (if required) should be optimised so as to balance breaking capacity against minimising any vibration impact and fly-rock.	✓✓					
	Provide prior warning to the community when a noisy activity eg. blasting is to take place.				-		
	Construction operations should only occur during daylight hours as far as possible.	✓✓					
	No construction piling should occur at night where possible. Piling should only occur during the day to take advantage of unstable atmospheric conditions.	✓✓					
	Construction staff should receive "noise sensitivity" training.	✓✓					
	An ambient noise survey should be conducted during the construction phase.	✓✓					
	Ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA' must wear ear protection equipment.	✓✓					
	Night lighting of the construction sites should be minimised within requirements of safety and efficiency.	✓✓					
	Lighting should be designed to minimise light pollution without compromising safety. Investigate using motion sensitive lights for security lighting. Turbines are to be lit according to Civil Aviation regulations.	✓✓					
	If any parts of site such as construction camps must be lit at night, this should be done with low-UV type lights (such as most LEDs), which do not attract insects, and which should be directed downwards.	✓✓					
45	Pedestrian and vehicle safety						
	The Contractor shall ensure that signage, which should be pictorial and in vernacular (where possible, otherwise in English and Afrikaans), is erected on all boundary fences warning against entering the construction area.	✓✓					
	Public awareness programmes shall be developed by the Contractor with the community to identify areas of particular risk and approaches to reduce risk.	✓✓					
	Traffic calming and speed control measures for access to construction sites shall be instigated in consultation with the local authorities.	✓✓					
46	Access roads						
	No access/haul roads other than those required for construction purposes shall be developed. As far as possible, existing roads shall be used for access/haulage purposes. All new temporary access/haul roads as approved by DFFE shall also be approved by the Contractor in consultation with the ESCO and ECO. Prior to the construction of new access/haul roads, topsoil shall be 'stripped and stockpiled as discussed under the stockpiling section.	✓✓					
47	Landscape and visual						
	The Contractor shall ensure that construction activities are expedited in the construction phase reducing the temporal scale thereby reducing the visual exposure time.	✓✓					
	The Contractor shall write design and placement guidelines for structures and infrastructure i.e. signage, communication, lighting etc. for approval by the ECO and these must consider: — Use of appropriate materials. — Massing, i.e. cluster activities where possible. — The Contractor shall ensure the establishment of appropriate setbacks/buffers from adjacent sensitive land uses, especially residential and tourism. — The Contractor with the approval of the Project Manager shall ensure that building structure has modest scale, height, and form of simple rectangular nature. — The Contractor with the approval of the Project Manager shall ensure that structures to be as 'transparent' as possible to 'melt' / integrate into the landscape- make use of slender structures where appropriate. — Signage and temporary structures (toilet facilities etc), to be kept to a minimum (while still being sufficient). — New road construction should be minimised, and existing roads used where possible. ✓✓	✓✓					
	The Contractor should maintain good housekeeping on site to avoid litter and minimise waste	✓✓					
	Clearance of indigenous vegetation should be minimised, and rehabilitation of cleared areas should start as soon as possible.	✓✓					
	Erosion risks should be assessed and minimised as erosion scarring can create areas of strong contrast which can be seen from long distances.	✓✓					
	Stockyards should be located in low visibility areas (e.g. valley between the ridges) and existing vegetation should be used to screen them from views.	✓✓					
	Night lighting of the construction sites should be minimised within requirements of safety and efficiency	✓✓					
	Fires and fire hazards need to be managed appropriately.	✓✓					

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	Signs near wind turbines should be avoided unless they serve to inform the public about wind turbines and their function. Advertising billboards should be avoided.	✓✓					
	Lighting should be designed to minimise light pollution without compromising safety. Investigate using motion sensitive lights for security lighting. Turbines are to be lit according to Civil Aviation regulations.	✓✓					
	The construction contractor should clearly demarcate construction areas so as to minimise site disturbance.	✓✓					
	Treat roads to reduce dust emissions.	✓✓					
	The site should be kept neat and tidy. Littering should be fined, and the ECO should organise rubbish clean-ups on a regular basis.	✓✓					
	Construction Camp Alternative 1 should be the preferred option due to it having the smallest viewshed.	✓✓					
48	Transportation						
	Transport of components will be arranged in conjunction with local traffic authorities to ensure safe transit and minimise disruption to normal traffic flow on these important roads. Turbine components may be transported at night when traffic volume on the roads is less. Traffic routes must be in accordance with the traffic management plan, as attached to this EMPr.	✓✓					
	A Traffic Management Plan has been prepared to enable the identification and implementation of all legal and best practice requirements in respect of the management of traffic associated with the construction and operation of the facility. The Traffic Management Plan should be updated prior to the commencement of the construction phase, when detailed information regarding the delivery of components, traffic data and construction activities are available. This Plan must be implemented and reviewed every four months or immediately after an incident, when corrective measures will be incorporated into the Plan.	✓✓					
	The delivery of components to the site can be staggered and trips can be scheduled to occur outside of peak traffic periods.	✓✓					
49	Traffic- General						
	Adequate traffic accommodation must be implemented during transportation of turbine component to the site.	✓✓					
	All relevant road traffic and other legislation must be adhered to when transporting abnormal loads to the site.	✓✓					
	The Contractor shall ensure that all construction personnel and vehicles are clearly visible.	✓✓					
	The safety of both workers on site and road users is to be ensured at all times.	✓✓					
	All construction vehicles should adhere to a low-speed limit (40km/h for cars and 30km/h for trucks) to avoid collisions with susceptible species such as snakes and tortoises and rabbits or hares. Speed limits should apply within the facility as well as on the public gravel access roads to the site.	✓✓					
50	Traffic – Compliance with traffic rules						
	A Traffic Control Officer or Officers must be appointed.	✓✓					
	All construction vehicles and vehicles associated with the project must comply with the relevant traffic and transport licencing requirements.	✓✓					
	Operators and drivers must have the relevant licences / permits to operate the vehicles.	✓✓					
	All contractors and construction vehicles must comply with traffic rules on public and other roads within the project area.	✓✓					
	Where construction will obstruct existing access alternative temporary access routes must be provided.	✓✓					
	Arrangements for abnormal loads to be authorised by the relevant authorities, and the local population to be informed of routes and times of deliveries.	✓✓					
	A disciplinary procedure to address incidents of speeding or other traffic offences by site personnel and subcontractors, including the possibility of dismissal for repeat offences.	✓✓					
	Traffic safety procedures, transport routes and construction schedules intended to be applied during the construction phase must be in consultation with members of the local community, the local authority and affected landowners prior to the common concrete of construction activities. The scope of such engagement should include the designation of routes for construction vehicles, procedures for complaints and emergency procedures shall be concluded in consultation with local community members, affected landowners and local emergency and traffic authorities. In this regard, appropriate measures shall be taken to ensure that: — The routes used by construction vehicles (as far as possible) avoid areas of high pedestrian traffic. — adequate signage is used to warn local community members of hazards (e.g. site access, construction vehicles turning); — information dissemination and awareness are conducted to inform community members of increased traffic risks and appropriate precautionary measures; and — Community members are aware of the Contractors' construction (and delivery) schedules.	✓✓					
	Routes used must not deteriorate roads to the extent that they become unsafe or defunct, especially on dirt road sections or during high rainfall periods.	✓✓					
	Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.	✓✓					
	The road near the access point be kept clear of tall vegetation to allow for good sight lines.	✓✓					
	All access and internal roads should be investigated for their topographical suitability, i.e., feasibility for haulage trucks and especially abnormal loads to navigate and have sufficient height clearance for any Eskom lines, Telkom lines or similar.	✓✓					

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51	Traffic signage						
	Traffic signage is to be securely erected at appropriate points (ensuring visibility) along all access roads, and public roads (in consultation with the relevant traffic authorities) to indicate the following: — Road hazards such as blind corners or loose gravel. — appropriate speed limits. — turning traffic. — the Site access. — routes to be used by construction vehicles, where appropriate. — that caution should be taken by motorists or pedestrians. — no-go areas for vehicles; and — Any relevant traffic control information.	✓✓					
52	Roads and maintenance						
	It is recommended that the respective haulage company conducts a dry run to determine the restrictions relevant to the haulage vehicle to be utilised. With some route's road signs may need to be moved, overhead cables may need to be raised and bell mouths may need temporary widening to accommodate abnormal loads. A dry run will help establish relevant changes specific to the abnormal load truck used to deliver the components and materials.				-		
	All access roads must be clearly demarcated, and signs must clearly indicate those roads that may or may not be used by contractors or delivery vehicles, or members of the public.	✓✓					
	All bell mouths along the chosen site accesses to the wind turbine locations need to be in line with the required geometric standards to accommodate abnormal haulage vehicles. The exact location and upgrades of the internal access roads will need to be established at detailed design stage.	✓✓					
	Make use of existing roads and tracks where feasible, rather than creating new routes.	✓✓					
	Routes should not traverse slopes with gradients in excess of 8%. Where this is unavoidable the road surface must be stabilised using methods approved by the Project Manager.	✓✓					
	Avoid routes through drainage lines and riparian zones wherever possible. Where access through drainage lines and riparian zones is unavoidable, only one road is permitted, constructed perpendicular to the drainage line. Avoid roads that follow drainage lines within the floodplain	✓✓					
	Allow for safe pedestrian crossing where necessary.	✓✓					
	All the necessary temporary road traffic signs should be erected to ensure safe traffic flow conditions	✓✓					
	Where temporary road closures are necessary the dates and durations of the closures must be signposted well in advance at the entrances and exits of the affected roads, and alternative routes clearly indicated.	✓✓					
	A procedure for reporting and addressing hazards, accidents and other emergency situations shall be implemented.	✓✓					
	Clean and make good any damage to private roads caused by the Contractor during the construction phase.	✓✓					
	Should any damage occur on private access roads these roads must be rehabilitated to a pre-construction state.	✓✓					
	The chosen access and circulation roads will have to be upgraded to suit abnormal load vehicle requirements. It needs to be ensured that if the access and circulation roads to the site are to remain as gravel roads, the routes need to be maintained during the additional loading experienced during the construction phase and be reinstated once construction is complete.	✓✓					
	Dust suppression on gravel roads and control of material being transported to and from the site must be managed to reduce the impact of dust to surrounding landowners.	✓✓					
	The provincial roads department must be informed of any damage to public roads that occurs as a result of use by construction traffic.	✓✓					
	Where possible, existing roads on Site shall be used as access roads.	✓✓					
	Maintain all access routes and roads adequately in order to minimise erosion and undue surface damage.	✓✓					
	Repair rutting and potholing and maintain stormwater control mechanisms.	✓✓					
	Spillages of materials on public roads must be cleaned up immediately after they have occurred.	✓✓					
53	Project Vehicles						
	Enforce speed limits at all times on site roads. The movement of construction vehicles shall not be undertaken during peak morning and afternoon traffic times so as to avoid causing an impact on commuters. Materials and labour shall, as far as possible, be sourced locally in order to minimise transport related impacts and transport safety risks.	✓✓					
	Vehicles may not leave the designated roads and tracks, and turnaround points must be limited to specific sites.	✓✓					
	Restrictions on the times at which heavy vehicles are permitted to travel on public roads. As far as possible heavy traffic should avoid morning and evening peak traffic periods. Heavy vehicles should as far as possible travel on public roads only during weekdays. High volumes of heavy vehicles should be avoided on Saturday mornings, and no heavy vehicles should travel on public roads on Saturday afternoons, all day Sunday and on public holidays.	✓✓					
	Abnormal loads must, as far as possible, be scheduled to avoid peak hours, to minimise disruption to peak-hour traffic.	✓✓					
	The contractor must provide high-occupancy transport for as many of its workers as possible to reduce the number of peak-hour vehicle trips.	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	Contractors and sub-contractors may only utilise demarcated access roads to access the Rietkloof WEF. The roads DR01475 and DR01483 cannot be utilised under any circumstances. The roads are clearly indicated in Figure 7-1 .	✓✓					
54	Vehicle Maintenance						
	All vehicles and machinery used during the Project shall be regularly maintained and repaired where necessary.	✓✓					
	Passenger vehicles must be inspected on a regular basis to ensure that they are in good working order and are not overloaded.	✓✓					
55	Transportation of construction						
	Construction equipment and materials must be properly secured to / contained in the appropriate vehicle.	✓✓					
	The weight bearing capacity of construction vehicles must be adhered to.	✓✓					
56	Passenger Safety						
	The carrying capacity of passenger vehicles must be adhered to.	✓✓					
	No employee shall be transported on the back of open trucks.	✓✓					
	Assembly points for construction workers to be located in a safe area (reasonable distance from high volume traffic or danger zones).	✓✓					
	The contractor is to conduct vehicle and passenger safety training, emphasizing any risks/dangers of construction traffic and explain precautionary measures to be taken.	✓✓					
57	Stormwater						
	Implement the storm water management plan (SWMP) included in Chapter 8.	✓✓					
58	Search and rescue						
	If the ecologist recommends a search and rescue operation for plants of specific concern in light of the final site walkthrough, then a search and rescue plans to be compiled and approved	✓✓					
	The plant S & R plan Should be developed what's the objective of establishing which plants are to be harvested from the turbine laydown area, access roads and power lines in order to: — Collect important pioneer plants that can be transplanted, kept under nursery conditions and utilised for revegetation after construction as part of rehabilitation activities — Collect and transplant, plant species of special concern that have a high conservation value or apply for destruction permits where transplanting will not be possible — Locate on-site nursery where minimal construction disturbance will be experienced — Utilize the topography of the site to take advantage of the protection and microclimate afforded by the surrounding hillocks and valleys	✓✓					
	Livestock or wildlife is present on the property, it will be necessary to fence in the nursery area using a 1,2m high fence. A gate should be provided for vehicle access and deliveries	✓✓					
	Where necessary, equip the nursery with its own designated water tank for irrigation purposes (a 2000 litre plastic reservoir on a tank stand will suffice).				-		
	Install hose lines as required.				-		
	Ensure that procured plants arrive at the nursery in a condition suitable to ensure successful growth.				-		
	All harvested seeds and seedlings, as well as plants removed for transplanting, are the responsibility of the Contractor and must be kept under approved nursery conditions.				-		
	For plants in containers held in the nursery, use 2 parts of topsoil that has been excavated from the site (to emulate site conditions) to 1 part of compost (produced from mulching the cleared vegetation, or a suitable commercial mulching solution).				-		
	All specified species lifted from open ground must be retained in containers or bags as specified.				-		
	Ensure that the nursery is properly equipped with the necessary implements, containers, fertilisers and other equipment necessary to function efficiently.				-		
	All plants must be fully maintained by staff dedicated from the date of receipt until the end of the Rehabilitation Period. A horticulturalist must be consulted to assist with management of the nursery plants. This includes watering, weeding, fertilising, etc				-		
	All plants must be regularly watered and fertiliser applied, as required.				-		
	All plants must be protected against wind, frost and direct sunlight, until such time as they are fully acclimatised. Provide shade net or a shade house as required for this purpose.				-		
	Plants held in the nursery for more than one year, must be replanted into larger containers.				-		
	The Contractor will be held liable for the replacement of plants lost due to his negligence or mismanagement.				-		
59	Open space						
	Open space areas should be kept as contiguous blocks of vegetation as far as possible and no additional barriers (except for approved roads and fences) should be constructed that may impede faunal movement.	✓✓					
	All open space areas must be kept alien and weed free.	✓✓					
	Only indigenous species from a list approved by the ECO may be used for any rehabilitation work in open space areas	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	No waste should be disposed of in open space areas, including but not restricted to cigarette butts and uneaten foodstuffs (i.e. fruit cores and peels) that may attract scavengers. It is recommended that receptacles be placed strategically to minimise this, especially during the construction phase.	✓✓					
	A search and rescue operation must be undertaken by a qualified botanist/ horticulturalist if recommended by an ecologist prior to construction commencing and species of special concern identified within the development footprints transplanted to a refuge area.	✓✓					
	Vegetation cleared from development footprints must not be piled onto adjacent intact vegetation outside of the designated footprint, even for temporary storage.	✓✓					
	No collection of indigenous plants may be allowed on the property outside of those undertaken by the designated person(s).	✓✓					
	Employees should undergo environmental awareness training and be sensitised to the need to avoid disturbance to the indigenous vegetation outside the development footprints	✓✓					
	Rehabilitation guidelines for the development as a whole must prioritise the use of indigenous grass, tree and shrub species are to be used in the soil stabilisation landscaping of the development once construction is completed, if required.	✓✓					
	The following is recommended for the conservation of wetland, river and dam habitat on the site: — A buffer of 32 m from the channel edge to be kept free of hard standing surface, including for roads and cable crossings. — Any stormwater management features must be suitably designed and constructed to maintain stormwater flow to acceptable levels and minimise risk of erosion and scouring. — No storm-water runoff should be discharged directly into the drainage line/seep, where it could lead to erosion. — The exotic vegetation growing within the water courses and wetlands and/or buffers directly adjacent to the proposed development should be removed as soon as possible and these areas should be kept weed free.	✓✓					
60	Social						
	A Grievance Mechanism is included in Section 9.13 and should be implemented as part of the Stakeholder Engagement Plan.	✓✓					Stakeholder Engagement procedure in place
	Stakeholder engagement processes should be put in place to make sure that all interested and affected party have buy in in the process which will be designed and followed for employment and local procurement opportunities	✓✓					Complaints register in place
	The proponent should implement a —locals first policy, specifically with regards to unskilled and low skilled opportunities.	✓✓					
	The contractor must provide transport to and from the site on a daily basis for low and semi-skilled construction workers to effectively manage and monitor the movement of construction workers on and off the site.	✓✓					
	Where feasible, the contractors must make the necessary arrangements to transport workers from other local towns in the area, such as Worcester and Paarl, home over weekends. This will reduce the risk posed to local family structures and social networks in Laingsburg and Sutherland.	✓✓					
	The applicant must enter into an agreement with the landowners on whose property the WEF is located, whereby damages to farm property etc. during the construction phase that are proven to be associated with the construction activities for the WEF will be compensated for.	✓✓					
	Early, clear, and effective communication with affected and adjacent landowners prior to and throughout the construction phase is critical. A detailed Stakeholder Engagement Plan should be developed prior to the implementation of the construction phase and should be developed in conjunction with the affected landowners and key stakeholders, such as local landowners, the local farming association and municipality.	✓✓					
	The movement of construction workers on the site should be confined to regulated areas.	✓✓					
	All landowners on and in the immediate vicinity of the site must be contacted to discuss timing of construction related activities in the vicinity for his cropping areas.	✓✓					
	The relevant owners must be consulted prior to the commencement of the construction phase to identify the location of the irrigation infrastructure so as to ensure that it is not damaged during the construction phase.	✓✓					
	A Monitoring Committee (MC) should be established as part of the Stakeholder Engagement Plan. The MC should be made up of representatives from the affected landowners and key stakeholders, such as the local farmers, the local farming association, municipality and proponent.				-		
	Procedures and timeframes should be identified for reporting and addressing incidents, such as damage to gates and fences etc. Based on the comments from the affected landowners, it would appear that the role played by the ESCO / ECO involved in the existing projects can be improved. The ESCO /ECO and CLP should liaise closely with each other throughout the construction phase.				-		
	A Community Liaison Person (CLP) should be appointed by the proponent at the outset of the construction phase. Ideally this person should be from the local community and his or her role should be to ensure that the Stakeholder Engagement Plan is implemented on the ground. The CLP should be involved in the development of the Stakeholder Engagement Plan and not merely appointed to implement the Plan. In this way he or she will have met with and engaged with the affected landowners and key stakeholders prior to the start of the construction phase and will have a good understanding of farming activities in the area and how these may be impacted by the construction related activities.	✓✓					Power CLO from local community RR Project Liaison (PL) appointed
	The approach to responding to and addressing complaints or concerns should be sympathetic, open, transparent, and constructive. This would go a long way in maintaining good relations. In this regard the Stakeholder Engagement Plan should be informed by a set of engagement principles that support this approach.	✓✓					
	Contractor training must include making workers aware of the consequences of their actions and the impact that they may have on farming activities. A Contractor Training programme should be developed and implemented prior to the commencement of the construction phase. The programme should inform contract	✓✓					

No.	BRANDVALLEY WIND ENERGY FACILITY (Ref: 14/12/16/3/3/2/900) AMENDED ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)	Compliant	Partially Compliant	Non-compliant	Not Applicable / Not Audited	Info	Findings & Recommendations
	workers of the requirements of the Stakeholder Engagement Plan and Environmental Management Plan and their roles and responsibilities in terms of these plans.						
	The applicant must enter into an agreement with the landowners on whose property the WEF is located, whereby damages to farm property etc. during the construction phase that are proven to be associated with the construction activities for the WEF will be compensated for.				-		
		Summary calculation					
		358	0	0	36	25	419 (total no. of conditions)
		✓✓	✓	x	-	-	358 (audited) 61 (NA)
		358	1	0			Audit Score (%) = [(358x2) +(0x1) +(0x1)] / (358x2) x100
		EMPR Compliance					100%

4.2 Compliance with the EMPRs

It should be noted that the construction of the Brandvalley was combined with the construction activities on the WEF OHPL's and Substation. As such, there is a large overlap in the audit findings of these project components. Construction and rehabilitation activities were concluded in February 2025. This coincided with the date of this audit inspection. Compliance of the construction activities with the specifications of the EMPr was verified throughout the construction period by the ECO and ESCO and included in monthly reports. The ECO audit reports were therefore used to assess compliance in this regard. Compliance with conditions of the EA were discussed in the above-mentioned compliance tables and will not be repeated here, although most of these specifications are also contained in the EMPrs.

The monthly ECO audit reports for the period *April 2023 – January 2025*, were carefully scrutinised and the following observations are made in relation to compliance with the EMPr during the construction phase of the Brandvalley WEF:

- Method Statements were produced and approved as required.
- Site access and establishment of contractor camps were in accordance with approved plans and EMPr conditions.
- The site camp was establishment on the same footprint as an existing current site camp. No additional site clearing was required outside of the established area.
- Roads and other development footprints were demarcated prior to works commencing to avoid extension beyond the approved footprint. In some instances, trucks veered outside the boundaries of the approved roadways and the ESCO approved turning circles along the access road and required rehabilitation.
- All areas outside the site camps, roads and works areas were treated as no-go areas. This included farm roads on site that were not used for the project.
- An off-site borehole provided the water required for construction. Records of water usage was kept and made available to via the ECO reports.
- Site camps were kept neat and well maintained throughout the construction phase. Formalised bund areas were created for fuel, hazardous / flammable substances and hazardous waste storage areas. These were successful to prevent impacts on soil and groundwater associated with the storage of such substances on site.
- During the course of the construction phase, there were incidents where equipment / vehicles were used / parked without the required drip tray being in place to capture potential leaks of fuel / hazardous substances. In these instances, it was brought to the attention of the main Contractor by the ESCO for immediate rectification.

- Small incidental and more significant spills and leaks of hydrocarbons received prompt reaction and was closed-out to the satisfaction of the ESCO and ECO.
- As with all construction sites, litter management was required on an ongoing basis. The presence of litter around the Brandvalley Substation were mentioned from time to time. Litter control was never reported to be out of control. Accumulation of waste was occasionally recorded, but other than poor aesthetics, this never resulted in environmental impact such as pollution and was relatively quickly resolved. The ESCO implemented litter runs between the various contractors at the end of every shift. Each contractor had a turn to do the daily litter sweep after their shift ended.
- Avifaunal monitoring was ongoing and the impact on faunal species due to construction were effectively prevented on site.
- The topsoil stripped from roads are windrowed on the edges of the roads to allow for easy replacement during rehabilitation activities.

4.3 Rehabilitation Activities

All rehabilitation activities have been completed as per the approved projects' Rehabilitation Management Plan which will require monitoring and maintenance during the Operation by the Operations & Maintenance ("O&M") Team.

The project made use of existing roads and new access roads were created where necessary. The existing roads, sections of access roads, turning circles, and tower footprints that will not be required for operational phase were rehabilitated by ripping the compacted soil and reinstating the topsoil by spreading it on disturbed and ripped areas to allow for regrowth.

Stone pitching and stormwater diversion berms have been constructed to minimize erosion, protect infrastructure for which it is required, and to direct water run-off away from the foundations. Furthermore, areas prone to erosion were suitably protected through control measures of infilling with spoil material, constructing v-drains to divert water run-off and by constructing small, compacted erosion berms using excess spoil material. All the excess spoil material was removed from site.

The vegetation that was removed during the construction phase was mixed with the topsoil to retain organic matter. Revegetation of identified areas will occur in the winter season when it is rainy. In addition, as rehabilitation ran concurrently with construction activities, regrowth can already be noted in previously disturbed areas.

The efficacy of rehabilitation and rate of re-establishment of vegetation in the rehabilitated areas must be monitored by the O&M teams.

As per agreement with the landowner the main site camp area was ripped, reprofiled and topsoil reinstated. All the septic tanks and bubbler system within the footprint were emptied, removed and excavations backfilled as per the

requirements of the Environmental Authorisation. The bubbler system pump house, concrete slabs, and fencing around the site camp have been left for the landowner.

All laydown and crusher areas were ripped, levelled and topsoil replaced. The crushers in particular require seeding, this will be conducted in the rainy season.

In general, it is noted from the ECO audit reports that the environment and the environmental obligations received due care by the holder of the EA and their appointed Contractors during the construction phase. While incidents did occur, it was not as a result of deficiencies of the EMPr, and the necessary protocols were in place to ensure that prompt and effective rectification action was taken to prevent significant environmental impact. Environmental management on site was of a high standard and commendable. While construction has concluded, it is worth noting that the specifications of the EMPr was adequate to avoid, limit or address environmental impacts for this particular development.

5 PHOTOGRAPHIC RECORD



Figure 1: Completed Brandvalley Substation with erosion mitigation netting in place.



Figure 2: Seasonal flowers on road verges L



Figure 3: Regrowth along internal road verges



Figure 4: Crusher located at Road 5, ripped and levelled



Figure 5: Pipe culvert at road crossing of the Groot River



Figure 6: Aerial shot of Brandvalley substation with hessian netting installed



Figure 7: Main site camp



Figure 8: Aerial view of main site camp

6 CONCLUSIONS AND RECOMMENDATIONS

This audit was undertaken in accordance with the requirements of Regulations 34 of the amended 2014 EIA Regulations. This audit report meets the regulatory content requirements.

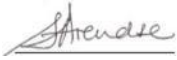
The following conclusions are drawn subsequent to the audit inspection and consideration of compliance with conditions of approval and the EMPr:

- The overall impression was one of a very well-run site, with a strong commitment to environmental compliance and best practice.
- Levels of compliance with the EAs and EMPrs were high for the duration of the construction phase and the construction EMPr was adequate to prevent or limit detrimental impacts on the environment.
- Rehabilitation actions were precisely executed with no further rehabilitation actions being recommended at this time. Natural vegetation should be allowed to re-establish.
- The audit did not identify any impacts or risks associated with the facility that were not considered in the EIA.
- No review of the operational phase EMPr was conducted at this time, however this must be assessed on an ongoing basis by the operational Environmental Resource to ensure that the objectives and outcomes of the EMPr are continuously upheld.
- Given that the frequency of audits in the operational phase is not detailed in the EAs, the auditor submits that quarterly operational ECO monitoring is sufficient to meet further requirements in terms of Regulations 34 of the 2014 EIA Regulations, as amended.

In light of the observations and findings of this post-construction and rehabilitation audit, the following recommendations are made:

- The efficacy of rehabilitation and rate of re-establishment of vegetation in the rehabilitated areas must be monitored by the operational phase Environmental Resource.
- The operational phase Environmental Resource should continuously assess the operational phase specifications of the EMPr to ensure continued adequacy of this plan to prevent or limit detrimental impact on the environment.
- The Holder of the EA must submit this audit report to the Director: Compliance Monitoring at the DFFE within 14 days of receipt of this report.
- In line with Regulation 34(6) of the 2014 EIA Regulations, the Holder of the EA must, within 7 days of the date of submission of the external audit report to the licensing authorities, notify all potential and registered interested and affected parties of the submission of the report, and make the report available immediately to anyone on request, and on a publicly accessible website, where the holder has such a website.

PREPARED BY:

A handwritten signature in black ink, appearing to read 'S. Arendse', is positioned above a horizontal line.

Sumaya Arendse

Environmental Control Officer – NCC Environmental Services (Pty) Ltd

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PREPARED BY:

A handwritten signature in black ink, appearing to read 'Nick Gates', is positioned above a horizontal line.

Nick Gates

Environmental Control Officer – NCC Environmental Services (Pty) Ltd

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7 APPENDICES

Appendix A1: Proof of email notification of Commencement (DFFE Ref.: 14/12/16/3/3/2/900)

Appendix A2: Notification of the appointment of the ECO

Appendix B: Proof of email notification of Commencement for Bon Espirange to Komsberg OHPL (DFFE Ref.: 14/12/16/3/3/1/2471)

Appendix C: No appeals confirmation

APPENDIX A1

Proof of email notification of Commencement

(DFFE Ref.: 14/12/16/3/3/2/900)



25 November 2022

Department of Forestry, Fisheries and the Environment
Private Bag X447
Pretoria 0001

Attention: Director: Compliance Monitoring

**BRANDVALLEY WIND FARM AND ASSOCIATED INFRASTRUCTURE, NORTH OF THE
TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND
LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE
PROVINCE
(DFFE Ref.: 14/12/16/3/3/2/900)**

NOTIFICATION OF COMMENCEMENT OF ACTIVITIES

Brandvalley Wind Farm (RF) (Pty) Ltd received an Environmental Authorisation ("EA") from the Department of Forestry, Fisheries and the Environment ("DFFE") for the construction of the 147MW Brandvalley Wind Farm and associated infrastructure, north of the town of Matjiesfontein within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province (DFFE Ref.: 14/12/16/3/3/2/900) 23 November 2016. An amendment to the EA was issued on 14 February 2019 amending the contact details of the holder of the EA and technical specifications of the wind turbines (DFFE Ref.: 14/12/16/3/3/1/900/AM1). The EA was further amended on 11 October 2021 to extend the validity period of the EA (DFFE Ref.: 14/12/16/3/3/2/900/AM2). On 23 August 2022 the EA was amended to change the number of turbines, generation capacity per turbine, the area occupied by each turbine and the hard standing area, the turbine hub height and rotor diameter, the width of the internal roads, construction camp details and coordinates, and the holder of the EA (DFFE Ref.: 14/12/16/3/3/2/900/AM3). The Environmental Management Programme and final layout were also approved in AM3.

This letter serves to inform the DFFE of the commencement of activities as specified in the EA issued on 23 November 2016 (DFFE Ref.: 14/12/16/3/3/2/900), as per the requirements of Condition 33 of the EA. The Holder of the the EA and EMPr plans to commence with all construction activities in due course, and these activities form part of the commencement of the project construction phase.

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Red Rocket South Africa (Pty) Ltd
14th Floor, Pier Place, Heerengracht St
Foreshore, Cape Town, 8001, South Africa


Reg No. 2011/107860/07

APPENDIX A2

Notification of appointment of environmental control officer and environmental site compliance officer



**NOTIFICATION OF APPOINTMENT OF ENVIRONMENTAL CONTROL OFFICER AND/OR
ENVIRONMENTAL SITE COMPLIANCE OFFICER**

This letter serves to inform the Department of the appointment of an Environmental Control Officer ("ECO") and/or Environmental Site Compliance Officer ("ESCO") for the construction of the Brandvalley Wind Farm and Associated Infrastructure, in terms of Condition 26.1 and 26.2 of the EA issued on 23 November 2016 (DFFE Ref.: 14/12/16/3/3/2/900). The relevant ECO and ESCO details are as follows:

ECO/ESCO name: Nick Gates & Janet du Plooy
Company name: NCC Environmental Services (Pty) Ltd
Contact number: 073 199 8431 / 082 770 2629

Please confirm receipt of this notification in writing.

Yours sincerely,



Matteo Brambilla
Red Rocket South Africa (Pty) Ltd CEO
Project Manager of Brandvalley Wind Farm (RF) (Pty) Ltd
(DFFE Ref.: 14/12/16/3/3/2/900)





Department of Forestry, Fisheries, and the Environment
Private Bag X447
Pretoria
0001

29 April 2024

Attention: Director: Compliance Monitoring

NOTIFICATION OF CHANGE OF ENVIRONMENTAL CONTROL OFFICER AND/OR ENVIRONMENTAL SITE COMPLIANCE OFFICER

This letter serves to inform the Department of Forestry, Fisheries, and the Environment ("DFFE") of the change of Environmental Control Officer ("ECO") and/or Environmental Site Compliance Officer ("ESCO") personnel for the construction of the Brandvalley Wind Farm and Associated Infrastructure, in terms of Condition 26.2 of the split Environmental Authorisation ("EA") issued on 02 February 2022 (DFFE Ref.: 14/12/16/3/3/2/900).

The relevant ECO & ESCO details are as follows:

ECO name:	Sumaya Arendse
Company name:	NCC Environmental Services (Pty) Ltd
Contact Details:	082 334 8182 sumayaa@ncc-group.co.za
ESCO name:	Janet du Plooy
Company name:	NCC Environmental Services (Pty) Ltd
Contact Details:	082 770 2629 janetdp@ncc-group.co.za

APPENDIX B

Proof of email notification of Commencement

(DFFE Ref.: 14/12/16/3/3/1/2471)



30 November 2022

Department of Forestry, Fisheries and the Environment
Private Bag X447
Pretoria 0001

Attention: Director: Compliance Monitoring

**AUTHORISED BON ESPIRANGE TO KOMSBERG 132KV OVERHEAD POWERLINE
FOR THE PROPOSED BRANDVALLEY AND RIETKLOOF WIND FARMS, NEAR
MATJIESFONTEIN IN THE WESTERN CAPE PROVINCE (DFFE Ref.:
14/12/16/3/3/1/2471)**

NOTIFICATION OF COMMENCEMENT OF ACTIVITIES

Red Rocket South Africa (Pty) Ltd received an Environmental Authorisation ("EA") from the Department of Forestry, Fisheries and the Environment ("DFFE") on 19 April 2022 for the construction of a 132kV overhead powerline from the existing Bon Espirange substation to the existing Eskom Komsberg substation, near Matjiesfontein within the Western Cape Province (DFFE Ref.: 14/12/16/3/3/1/2471). This powerline will evacuate electricity from the authorized Brandvalley and Rietkloof Wind Farms to the National Grid. The Environmental Management Programme and final layout were approved in this EA.

This letter serves to inform the DFFE of the commencement of activities as specified in the EA issued on 19 April 2022 (DFFE Ref.: 14/12/16/3/3/1/2471), as per the requirements of Condition 30 of the EA. The Holder of the the EA and EMPr plans to commence with all construction activities in due course, and these activities form part of the commencement of the project construction phase.

**NOTIFICATION OF APPOINTMENT OF ENVIRONMENTAL COMPLIANCE OFFICER AND/OR
ENVIRONMENTAL SITE COMPLIANCE OFFICER**

This letter serves to inform the Department of the appointment of an Environmental Compliance Officer ("ECO") and/or Environmental Site Compliance Officer ("ESCO") for the construction of the 132kV overhead powerline, in terms of Condition 23.1 and 23.2 of the EA issued on 19 April 2022 (DFFE Ref.: 14/12/16/3/3/1/2471). The relevant ECO and ESCO details are as follows:

Red Rocket South Africa (Pty) Ltd

14th Floor, Pler Place, Heerengracht St

Foreshore, Cape Town, 8001, South Africa

Page 1 of 2



Reg No. 2011/107860/07

APPENDIX C

No appeals confirmation



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Reference: 14/12/16/3/3/1/2471

Enquiries: Realeboga Tlhoale

Telephone: (012) 399 8733 **Email:** rtlhoale@dfre.gov.za

Jennifer Green
WSP in Africa
The Pavillion, 1st Floor
Cnr Portwood & Beach Road
Waterfront
8001

E-mail: Jennifer.Green@wsp.com

Dear Madam

POSSIBLE APPEALS AGAINST THE GRANTING OF AN ENVIRONMENTAL AUTHORISATION ON 19 APRIL 2022, FOR THE PROPOSED CONSTRUCTION OF BON ESPIRANGE TO KOMSBERG 132KV POWERLINE NEAR MATJIESFONTEIN, IN WESTERN CAPE AND NORTHERN CAPE PROVINCES

I refer to your query dated 05 July 2022 in the abovementioned regard.

It is hereby confirmed that no appeals have been lodged with the Minister of Forestry, Fisheries and the Environment pertaining to the EA for the project mentioned in the heading hereof.

Yours sincerely



Adv. Mokete Rakgogo
Director: Appeals and Legal Review
Date: 11 July 2022

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