



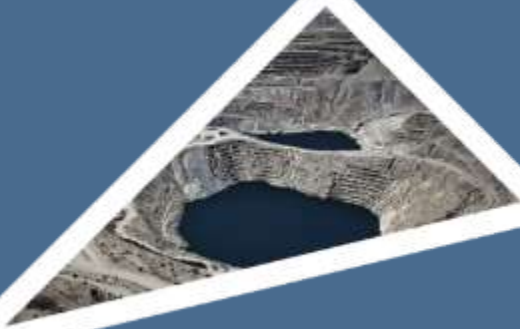
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# EXTERNAL NEMA EA AND EMPR AUDIT REPORT 2019

ENEL GREEN POWER – KARUSA WIND ENERGY FACILITY

DEA REF: 12/12/20/2370/1





#### DOCUMENT DETAILS

**EIMS REFERENCE:** 1321  
**DOCUMENT TITLE:** EXTERNAL NEMA EA AND EMPR AUDIT REPORT

#### DOCUMENT CONTROL

	NAME	SIGNATURE	DATE
<b>COMPILED:</b>	Emmanuel Manyange	Sent Electronically	2019/12/04
<b>CHECKED:</b>	Sikhumbuzo Mahlangu	Sent Electronically	2019/12/06
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#### REVISION AND AMENDMENTS

REVISION DATE:	REV #	DESCRIPTION
2019/12/04	ORIGINAL DOCUMENT	Draft Audit Report
2019/12/04	REVISION 1	Final Audit Report



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## EXECUTIVE SUMMARY

ACED Renewables Hidden Valley (Pty) Ltd was granted an Environmental Authorisation (EA) (DEA Ref. no: 12/12/20/2370/1) for the proposed 140 MW Karusa Wind Energy Facility (Phase 1) on the farm De Hoop 202; the farm Standvastigheid 210; portions 3 and the remainder of the farm Rheebokke Fontein 209 within the Karoo Hoogland Local Municipality, Northern Cape on the 12<sup>th</sup> of August 2014 from the Department of Environmental Affairs (DEA). ACED Renewables Hidden Valley (Pty) Ltd appointed Environmental Impact Management Services (Pty) Ltd (EIMS) to conduct an external audit of the Environmental Authorization and accompanying Environmental Management Programme (EMPr), in compliance with section 54A (3) of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) which states:

*“Where an environmental authorisation issued in terms of the ECA regulations or the previous NEMA regulations is still in effect by 8 December 2014, the EMPr associated with such environmental authorisation is subject to the requirements contained in Part 3 of Chapter 5 of these Regulations and the first environmental audit report must be submitted to the competent authority no later than 7 December 2019 and at least every 5 years thereafter for the period during which such environmental authorisation is still in effect.”*

Additional to the EIA regulation requirements, scheduled Environmental Compliance Audits are required to be undertaken in terms of Regulation 34 of the National Environmental Management Act, Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014. Regulation 34 states:

- 1) *“The holder of an environmental authorisation must, for the period during which the environmental authorisation and EMPr, and where applicable the closure plan, remain valid-*
  - (a) *Ensure that the compliance with the conditions of the environmental authorisation and the EMPr, and where applicable the closure plan, is audited; and*
  - (b) *Submit an environmental audit report to the relevant competent authority.*
- 2) *The environmental audit report contemplated in sub-regulation (1) must-*
  - (a) *be prepared by an independent person with the relevant environmental auditing expertise;*
  - (b) *provide verifiable findings, in a structured and systematic manner, on*
    - i) *The level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and*
    - ii) *The ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;*
  - (c) *Contain the information set out in Appendix 7; and*
  - (d) *Be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation”.*

This Audit represents the Environmental Compliance Audit of the EA and Environmental Management Programme (EMPr) for the year 2019 in line with the requirements of NEMA.

The scope of the audit is to assess compliance with the conditions of the EA and EMPr as well as to confirm the continued adequacy of the EMPr. The purpose of the audit is to ensure compliance with the requirements of the EA and EMPr. The objectives of the audit are to determine:

- The level of performance against, and compliance of the organisation or project with, the provisions of the EA and EMPr; and
- The ability of the measures contained in the EMPr, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.



An audit checklist was prepared to evaluate the compliance with each condition contained in the EA and EMPr. Following the initial checklist preparation, a site visit was undertaken on the 25<sup>th</sup> of November 2019. The findings of this audit are based on visual inspection of certain construction areas, interviews, as well as documentation reviewed.

Compliance with the requirements of the EA and EMPr was evaluated using pre-determined scoring criteria as described in Section 4.2. The results of the evaluation are provided in Section 5.2 and the findings are described in Section 5.3. Each condition in the EA and EMPr was weighted equally in order to determine a compliance score. Utilising this scoring system, a compliance score of 87,65% was obtained for EA and 91,24% obtained for the EMPr during this audit. The key findings of the audit are provided in Table 1.

Table 1: Summary of findings of the EA and EMPr.

Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
<b>Environmental Authorization (EA)</b>			
1	4	The activities authorised may only be carried out at the property as described above.	A campsite was established outside the footprint area. Satellite temporal campsite was established outside the site development footprint. DEA authorisations department was consulted by the ECO and DEA recommended that the project should apply for an amendment of the site layout.
2	46	During construction the applicant must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.	
3	52	Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features	
4	113	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, 2010.	
5	31	The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.	
6	119	Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.	
			The authorised activity commenced before twenty (20) days of the date of signature of the authorisation had lapsed. It was reported that Power Construction had commenced with site establishment within 20 days of issue of the EA.
			No dust suppression techniques are being implemented. Contractor installed the pump for abstraction of water for dust suppression from a dam on site yet the GA available does not provide for water abstraction from the dam for construction purposes but for



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
7	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.	agricultural purposes. The applicant confirmed in an email that the department has since been contacted to amend the GA. Only BH4 has been authorized for water abstraction for construction purposes. Subsequent to the submission of the draft audit report proof was submitted that dust suppression is now being implemented by way of water spraying.
<b>Environmental Management Programme (EMPr)</b>			
1	5.2	Compile and implement a grievance mechanism procedure for the public (using Appendix I) to be implemented during both the construction and operational phases of the facility and if applicable during decommissioning. This procedure should include details of the contact person who will be receiving issues raised by interested and affected parties, and the process that will be followed to address issues. A Project Specific Grievance Mechanism will be developed and implemented prior to construction.	No proof of written communication to local landowners, communities and authorities by the Applicant of the grievance mechanism and the process by which grievances can be brought to the attention of the Applicant was available at the time of the audit.
2		Develop and implement a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel. This procedure should be in line with the South African Labour Law.	No proof of a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel was provided.
3		A realistic, collaborative monitoring programme and protocol should be drawn up by the palaeontologist in conjunction with the proponent.	No proof of a realistic, collaborative monitoring programme and protocol was provided. Applicant should implement recommendations provided in Appendix M of Palaeontological desktop Assessment.
4	6.3	Fence and secure Contractor's equipment camp.	Contractor equipment was observed in a temporary camp/laydown area outside the authorized development area.
5		Skills audit to be undertaken as per Renewable Energy Independent Power Producer Procurement Process (REIPPPP) Enterprise Development (ED) and Socio-Economic Development (SED) Requirements to determine training and skills development requirements.	No proof for any skills audit undertaken to date was provided to the auditor besides the training matrix.



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
6		Skills audit to determine need for training and skills development programme undertaken within 1 month of commencement of construction phase.	
7		Establish a line of communication and notify all stakeholders and sensitive receptors of the means of registering any issues, complaints or comments.	No proof of line of communication and notification of all stakeholders and sensitive receptors for registering any issues, complaints or comments as was provided to the auditor.
8		Implement appropriate dust suppression measures on site such as wetting roads on a regular basis including during site clearing and periods of high winds (by using non-potable water as far as practically possible).	Nuisance dust was observed where earthworks are taking place and gravel roads and no suppression being implemented on site. Subsequent to submission of draft audit report photographic record was provided that dust suppression is now being implemented on site, plans are underway to start suppressing dust on site. Contractor is reminded that only BH4 is authorized for abstracting water for construction purposes.
9		Signage must be established at appropriate points warning of turning traffic and the construction site (all signage to be in accordance with prescribed standards). Signage must be maintained on an on-going basis.	Signage establishment has not yet implemented.
10		Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. All vehicles travelling on public roads must adhere to the specified speed limits and all drivers must be in possession of an appropriate valid driver's license.	Signage establishment has not yet implemented to address this condition.
11	6.5	Ensuring that employee information posters, outlining the environmental "do's" and "don'ts" (as per the environmental awareness training course) are erected at prominent locations throughout the site.	No evidence of employee information posters was observed on site.

Based on the audit, some shortcomings were noted regarding the adequacy and effectiveness of the EMPr to manage and mitigate the current activities and impacts of this project. An amendment to the EMPr is required to accommodate the temporary satellite camp located outside the construction footprint and any other changes from the approved site layout deemed necessary.





# 1 INTRODUCTION

ACED Renewables Hidden Valley (Pty) Ltd was granted an Environmental Authorisation (EA) (DEA Ref. no: 12/12/20/2370/1) for the proposed 140 MW Karusa Wind Energy Facility (Phase 1) on the farm De Hoop 202; the farm Standvastigheid 210; portion 3 and the remainder of the farm Rheebokke Fontein 209 within the Karoo Hoogland Local Municipality, Northern Cape on the 12<sup>th</sup> of August 2014 from the Department of Environmental Affairs (DEA). ACED Renewables Hidden Valley (Pty) Ltd appointed Environmental Impact Management Services (Pty) Ltd (EIMS) to conduct an external audit of the Environmental Authorization and accompanying Environmental Management Programme (EMPr), in compliance with section 54A (3) of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) which states:

*“Where an environmental authorisation issued in terms of the ECA regulations or the previous NEMA regulations is still in effect by 8 December 2014, the EMPr associated with such environmental authorisation is subject to the requirements contained in Part 3 of Chapter 5 of these Regulations and the first environmental audit report must be submitted to the competent authority no later than 7 December 2019 and at least every 5 years thereafter for the period during which such environmental authorisation is still in effect.”*

Additional to the EA requirements, scheduled Environmental Compliance Audits are required to be undertaken in terms of Regulation 34 of the National Environmental Management Act, Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014. Regulation 34 states:

- 1) *“The holder of an environmental authorisation must, for the period during which the environmental authorisation and EMPr, and where applicable the closure plan, remain valid-*
  - (c) *Ensure that the compliance with the conditions of the environmental authorisation and the EMPr, and where applicable the closure plan, is audited; and*
  - (d) *Submit an environmental audit report to the relevant competent authority.*
- 2) *The environmental audit report contemplated in sub-regulation (1) must-*
  - (e) *be prepared by an independent person with the relevant environmental auditing expertise;*
  - (f) *provide verifiable findings, in a structured and systematic manner, on*
    - i) *The level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and*
    - ii) *The ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;*
  - (g) *Contain the information set out in Appendix 7; and*
  - (h) *Be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation”.*

This Audit represents the Environmental Compliance Audit of the EA and EMPr for the year 2019 in line with the requirements of NEMA.

## 1.1 DETAILS OF THE APPLICANT

Details of the Applicant are summarised in Table 2 below.

Table 2: Details of the applicant

<b>Company</b>	<b>ACED Renewables Hidden Valley (Pty) Ltd</b>
<b>Postal address</b>	P.O. Box 651286



	Benmore
	2010
<b>Operations physical address</b>	ACED Renewables Hidden Valley (Pty) Ltd, Sutherland, 6920
<b>Head Office Telephone number</b>	+27 10 344 0220
<b>Head Office Fax Number</b>	N/a

## 1.2 BRIEF PROJECT DESCRIPTION

Karusa Wind farm site shall be located within the Karoo Hoogland Local Municipality (approximately 30 km south of Sutherland in the Northern Cape Province). The facility will be powered by wind. No other fuels will be used as a generating fuel during the operational phase of the project. The Karusa Wind Farm is proposed on the following farm portions (which collectively occupies land of approximately 136.2 km<sup>2</sup> in extent)

- Farm De Hoop 202;
- Farm Standvastigheid 210;
- Portion 3 and the remainder of Farm Rheeboeke Fontein 209.

The project will include the following infrastructure:

- 35 wind turbines appropriately spaced to make use of the wind resource on the site. The facility would be operated as a single facility with each turbine being capable of producing 4.2MW.
- Each wind turbine will consist of a Tubular Steel foundation (approximately 50m x 60m - circular base of approximately 25m diameter), a steel tower, a hub (82m above ground level) and three blades with a rotor diameter of 136m.
- Permanent laydown/ hardstand areas (approximately 50m x 60m).
- Temporary infrastructure, including a site camp, laydown areas and a batching plant.
- Cabling (medium voltage) between wind turbines and other relevant components, laid approximately 1 m underground where underground cabling is feasible. In as far as possible, cabling will follow the internal access roads.
- Internal roads (approximately 8 m in width) linking the wind turbines and other infrastructure on the site. Existing farm roads will be used as far as possible. However, the dispersed distribution pattern of wind turbines and the vast areas of the site which are not currently accessible will necessitate the construction of ~30 km of new access roads.
- Operations and services workshop area / office building for control, maintenance and storage (approximately 2000m<sup>2</sup>).
- Guard house for access security of 50m<sup>2</sup>.

## 2 DETAILS OF THE AUDITOR

The audit was undertaken by Emmanuel Manyange from EIMS and the details of the auditor are described below.

### 2.1 EXPERTISE OF THE AUDITOR

Emmanuel is an environmental consultant offering environmental management, auditing, monitoring and project management services. He is currently studying PhD in Leadership & Management, holds (MLM) master's in Leadership & Management and has a B.A General in Geography & Philosophy. He completed a higher



certificate in Environmental Management Systems Auditor/ Lead Auditor Training Course with Bureau Veritas (BV). Before joining EIMS in June 2012 as an Environmental Control Officer, he worked as a SHE Advisor for Translink Truck and Bus, Safety Health and Environmental manager for SteelMakers Zimbabwe group of companies, Assistant Environmental Consultant for Prime-chart Environmental Consultancy (on part-time basis) and Provincial Environmental Education & Extension Officer for Environmental Management Agency of Zimbabwe. He successfully completed numerous on-the-job environmental training courses with the Environmental Management Agency and has professional experience, gained over 15 years, mainly with environmental compliance audits and monitoring, environmental impact assessments, including project planning & management (Steel Processing Plants, Gold mines, Coal & Iron Ore mines, Road Construction, Irrigation Schemes, among others) in the mining and infrastructure sectors. Other experience includes, Environmental Auditing and Monitoring, Environmental Education and Awareness, Environmental Incident Investigations and Reporting, ISO14001, Site Assessments, Risk Assessments & Management, Rehabilitation Advice and Monitoring, Local Environmental Action Planning (LEAP's), Team Leadership and Management, Environmental Management Plans and procedures. Emmanuel's experience is mainly in Zimbabwe (8 years), within South Africa (7 years) and has been involved in a Mozambique Project (4 months). He also worked in various community projects under United Nations Development Program (UNDP), Desert Margins Program (DMP) and IUCN for wetland rehabilitation (2002 -2007). Emmanuel contributed to a research paper and implementation of Soil and Water Conservation Techniques at Shashe Block of Farms in Masvingo, presented at the World Congress on Conservation Agriculture - Nairobi, Kenya (May 2005).

## 2.2 DECLARATION OF INDEPENDENCE

*I, Emmanuel Manyange declare that –*

- *I act as the independent environmental auditor;*
- *I will perform the work relating to the audit in an objective manner, even if this results in views and findings that are not favourable to the Client;*
- *I declare that there are no circumstances that may compromise my objectivity in performing such work;*
- *I have expertise in conducting environmental audits, including knowledge of the environmental Acts, regulations and any guidelines that have relevance to the audited operations;*
- *I will comply with the relevant Acts, regulations and all other applicable legislation;*
- *I have no, and will not engage in, conflicting interests in the audit process;*
- *I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the NEMA.*

*I do not have and will not have any vested interest (either business, financial, personal or other) in the audit other than remuneration for work performed.*

## 3 SCOPE, PURPOSE AND OBJECTIVE OF THE AUDIT

### 3.1 PURPOSE AND SCOPE OF THE AUDIT

The purpose of the audit is to ensure compliance with the requirement of the EA and EMPr as well as the NEMA EIA Regulation 34 to undertake scheduled compliance audits of the EA and EMPr. More so, amended EIA Regulations 54A (3);

*“Where an environmental authorisation issued in terms of the ECA regulations or the previous NEMA regulations is still in effect by 8 December 2014, the EMPr associated with such environmental authorisation is subject to the requirements contained in Part 3 of Chapter 5 of these regulations and the first environmental audit report must be submitted to the competent authority no later than 7 December 2019 and at least every 5 years thereafter for the period during which such environmental authorisation is still in effect.”*

The environmental audit seeks to cover the following scope of work or part thereof:



- The extent of EA / EMPr compliance;
- The consistency of site activities with activities provided for in the EA and EMPr;
- The accuracy and effectiveness of data reporting processes to ensure the integrity of the reported data;
- The effectiveness of incident identification, classification, recording, reporting and management including follow-up processes;
- To identify opportunities for improvement and make recommendations

## 3.2 OBJECTIVES OF THE AUDIT

In terms of Regulation 34 of the 2014 EIA Regulations (Government Notice R. 982), objectives of the environmental audit report are;

- Report on:
  - The level of compliance with the conditions of the environmental authorisation and the EMPr; and
  - The extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr.
- Identify and assess any new impacts and risks as a result of undertaking the activity;
- Evaluate the effectiveness of the EMPr;
- Identify shortcomings in the EMPr;
- Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr

## 4 AUDIT METHODOLOGY

### 4.1 PROCEDURE FOR THE AUDIT

Initial documentation was obtained and reviewed in preparation for the audit. A checklist was prepared based on the requirements of the EA and EMPr. Following the initial checklist preparation and documentation review, a site visit was undertaken on 25<sup>th</sup> of November 2019 to determine compliance with the EA and EMPr. Compliance with the requirements of the EA and EMPr was evaluated using the pre-determined scoring criteria as described in Section 4.2. The results of the evaluation are provided in Section 5.2 and the findings are described in Section 5.3 of this report.

The report provides recommendations for improvement based on general findings and site observations. Findings from the audit and site inspection that did not relate to a particular EA and EMPr condition did not contribute to the audit score. However, where deficiencies have been identified that do not necessarily correspond to EMPr conditions, these findings have been used to provide recommendations for improvement.

Various documentation and records were required during the audit to confirm compliance with the EA and EMPr conditions. Where possible, documentation and records were made available electronically for review prior to the site visit. The rest of the information required for verification of compliance was provided following the site inspection. No physical testing or chemical analysis was performed during the assessment and information provided by employees was verified by inspection only.

There is wide variety of South African environmental legislation and the Karusa Wind farm is required to comply with all relevant legislation in their operations. For the purposes of this report, some of the main environmental legislation applicable to the Karusa Wind farm, and considered during the audit, has been listed in Table 3 below.

Table 3: General Environmental Legislation.



Title of legislation, policy or guideline:	Administering authority:
National Water Act (Act No. 36 of 1998)	Department of Water and Sanitation
National Environmental Management Act (Act No. 107 of 1998) - and associated Regulations	National Department of Environment, Forestry and Fisheries

Whilst consideration was given to the legislation listed in the table above, a full comprehensive legal compliance audit is beyond the scope of this audit. Where reference is made to legislation or other statutory provisions in this report, the original legislation or other statutory provisions will always take precedence and the reader is directed to revert to the original legislation or statutes.

## 4.2 EVALUATION CRITERIA USED DURING THE AUDIT

The scoring criteria used during the audit are as follows:

Table 4: Compliance Rating Protocol.

Compliance Rating	Score	Description
<b>Full-Compliance</b>	4	Indicating that the condition was fully complied with
<b>Partial-Compliance</b>	2	Indicating that the condition has not been fully complied with and that additional measures are required to obtain full compliance.
<b>Non-Compliance</b>	0	Indicating that the condition has not been complied with
<b>Not Applicable</b>	N/A	Indicating that the condition is not currently applicable. Not applicable conditions were removed from the total number of conditions from which the compliance score was calculated.
<b>Not Verified</b>	-	Indicating that the condition was not verified for various reasons. Non-verifiable conditions were removed from the total number of conditions from which the compliance score was calculated

Certain conditions have been included in the EA and EMPr for information purposes and are either not possible, or within the scope of this audit, to verify compliance with these conditions. These conditions do not contribute to the audit scoring and as such have been marked as not-applicable (N/A). It is important however to note that despite certain conditions not being scored in the audit checklist, these conditions remain binding on the applicant and must be implemented and complied with by ACED Renewables Hidden Valley (Pty) Ltd – Karusa Wind farm as and when relevant to ensure compliance.

According to the scoring criteria, findings have been given a straight compliance score and a weighted compliance score. The straight compliance score is calculated based on the compliance with the relevant conditions (i.e. yes or no). The weighted compliance score is calculated by using the compliance rating protocol (0, 2, 4) and scoring the individual conditions and calculating the percentage compliance.

## 4.3 CONSULTATION PROCESS UNDERTAKEN

The findings of this audit are based on visual inspection of the construction areas, interviews, as well as documentation reviewed. No physical testing or chemical analysis was performed during the assessment and information provided by employees was verified by inspection and review only. The personnel that was interviewed and assisted with the audit includes, inter alia:

- Jerry Malebo (Environmental Officer – Nsovo);
- Kelly Ryan (Environmental Officer – Power Construction);



- Jarod Petersen (Power Construction);
- Mbali Ndaba (Power Construction); and
- Thomas Raswiswi (Nsovo).

## 5 RESULTS OF THE ASSESSMENT

### 5.1 COMPLIANCE SUMMARY

#### 5.1.1 COMPLIANCE WITH THE EA

A total of 134 conditions of the EA were identified and evaluated. 53 of these conditions were considered not applicable to the current phase of the project and 81 were deemed applicable. Of the applicable conditions a total of 68 conditions were noted to be fully compliant and 6 partially compliant. 7 conditions were non-compliant. The level of compliance for each condition was calculated according to the methodology described in section 4.2. Utilising this scoring system, a total weighted compliance score of 87,65% was obtained for this audit. A summary of compliance is presented in Figure 1 below.

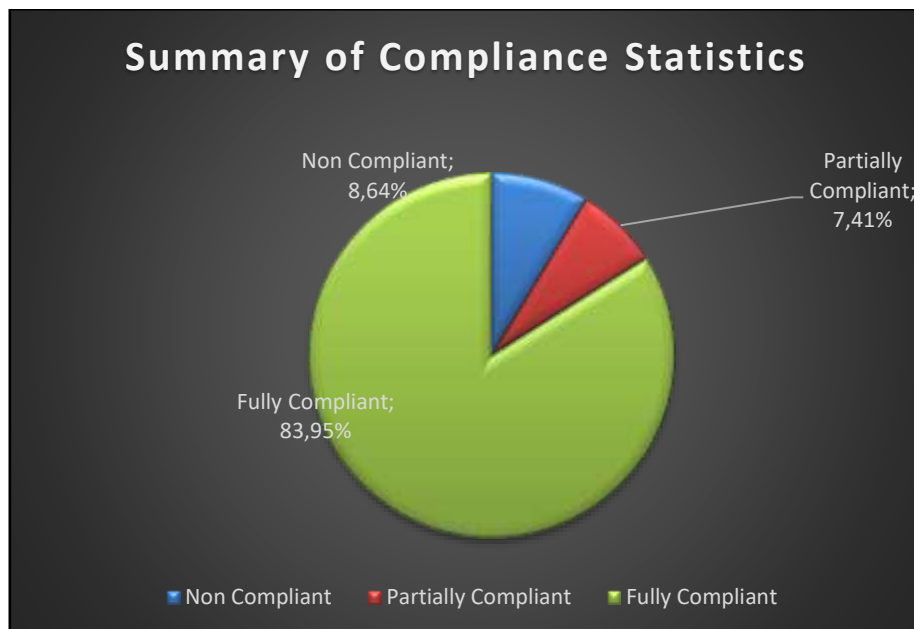


Figure 1: Summary of EA compliance statistics.



### 5.1.2 COMPLIANCE WITH THE EMPr

A total of 292 commitments of the EMPr were identified and evaluated. 75 of these commitments were considered not applicable to the current phase of the project and 217 were deemed applicable. Of the applicable commitments a total of 190 commitments were noted to be fully compliant, 16 partially compliant and 11 were non-compliant. The level of compliance for each commitment was calculated according to the methodology described in section 4.2. Utilising this scoring system, a total weighted compliance score of 91,24% was obtained for this audit. A summary of compliance is presented in Figure 2 below.

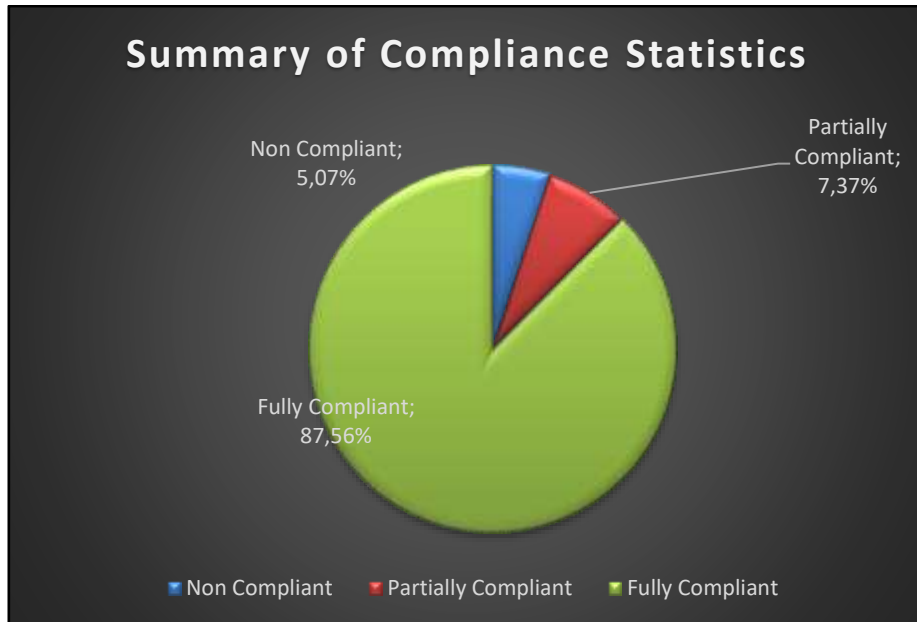


Figure 2: Summary of EMPr compliance statistics

## 5.2 COMPLIANCE EVALUATION

Sections below present findings from the EA and EMPr compliance evaluation.



## 5.2.1 COMPLIANCE EVALUATION OF THE EA

A total of 134 conditions were assessed according to the assessment methodology as described in section 4.2 and the findings of the audit are presented in **Error! Not a valid bookmark self-reference.**Table 5 below

Table 5: Compliance evaluation of EA conditions

Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
<b>Scope of Authorisation</b>				
1.	The preferred alternative for the construction of the 140MW Karusa Wind Energy Facility (Phase 1) and its associated infrastructure as described above is hereby approved,	N/A	N/A	Information item. Noted by the Applicant.
2.	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	N/A	N/A	Information item. Noted by the Applicant.
3.	The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.	N/A	N/A	Information item. Noted by the Applicant.
4.	The activities authorised may only be carried out at the property as described above.	N	0	Establishment of a contractor's camp was undertaken on property not authorised by the EA.
5.	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.	Y	4	Property details were amended as per amendment number 2 dated 4th of November 2016.





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
6.	This activity must commence within a period of seven (07) years from the date of issue of this 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.	Y	4	DEA granted the Applicant an extension of 7 years from the date of issue of the EA (i.e. the EA lapses on the 12th of August 2021).
7.	Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.	N/A	N/A	Information Item. Noted by the Applicant.
8.	This authorisation does not negate the holder of the authorisations responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	N/A	N/A	Information Item. Noted by the Applicant.
9.	The holder of an environmental authorisation must notify the competent authority of any alienation, transfer and change of ownership rights in the property on which the activity is to take place.	N/A	N/A	Information Item. Noted by the Applicant. No alienation, transfer and change of ownership rights has taken place on the authorised properties.
<b>Notification of authorisation and right to appeal</b>				
10.	The holder of the authorisation must notify every registered interested and affected party, in writing and within 12 (twelve) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.	Y	4	A granted 12 August 2014, notification done on 20 August 2014 and EA amendment was granted on 9 September 2019 and notifications were send on the 17th of September 2019 thus within 12 calendar days thus within 12 calendar days respectively.
11.1-11.4	The notification referred to must – 1 1.1. specify the date on which the authorisation was issued; 11.2. inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment Regulations, 2010; 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	Y	4	Notification referred to items 11.1 -11.4



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
12.1-12.3	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 the newspaper(s) contemplated and used in terms of regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.	Y	4	Noordwester / Messenger dated 29 August 2014 and Die Burger dated 26 August 2014 newspaper /public notification were made available to the auditor
<b>Management of the activity</b>				



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
<b>13.1.- 13.15</b>	<p>13. A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the applicant 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:</p> <p>13.1 Cable routes and trench dimensions (where they are not along internal roads);</p> <p>13.2 A 150 m and 100m buffer respectively between watercourses; ridge edge and the turbines/construction activities;</p> <p>13.3 Position of wind turbines and associated infrastructure;</p> <p>13.4 Foundation footprint;</p> <p>13.5 Internal roads indicating width;</p> <p>13.6 Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;</p> <p>13.7 All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;</p> <p>13.8 Substation(s) inverters and/or transformer(s) sites including their entire footprint;</p> <p>13.9 Connection routes (including pylon positions) to the distribution/transmission network;</p> <p>13.10 All existing infrastructure on the site, especially roads;</p> <p>13.11 Soil heaps (temporary for topsoil and subsoil and permanently for excess material);</p> <p>13.12 Temporary construction laydown areas;</p> <p>13.13 Borrow pits;</p> <p>13.14 Buildings, including accommodation; and,</p> <p>13.15 All "no-go" and buffer areas</p>	N	0	<p>An approved layout plan was not made available during the audit or on request after the audit.</p>



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
14.	<p>Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:</p> <p>Postal Address:            Department of Environmental Affairs            Private Bag x447            Pretoria            0001</p> <p>Physical address:            Department of Environmental Affairs            Environment House 473 Steve Biko,            Arcadia,            Pretoria, 0083.</p> <p>For Attention: Mr Muhammad Essop            Integrated Environmental Authorisations            Strategic Infrastructure Developments            Telephone Number: (012) 399 9406            Email Address: MEssop@environment.gov.za</p>	Y	4	An approved layout plan shape file was made available upon request after the audit.
15.	<p>The Environmental Management Programme (EMPr) submitted as part of the EMPr 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 applicant</p>	Y	4	An amended /approved EMPr was made available on request after the audit.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	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			
16.	The EMPr is amendable and 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.	Y	4	Information Item. An amendment of the EMPr was undertaken on 9th of September 2019.
17.	Changes to the EMPr, which are environmentally defensible, shall be submitted to this Department for acceptance before such changes could be effected.	N/A	N/A	Information Item. Noted by the Applicant.
18.	The Department reserves the right to amend the EMPr should any impacts that were not anticipated or covered in the EMPr be discovered.	N/A	N/A	Information Item. Noted by the Applicant.
19.	The provisions of the approved EMPr including recommendations and mitigation measures in the EMPr and specialist studies shall be an extension of the conditions of this EA and therefore noncompliance with them would constitute noncompliance with the EA.	Y	4	Information Item. Noted by the Applicant.
20.1-20.15	20. The EMPr amendment must include the following: 20.1. The requirements and conditions of this authorisation. 20.2. All mitigation measure arising from compliance with conditions 49 of this EA. 20.3. All recommendations and mitigation measures recorded in the EIAr. 20.4. All mitigation measures as listed in the specialist reports must be included in the EMPr and implemented. 20.5. The final site layout map. 20.6. 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.	N	2	Information to be noted by the contractor to ensure compliance



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	<p>20.7. 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.</p> <p>20.8. 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.</p> <p>20.9. 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.</p> <p>20.10.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.</p> <p>20.11. 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.</p>			



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	<p>20.12. 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.</p> <p>20.13. 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.</p> <p>20.14. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.</p> <p>20.15. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the Wind Energy Facility as stated in the EMPr and this authorisation.</p>			
<b>Environmental Control Officer (ECO) and duties</b>				
21.	The holder of this authorisation must appoint an independent Environmental Control Officer (ECO) with experience or expertise in the field for the construction phase of the development. The ECO will have the responsibility to ensure that the conditions referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMPr.	Y	4	EIMS (Pty) Ltd was appointed to provide ECO services to the project.
22.	The ECO must be appointed before commencement of any authorised activity.	Y	4	EIMS (Pty) Ltd was appointed to provide ECO services to the project before commencement of the project.
23.	Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of this Department.	Y	4	ECO details were submitted to the DEA on the 25th of September 2019.
24.	The ECO must meet with the contractors to discuss the conditions of the EA and the contents of the EMPr prior to any site clearing occurring.	Y	4	ECOs conducted a high-level training with the contractor on the requirements of the EA and EMPr.
25.	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.	Y	4	Information item, Noted by the Applicant.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
<b>26.1-26.7</b>	<p>26. The ECO must:</p> <p>26.1. Keep record of all activities on site, problems identified, transgressions noted, and a schedule of tasks undertaken by the ECO,</p> <p>26.2. Keep and maintain a detailed incident (including spillage of bitumen, fuels, chemicals, or any other material) and complaint register on site indicating how these issues were addressed, what rehabilitation measures were taken and what preventative measures were implemented to avoid re-occurrence of incidents/complaints.</p> <p>26.3. Keep and maintain a daily site diary.</p> <p>26.4. Keep copies of all reports submitted to the Department.</p> <p>26.5. Keep and maintain a schedule of current site activities including the monitoring of such activities.</p> <p>26.6. Obtain and keep record of all documentation, permits, licences and authorisations such as waste disposal certificates, hazardous waste landfill site licences etc, required by this facility.</p> <p>26.7. Compile a monthly monitoring report.</p>	Y	4	ECO is maintaining a daily site diary, incident and complaints register, compiling monthly reports to be submitted to the department and keeps record of permits, licenses and authorizations.
<b>Recording and reporting to the Department</b>				
<b>27.</b>	The holder of this authorisation must keep all records relating to monitoring and auditing on site and make it available for inspection to any relevant and competent authority in respect of this development	Y	4	ECOs compile monthly audit reports and keep all monitoring and auditing records on site file.
<b>28.</b>	All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the Director: Compliance Monitoring at this Department.	Y	4	ECO report was under review at the time of the audit and will be send to the department once finalised.
<b>Environmental audit report</b>				





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
29.	The holder of the authorisation must submit an environmental audit report to the Director: Compliance Monitoring of the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and within 30 days of completion of rehabilitation activities.	N/A	N/A	Not yet applicable since project is still in the construction phase.
30.1-30.9	30. The environmental audit report must: 30.1. Be compiled by an independent environmental auditor; 30.2. Indicate the date of the audit, the name of the auditor and the outcome of the audit; 30.3. Evaluate compliance with the requirements of the approved EMPr and this environmental authorisation; 30.4. Include measures to be implemented to attend to any non-compliances or degradation noted; 30.5. Include copies of any approvals granted by other authorities relevant to the development for the reporting period; 30.6. Highlight any outstanding environmental issues that must be addressed, along with recommendations for ensuring these issues are appropriately addressed; 30.7. Include a copy of this authorisation and the approved EMPr; 30.8. Include all documentation such as waste disposal certificates, hazardous waste landfill site licences etc. pertaining to this authorisation; and 30.9. Include evidence of adherence to the conditions of this authorisation and the EMPr where relevant such as training records and attendance records.	N/A	N/A	Not yet applicable since project is still in the construction phase.
<b>Commencement of the activity</b>				
31.	The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.	N	0	The authorised activity commenced before twenty (20) days of the date of signature of the authorisation had lapsed. It was reported that Power Construction had commenced with site establishment within 20 days of issue of the EA



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
32.	An appeal under section 43 of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise.	N/A	N/A	Information item. Noted by the Applicant
33.	Should you be notified by the Minister of a suspension of the authorisation pending appeal procedures, you may not commence with the activity until such time that the Minister allows you to commence with such an activity in writing.	N/A	N/A	Information item. Noted by the Applicant
34.	The holder of this authorisation must obtain a Water Use Licence from the Department of Water Affairs (DWA) prior to the commencement of the project should the holder impact on any wetland or water resource. A copy of the license must be kept by the ECO.	N	2	Approved General Authorisations were available for review. It was observed that the contractor installed the pump for abstraction of water for dust suppression from a dam on site yet the GA made available to the auditor does not provide for water abstraction from the dam for construction purposes but for agricultural purposes. An email confirmed that DWS has since been contacted to amend the approval since application for re-zoning was done. Only BH4 has been authorized for water abstraction for construction purposes.
<b>Notification to authorities</b>				
35.	Fourteen (14) days written notice must be given to the Department that the activity will commence. 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. This notification period may coincide with the Notice of Intent to Appeal period, within which construction may not commence.	Y	4	The Department of Environmental Affairs was notified on the 25th of September 2019 of commencement of the activity.
<b>Operation of the activity</b>				
36.	Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.	N/A	N/A	Not yet applicable since project is still on construction phase.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
37.	The holder of this authorisation must compile an operational EMPr for the operational phase of the activity or alternatively, if the holder has an existing operational environmental management system, it must be amended to include the operation of the authorised activity.	Y	4	EMPr revision 2 of August 2019 covers the operational phase of the project
38	The EMPr must form part of the contract with the EPC Contractor appointed to construct the proposed facility and must be used to ensure compliance with environmental specifications and management measures.	N/A	-	This could not be verified at the time of the audit as the Auditor was not preview to the contractual documents between the contractor and the EGP.
<b>Site closure and decommissioning</b>				
39.	Should the activity ever cease or become redundant, the applicant shall 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.	N/A	N/A	Information item. Noted by the Applicant
<b>Specific conditions-Avifauna and bats</b>				
40.	Avifauna and bats-A bird and bat monitoring programme must be implemented to document the effect of the operation of the energy facility on avifauna and bats. Active breeding nests in the immediate surroundings must be monitored during the construction phase and further mitigation measures must be discussed with the avifaunal specialist and implemented if necessary.	N/A	N/A	Not yet applicable since project is still on construction phase. However, and Avifauna study was undertaken during the EIA and all mitigation measures will be implemented during the operational phase.
41.	The results of the pre-construction bat monitoring programme dated April 2014 must inform the final layout and the construction schedule of the energy facility.	N/A	-	This could not be verified at the time of the audit as the final layout and construction schedule were not made available.
42.	A construction monitoring plan must survey bird communities on the Wind Energy Facility and must be implemented to monitor impacts resulting from the infrastructure installations. This plan must have a minimum duration of at least 1 (one) year.	N/A	N/A	Not yet applicable since project is still on construction phase and no turbines have been installed yet.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
43.	Post-construction avifauna and bat monitoring by an independent monitor should take place for at least two years after operation has commenced. It is recommended that this is done in accordance with BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa.	N/A	N/A	Not yet applicable since project is still on construction phase.
44.	Reports regarding bird monitoring must be submitted to the relevant provincial environmental department, BirdLife South Africa, the Endangered Wildlife Trust (EWT) and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures and to establish protocols for a bird monitoring programme for wind energy development in the country.	N/A	N/A	Not yet applicable since project is still on construction phase, no monitoring has been undertaken as yet.
45.	The facility must be designed to discourage the use of infrastructure components as perching or roosting substrates by birds and bats.	Y	4	Information item. Noted by the Applicant and designs took into account the perching or roosting substrates by birds and bats.
46.	During construction the applicant must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.	N	0	A campsite was established outside the footprint area.
47.	Anti-collision devices such as bird flappers must be installed where power lines 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	N/A	N/A	Not yet applicable since project is still on construction phase.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
48.	A pre-construction walk through on the selected power line alignment by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that the micro-siting of the turbines has 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.	Y	4	A pre-construction walk through was done with the bat specialist during the EIA phase.
<b>Specific conditions-Vegetation, wetlands and water resources</b>				
49.	A 150 m between watercourses and 100m buffer between the ridge edge and the turbines/construction activities must be implemented.	N/A	N/A	Not yet applicable since project is still on construction phase.
50.	Vegetation clearing must be limited to the authorised footprint.	Y	4	No clearing of vegetation outside of the authorised footprint was noted during the site inspection
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 kept by the ECO.	Y	4	Permit for removal of protected flora was obtained.
52.	Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features	N	0	Site establishment was undertaken in an area that was not authorised.
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	N/A	N/A	Not yet applicable since project is still on construction phase.
54.	Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.	Y	4	Topsoil was observed windrowed along cleared areas
55.	No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.	N/A	N/A	Not yet applicable since project is still on construction phase.
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 Affairs.	Y	4	GA for abstraction and storage of water are in place. However, a concern was raised that all GAs refers to agricultural and domestic use.
57.	Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.	Y	4	Invasive alien management plan was provided during the audit however no clearing has been undertaken.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
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).	Y	4	Information to be noted by the Applicant
59.	The holder of this authorisation must ensure that all the "No-go" and buffer areas are clearly demarcated (using fencing and appropriate signage) before construction commences.	Y	4	Working areas were observed pegged and demarcated (site layout camp was demarcated with orange netting)
60.	Contractors and construction workers must be clearly informed of the no-go areas.	Y	4	Inductions and toolbox talks are conducted which include discussions about No go areas
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	N/A	N/A	Information item, no road crossings have been developed yet. No concerns were noted during the site inspection.
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.	N/A	N/A	Information item, no bridges have been developed yet. No concerns were noted during the site inspection.
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.	Y	4	Botanist specialist conducted search and rescue for the Karusa project footprint.
64.	Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and leopard tortoises to pass through, but stiff remain effective as a security barrier.	N/A	N/A	Not yet applicable since the electric fence is not installed yet.
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.	N/A	N/A	Not yet applicable since project is still on construction phase.
66.	Wetlands, rivers and river 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.	Y	4	No concerns were noted with regards to watercourse encroachment during the site inspection.
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.	Y	4	SHE Induction and weekly environmental toolbox talks are conducted by the contractor. Attendance registers are kept on site file.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
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	Y	4	ECOs conduct regular inspections on site.
69.	No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.	N/A	N/A	No concerns were noted with regards to discharge of effluents during the site inspection.
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.	N/A	N/A	No pumping of water is currently undertaken.
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	Y	4	SHE Induction and weekly environmental toolbox talks are conducted by the contractor. Attendance registers are kept on site file.
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.	Y	4	ECOs conduct regular inspections on site.
<b>Specific conditions-Roads and transportation</b>				
73.	Existing road infrastructure must be used as far as possible for providing access to the proposed turbine positions. Where no road infrastructure exists, new roads should be placed within existing disturbed areas or environmental conditions must be taken into account to ensure the minimum amount of damage is caused to natural habitats.	Y	4	Existing road infrastructure must be used as far as possible for providing access to the site. New access routes are also being developed.
74.	Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuter, consideration should be given to limiting construction vehicles	Y	4	Existing road signs are visible and driving off road is communicated during toolbox talks.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	travelling on public roadways during the morning and late afternoon commute time.			
75.	Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity	Y	4	Existing road infrastructure must be used as far as possible and environmental sensitivities were taken into account during the planning and EIA phases
76.	A designated access to the site must be created and clearly marked to ensure safe entry and exit.	Y	4	Designated access to site were observed some are under construction.
77.	Signage must be erected at appropriate points warning of turning traffic and the construction site.	N	2	No sufficient warning signage visible on site. Contractor reported to have signed ordered and will be erected by end of November 2019.
78.	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.	Y	4	Information to be noted by the contractor to ensure compliance
79.	Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.	N/A	N/A	Not yet applicable since project is still on construction phase. And roads are under construction
80.	Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.	Y	4	No concerns with regards to surface water runoff were noted during the site inspection.
81.	All construction vehicles should adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.	Y	4	No concerns with regards to speed limits were noted during the site inspection.
82.	The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.	Y	4	Noise monitoring plan is part of the EMPr and Dust & Noise Control Method Statement (15.MS-DNC Rv 00) in place
83.	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.	Y	4	Noise monitoring plan is part of the EMPr and Dust & Noise Control Method Statement (15.MS-DNC Rv 00) in place
<b>Specific conditions-Noise</b>				
84.	The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers	Y	4	No concerns with equipment and machinery were noted during the site inspection.





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
85.	The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place,	Y	4	Communication channel has been established by EGP-EO to communicate to landowners.
86.	All wind turbines should be located at a setback distance of 500m from any homestead and a day/night noise criteria level at the nearest residents of 45dB(A) should be used to locate the turbines. The 500m setback distance can be relaxed if local factors; such as high ground between the noise source and the receiver, indicates that a noise disturbance will not occur.	N/A	N/A	Not yet applicable as no turbines have been constructed yet. Noise assessment was undertaken during the EIA phase
87.	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).	N/A	N/A	Not yet applicable as no turbines have been constructed yet. Noise assessment was undertaken during the EIA phase
88.	Construction staff must be trained in actions to minimise noise impacts.	Y	4	Dust & Noise Control Method Statement (15.MS-DNC Rv 00) dated in place 2019-09-24 and a training matrix was provided (Construction regulations, risk assessments, incident and accident investigation, legal compliance) for staff, local labour etc.
<b>Specific conditions-Visual resources</b>				
89.	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	N	2	No dust suppression techniques used. Contractor to install the pump for abstraction of water for dust suppression by end November 2019. No concerns with regard to erosion were noted.
90.	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.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
91.	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.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
92.	Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function,	N/A	N/A	Information to be noted by the contractor to ensure compliance



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
93.	Commercial messages and graffiti on turbines must be avoided.	N/A	N/A	Information to be noted by the contractor to ensure compliance
<b>Specific conditions-Human health and safety</b>				
94.	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	Y	4	Health and Safety Specification was developed and accepted by client in the month of October 2019 and is currently being implemented on site.
95.	Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.	Y	4	Sentech approval was received on the 27th of June 2019 and is valid till the 27th of June 2020. No potential interferences with public safety communication systems were noted during the site inspection.
96.	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	N/A	N/A	The wind farm has not yet reached operational phase.
97.	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.	Y	4	Approval letter was obtained but is currently being updated to include the updated Final Layout (35 turbines). Application was submitted. Notification of CAA office is required 6 weeks prior to erection of turbines.
98.	The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.	Y	4	WeatherSA approval was received on the 19 of July 2016.
99.	The holder of this authorisation must train safety representatives, managers and workers in workplace safety, the construction	Y	4	Qualified safety officers and safety manager were employed at the inception of the project.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	process must be compliant with all safety and health measures as prescribed by the relevant act.			
100.	Liaison with landowners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.	Y	4	Process of appointing a CLO was said to have started and in the interim communication channel has been established by EGP-EO and ECO to communicate to landowners.
101.	No unsupervised open fires for cooking or heating must be allowed on site.	Y	4	No concerns with regards to fires was noted during the site inspection.
<b>Specific conditions-Hazardous materials and waste management</b>				
102.	The Batching plant must preferably be located within laydown areas outside sensitive ecological, heritage and paleontological areas.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks, batch plants have not been developed yet.
103.	Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
104.	Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.	Y	4	No fuel leaks were noted during the site inspection
105	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.	Y	4	No hazardous waste removed yet and contractor on the process of appointing a service provider to handle and dispose hazardous waste.
106.	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	Y	4	No concerns with regards to waste management were noted during the inspection.
107.	Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
108.	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.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
109.	Temporary bunds must be constructed around chemical storage to contain possible spills	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
110.	Spill kits must be made available on-site for the clean-up of spills.	Y	4	Information to be noted by the contractor to ensure compliance.
111.	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).	Y	4	An integrated waste management approach was said to be implemented
112.	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	Y	4	Bolad toilet services hire is the appointed service provider, service level agreement in place, licence for sewage treatment plant was available on-site file: as well as permit for transportation of sewage waste.
113.	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, 2010.	N	0	Satellite temporary campsite was established outside the site development footprint. DEA authorisations department was consulted by the ECO and DEA recommended that the project should apply for an amendment of the site layout.
<b>Specific conditions-Excavation and blasting activities</b>				
114.	Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
115.	Cabling routes outside internal access routes must be approved by this Department.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
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.	N/A	N/A	Not yet applicable since contractor is still working on bulk earthworks.
117.	Borrow materials must be obtained only from authorized and permitted sites. Permits must be kept on site by the ECO.	Y	4	It was explained that material being used during bulk earthworks is from site. It is recommended that the



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
				applicant adhere to the condition in the event of the use of borrow material permits should be obtained.
118.	Anti-erosion measures such as silt fences must be installed in disturbed areas.	N	2	Although no erosion issues were identified, no anti-erosion measures such as silt fences were noted at areas that are currently being cleared
<b>Specific conditions-Air emissions</b>				
119.	Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.	N	0	No dust suppression techniques are being implemented. Contractor installed the pump for abstraction of water for dust suppression from a dam on site yet the GA available does not provide for water abstraction from the dam for construction purposes but for agricultural purposes. The applicant confirmed in an email that the department has since been contacted to amend the GA. Only BH4 has been authorized for water abstraction for construction purposes. Subsequent to the submission of the draft audit report proof was submitted that dust suppression is now being implemented by way of water spraying.
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.	N	0	Dust emission is a challenge on site.
<b>Specific conditions-Historical / cultural / paleontological resources</b>				
121.	All buffer zones recommended in the specialist environmental reports be respected.	N	2	It is recommended that the contractor revisit the dam buffer zone where abstraction pump and connecting pipes were installed (vehicle tracks were observed within the buffer zone). It is recommended that the contractor double check the GA for abstraction of water for construction to ensure compliance since the dam is authorized for abstraction of water for agricultural purposes and not construction.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
122.	The locations identified as sensitive such as grave sites, should also be protected by buffers. A buffer of 30m from heritage features must be implemented throughout the development footprint.	Y	4	Information to be noted by the contractor to ensure compliance
123.	If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that a systematic and professional investigation/ excavation can be undertaken.	N/A	N/A	Information item. Noted by the Applicant.
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.	Y	4	Construction managers are aware of heritage sites
125.	All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and power lines.	Y	4	Information to be noted by the contractor to ensure compliance
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.	N/A	N/A	Information item. Noted by the Applicant.
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.	Y	4	Information to be noted by the contractor to ensure compliance. No concerns noted.
128.	The final layout should be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.	Y	4	Information to be noted by the contractor to ensure compliance
<b>Specific conditions-Turbines position</b>				
129.	Turbines must be positioned in such a way that shadow flicker does not affect any farm buildings.	N/A	N/A	Information to be noted by the contractor to ensure compliance during positioning of turbines. Currently project is on construction phase bulk earthworks
130.	The final placement of turbines must follow a micro sitting procedure involving a walk-through and identification of any sensitive areas by botanical and avifaunal specialists	N/A	N/A	Information to be noted by the contractor to ensure compliance during positioning of turbines. Currently project is on construction phase bulk earthworks



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
131.	Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro sitting of all development activities. Proof thereof may be requested by this Department.	N/A	N/A	Information to be noted by the contractor to ensure compliance during positioning of turbines. Currently project is on construction phase bulk earthworks
<b>General</b>				
132.	A copy of this authorisation and the approved EMPr must be kept at the property where the activity will be undertaken. The authorisation and approved EMPr must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.	Y	4	The Approved EA and EMPr was available during the audit.
133.	The holder of the authorisation must notify both the Director: Integrated Environmental Authorisations and the Director: Compliance Monitoring at the Department, in writing and within 48 (forty-eight) hours, if any condition of this authorisation cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance.	N/A	N/A	Written 48 hours notification to the Director: Integrated Environmental Authorisations and the Director: Compliance Monitoring at the Department has since lapsed and is not applicable at this stage.
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 applicant or his 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 applicant with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.	N/A	N/A	Information to be noted by the contractor



## 5.2.2 COMPLIANCE EVALUATION OF THE EMPR

A total of 292 commitments were assessed according to the assessment methodology as described in section 4.2 and the findings of the audit are presented in Table 6 below

Table 6: Compliance evaluation of EMPr conditions

Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
5.2	<b>Design and Planning-Objective 1</b>			
	Subject to acceptance from DEA, the layout as detailed in Appendix B must be implemented.	N	2	Proof of EMPr acceptance by DEA was not available at the time of the audit.
	To ensure that pre-construction activities are undertaken in an environmentally friendly manner by e.g. avoiding identified sensitive areas.	Y	4	Bat specialist report and final site layout was provided
	To ensure the selection of the best environmental option for design of infrastructure.	Y	4	Information to be noted by the contractor.
	To ensure that the design of the facility responds to the identified constraints identified through pre-construction bird and bat monitoring.	Y	4	Pre-construction bird and bat monitoring was conducted
	The Proponent to finalise layout of all components and submit to DEA for approval.	Y	4	Final site layout available
	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.	Y	4	Information to be noted by the contractor to ensure compliance
	Ensure that proper planning is undertaken regarding the placement of lighting structures for the facility substation and that light fixtures only illuminate areas inside the facility substation site.	N/A	N/A	Information to be noted by the contractor to ensure compliance
A comprehensive stormwater management must be compiled and detail how stormwater off hard surfaces will be managed to reduce velocities and volumes of water that could lead to erosion of surfaces (refer to Appendix G).	Y	4	Stormwater management plan was developed as an appendix to the EMPr.	





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The EMPr should form part of the contract with the Contractors appointed to construct and maintain the proposed wind energy facility and will be used to ensure compliance with environmental specifications and management measures. The implementation of this EMPr for all life cycle phases of the proposed project is considered to be key in achieving the appropriate environmental management standards as detailed for this project.	Y	4	ECO training on EA & EMPr requirements was conducted
	The final location of the wind turbines and associated infrastructure (including access roads) was informed by a survey undertaken by an ecological specialist to identify any of the Red List plant species that have a geographic distribution in the areas, this includes » Vulnerable species (Romulea eburnea, Lotononis venosa and Geissorhiza karooica); and » Rare species (Cleretum lyratifolium and Strumaria karooica).	Y	4	Plant Rescue and Protection plan was provided, some plants were observed relocated from the access road.
	Water use license/ General Authorisation to be obtained for any impacts on wetlands / drainage lines (if applicable).	N	2	Abstraction and storage GAs have been obtained; however, they only authorise use for domestic and agricultural purposes. No water use licenses were available for crossings.
	Water use license or General Authorisation to be obtained for abstraction of water from on-site borehole/s for construction or operation purposes.	Y	4	GA was granted for abstraction of water from on-site boreholes Karusa BH1,2,3 & Saaiplaas BH01 for domestic water use, and Karusa BH4 for construction or operation purposes & storing of water Karusa Dam for agricultural use. The contractor should note that only Karusa BH4 was granted GA to fulfil this condition (for construction purposes).
	Mining permit/license to be obtained for any borrow pits to be established for the project (if applicable).	Y	4	Barrow pit mining permit/license was requested but was not made available.
	Obtain required abnormal load permits for transportation of project components to site.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Determine an appropriate location for onsite batching outside of identified sensitive areas.	N/A	N/A	The project has just commenced with bulk earthworks
	A detailed geotechnical investigation is required for the design phase.	Y	4	A geotechnical study Report Number 538462/Karusa undertaken for the design phase done by Srk Consulting April 2019 was made available to the auditor.
	The facility must be designed to discourage the use of infrastructure components as perching or roosting substrates by birds.	Y	4	Bat specialist report and final site layout was provided
	Develop an alien invasive plant management plan for the site (refer to Appendix C).	Y	4	An alien invasive plant management plan was developed as an appendix to the EMPr.
	Develop a plant rescue and protection plan for the site (refer to Appendix D).	Y	4	A plant rescue and protection plan was developed as an appendix to the EMPr.
	Develop a re-vegetation and habitat rehabilitation plan for the site (refer to Appendix E).	Y	4	a re-vegetation and habitat rehabilitation plan as developed as an appendix to the EMPr.
	Develop a traffic management plan for the site (refer to Appendix F).	Y	4	Traffic Management Plan was developed as an appendix to the EMPr.
	Develop a storm water management plan for the site (refer to Appendix G).	Y	4	A storm water management plan was developed as an appendix to the EMPr.
	Develop an erosion management plan for the site (refer to Appendix H).	Y	4	An erosion management plan for the site was developed as an appendix to the EMPr.
	Develop 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.	Y	4	The project is currently at the construction phase with minimal site mobilisation. No hazardous substances storage or handling was noted. No concerns were noted with regards to any leakage or spillage of hazardous substances during the site inspection.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The holder of an environmental authorisation has the responsibility to notify the competent authority of any alienation, transfer and, change of ownership rights in the property on which the activity is to take place.	Y	4	Information Item
	Submit a final development layout map for the entire wind farm for approval to the department, as required by the Environmental Authorisation (refer to Appendix B).	Y	4	Final site layout was said to be available
	Fourteen (14) days written notice must be given to the Department that the activity will commence. The notification must include a date on which the activity will commence as well as the reference number.	Y	4	A notice poster was observed during the audit inspection.
	ECO to be appointed prior to the commencement of any authorised activities. Once appointed the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring at the DEA.	Y	4	EIMS (PTY) LTD was appointed to provide ECO services.
	Design meets objectives and does not unnecessarily degrade the environment.	Y	4	No concerns raised at this stage
	Design and layouts etc. respond to the mitigation measures and recommendations in the EIA and walkthrough reports.	Y	4	It is recommended that the final layout be complied with if any changes are to be effected application for amendments should be done.
	Ensure that the design implemented meets the objectives and mitigation measures in the EIA Report through review of the design by the Project Manager and Environmental Control Officer (ECO) Contractor and the Environmental Officer (EO) prior to the commencement of construction.	N/A	N/A	The project has just commenced with bulk earthworks
<b>Design and Planning-Objective 2</b>				
	On-going communication with affected and surrounding landowners is important to maintain during the construction and operational phases of the wind farm. Any issues and concerns raised should be addressed as far as possible in as short a timeframe as possible.	N	2	Grievance Mechanism Procedure for the public was not available at the time of the audit and only verbal confirmation was provided. Notification of the



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
				commencement of construction activities was however undertaken.
	Compile and implement a grievance mechanism procedure for the public (using Appendix I) to be implemented during both the construction and operational phases of the facility and if applicable during decommissioning. This procedure should include details of the contact person who will be receiving issues raised by interested and affected parties, and the process that will be followed to address issues. A Project Specific Grievance Mechanism will be developed and implemented prior to construction.	N	0	A project specific Grievance Mechanism Procedure for the public was not available at the time of the audit and only verbal confirmation was provided. Furthermore, no proof of written communication to local landowners, communities and authorities by the Applicant of the grievance mechanism and the process by which grievances can be brought to the attention of the Applicant was available at the time of the audit.
	Develop and implement a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel. This procedure should be in line with the South African Labour Law.	N	0	No proof of a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel was provided.
	Liaison with landowners is to be undertaken prior to the commencement of construction in order to agree on landowner-specific conditions during construction and maintenance.	Y	4	Gate management (opening and closing) was observed
	An incident reporting system must be developed and used to record non-conformances to the EMPr.	N	2	No proof of an incident reporting system was provided. The auditor was made aware of the use of a WhatsApp group to communicate incidents.
	Public complaints register must be developed and maintained on site in line with the Grievance mechanism (Appendix I).	Y	4	A complaints register has been developed and forms part of the EO weekly reports. However, the register needs to have a closure status column in line with the Grievance mechanism



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
<b>Design and Planning-Objective 3</b>				
	All palaeontological specialist work should conform to international best practice for palaeontological fieldwork and (e.g. data recording fossil collection and curation) should adhere as far as possible to the minimum standards for Phase 2 palaeontological studies recently developed by SAHRA (2013).	Y	4	Information item
	On-site investigation to identify and cordon off sensitive heritage sites/areas must be undertaken prior to commencement of construction.	Y	4	Identification of sensitive heritage areas was undertaken. Sensitive features will be cordoned off prior to construction in that area
	A realistic, collaborative monitoring programme and protocol should be drawn up by the palaeontologist in conjunction with the proponent.	N	0	No proof of a realistic, collaborative monitoring programme and protocol was provided.
	If any changes are made to the final layout of the Karusa Wind Energy Facility, an archaeological walk-through survey of the changes must be conducted and further mitigatory recommendations may be made if necessary.	Y	4	Information item
	All buffers and no-go areas stipulated in the Heritage Report must be adhered to for both facilities, roads and power lines.	Y	4	Information item
	No impacts on valuable fossil heritage and heritage resources.	Y	4	Heritage wall was observed to be affected by the proposed road by-passing the farmer's property (with an operating batch plant). Verbal confirmation was given that the necessary consultations were done with the specialist. The contractor should provide the proof before finalisation of the report.
	Contractor to cordon off sensitive sites	N/A	N/A	The construction team has not yet reached sensitive areas that need to be cordoned off.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
6.1	<b>Construction: Goal for Construction</b>			
	The construction phase of the wind energy facility should be undertaken in such a way that ensures the construction activities are properly managed in respect of environmental aspects and impacts and enables the wind energy facility construction activities to be undertaken without significant disruption to other land uses in the area, in particular with regard to noise impacts, traffic and road use, and effects on local residents	N/A	N/A	Information item
	The construction phase of the facility should also be undertaken in such a way as to minimise the impact on the watercourses, vegetation, fauna and avifauna on the site as well as on any archaeological and historical value the site may have, as determined by the EIA and resultant walkthrough surveys.	N/A	N/A	Information item
6.2	<b>Construction: Institutional Arrangements</b>			
	The Proponent must ensure that the implementation of the facility complies with the requirements of any and all environmental authorisations and permits, and obligations emanating from other relevant environmental legislation. The Proponent will retain various key and facilitation roles and responsibilities during the construction of the wind energy facility; however, the EPC Contractor will be responsible for implementing the conditions of the EMPr.	N/A	N/A	Information item
	<b>Construction- (a) Objective 1: Reporting, Communication, and Responsibilities</b>			
	Formal responsibilities are necessary to ensure that key procedures are executed. Specific responsibilities of the Project Manager, Site Manager, Contractor's Environmental Officer (EO)/ Environmental Representative, ECO and Contractor for the construction phase of this project are as detailed below. Formal responsibilities are necessary to ensure that key procedures are executed.	N	2	The project has PM, SM, contractor EO, ECO and contractor for the construction phase. Interview conducted during audit site inspection on the 25th of November 2019 reflected that there is no specific responsibility for taking care of relocated plant species from the area where earthworks are ongoing. Site organogram



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
				was also requested and could not be provided by the time of this report compilation.
6.3	<b>Construction- Objective 2: Securing Site and Site Establishment</b>			
	Secure site, working areas and excavations in an appropriate manner, as agreed with the Site Manager, ECO/ EO. Environmental Representative.	Y	4	No concerns were noted with regards to securing the site
	Where necessary to control access, fence and secure area using appropriate means, and implement access control procedures – fencing should take cognisance of farming activities, e.g. not limiting game and/or sheep and other animals from accessing water/ food (fencing should be discussed and planned in conjunction with the landowners prior to construction).	Y	4	Gate management (opening and closing) was observed
	Fence and secure Contractor’s equipment camp.	N	0	Contractor equipment was observed in a temporary camp/laydown area outside the authorized development area.
	Develop and implement an efficient access control system which allows for the identification of all people on site.	N	2	Although a visitor’s induction was undertaken at the offices of the applicant, there was no apparent site access control system in place on site. No sign in or checks were required to gain access to the site.
	Concrete batching plant/s to be located in areas of low sensitivity within the approved development area.	N/A	N/A	Bulk earthworks were in progress thus creating access to facilities.
All unattended open excavations must be adequately demarcated and/or fenced (fencing shall consist of a minimum of three strands of wire wrapped with danger tape).	Y	4	No significant open excavations were observed during the audit.	



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Establish appropriately bunded areas for storage of hazardous materials (i.e. fuel to be required during construction). Bunds must be constructed in order to accommodate 110% of the volume of the substance stored.	N/A	N/A	No hazardous material is currently stored on site.
	Establish the necessary ablution facilities with chemical toilets and provide adequate sanitation facilities and ablutions for construction workers (1 toilet per every 15 workers) at appropriate locations on site.	Y	4	Chemical toilets were observed at various intervals where works are in progress.
	Ablution or sanitation facilities should not be located within 100 m from a 1:100-year flood line or within 32m of a watercourse if the aforementioned is unknown.	Y	4	No concerns raised on the location of the toilets however it is recommended that they should be properly anchored against being blown away by strong winds.
	No members of the public/ landowners injured as a result of construction activities.	Y	4	An incidents register has been developed and forms part of the EO weekly reports. No incidents have been captured thus far.
	Fauna and flora is protected as far as practically possible	Y	4	It is recommended that the contractor should ensure all necessary method statements are in place and being implemented on site.
	Appropriate and adequate waste management and sanitation facilities provided at construction site.	Y	4	It is recommended that the contractor complies with the waste management requirements.
	Regular visual inspection of fence for signs of deterioration/forced access.	Y	4	No concerns were raised.
	ECO/ EO/ Environmental Representative to monitor all construction areas on a continuous basis until all construction is completed; immediate report backs to site manager.	Y	4	ECO are monitoring and compiling monthly reports, EOs are compiling daily and weekly reports.
	ECO/ EO/ Environmental Representative to address any infringements with responsible contractors as soon as these are recorded.	Y	4	It is recommended that the reports be shared to ensure that any infringements are addressed.
<b>6.3</b>	<b>Construction-Objective 3: Local Employment</b>			





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Employ as many workers (skilled, semi-skilled / low-skilled) from the local area/ nearby towns as possible.	Y	4	Local labour was employed during the flora and fauna search and rescue operations. Recruitment of local workers being looked into - stakeholder engagements taking place.
	Where required, implement appropriate training and skills development programmes prior to the initiation of the construction phase to ensure that local employment target is met.	N	2	Local labour was employed during the flora and fauna search and rescue operations. However, no proof of other training and skills development programmes prior to the initiation of the construction phase were made to the auditor.
	Develop a database of local BBEEE service providers and ensure that they are informed of relevant tenders and job opportunities. » Database of potential local BBEEE services providers in place before construction phase commences.	Y	4	Local municipal database is used on site.
	Skills audit to be undertaken as per Renewable Energy Independent Power Producer Procurement Process (REIPPPP) Enterprise Development (ED) and Socio-Economic Development (SED) Requirements to determine training and skills development requirements.	N	0	No proof for any skills audit undertaken to date was provided to the auditor.
	Identify potential opportunities for local businesses.	N/A	-	The auditor could not verify if any local business are available within close proximity to the site.
	Skills audit to determine need for training and skills development programme undertaken within 1 month of commencement of construction phase.	N	0	No proof for any skills audit undertaken to date was provided to the auditor.
	The proponent's Community Liaison Officer (CLO) and or appointed ECO must monitor indicators listed above to ensure that they have been met for the construction phase.	Y	4	Ongoing monitoring of the project progress and employment of locals is undertaken.
<b>Construction- Objective 4: Social Impact</b>				



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The presence of construction workers can impact negatively on family structures and social networks, especially in small, rural communities. The presence of construction workers on the site can result in stock thefts or illegal hunting/ trapping of fauna and or game and damage to farm infrastructure.	N/A	N/A	Information item. No complaints about any aspects of the social impact of constructions have been reported thus far.
	Establish contact with the adjacent farmers and develop a Code of Conduct for construction workers. Ensure that construction workers attend a brief session before they commence activities. The aim of the briefing session is to inform them of the rules and regulations governing activities on the site as set out in the Code of Conduct.	Y	4	No proof was provided for developed Code of conduct for construction workers with adjacent farmers however gate management systems is being implemented.
	Ensure that construction workers who are found guilty of breaching the Code of Conduct are disciplined accordingly. All disciplinary hearings and/or dismissals must be in accordance with South African labour legislation.	Y	4	No concerns were raised.
	The housing of construction workers on the site should be limited to security personnel, if required.	N/A	N/A	No personnel housed on site
	Compensate farmers / community members for any proven cost for any losses, such as livestock, damage to infrastructure etc.	Y	4	No concerns raised however contractor to implement grievance procedures are stipulated in the EMPr
	Ensure that all farm gates are locked (when not in use) and secure (when in use) at all times, Gate Management to be discussed to the landowners prior to construction activities. The Landowner Condition including gate management must be documented in the Access and/or Gate Management Method Statements.	Y	4	Gates were kept closed during the audit. It is recommended that the contractor is in possession of an approved Access and/or Gate Management Method Statements.
	Inform the landowner of activity on their land as per agreed landowner construction requirements or at least two (2) days in advance of planned activities	Y	4	Appointment of CLO is said to be in progress in that proof of communication channels with the landowners were not provided during the audit. It is recommended that these communication channels be established in the shortest possible time.
	Procedures and measures to prevent, and in worst cases, attend to fires should be developed in consultation with the surrounding property owners.	Y	4	The Contractor has an agreement with municipality firefighting department as



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
				well as the local landowner's association for firefighting.
	Contact details of emergency and police services should be prominently displayed on site.	Y	4	Emergency contact details displayed at the offices.
	Appropriate fire-fighting equipment must be present on site and members of the workforce should be appropriately trained in using this equipment in the fighting of veld fires.	Y	4	Appropriate fire-fighting equipment is available on site
	Employees, visitors and/or subcontractors should be made well aware of the consequences of any damage to private property and/or loss of livestock, game and/or other fauna.	Y	4	All site employees, visitors and subcontractors are inducted as per EMPr requires.
	Should there be any damage to private property and/or loss of livestock, game and/or other fauna that can be linked to the Contractor, or any sub-contractor, the landowner shall be compensated accordingly upon sufficient proof thereof.	Y	4	For information
	Reasonable site access control should be implemented.	Y	4	Gate Management system is being implemented when accessing landowner properties however site access control should be properly implemented.
<b>Construction- Objective 5: Noise Control</b>				
	Ensure as far as possible that maximum noise levels at potentially sensitive receptors be less than 65 dBA.	Y	4	Noise monitoring plan is part of the EMPr and Dust & Noise Control Method Statement (15.MS-DNC Rv 00) in place
	On-site construction activities should be limited to daylight hours as far as possible. No construction activities after 13:00 on Saturdays, Sundays and public holidays. Should construction activities need to be undertaken outside of these times, landowners need to be consulted. Where work takes place outside of normal working hours, the relevant legislation should be adhered to.	Y	4	No concerns raised however contractor should take note of this requirement and implement accordingly.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA must wear ear protection equipment.	Y	4	Noise monitoring plan is part of the EMPr and Dust & Noise Control Method Statement (15.MS-DNC Rv 00) in place
	Construction noise must be managed according to the Noise Control Regulations and SANS 10103. The construction crew must abide by the national standards and local by-laws, if any, regarding noise.	N/A	N/A	Information item. Noted by the Applicant. Noise impact assessment was also done by Savanna.
	All construction equipment, including vehicles, must be properly and appropriately maintained in order to minimise noise generation.	Y	4	No concerns raised however the contractor should implement the complaints register
	Establish a line of communication and notify all stakeholders and sensitive receptors of the means of registering any issues, complaints or comments.	N	0	No proof of line of communication and notification of all stakeholders and sensitive receptors for registering any issues, complaints or comments as was provided to the auditor.
	Notify potentially sensitive receptors about work to take place at least 2 days before the activity in the vicinity (within 500 m) of the potentially sensitive receptors (PSR) is to start. The following information to be presented in writing <ul style="list-style-type: none"> <li>» Description of activity to take place;</li> <li>» Estimated duration of activity;</li> <li>» Working hours; and</li> <li>» Contact details of responsible party.</li> </ul>	N	2	Although initial construction commencement notification was given to the affected landowners, no proof of detailed ongoing notifications on works to be done was provided to the auditor.
<b>Construction- Objective 6: Dust Emissions and Roads</b>				
	To avoid and or minimise the potential noise and dust impacts associated with heavy vehicles, and also minimise damage to roads.	N	2	Significant dust emissions were observed during the audit.
	To ensure emissions from all vehicles are minimised, where possible, for the duration of the construction phase.	Y	4	Equipment observed in-use is fairly new



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Implement appropriate dust suppression measures on site such as wetting roads on a regular basis including during site clearing and periods of high winds (by using non-potable water as far as practically possible).	N	0	Nuisance dust was observed where earthworks are taking place and gravel roads and no suppression being implemented on site. However, plans are underway to start suppressing dust on site.
	Haul vehicles moving outside the construction site carrying material that can be wind-blown should be covered with tarpaulins if determined necessary by the ECO.	N/A	N/A	No haul vehicles were observed since the project is still opening up access roads through bulk earthworks.
	Ensure vehicles adhere to speed limits on public roads and speed limits set within the site by the Site Manager/ ECO/ EO/ Environmental Representative.	Y	4	No proof of non-adherence to speed limits was provided.
	Disturbed areas must be re-vegetated as soon as practicable after construction is complete in an area.	N/A	N/A	Project is still on construction phase however contractor is recommended to conducting re-vegetating affected areas concurrently where practically possible.
	Vehicles and equipment must be maintained in a road-worthy condition at all times.	Y	4	Maintenance history of plant could not be verified during the audit; however, no concerns were noted during the site inspection.
	Ensure that damage to gravel public roads and access roads attributable to construction vehicles use for the construction of the Karusa Wind Farm is repaired before completion of construction phase.	Y	4	Contractor (Power construction) has a valid agreement with the district municipal office to maintain public roads.
	Regular dust control of materials (sand, soil, concrete) must be used at concrete batching plants on site.	N/A	N/A	No Batch Plant is established within project area yet.
	Strictly control vibration pollution from compaction plant or excavation plant as far as practically possible	Y	4	No concerns were raised.
	Disturbed areas must be re-vegetated as soon as practicable.	N/A	N/A	Contractor has just commenced with bulk earthworks and it is recommended that re-vegetation of affected areas be done concurrently where practically possible.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	If monitoring results or complaints indicate inadequate performance against the criteria indicated, then the source of the problem will be identified, and existing procedures or equipment modified to ensure the problem is rectified.	N/A	N/A	It is recommended that contractor put in place a system in place to address this condition.
	Road worthy certificates in place for all heavy vehicles at outset of construction phase and updated on a monthly basis.	Y	4	The system to check construction vehicles is in place and implemented by the safety department. Road worthy certificates could not be verified by the auditor during the audit.
<b>Construction-Objective 7: Soil Management and Erosion Control</b>				
	Stockpile topsoil separately from subsoil for re-use in rehabilitation phase. Maintain stockpile shape and protect from erosion. All stockpiles must be positioned at least 50 m away from drainage lines. Limit the height of stockpiles to 2m as far as possible to reduce compaction.	Y	4	Topsoil was windrowed along the access roads and no designated stockpiles of topsoil were observed. It is recommended that topsoil be stockpiles separately.
	New access roads to be carefully planned and constructed to minimise the impacted area and prevent unnecessary excavation, placement and compaction of soil.	Y	4	No significant unnecessary excavations, placements and compaction of soil were observed during the audit.
	Identify and demarcate construction areas for general construction work and restrict construction activity to these areas.	Y	4	Construction areas were observed pegged where earthworks are in progress.
	Rehabilitate disturbance areas as soon as construction in an area is completed, if practically and logistically possible.	N/A	N/A	Not yet applicable however concurrent rehabilitation should be implemented.
	Stockpiles not used in three (3) months after stripping must be seeded or appropriately covered to prevent dust and erosion - only if natural seeding does not occur.	N/A	N/A	Activity has just commenced.
	Erosion control measures: Implement run-off attenuation on slopes (sandbags, logs), silt fences, stormwater catch-pits, shade nets or temporary mulching over denuded areas.	Y	4	No significant erosion was observed however contractor is advised to implement erosion control measures.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Particular care should be taken in the design of road drainage line crossings in order to ensure there is no step in the channel bed, substrate continuity is maintained, and no undue constriction of flow takes place.	Y	4	General authorizations are in place for road drainage line crossings in that a method statement is place giving management activities to be conducted.
	Where access roads cross natural drainage lines, culverts (or other appropriate measures) must be designed to allow free flow. Regular maintenance of the culverts must be carried out.	Y	4	General authorizations are in place for road drainage line crossings in that a method statement is place giving management activities to be conducted. Regular maintenance is anticipated when construction works are complete.
	Control depth of all excavations and stability of cut faces/sidewalls.	N/A	N/A	There are currently no excavations.
	Compile a comprehensive stormwater management plan as part of the final design of the project and implement during construction and operation (refer to Appendix H).	Y	4	Stormwater management plan was developed and is an appendix to the EMPr.
	Cement/Concrete batching to take place in designated areas only, as detailed on the approved facility layout map (if applicable).	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	Spillages of cement/concrete to be cleaned up immediately and disposed of.	N/A	N/A	Contractor is still on bulk earthworks
	Spill kits to be kept on active parts of the construction site & at site offices.	Y	4	Spill kits are available at the construction camp.
	Soil erosion control measures (such as hessian mats and gabions) be used for in erosion prone areas such as steep slopes.	Y	4	No significant erosion was observed however contractor is advised to implement erosion control measures.
	Storm water Management Plan to be updated and implemented as soon as the designs have been finalised.	Y	4	Stormwater management plan was developed and is an appendix to the EMPr.
	Daily monitoring for the water crossing construction period.	Y	4	Contractor confirmed that daily reports are done.
<b>Construction-Objective 8: Protection of drainage lines/ watercourse</b>				
	Minimise damage to watercourse areas where crossing will be built.	Y	4	No significant damage was observed.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	No increase in runoff into drainage lines as a result of construction of project related infrastructure	N/A	N/A	Not much of the construction has been done by the time of the audit.
	Align underground cables and internal access roads as far as possible along existing infrastructure and disturbances, e.g. within the internal access road construction corridor.	N/A	N/A	Project is still on bulk earthworks.
	For any new construction where direct impacts on drainage lines are unavoidable cross watercourses perpendicularly to minimise disturbance footprints.	N/A	N/A	Project is still on bulk earthworks however contractor should take note of this.
	Rehabilitate any disturbed areas as soon as possible once construction is completed in an area.	N/A	N/A	Project is still on bulk earthworks however contractor should take note of this.
	Infrastructure (bridges or culverts) must not be placed within drainage line channels but should span them completely	N/A	N/A	Not yet applicable
	Obtain required water use license/ GA for impacting on drainage lines (if applicable).	Y	4	GAs for water crossings obtained on the 24 May 2017.
	Construction must not result in the width of the watercourse being narrowed.	Y	4	No significant changes were observed.
	Control storm water and runoff water through the implementation of a storm water management plan for the site (refer to Appendix G).	Y	4	No concerns with regards to stormwater and runoff were noted during the site inspection.
	Contaminated runoff from the construction site(s) should be prevented from entering the rivers/streams.	Y	4	No concerns were raised by the time of the audit however contractor should ensure stormwater management is implemented on site.
	Ablution facilities at the construction sites, i.e. outside the construction camp must be located at least 100m away from drainage lines and regularly serviced.	Y	4	Ablution facilities were observed along the road opened up to access facilities to be constructed.
	Concrete batching plants and stockpiles to be located more than 50m away from drainage lines wherever practically possible. If not possible, the ECO/ EO/ Environmental Representative must be consulted to ensure the relevant mitigation measures are implemented.	N/A	N/A	No Batch Plant is established within project area yet
	Utilise erosion control measures on access roads, wetland areas and drainage lines.	Y	4	No significant erosion was observed however contractor is advised to implement erosion control measures on





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
				access roads, wetland areas and drainage lines.
	Capture runoff from roofs in rainwater tanks or disperse runoff from impervious surfaces onto adjacent areas.	N/A	N/A	Project is still on bulk earthworks however contractor should take note of this.
<b>Construction-Objective 9: Protection of indigenous vegetation/control of alien invasive plants</b>				
	All protected plants that occur on access routes and turbine sites will be affected by the development and permits from the relevant authority (Northern Cape Nature Conservation) should be obtained for these species prior to any form of disturbance.	Y	4	Biodiversity flora permit f(Ref No.: 0068/4/2016) was obtained on the 30th of September 2019. Biodiversity fauna permit (Ref no.: 1226/3/2016) was obtained on the 23rd of July 2019.
	Remove and store all topsoil on areas that are to be excavated wherever practically possible; and use this topsoil in subsequent rehabilitation of disturbed areas;	Y	4	Topsoil is windrowed along the recently opened up roads.
	Unnecessary impacts on surrounding natural vegetation must be avoided, e.g. driving around in the veld. The construction impacts must be contained to the footprint of the infrastructure.	Y	4	No significant impacts were observed on the surrounding natural vegetation.
	Keep disturbance of indigenous vegetation to a minimum and rehabilitate disturbed areas as quickly as possible	Y	4	Relocation site of some plant species from construction footprint was observed during the audit
	No importing of soil from areas with alien plants	Y	4	Project is still on bulk earthworks however contractor should take note of this.
	Internal access roads and cables should be aligned as far as possible along existing linear disturbances, e.g. access road corridors on site and away from steep slopes and drainage lines as much as possible. Where new roads are to be constructed, these should follow existing tracks or disturbed areas or the edges of disturbed areas as far as possible.	Y	4	Project is still on bulk earthworks however contractor should take note of this.
	Identify and demarcate areas within which activities are to be undertaken. Ensure that activities are restricted to these areas to ensure unnecessary impacts on surrounding natural vegetation are avoided.	Y	4	Areas in which activities are to be undertaken were observed to be pegged.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Establish an on-going monitoring programme to detect, quantify and remove any alien species that may become established and identify the problem species (as per Conservation of Agricultural Resources Act, Act 43 of 1983 and NEM: Biodiversity Act).	Y	4	Alien Plant Management Plan is in place and the monitoring programme is discussed under section 4.5 of the plan.
	Control any alien plants that become established using registered control methods.	Y	4	Alien Plant Management Plan is in place. EGP remains responsible for management of alien plants in their work areas.
	Salvaging topsoil: Topsoil must always be salvaged and stored separately from subsoil and lower-lying parent rock or other spoil material. Topsoil stripping removes up to 30 cm or less of the upper soils. In cultivated areas, depth of topsoil may increase and needs to be confirmed with the landowner	Y	4	Topsoil was windrowed along the access roads and no designated stockpiles of topsoil were observed. It is recommended that topsoil be stockpiled separately.
	Prior to salvaging topsoil, the depth, quality and characteristics of topsoil should be known for every management area. This will give an indication of total volumes of topsoil that need to be stored to enable the proper planning and placement of topsoil storage.	Y	4	Topsoil was windrowed along the access roads and no designated stockpiles of topsoil were observed.
	Different types of topsoil – rocky soils and sands or loams must be stored separately	Y	4	Topsoil was observed being windrowed to the road edge. This method of topsoil stockpiling is of concern as it is within close proximity of the active construction areas.
	Topsoil should be removed (and stored) under dry conditions to avoid excessive compaction whenever topsoil will have to be stored for longer than one year.	N	2	Stripped topsoil was observed along road edge of opened up access routes and not removed for storage as required. This could potentially lead to topsoil compaction, contamination and/or being washed away during rains.
	Storing topsoil: Viability of stored topsoil depends on moisture, temperature, oxygen, nutrients and time stored	N/A	N/A	For information to the contractor



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Rapid decomposition of organic material in warm, moist topsoil rapidly decreases microbial activity necessary for nutrient cycling and reduces the amount of beneficial micro-organisms in the soil.	N/A	N/A	For information to the contractor
	Stockpile location, if not adjacent to a linear development: At least 50 m from any watering point, ideally a disturbed but weed-free area.	N	2	Topsoil was windrowed along road edge however no stockpile locations were observed.
	Topsoil is typically stored in berms with a width of 150 – 200 cm, and a maximum height of 2m: Place berms along contours or perpendicular to the prevailing wind direction. Adhere to the following general rule: the larger the pile of topsoil storage needs to be, the shorter should be the time it is stored	Y	4	For information to the contractor
	Topsoil handling should be reduced to stripping, piling (once), and re-application. Between the stockpiling and reapplication, stored topsoil should not undergo any further handling except control of erosion and (alien) invasive vegetation	Y	4	For information to the contractor
	Where topsoil can be reapplied within six months to one year after excavation, it will be useful to store the topsoil as close as possible to the area of excavation and re-application, e.g. next to cabling trenches	Y	4	For information to the contractor
	In such case, use one side of the linear development for machinery and access only	N/A	N/A	For information to the contractor
	Place topsoil on the other/far side of this development, followed by the subsoil (e.g. on geotextile)	Y	4	For information to the contractor



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	<p>In cases where topsoil has to be stored longer than 6 months or during the rainy season, soils should be kept as dry as possible and protected from erosion and degradation by:</p> <ul style="list-style-type: none"> <li>-Preventing puddling on or between heaps of topsoil</li> <li>-Or covering topsoil berms</li> <li>-Preventing all forms of contamination or pollution</li> <li>-Preventing any form of compaction</li> <li>-Monitoring establishment of all invasive vegetation and removing such if it appears</li> <li>-Keeping slopes of topsoil at a maximal 2:1 ratio</li> <li>-Monitoring and mitigating erosion where it appear</li> <li>-Where topsoil needs to be stored in excess of more than 6 months, it is recommended to either cover the topsoil or allow an indigenous grass cover to grow on it – if this does not happen spontaneously, seeding should be considered. This must be implemented only after consultation with the ECO.</li> </ul>	N/A	N/A	Not yet applicable project commenced activities recently.
	<p>Storing topsoil:</p> <ul style="list-style-type: none"> <li>-Viability of stored topsoil depends on moisture, temperature, oxygen, nutrients and time stored.</li> <li>-Rapid decomposition of organic material in warm, moist topsoil rapidly decreases microbial activity necessary for nutrient cycling and reduces the amount of beneficial micro-organisms in the soil.</li> <li>-Stockpile location, if not adjacent to a linear development: <ul style="list-style-type: none"> <li>-At least 50 m from any watering point</li> <li>-Ideally a disturbed but weed-free area</li> </ul> </li> <li>-Topsoil is typically stored in berms with a width of 150 – 200 cm, and a maximum height of 2m: <ul style="list-style-type: none"> <li>-Place berms along contours or perpendicular to the prevailing wind direction</li> </ul> </li> <li>-Adhere to the following general rule: the larger the pile of topsoil storage needs to be, the shorter should be the time it is stored</li> <li>-Topsoil handling should be reduced to stripping, piling (once), and re-application. Between the stockpiling and reapplication, stored topsoil should not undergo any further handling except control of erosion and (alien) invasive vegetation</li> <li>-Where topsoil can be reapplied within six months to one year after excavation, it will be useful to store the topsoil as close as possible to the area of excavation and re-</li> </ul>	N/A	N/A	Not yet applicable project commenced activities recently.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	<p>application, e.g. next to cabling trenches,-In such case, use one side of the linear development for machinery and access only</p> <p>-Place topsoil on the other/far side of this development, followed by the subsoil (e.g. on geotextile)</p> <p>-In cases where topsoil has to be stored longer than 6 months or during the rainy season, soils should be kept as dry as possible and protected from erosion and degradation by:</p> <p>-Preventing puddling on or between heaps of topsoil</p> <p>-Or covering topsoil berms</p> <p>-Preventing all forms of contamination or pollution</p> <p>-Preventing any form of compaction</p> <p>-Monitoring establishment of all invasive vegetation and removing such if it appears</p> <p>-Keeping slopes of topsoil at a maximal 2:1 ratio</p> <p>-Monitoring and mitigating erosion where it appears</p> <p>-Where topsoil needs to be stored in excess of more than 6 months, it is recommended to either cover the topsoil or allow an indigenous grass cover to grow on it – if this does not happen spontaneously, seeding should be considered. This must be implemented only after consultation with the ECO.</p>			
	Continued monitoring will be necessary to detect any sign of erosion early enough to allow timeous mitigation	N/A	N/A	For information to the contractor
	Re-applied topsoil needs to be re-vegetated as soon as possible, following the specifications of the revegetation and rehabilitation plan (refer to Appendix E)	N/A	N/A	For information to the contractor
<b>Construction-Objective 10: Protection of fauna &amp; avifauna</b>				
	The extent of clearing and disturbance to the native vegetation must be kept to a minimum so that impact on fauna and their habitats is restricted.	Y	4	Clearing was kept in the project footprint
	Should any animals be found these should be relocated prior to constriction, the ECO/ EO/ Environmental Representative should first be consulted to ensure that no permits are required for relocation. If permits are required these must first be obtained.	Y	4	Wildlife (springbok) and livestock (sheep) were observed and gates are managed for the safety of animals



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	No poaching or hunting of wildlife on site during construction	Y	4	For information to the contractor however no concerns were raised.
	The site Rehabilitation Programme should be implemented (refer to Appendix E).	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	No animals are to be harmed or killed. Employees should be trained (e.g. during toolbox talks) that poisonous animals should not be killed and if encountered the ECO/ EO/ Environmental Representative should be informed.	Y	4	For information to the contractor however no concerns were raised.
	The ECO/ EO/ Environmental Representative must have the required Competency Certificates, received from the attendance of a Reptile Husbandry and Handling Course as there may be many poisonous snakes to be moved. Alternatively, if any poisonous animals are encountered on site, they should either be allowed sufficient space and time to relocate, or a relevantly qualified person must be contacted to remove/relocate the animal. Employees must be prohibited from harvesting wild plants for any purpose	Y	4	Contractor (Power construction) Environmental Officer a competency certificate for handling snakes/reptiles.
	Active breeding in the immediate surroundings must be monitored during construction by the ECO/EO/ Environmental Representative. Should any bird nests be found that are likely to be disturbed by construction activities, these should then be relocated, or other mitigations should be discussed with the avifaunal specialist.	N/A	N/A	For information to the contractor however no concerns were raised.
<b>Construction-Objective 11: Protection of heritage and archaeological sites</b>				
	The stone walls must be recorded in detail and a destruction permit for portions of the dry packed stone walls on the Farm Standvastigheid 210 must be applied for to continue upgrade of the detour road south of the Saaiplaas farmstead	Y	4	In terms of Section 35(4) of the National Heritage Resources Act (Act 25 of 1999), a heritage wall distraction permit (Permit No.: ID 3009) was obtained from the SAHRA Archaeology, Palaeontology and Meteorites Unit for the demolishing of two (2) historic walls (KSW2 and KSW3) to create access road for the wind farm facility.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The ECO/ EO/ Environmental Representative for the project should be well versed before construction starts on the possible types of heritage sites/materials they may encounter and the procedures to follow when they find sites. They should be trained by the Heritage Specialist to identify, follow the relevant procedure and report to the site manager if sites are found.	N/A	N/A	For Information.
	If a heritage object is found, work in that area must be stopped immediately, and appropriate specialists brought in to assess to site, notify the administering authority of the item/site, and undertake due/required processes.	N/A	N/A	For Information.
	The existing access road on the Farm De Hoop 202 would need to be at least 30 m from any sensitive heritage features at the HVDVS table and HVDHOLD Farmstead Complex.	Y	4	No concerns were noted with regards to Protection of heritage and archaeological sites
	If at any stage during the construction phase any semblance of a fossil were to be observed, it would be vital to recover the fossil and report the occurrence to the geological staff at the closest repository in the Northern Cape and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/ excavation can be undertaken.	Y	4	The project applied for a heritage wall distraction permit and thus is aware of this condition.
	If concentrations of archaeological materials are exposed during construction, then all work must stop for an archaeologist to investigate.	Y	4	The project applied for a heritage wall distraction permit and thus is aware of this condition.
	If any human remains (or any other concentrations of archaeological heritage material) are exposed during construction, all work in the immediate area affecting the find, must cease and it must be reported immediately to the nearest museum/archaeologist or to the South African Heritage Resources Agency, so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to investigate and to remove/collect such material.	Y	4	The project applied for a heritage wall distraction permit and thus is aware of this condition.
	The ECO/ EO /Environmental Representative for the project should be alerted to the potential for, and scientific significance of, new fossil finds during the construction phase of the development. They should familiarise themselves with the sort of fossils concerned through museum displays and accessible, well-illustrated literature.	N/A	N/A	Information to be noted by the contractor.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
<b>Construction-Objective 12: Visual impacts associated with construction</b>				
	The general appearance of construction activities, construction equipment camps and lay-down areas must be maintained and kept neat and tidy by means of the timely removal of rubble and disused construction materials.	Y	4	General appearance of construction activities is being maintained in a neat and tidy manner.
	Reduce visual disturbances by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques and restoring exposed soil as close as possible to their original contour and vegetation	N	2	Dust emissions were the main visual impact noted during the audit inspection.
	Limit access to the construction sites (during both construction and operational phases) along existing access roads as far as possible.	Y	4	Gate management (opening and closing) was observed during the audit inspection.
	Vehicle movements on local roads must be limited to standard construction operating hours wherever possible to limit noise impacts and dust nuisance.	Y	4	Construction activities were said to be conducted during daytime.
	Times for arrival and departure of heavy vehicles must be co-ordinated as far as possible in order to minimise congestion.	Y	4	Information to be noted by the contractor.
	The movement of all vehicles within the site must be on designated roadways.	Y	4	Information to be noted by the contractor.
	Signage must be established at appropriate points warning of turning traffic and the construction site (all signage to be in accordance with prescribed standards and must be managed on an ongoing basis).	Y	4	Signage should be established as required.
	All vehicles travelling on public roads must adhere to the specified speed limits and all drivers must be in possession of an appropriate valid driver's license.	Y	4	Information to be noted by the contractor.
	Ensure all disturbed areas are appropriately rehabilitated once construction in an area is complete.	N/A	N/A	Project is still on bulk earthworks however contractor should take note of this.
<b>Construction-Objective 13: Hazardous Substance Management</b>				





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	An effective monitoring system must be implemented during the construction phase to detect any leakage or spillage of hazardous substances during their transportation, handling, use and storage.		-	This condition was not verified since the temporary satellite camp is outside authorized area.
	The storage of flammable and combustible liquids such as oils must be in designated areas which are appropriately bunded and stored in compliance with Material Safety Data Sheets (MSDS) files.		-	This condition was not verified since the temporary satellite camp is outside authorized area.
	Any spills must receive the necessary clean-up action. Bioremediation kits must 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- refer to Appendix J).	Y	4	Information to be noted by the contractor.
	Any storage and disposal permits/approvals which may be required must be obtained, and the conditions attached to such permits and approvals will be complied with.	N/A	N/A	No hazardous chemical stored on site yet. Empty Diesel storage tanks were noted at the unauthorised camp. Contractor reported that a fire marshal from local municipality was contacted for inspection and authorisation of diesel storage. No Hazardous waste disposal.
	Routine servicing and maintenance of vehicles is not to take place on-site (except for emergency situations or large cranes which cannot be moved off-site). If repairs of vehicles must take place on site, e.g. during emergencies, an appropriate drip tray must be used to contain any fuel or oils.	Y	4	Information to be noted by the contractor.
	Transport of all hazardous substances must be in accordance with the relevant legislation and regulations.	Y	4	A copy of TREMCARD was available for transportation of diesel in a bowser tank.
	Waste disposal records must be available for ECO review at all times.	N/A	N/A	The contractor reported that they are on the process of appointing a service provider for handling, removal and disposal of hazardous waste. No removal of hazardous waste was done by the time of the audit.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Construction contractors must provide specific detailed waste management plans to deal with all waste streams.	Y	4	Waste management plan was submitted to ECO for review.
	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.		-	Temporary satellite camp office was not inspected since it is outside authorized area.
	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.).		-	Temporary satellite camp office was not inspected since it is outside authorized area.
	Disposal of waste must be in accordance with relevant legislative requirements, including the use of licensed contractors and licensed waste disposal sites.	Y	4	Information to be noted by the contractor.
	Hydrocarbon waste must be contained and stored in sealed containers within an appropriately bunded area.	Y	4	Information to be noted by the contractor.
	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.	Y	4	Information to be noted by the contractor.
	Documentation (waste manifest) must be maintained detailing the quantity, nature and fate of any hazardous waste.	Y	4	The contractor reported that the process of appointing a service provider for handling, removal and disposal of hazardous waste has started however no removal of hazardous waste was noted by the time of the audit.
	An incident/complaints register must be established and maintained on-site.	Y	4	An incident /complaints register is in place.
	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.	Y	4	Information to be noted by the contractor.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	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.	Y	4	The contractor reported that the process of appointing a service provider for handling, removal and disposal of hazardous waste has started however no removal of hazardous waste was noted by the time of the audit.
	Supply waste collection bins at construction equipment and construction crew camps.	Y	4	Contractor team keeps black bags for waste in vehicles at working areas where there is regular movement.
	Construction equipment must be refuelled within designated refuelling locations, or where remote refuelling is required, appropriate drip trays must be utilised.	Y	4	Information to be noted by the contractor.
	All stored fuels to be maintained within a bund and on a sealed surface.	Y	4	No hazardous chemical stored on site yet. Empty Diesel storage tanks were noted at the unauthorised camp. Contractor reported that a fire marshal from local municipality was contacted for inspection and authorisation of diesel storage.
	Fuel storage areas must be inspected regularly to ensure bund stability, integrity and function.	Y	4	Environmental Officer conducts regular inspections on site.
	Construction machinery must be stored in an appropriately sealed area.	Y	4	Information to be noted by the contractor.
	Oily water from bunds at the substation must be removed from site by licensed contractors.	N/A	N/A	Not yet applicable since no bunds have been constructed.
	Spilled cement/concrete must be cleaned up as soon as possible and disposed of at a suitably licensed waste disposal site.	Y	4	Information to be noted by the contractor.
	Corrective action must be undertaken immediately if a complaint is made, 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.	Y	4	Spill incident register updated, and all minor incidents noted closed out.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	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. Spill kits to be kept on-site.	Y	4	No major incident noted or was reported by the time of the audit.
	Any contaminated/polluted soil removed from the site must be disposed of at a licensed hazardous waste disposal facility.	Y	4	There was no removal of hazardous waste by the time of the audit.
	Upon the completion of construction, the area will be cleared of potentially polluting materials.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	Supply adequate weather and vermin proof waste collection bins and skips (covered at minimum with secured netting or shade cloth) at site where construction is being undertaken. Separate labelled bins should be provided for general and hazardous waste. As far as possible, provision should be made for separation of waste for recycling.	N	2	It was stated that black waste bags are provided in working areas where earthworks are taking place. Temporary satellite camp where waste collection bins and skips may be placed was not inspected since it is outside authorised.
	All work sites must be kept free of waste. No solid waste may be burned or buried on site or disposed of by any other method on site or within quarries or borrows pits. Solid waste (general waste) to be disposed of at the nearest municipal landfill site. Slips of disposal to be retained as proof of responsible disposal.	Y	4	Site working areas were noted to be free of waste.
	Liquid waste: No liquid waste, including grey water, may be discharged into any water body or drainage line. All sewage disposal to take place at a registered and operational wastewater treatment works. Slips of disposal to be retained as proof of responsible disposal; Hazardous substances and hazardous waste: Ensure compliance with all national, regional and local legislation with regard to the storage, handling and disposal of hydrocarbons, chemicals, solvents and any other harmful and hazardous substances and materials	Y	4	There is a service provider responsible for servicing chemical toilets.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The onus is on the Contractor to identify and interpret the applicable legislation. Hazardous waste to be disposed of at a registered h:H or H:H landfill site. Depending on the classification of the waste, a registered service provider with the necessary permits is to collect, transport and dispose of hazardous waste. Proof of appropriate disposal to be provided to the ECO	Y	4	The contractor reported that the process of appointing a service provider for handling, removal and disposal of hazardous waste has started however no removal of hazardous waste was noted by the time of the audit.
	Keep a record of all hazardous substances stored on site for submission to the ECO. Clearly label all the containers storing hazardous waste.	Y	4	Hazardous substance register was available during the audit.
	An effective monitoring system must be put in place to detect any leakage or spillage of all hazardous substances during their transportation, handling, installation and storage.	Y	4	Environmental Officer conducts regular inspections on site and observations noted on a daily checklist.
	Precautions must be in place to limit the possibility of oil and other toxic liquids from entering the soil or clean stormwater system.	Y	4	Information to be noted by the contractor.
	Implement an integrated waste management approach that is based on waste minimisation and incorporates reduction, recycling, re-use and disposal where appropriate.	Y	4	Information to be noted by the contractor.
	Upon the completion of construction, the area must be cleared of potentially polluting materials. Spoil stockpiles must also be removed and appropriately disposed of or the material re-used for an appropriate purpose.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
<b>Construction-Objective 14: Discipline conduct on site</b>				
	Contractors must use chemical toilets/ablution facilities situated at designated areas of the site; no abluting must be permitted outside the designated area. These facilities must be regularly serviced by appropriate contractors. Ablution facilities must not be placed within 50m from any river or drainage line.	Y	4	Ablution facilities were observed close to working areas and along the access roads.
	Cooking must take place in a designated area. No firewood or kindling may be gathered from the site or surrounds.	Y	4	Information to be noted by the contractor.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	All litter must be deposited in a clearly marked, closed, animal-proof disposal bin in the construction area; particular attention needs to be paid to food waste.	Y	4	Site working areas were noted to be free of waste.
	No one must disturb flora or fauna outside of the demarcated construction area/s.	Y	4	Information to be noted by the contractor.
<b>Construction-Objective 15: Fire Management</b>				
	No open fires for cooking or heating must be allowed on site.	Y	4	Information to be noted by the contractor.
	Provide adequate fire-fighting equipment on-site.	Y	4	Information to be noted by the contractor.
	Provide fire-fighting training to selected construction staff.	Y	4	Information to be noted by the contractor.
	Compensate farmers / community members at full market related replacement cost for any losses due to the wind energy facility project, such as livestock, damage to infrastructure etc. as a result of fires that can be directly attributed to construction activities.	Y	4	Information to be noted by the contractor.
	Designated areas for fires identified on site at the outset of the construction phase.	Y	4	Information to be noted by the contractor.
<b>Construction-Objective 16: Traffic Management</b>				
	Develop and implement a traffic management plan (Refer to Appendix F).	Y	4	A traffic management plan has been developed
	Existing road infrastructure must be used as far as possible for providing access to the proposed turbine positions. Where no road infrastructure exist, new roads should be placed within existing disturbed areas or environmental conditions must be taken into account to ensure the minimum amount of damage is caused to natural habitats	Y	4	Information to be noted by the contractor.
	Internal roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.	Y	4	Information to be noted by the contractor and to ensure compliance with approved designs.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	All relevant permits for abnormal loads must be applied for from the relevant authority.	N/A	N/A	Not yet applicable since bulk earthworks are taking place to create access for vehicles to various facilities..
	A designated access (or accesses) to the proposed site must be created to ensure safe entry and exit.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Appropriate road management strategies must be Implemented on external and internal roads with all employees and contractors required to abide by standard road and safety procedures.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Any traffic delays because of construction traffic must be co-ordinated with the appropriate authorities.	N/A	N/A	Not yet applicable- information to be noted by the contractor
	Signage must be established at appropriate points warning of turning traffic and the construction site (all signage to be in accordance with prescribed standards). Signage must be maintained on an on-going basis.	N	0	Signage establishment has not yet implemented.
	Appropriate maintenance of all vehicles must be ensured.	Y	4	Vehicle and plant inspection is conducted by drivers and observation noted on a daily vehicle checklist.
	Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. All vehicles travelling on public roads must adhere to the specified speed limits and all drivers must be in possession of an appropriate valid driver's license.	N	0	Not yet implemented.
	Keep hard road surfaces as narrow as possible.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Construction vehicles carrying material to the site should avoid using roads through densely populated built-up areas.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The movement of all vehicles within the site must be on designated roadways.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	All hazardous substances must be transported in accordance with the relevant legislation and regulations.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.	N/A	N/A	Information to be noted by the contractor and to ensure compliance with this condition.
	Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
<b>Construction-Objective 17: Batching Plants</b>				
	Where possible concrete batching plants should be sited such that impacts on the environment or the amenity of the local community from noise, odour or polluting emissions are minimised	Y	4	Information to be noted by the contractor and to ensure compliance with this condition. According to the EMPr /site layout plan the batch plant is to be sited in a low sensitive area.
	The provision of natural or artificial wind barriers such as trees, fences and landforms may help control the emission of dust from the plant.	N/A	N/A	Information to be noted by the contractor and to ensure compliance with this condition.
	Where there is a regular movement of vehicles. Access and exit routes for heavy transport vehicles should be planned to minimise noise and dust impacts on the environment	N/A	N/A	Batch plants have not been constructed yet.
	The concrete batching plant site should demonstrate good maintenance practices, including regular sweeping to prevent dust build-up	N/A	N/A	Information to be noted by the contractor and to ensure compliance with this condition. According to the EMPr /site layout plan the batch plant is to be sited in a low sensitive area.
	The prevailing wind direction should be considered to ensure that bunkers and conveyors are sited in a sheltered position to minimise the effects of the wind.	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.





Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Aggregate material should be delivered in a damp condition, and water sprays or a dust suppression agent should be correctly applied to reduce dust emissions and reduce water usage	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	Conveyors must be designed and constructed to prevent fugitive dust emissions. This may include covering the conveyor with a roof, installing side protection barriers and equipping the conveyor with spill trays, which direct material to a collection point. Belt cleaning devices at the conveyor head may also assist to reduce spillage	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	The site should be designed and constructed such that clean stormwater, including roof runoff, is diverted away from contaminated areas and directed to the stormwater discharge system.	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	Any liquids stored on site, including admixtures, fuels and lubricants, should be stored in accordance with applicable legislation	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	Contaminated stormwater and process wastewater should be captured and recycled where possible. A wastewater collection and recycling system should be designed to collect contaminated water.	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	Process wastewater and contaminated stormwater collected from the entire site should be diverted to a settling pond, or series of ponds, such that the water can be reused in the concrete batching process. The settling pond or series of ponds should be lined with an impervious liner capable of containing all contaminants found within the water they are designed to collect	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	Areas where spills of oils and chemicals may occur should be equipped with easily accessible spill control kits to assist in prompt and effective spill control	N/A	N/A	Batch plants have not been constructed yet.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Ensure that all practicable steps are taken to minimise the adverse effect that noise emissions. This responsibility includes not only the noise emitted from the plant and equipment but also associated noise sources, such as radios, loudspeakers and alarms	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Where possible, waste concrete should be used for construction purposes at the batching plant or project site.	N/A	N/A	Not yet applicable -Information to be noted by the contractor and to ensure compliance with this condition.
	The batching plant should be monitored by the ECO/EO/Environmental Representative to ensure that the plant is operating according to its environmental objectives and within legislative requirements.	N/A	N/A	Batch plant not yet established.
<b>6.4</b>	<b>Construction-Objective 18: Method Statements</b>			
	Method Statements must be compiled for all activities which affect any aspect of the environment and should be applied consistently to all activities.-Site establishment; Preparation of the site i.e. clearing vegetation; Soil management/stockpiling and erosion control; Excavations and backfilling procedure; Batching procedures; Stipulate norms and standards for water supply and usage-comply strictly to licence and legislation requirements and restrictions);storm water management procedures; Ablution facilities; Solid Waste Management; Liquid waste management; Dust and noise pollution; Hazardous substance storage; Fire prevention and management measures on site; Fauna and flora protection; Rehabilitation and re-vegetation process; Incident and accident reporting protocol;» General administration; Designate access road and gate control protocols.	N	0	No method statements were provided to the Auditor.
	The Contractor may not commence the activity covered by the Method Statement until it has been provided to, reviewed and accepted by the Site Manager /Project Manager and/or ECO, except in the case of emergency activities and then only with the consent of the Site Manager.	N	0	No method statements were provided to the Auditor.
<b>6.5</b>	<b>Construction-Objective 19</b>			



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	All employees must have a basic understanding of the key environmental features of the construction site and the surrounding environment	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	The content and requirements of Method Statements are to be clearly explained to all plant operators and general workers	Y	4	Communication of Method statement conducted by site supervisors on site and registers kept on site SHE file.
	Ensuring that a copy of the EMPr is readily available on-site, and that all site staff are aware of the location and have access to the document	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Senior site staff will be familiar with the requirements of the EMPr and the environmental specifications as they apply to the construction of the facility	Y	4	ECO conducted environmental induction for site project managers with regards to EA and EMP requirements.
	Employees must undergo training for the operation and maintenance activities associated with a wind energy facility and have a basic knowledge of the potential environmental impacts that could occur and how they can be minimised and mitigated	Y	4	Inductions and toolbox talks are conducted on site -Information to be noted by the contractor and to ensure compliance with this condition.
	Ensuring that, prior to commencing any site works, all employees and sub-contractors have attended an Environmental Awareness Training course which can be done by the contractor's environmental representative or the ECO.	Y	4	Environmental toolbox talk conducted weekly and risk assessment conducted daily, registers are kept on site SHE files.
	The course should be sufficient to provide the site staff with an appreciation of the project's environmental requirements, and how they are to be implemented.	Y	4	Course material developed by ECOs and combined SHE induction material developed by the client is considered sufficient.
	Awareness of any other environmental matters, which are deemed to be necessary by the ECO.	Y	4	Environmental topics are discussed at project weekly SHE meetings and Weekly progress meetings.
	Ensuring that employee information posters, outlining the environmental "do's" and "don'ts" (as per the environmental awareness training course) are erected at prominent locations throughout the site	N	0	No evidence of employee information posters was observed on site



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	Ensure that construction workers have received basic training in environmental management, including the storage and handling of hazardous substances, minimisation of disturbance to sensitive areas, management of waste, and prevention of water pollution.	Y	4	Inductions and toolbox talks are conducted on site -Information to be noted by the contractor and to ensure compliance with this condition.
	Records must be kept of those that have completed the relevant training	Y	4	Environmental toolbox talk conducted weekly and risk assessment conducted daily, registers are kept on site SHE file.
	All sub-contractors must have a copy of the EMPr and sign a declaration/acknowledgement that they are aware and familiar with the contents and requirements of the EMPr and that they will conduct work in such a manner as to ensure compliance with the requirements of the EMPr. All subcontractors performing the works should appoint a qualified Environmental Officer for the implementation of this EMPr and other project permits and authorisations. » Contractors and main sub-contractors should have a basic training in the identification of archaeological sites/objects, and protected flora and fauna that may be encountered on the site.	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Environmental Awareness Training must take the form of an on-site talk and demonstration by the ECO before the commencement of site establishment and construction on site.	Y	4	Environmental toolbox talk conducted weekly and risk assessment conducted daily, registers are kept on site SHE file.
	Environmental induction training must be presented to all persons who are to work on the site	Y	4	Environmental induction training is done to all employees and visitors
	Toolbox talks should be held on a scheduled and regular basis (at least twice a month/ if necessary) where foremen, environmental and safety representatives of different components of the Works and sub-consultants hold talks relating to environmental practices and safety awareness on site.	Y	4	Environmental toolbox talk conducted weekly and risk assessment conducted daily, registers are kept on site SHE file.
<b>6.6</b>	<b>Construction-Objective 20</b>			



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The independent ECO will be responsible for monitoring (on a monthly basis) for the most part on a monthly basis although will include others on a need's basis	Y	4	ECO monitors the project as per approved EA, EMPr requirements as well as the relevant legislation.
	The EO for the Contractor/s performing different aspects of activities on site must be appointed prior to site mobilisation and will be responsible for the day to day implementation of the EMPr and other project permits and authorisations. The EO will be responsible for weekly and monthly reporting to the ECO and Site Manager	Y	4	EO is conducting daily and weekly reports. It is recommended that the monthly reports should be send to ECO and Site Manager as required.
	All supervisory staff including Foremen, Resident Engineers, and the ECO/ EO/ Environmental Representative must be provided the means to be able to submit non-conformance reports to the Site Manager	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	Non-conformance reports will describe, in detail, the cause, nature and effects of any environmental non-conformance by the Contractor. Records of penalties imposed may be required by the relevant authority	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	The non-conformance report will be updated on completion of the corrective measures indicated on the finding sheet. The report must indicate that the remediation measures have been implemented timeously and that the non-conformance can be closed-out to the satisfaction of the Site Manager and ECO	Y	4	Information to be noted by the contractor and to ensure compliance with this condition.
	A monitoring report will be compiled by the ECO on a monthly basis and must be submitted to DEA for their records (Director: Compliance Monitoring).	Y	4	ECO monthly report was under review by the time of the audit.
	The EO will be responsible for the weekly and monthly reports which will be submitted internally which will aid the ECO in compiling the monitoring report. The monitoring report must be submitted to the DEA on the first week of the following month.	Y	4	EO is conducting daily and weekly reports. It is recommended that the weekly and monthly reports should be send to ECO and Site Manager as required.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	The Proponent must ensure that project compliance with the conditions of the Environmental Authorisation is audited, and that the audit reports re submitted to the Director: Compliance Monitoring at the DEA.	Y	4	EO monthly report was under review by the time of this audit.
<b>7.1</b>	<b>Post Construction-Objective 1</b>			
	A site rehabilitation programme must be compiled and implemented (refer to Appendix E).	N	4	Site rehabilitation programme was not provided. Requirement to be noted by the contractor and to ensure compliance with this condition.
	All temporary facilities, equipment and waste materials must be removed from site and appropriately disposed of.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	Necessary drainage works and anti-erosion measures must be installed, where required, to minimise loss of topsoil and control erosion.	N/A	N/A	Not applicable at this stage of the project. The project has recently started the construction phase.
	Disturbed areas must be rehabilitated/re-vegetated with appropriate natural vegetation and/or local seed mix. Re-use native/indigenous plant species removed from disturbance areas in the rehabilitation phase as far as practically possible.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	No exotic plants may be used for rehabilitation purposes. Only indigenous plants of the area may be utilised.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	Newly rehabilitated areas must be adequately demarcated and access restricted (specifically vehicular access) until vegetation is established. Appropriate signage must be established and maintained to ensure personnel are aware of these areas.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.
	Re-vegetated areas may have to be protected from wind erosion and maintained until an acceptable plant cover has been achieved.	N/A	N/A	Not yet applicable since bulk earthworks are taking place.



Ref #	Condition	Compliance Y/N	Compliance Rating	Comments/ Verification
	On-going alien plant monitoring (as per the Alien invasive Management Plan- refer to Appendix C) and removal should be undertaken on all areas of natural vegetation on an annual basis.	N	2	Invasive alien Plant Management Plan is in place however no removal of alien plants has been undertaken as yet.



### 5.3 FINDINGS OF THE AUDIT

Findings from the compliance evaluation are presented below.

#### 5.3.1 FINDINGS FROM THE COMPLIANCE EVALUATION OF THE EA AND EMPr

Table 7: Table of findings of the audit.

Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
<b>Environmental Authorization (EA)</b>			
1	4	The activities authorised may only be carried out at the property as described above.	A campsite was established outside the footprint area. Satellite temporal campsite was established outside the site development footprint. DEA authorisations department was consulted by the ECO and DEA recommended that the project should apply for an amendment of the site layout.
2	46	During construction the applicant must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.	
3	52	Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features	
4	113	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, 2010.	





Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
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**Figure 3: Temporary satellite camp established outside authorised/footprint area.**

5	<b>13.1 -13.15</b>	13. A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the applicant 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.	An approved layout plan was not made available during the audit or on request after the audit.
6	<b>14</b>	Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be	An approved layout plan shape file was not made available during the audit or on request after the audit.



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
		submitted in a zip file using the EIA application reference number as the title	
7	<b>15</b>	The Environmental Management Programme (EMPr) submitted as part of the EMPr 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 applicant 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	An approved EMPr was not made available during the audit or on request after the audit.
8	<b>31</b>	The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.	The authorised activity commenced before twenty (20) days of the date of signature of the authorisation had lapsed. It was reported that Power Construction had commenced with site establishment within 20 days of issue of the EA
8	<b>89</b>	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	No dust suppression techniques are being implemented. Contractor installed the pump for abstraction of water for dust suppression from a dam on site yet the GA available does not provide for water abstraction from the dam for construction purposes but for agricultural purposes. The applicant confirmed in an email that the department has since been contacted to amend the GA. Only BH4 has been authorized for water abstraction for construction purposes. Subsequent to the submission of the draft audit report proof was submitted that dust suppression is now being implemented by way of water spraying.
9	<b>119</b>	Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.	
10	<b>120</b>	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.	



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
<p><b>Figure 4: Dust emissions from bulk earthworks and vehicle movement on site.</b></p>			
11	34	<p>The holder of this authorisation must obtain a Water Use Licence from the Department of Water Affairs (DWA) prior to the commencement of the project should the holder impact on any wetland or water resource. A copy of the license must be kept by the ECO.</p>	<p>Approved General Authorisations were available for review. It was observed that the contractor installed the pump for abstraction of water for dust suppression from a dam on site yet the GA available does not provide for water abstraction from the dam for construction purposes but for agricultural purposes. The applicant confirmed in an email that the department has since been contacted to amend the GA. Only BH4 has been authorized for water abstraction for construction purposes.</p>



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
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Figure 5: Installed water pump, flow meter and conveyance pipe for water abstraction from the dam.

**Environmental Management Programme (EMPr)**

1	5.2	<p>Compile and implement a grievance mechanism procedure for the public (using Appendix I) to be implemented during both the construction and operational phases of the facility and if applicable during decommissioning. This procedure should include details of the contact person who will be receiving issues raised by interested and affected parties, and the process that will be followed to address issues. A Project Specific Grievance Mechanism will be developed and implemented prior to construction.</p>	<p>No proof of written communication to local landowners, communities and authorities by the Applicant of the grievance mechanism and the process by which grievances can be brought to the attention of the Applicant was available at the time of the audit.</p>
2		<p>Develop and implement a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel. This procedure should be in line with the South African Labour Law.</p>	<p>No proof of a grievance mechanism for the construction, operational and closure phases of the project for all employees, contractors, subcontractors and site personnel was provided.</p>



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
3		A realistic, collaborative monitoring programme and protocol should be drawn up by the palaeontologist in conjunction with the proponent.	No proof of a realistic, collaborative monitoring programme and protocol was provided. Applicant should implement recommendations provided in Appendix M of Palaeontological desktop Assessment
4	6.3	Fence and secure Contractor's equipment camp.	Contractor equipment was observed in a temporary camp/laydown area outside the authorized development area.
5		Skills audit to be undertaken as per Renewable Energy Independent Power Producer Procurement Process (REIPPPP) Enterprise Development (ED) and Socio-Economic Development (SED) Requirements to determine training and skills development requirements.	No proof for any skills audit undertaken to date was provided to the auditor besides the training matrix.
6		Skills audit to determine need for training and skills development programme undertaken within 1 month of commencement of construction phase.	
7		Establish a line of communication and notify all stakeholders and sensitive receptors of the means of registering any issues, complaints or comments.	
8		Implement appropriate dust suppression measures on site such as wetting roads on a regular basis including during site clearing and periods of high winds (by using non-potable water as far as practically possible).	Nuisance dust was observed where earthworks are taking place and gravel roads and no suppression being implemented on site. However, plans are underway to start suppressing dust on site. Contractor is reminded that only BH4 is authorized for abstracting water for construction purposes.
9		Signage must be established at appropriate points warning of turning traffic and the construction site (all signage to be in accordance with prescribed standards). Signage must be maintained on an on-going basis.	Signage establishment has not yet implemented.



Finding #	EA / EMR Ref #	Requirement Description	Findings and Recommendations
10		Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. All vehicles travelling on public roads must adhere to the specified speed limits and all drivers must be in possession of an appropriate valid driver's license.	Not yet implemented.
11	6.5	Ensuring that employee information posters, outlining the environmental "do's" and "don'ts" (as per the environmental awareness training course) are erected at prominent locations throughout the site	No evidence of employee information posters was observed on site



## **5.4 CONTINUED ADEQUACY OF THE EMPR**

Based on the information review, and areas inspected at the time of the audit. The EMPr is currently considered adequate and effective to manage and mitigate the current activities and impacts of the ACED Renewables Hidden Valley (Pty) Ltd -Karusa Wind farm. No shortcomings in the effectiveness or adequacy of the EMPr were noted during the audit however the project should apply for an amendment of the site layout since the temporary satellite camp is located outside the construction footprint and any other changes from the approved site layout deemed necessary.

### **5.4.1 NEW IMPACTS IDENTIFIED**

Possible non-compliances and impacts on the dam water resource where a pump for abstraction of water for construction purposes has been installed. The GA granted does not provide for water abstraction from the dam for construction purposes but for agricultural purposes. Only borehole BH4 has been authorized for water abstraction for construction purposes. Furthermore, the dam buffer area is likely going to be impacted by movement of construction vehicles to and from the water collection point.

### **5.4.2 EFFECTIVENESS OF THE EMPR**

Based on the information review, and areas inspected at the time of the audit, the EMPr is currently considered adequate and effective to manage and mitigate the current activities and impacts however an amendment to the EMPr is required to accommodate the temporary satellite camp located outside the construction footprint and any other changes from the approved site layout deemed necessary.

### **5.4.3 SHORTCOMINGS IN THE EMPR**

An amendment to the EMPr is required to accommodate the temporary satellite camp located outside the construction footprint and any other changes from the approved site layout deemed necessary.

### **5.4.4 RECOMMENDATIONS**

The following recommendations should be considered to address the shortcomings of the EMPr:

- Prepare and submit the necessary amendment application and revise the layout plan and EMPr document, supported by relevant specialist investigations/input (where applicable).
- Prescribe or elaborate on measures to be taken on site access control.





## 6 PHOTOGRAPHIC RECORD



Figure 6: Bulk earthworks in progress (opening access road to facilities)



Figure 7: Traffic control being implemented where construction vehicles are at work to avoid accidents.





Figure 8: View of project site camp location within the project footprint being cleared.



Figure 9: Dust emissions with potential to cause nuisance to adjacent landowners.



Figure 10: Relocated plants requiring attention observed during the audit inspection.



Figure 11: View of recently established access roads.





Figure 12: Pipe laydown observed during the audit.



Figure 13: Gate management (opening and closing) is being implemented.



Figure 14: Installed water pump with electrical backup for abstracting water from the dam.



Figure 15: Topsoil observed windrowed to road edge to be used for rehabilitation.





Figure 16: Provision of chemical toilets on site.



Figure 17: Hydrocarbon contaminated geyser trays used as drip trays on site.



## 7 CONCLUSION

ACED Renewables Hidden Valley (Pty) Ltd appointed Environmental Impact Management Services (Pty) Ltd (EIMS) to conduct an external NEMA audit of the EA and accompanying EMPr, in compliance with section 54A (3) of the NEMA EIA Regulations, 2014 (as amended).

Additional to the EA requirements, scheduled Environmental Compliance Audits are required to be undertaken in terms of Regulation 34 of the National Environmental Management Act, Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014.

A total of 134 conditions of the EA were identified and evaluated. 53 of these conditions were considered not applicable to the current phase of the project and 81 were deemed applicable. Of the applicable conditions a total of 68 conditions were noted to be fully compliant and 6 partially compliant. 7 conditions were non-compliant. The level of compliance for each condition was calculated according to the methodology described in section 4.2. Utilising this scoring system, a total weighted compliance score of 87,65% was obtained for this audit.

A total of 292 commitments of the EMPr were identified and evaluated. 75 of these commitments were considered not applicable to the current phase of the project and 217 were deemed applicable. Of the applicable commitments a total of 190 commitments were noted to be fully compliant, 16 partially compliant and 11 were non-compliant. The level of compliance for each commitment was calculated according to the methodology described in section 4.2. Utilising this scoring system, a total weighted compliance score of 91,24% was obtained for this audit.

## 8 ASSUMPTIONS, LIMITATIONS AND GAPS IN KNOWLEDGE

The following assumptions, limitations and gaps in knowledge apply to the audit:

- The information contained in this report was sourced from information and data supplied by third parties that is assumed to be complete, valid and true.
- This audit is undertaken on compliance with the EMPr prepared by Savannah Environmental (Pty) Ltd dated August 2019.
- This report is based on information available at the time of the assessment. The information, data, observations and evidence on what this report is based is beyond the control of EIMS and may change without notice. EIMS will not be liable for any loss or damage which may arise directly or indirectly because of such changes.
- This audit does not specifically assess compliance with any other permits, licences or authorisations applicable to the construction.
- No representation or warranty, express or implied, is or will be made in relation to, and no responsibility or liability is or will be accepted by EIMS in relation to the accuracy of this report.
- Where reference is made to legislation or other statutory provisions in this report the original legislation or other statutory provisions will always take precedence and the reader is directed to revert to the original legislation or statutes.
- As a result of time and road access constraints, the site inspection did not include all of the Karusa Energy facility areas. Future audits should aim to inspect the areas which were not visited during this inspection.