



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia, · PRETORIA

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

Enquiries: Ms Constance Musemburi

Telephone: (012) 399 9416 **E-mail:** CMusemburi@environment.gov.za

Mr Sheldon Vandrey
Hartebeesthoek Wind Power (Pty) Ltd
PO Box 71664
PORT ELIZABETH
6001

Telephone Number: (041) 506 4900
Email Address: Sheldon.vandrey@edf-re.co.za

PER E-MAIL / MAIL

Dear Mr Vandrey

AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 28 JUNE 2018 IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 983/984/985 FOR THE 124MW HARTEBEESTHOEK EAST WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE SOUTH-EAST OF THE TOWN OF NOUPOORT WITHIN THE UMSOBOMVU LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE AND THE INXUBA YETHEMBA LOCAL MUNICIPALITY IN THE EASTERN CAPE PROVINCE.

With reference to the above application, please be advised that the Department has decided to grant an Environmental Authorisation (EA) to you. The Environmental Authorisation and reasons for the decision are attached herewith. **Please note that this EA replaces the previous EA reference- 14/12/16/3/3/2/1029.**

In terms of Regulation 4(2) of the National Environmental Management Act (NEMA): the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties (I&APs), in writing within 14 (fourteen) days of the date of this EA, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, 2013 (Act no. 4 of 2013) which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (Act No. 107 of 1998) National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

MS

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@environment.gov.za;

By hand: Environment House
473 Steve Biko Road
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@environment.gov.za.

Yours faithfully


Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Date: 08/06/2020

cc:	Ashlin Bodasing	Arcus Consultancy	Email: ashlinb@arcusconsulting.co.za
	Dineo Moleko	Northern Cape Department of Environment and Nature Conservation	Email: dmoieko@ncpg.gov.za
	Amos Mpela	Umsobomvu Local Municipality	Email: mpela@umsobomvumun.co.za
	Gerry Pienaar	Eastern Cape Department of Finance, Economic Development, Environmental Affairs and Tourism	Email: gerry.pienaar@dedea.gov.za

MS



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014

The 124 MW Hartebeesthoek East Wind Energy Facility and Associated Infrastructure South-East of the Town of Noupoort within the Umsobomvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province.

Pixley ka Seme and Chris Hani District Municipalities

Authorisation register number:	14/12/16/3/3/2/1029/2/AM1
Last amended:	Second Issue
Holder of authorisation:	Hartebeesthoek Wind Power (Pty) Ltd
Location of activity:	RE 181 Holbrook: C02100000000018100000 15/182 Hartebeeshoek: C02100000000018200000 14 Hartebeeshoek: C04800000000001400000 RE/13 Beskuijfontein: C04800000000001300000 1/11 Beskuijfontein: C04800000000001100001 Umsobomvu Local Municipality; Inxuba Yethemba Local Municipality; Pixley ka Seme District Municipality; Chris Hani District Municipality; Northern Cape Province; Eastern Cape Province

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

M.S

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA Regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

HARTEBEESTHOEK WIND POWER (PTY) LTD

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Sheldon Vandrey
Hartebeesthoek Wind Power (Pty) Ltd
PO Box 71664
PORT ELIZABETH
6001

Telephone Number: (041) 506 4900
Cell phone Number: (082) 325 6062
Email Address: Sheldon.vandrey@edf-re.co.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 as amended (GN R. 983, 984 and 985 as amended):

Activity number	Activity description
<p><u>GN R. 983 Item 11:</u> <i>"The development of facilities or infrastructure for the transmission and distribution of electricity –</i> (i) <i>outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV."</i></p>	<p>The WEF will require transmission lines in order to connect to the grid. Electrical reticulation will be installed to transfer electricity from the turbines to an on-site substation. Cables will be installed underground where feasible.</p>
<p><u>GN R. 983 Item 14:</u> <i>"The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic meters or more but not exceeding 500 cubic meters."</i></p>	<p>Estimated volume of hazardous materials stored on site over a construction period of 24 months: construction phase 176.64m³ and operational phase 197.62m³.</p>
<p><u>GN R. 983 Item 19:</u> <i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse."</i></p>	<p>The construction of the WEF will include the excavation of soil in watercourses/drainage line areas, and infilling/deposition may exceed 5 cubic metres and in some instances may exceed 10 cubic metres. Borrow pits for the sourcing of aggregate material may be required. The construction of associated infrastructure, such as access tracks crossing watercourses may require excavation and/or infilling of watercourse areas.</p>
<p><u>GN R. 983 Item 24:</u> <i>"The development of a road—</i> (ii) <i>with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres."</i></p>	<p>Access roads will be required between turbines. These roads will be unsealed and will likely be between 8 - 14m in width. The roads will be up to 14m wide during construction, but will be reduced during operation.</p>

<p><u>GN R. 983 Item 56:</u> <i>"The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre-</i> <i>(i) where the existing reserve is wider than 13,5 meters; or</i> <i>(ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas."</i></p>	<p>Existing farm access roads will be widened or lengthened. These roads would currently have no road reserve and may be wider than 8 meters in some areas.</p>
<p><u>GN R. 984 Item 1:</u> <i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more."</i></p>	<p>The WEF will consist of a number of wind turbines for electricity generation of more than 20 megawatts (up to 124MW).</p>
<p><u>GN R. 984 Item 6:</u> <i>"The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent."</i></p>	<p>The construction of the WEF may require a Water Use License in terms of the National Water Act, 1998 (Act No. 36 of 1998).</p>
<p><u>GN R. 984 Item 9:</u> <i>"The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."</i></p>	<p>The construction of a 132/400kV substation yard at the proposed Umsobomvu Substation.</p>
<p><u>GN R. 984 Item 15:</u> <i>"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-</i></p>	<p>The construction of the WEF will require the clearance of approximately 150 hectares of vegetation in total across the site.</p>
<p><u>GN R. 985 Item 4:</u> <i>"The development of a road wider than 4 metres with a reserve less than 13, 5 metres.</i> <i>a. <u>Eastern Cape:</u></i> <i>i. Outside urban areas:</i></p>	<p>Internal and external access roads will be constructed, which are wider than 4m. The site falls outside of an urban area and parts of the site fall within a National Protected Area Expansion Strategy Focus area.</p>

<p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>g. Northern Cape:</i></p> <p><i>Outside urban areas:</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans..."</i></p>	
<p><u>GN R. 985 Item 12:</u></p> <p><i>"The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</i></p> <p><i>g. Northern Cape:</i></p> <p><i>ii. Within critical biodiversity areas identified in bioregional plans;"</i></p>	<p>The development will require the clearance of natural vegetation in excess of 300m² in areas of natural vegetation. A small portion of the WEF is located within a Critical Biodiversity Area in the Northern Cape.</p>
<p><u>GN R. 985 Item 18:</u></p> <p><i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p><i>a. Eastern Cape:</i></p> <p><i>i. Outside urban areas:</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>g. Northern Cape:</i></p> <p><i>ii. Outside urban areas:</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans</i></p> <p><i>such setback line has been determined;"</i></p>	<p>Existing farm roads will to be widened or lengthened. The site lies outside urban areas, and contains NPAESF areas in the Northern Cape and Eastern Cape, and the CBAs in the Northern Cape Section.</p>

M.S

as described in the Environmental Impact Assessment Report (EIAR) dated March 2018 and Final Amendment Report dated December 2019 at:

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

- the proposed 124MW Hartebeesthoek East Wind Energy Facility and associated infrastructure located south-east of the town of Noupoort, within the Umsobomvu Local Municipality in the Northern Cape Province, and a small portion within the Inxuba Yethemba Local Municipality in the Eastern Cape Province, hereafter referred to as "the property".

The facility will comprise the following:

- A maximum generating capacity of 124 MW in total;
- 20 turbines with a generation capacity of up to 6.2 MW and a rotor diameter of 175 m, a hub height of 137 m and a blade length of 87.5 m (all maximums);
- Foundations (25 m x 25 m) and hardstands associated with the wind turbines;
- Internal access roads of between 8 m (during operation) and 14 m (during construction) wide to each turbine;
- Medium voltage cabling between turbines and the on-site switching station (approximately 10000 m²), to be laid underground where technically feasible;
- Overhead medium voltage cables between the on-site substation and San Kraal Substation and between turbine rows where necessary;
- A 25 km 132 kV high voltage overhead powerline from the on-site substation to the proposed Umsobomvu Substation to the national grid;
- Temporary infrastructure including a construction camp with batching plant (40000 m²); and

- A laydown area approximately 7500 m² in extent, per turbine.

Technical details of the Hartebeesthoek WEF:

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

Technical details for the proposed powerline:

Component	Description/ Dimensions
Location of the site	Approximately 9km south of Noupoort
Length	Approximately 25km
Farm and SG Codes	15/182 C02100000000018200000 47/182 C02100000000018200047 RE/13 C04800000000001300000 3/1 C04800000000000100003 RE/11/1 C04800000000000100011 18/1 C04800000000000100018

	RE/1/1 C0480000000000100001 RE/118 C03000000000011800000 RE/136 C03000000000013600000 RE/135 C03000000000013500000
Preferred site access	Existing gravel road on Farm Hartebeeshoek (owned by Umsobomvu Municipality) off N9 at -31.195366°; 24.961452°
Export capacity	132kV
Proposed technology	Eskom specifications (concrete or steel monopole or lattice towers)
Height of poles	A max of 30m
Width and length of required servitude	34m in width and 25km in length

Conditions of this Environmental Authorisation

Scope of authorisation

1. The 124 MW Hartebeesthoek East Wind Energy Facility and one on-site substation south east of the town of Noupoort within the Umsobombvu Local Municipality in the Northern Cape Province and the Inxuba Yethemba Local Municipality in the Eastern Cape Province as described above is approved.
2. The Preferred Alternative (~23 km) powerline corridor as depicted by Figure 7.1 Reference 2244/REP/052 by Arcus Consulting and dated 22 January 2018 is approved.
3. The access road as depicted by Figure 4-1: Site Access Options to San Kraal WEF of the Traffic Impact Assessment by C Xhobiso and G Van Jaarsveld SMEC South Africa (Pty) Ltd and dated January 2018 is approved for access during construction and for the future operation and ultimate decommissioning phase of the facility.
4. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
5. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
6. The activities authorised may only be carried out at the property as described above.

7. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
8. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
9. This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
10. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

11. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
12. The notification referred to must –
 - 12.1. specify the date on which the authorisation was issued;
 - 12.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 12.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 12.4. give the reasons of the competent authority for the decision.
13. The holder of the authorisation must publish a notice –
 - 13.1. informing interested and affected parties of the decision;
 - 13.2. informing interested and affected parties where the decision can be accessed; and
 - 13.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.

Commencement of the activity

14. The authorised activity must not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

15. A copy of the final site layout map must be made available for comments by registered interested and affected parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
 - 15.1. Cable routes (where they are not along internal roads);
 - 15.2. Position of wind turbines and associated infrastructure;
 - 15.3. Internal roads indicating width;
 - 15.4. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
 - 15.5. All sensitive features e.g. Critical Biodiversity Areas, National Protected Area Expansion Strategy (NPAES) areas, Ecological Support Areas, heritage sites, wetlands, and pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 15.6. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 15.7. Connection routes (including pylon positions) to the distribution/transmission network;
 - 15.8. All existing infrastructure on the site, such as roads;
 - 15.9. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - 15.10. Buildings, including accommodation; and,
 - 15.11. All "no-go" and buffer areas.
16. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be

included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko
Arcadia
Pretoria

For Attention: Mr Muhammad Essop
Integrated Environmental Authorisations
Prioritised Infrastructure Developments
Telephone Number: (012) 399 9406
Email Address: MEssop@environment.gov.za

17. The Environmental Management Programme (EMPr) submitted as part of the EIAr is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments by registered interested and affected parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved the EMPr must be implemented and adhered to.
18. The EMPr amendment must include the following:
 - 18.1. The requirements and conditions of this authorisation.
 - 18.2. All recommendations and mitigation measures recorded in the EIAr.
 - 18.3. All mitigation measures as listed in the specialist reports within the EIAr.

- 18.4. The final site layout map.
 - 18.5. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
 - 18.6. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
 - 18.7. A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
 - 18.8. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
 - 18.9. A construction and operational avifauna and bat monitoring plan.
 - 18.10. A heritage conservation management plan which must have been submitted to SAHRA for review and comment.
 - 18.11. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
 - 18.12. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
 - 18.13. An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
 - 18.14. A fire management plan to be implemented during the construction and operational phases.
-

- 18.15. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
- 18.16. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 18.17. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the turbine as stated in the EIAR and this authorisation.
19. The final amended EMPr (once approved) must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
20. Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.
21. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAR be discovered.

Frequency and process of updating the EMPr

22. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 29 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
23. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
24. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
25. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R. 982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.

26. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

27. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
- 27.1. The ECO must be appointed before commencement of any authorised activities.
- 27.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 27.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 27.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

28. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
29. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
30. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
31. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.

32. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
33. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

34. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

35. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

36. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

Turbines positions

37. Up to 20 wind turbines are approved.
 38. All wind turbines must avoid all areas designated as "no-go" areas as well as their buffers.
 39. The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by ecological, avifaunal, bat, surface water and heritage specialists.
 40. Exclusion of sensitive ecological, avifaunal, bat, surface water and heritage areas from construction activities must inform micro siting of all development activities.
-

41. Should any occupied farm buildings be affected by shadow flicker, the holder of this Environmental Authorisation must provide mitigation measures to reduce the impact to an acceptable level as advised by a suitably qualified specialist.

Avifauna and bats

42. A 500m no development buffer zone must be maintained around each of the two pans at FP3 at 31°14'15.02"S 25° 2'44.17"E and FP4 at 31°13'55.42"S 25° 2'50.37"E to protect the pair of Blue Cranes from disturbance.
43. The appointed ECO must be trained by an avifaunal specialist to identify the signs that indicate possible breeding by priority species.
44. A 3km no-go buffer must be implemented around the Verreaux's Eagle nests.
45. No turbines must be constructed in no-go areas, while associated infrastructure (roads, powerlines and substations) must be avoided where possible in these areas.
46. Prior to construction, an avifaunal specialist must conduct a site walkthrough, covering the final road and powerline routes as well as the final turbine positions, to identify any nests/breeding/roosting activity of priority species, as well as any additional sensitive habitats. The results thereto must inform the final construction schedule in close proximity to that specific area, including reducing construction time, scheduling activities around avian breeding and/or movement schedules, and lowering levels of associated noise.
47. Care must be taken not to create habitat for prey species that could draw priority raptors into the area and expose them to collision risk. Rock piles must be covered with topsoil to prevent them from becoming habitat for Rock Hyrax (Dassie).
48. A 150m no-turbine set-back buffer zone (other infrastructure is allowed) is required around the escarpment to minimise the risk of collisions for slope soaring species.
49. A construction monitoring plan must be submitted as part of the EMP to survey impacts resulting from the infrastructure installation on the bird and bat communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as to continue to gather information on the birds and bats communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years during operation.
50. Curtailment must be applied from the start of operation on all turbines for every night of the year from dusk until dawn at ninety degree feathering of blades below manufacturer's cut-in speed so it is exactly parallel to the wind direction as to minimize free-wheeling blade rotation as much as possible without locking the blades.

51. Should robust and scientifically defensible data gathered during the operational study phase reveal higher bat mortalities than currently anticipated, the mitigation table below should be applied to the turbines identified as causing the highest impacts.

Terms of mitigation implementation	
Peak activity (times to implement curtailment/mitigation)	1 October – 15 November; sunset – 20:30
Environmental conditions in which to implement curtailment/mitigation	Wind speed below 4.5m/s <u>and simultaneously</u> Temperature above 11°C
Peak activity (times to implement curtailment/mitigation)	15 February – 31 March; sunset – 04:00
Environmental conditions in which to implement curtailment/mitigation	Wind speed below 5m/s <u>and simultaneously</u> Temperature above 14°C

52. A construction and operational avifauna and bat monitoring plan must be developed and implemented according to the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa and the latest South African Bat Assessment Advisory Panel's (SABAAP) guidelines.
53. As an absolute minimum, avifauna and bat monitoring, to survey impacts resulting from the infrastructure on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as bird collisions and continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures, must occur during the construction period and continue for at least three years during the operation of the facility. The results of this monitoring must be made available to the Department of Environmental Affairs (DEA), Birdlife South Africa (BLSA) and the South African Bat Assessment Advisory Panel (SABAAP) and must further advise the EMPr where necessary.
54. The results of the pre-construction bird and bat monitoring assessments including all recommendations proposed by the reports dated March 2018, must inform the final layout and the construction schedule of the facility.
55. The facility must be designed in a manner that prevents infrastructure components from being used as perching or roosting substrates by birds and bats, as such is prohibited.
56. The holder of this environmental authorisation must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.
57. Anti-collision devices such as bird flappers must be installed where powerlines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams). The input of an avifaunal specialist must be obtained for

70. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
71. Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).
72. Contractors and construction workers must be clearly informed of the no-go areas.
73. Where roads pass right next to major water bodies, provisions must be made for fauna such as toads to pass under the roads by using culverts or similar structures.
74. Bridge design must be such that it minimises impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.
75. The final development area should be surveyed for species suitable for search and rescue, which should be trans-located prior to the commencement of construction.
76. Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and tortoises to pass through, but still remain effective as a security barrier.
77. Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.
78. Wetlands, rivers and river riparian areas must be treated as "no-go" areas and demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision of the ECO, except for rehabilitation work in these areas.
79. Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and wetland areas and this awareness must be promoted throughout the construction phase.
80. Freshwater ecosystems located in close proximity to the construction areas must be inspected on a regular basis (but especially after rainfall) by the ECO for signs of disturbance, sedimentation and pollution from construction activities. If signs of disturbance, sedimentation or pollution are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.
81. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
82. If construction areas are to be pumped of water (e.g. after rains), this water must be pumped into an appropriate settlement area, and not allowed to flow into any rivers or wetland areas.
83. Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.

Roads and transportation

84. The access road as depicted by Figure 4-1: Site Access Options to San Kraal WEF of the Traffic Impact Assessment by C Xhobiso and G Van Jaarsveld SMEC South Africa (Pty) Ltd and dated January 2018 is approved for access during construction and for the future operational and ultimate decommissioning phase of the facility.
85. Existing road infrastructure must be used as far as possible for providing access to the proposed turbine positions. Where no road infrastructure exists, new roads must be placed within existing disturbed areas or environmental conditions must be taken into account to ensure that minimum amount of damage is caused to natural habitats.
86. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration must be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
87. Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed such that they do not decrease channel stability or increase water velocity.
88. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
89. Signage must be erected at appropriate points warning of turning traffic and the construction site.
90. Necessary permits must be obtained for the oversized construction vehicles to transport turbine components.
91. Construction vehicles carrying materials to the site must avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
92. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information to minimize impacts on possible faunal species.
93. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
94. Roads must be designed such that changes to surface water runoff are avoided and erosion is not initiated.
95. All construction vehicles must adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.

Noise

96. The potential noise impact must be re-evaluated should the layout be changed such that any wind turbines are located closer than 1000m from a confirmed noise sensitive area.

97. Routine noise measurements must be conducted during the operation of the facility and a complaints register must be opened and made available to affected parties and to the Department on request.
98. The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA wear ear protection equipment.
99. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
100. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
101. Construction staff must be trained in actions to minimise noise impacts.
102. The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.

Visual resources

103. The holder of this authorisation must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques and restoring exposed soil as closely as possible to their original contour and vegetation.
104. A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce visual impacts associated with glare and light trespass.
105. Lighting of main structures (turbines) and ancillary buildings must be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
106. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
107. Commercial messages and graffiti on turbines are prohibited.

Human health and safety

108. A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the energy facility. The programme must establish a safety zone for wind turbines from residences and occupied buildings, roads, right-of-ways and other public access areas that is sufficient to prevent accidents resulting from the operation of the wind turbines.
109. Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
110. The holder of this authorisation must obtain approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation

and Surveillance (CNS) equipment, especially the radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.

111. The holder of this authorisation must ensure that the operation of the wind facility complies with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio and television transmissions.
112. The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment, especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.
113. The holder of this authorisation must train safety representatives, managers and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.
114. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
115. No unsupervised open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

116. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
117. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
118. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.
119. No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.
120. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
121. Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, a drainage line with or without an extensive floodplain or hillside wetlands.
122. Temporary bunds must be constructed around chemical storage to contain possible spills.
123. Spill kits must be made available on-site for the clean-up of spills.
124. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is

disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).

125. The holder of this authorisation must provide sanitation facilities within the construction camps and along the road so that workers do not pollute the surrounding environment. These facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste disposal site.
126. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014 as amended.

Excavation and blasting activities

127. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
128. Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.
129. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
130. Anti-erosion measures such as silt fences must be installed in disturbed areas.

Air emissions

131. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
132. Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.

Historical / cultural / paleontological resources

133. Should construction activities be within 100 metres from archaeological sites and historical sites, the sites must be demarcated and fenced off.
134. A 30m no-go buffer must be applied around identified burial grounds. Should it not be possible to retain the burial grounds in situ, a consultation process in terms of Section 36 of the NHRA and Chapter XI of the NHRA Regulations be undertaken.

135. If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that a systematic and professional investigation / excavation can be undertaken.
136. Construction managers/foremen must be informed before construction starts of the possible types of heritage sites and cultural material that may be encountered and the procedures to follow when they find sites.
137. All buffers and no-go areas stipulated in the EIAr must be adhered to for both the facilities and all roads and powerlines.
138. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) must be kept out of the buffer zones.
139. The final layout must be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

General

140. The recommendations of the EAP in the EIAr dated March 2018 and the specialist studies attached must be adhered to, this includes the recommendations of the EAP in the Amendment Report dated December 2019 and the specialist studies attached. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
141. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 141.1. at the site of the authorised activity;
 - 141.2. to anyone on request; and
 - 141.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
142. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 08/06/2020



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 23 August 2017 and amended on 14 March 2018.
- b) The information contained in the draft Scoping Report received on 23 August 2017.
- c) The information contained in the final Scoping Report received on 04 October 2017.
- d) The information contained in the draft EIA received on 29 January 2018.
- e) The information contained in the final EIA received on 15 March 2018.
- f) The comments received from the following authorities: the Northern Cape Department of Agriculture, Forestry and Fisheries: Forestry Management (J Mans); Telkom: Network Transformation and Planning (L Shaw); Eskom: Land Development (J Geeringh); SANRAL: Statutory Control Western Region 1 (R de Kock); SA Civil Aviation Authority: Air Navigation Services (L Stroh); the Department of Water and Sanitation: Mzimvubu to Tsitsikamma Proto-CMA EWULAAS (O Vongwe); the South African Heritage Resources Agency: Archaeology, Palaeontology and Meteorites Unit (N Higgitt); the Department of Rural Development and Land Reform: Land Restitution Support-Northern Cape (R Oliver) and SKA South Africa: Head of Strategy and Business Systems (Dr A Tiplady).
- g) The information contained in the specialist studies contained within the appendices of the final EIA dated March 2018 and as appears below:

Specialist study	Responsible Specialist/Company
Ecological Impact Assessment	Simon Todd of Simon Todd Consulting
Hydrological Impact Assessment	Dr Brian Colloty of Scherman Colloty & Associates
Avifaunal Impact Assessment	Chris van Rooyen Consulting
Bat Impact Assessment	D Burger and W. Marais of Animalia Zoological & Ecological Consultation (Pty) Ltd
Agriculture and soil assessment	DG Paterson of ARC-Institute for Soil, Climate and Water
Heritage Impact Assessment	T Hart of ACO Associates cc
Noise Impact Assessment Enviro	M de Jager and S Weinberg of ENVIRO-ACOUSTIC RESEARCH
Visual Impact Assessment	K Schwartz and A Gibb of SiVest Environmental Division

Social Impact Assessment	T Barbour and S van der Merwe of Tony Barbour Environmental Consulting and Research
Transport Impact Assessment	C Xhobiso and G Van Jaarsveld of SMEC South Africa (Pty) Ltd.
Wake Effect Analysis	O Yildirimlar of 3E

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project stems from the provision of electricity to the national grid.
- c) The EIAr dated March 2018 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The methodology used in assessing the potential impacts identified in the EIAr dated March 2018 and the specialist studies have been adequately indicated.
- e) The findings of the site inspection held on 22 and 23 May 2018.
- f) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 (as amended) for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIAr dated March 2018 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the EIAr dated March 2018 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.