

APPENDIX D

TERRESTRIAL ECOLOGY AMENDMENT REPORT



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

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

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Proposed Amendment of the Kokerboom 1 Wind Energy Facility in the Northern Cape Province.

Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:
Email: EIAAdmin@environment.gov.za

1. SPECIALIST INFORMATION

| | | | |
|--|---|-------|------------------------------------|
| Specialist Company Name: | 3 Foxes Biodiversity Solutions | | |
| B-BBEE | Contribution level (indicate 1 to 8 or non-compliant) | 4 | Percentage Procurement recognition |
| | | | 100% |
| Specialist name: | Simon Todd | | |
| Specialist Qualifications: | BSc (Zool. & Bot.) BSc (Hons Zool.) MSc (Cons. Biol.) | | |
| Professional affiliation/registration: | South African Council for Natural Scientific Professions (No. 400425/11) | | |
| Physical address: | 60 Forrest Way, Glencairn | | |
| Postal address: | Same as above | | |
| Postal code: | 7975 | Cell: | 082 332 6502 |
| Telephone: | 021 782 0377 | Fax: | N/A |
| E-mail: | Simon.Todd@3foxes.co.za | | |

2. DECLARATION BY THE SPECIALIST

I, Simon Todd, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the Specialist

3Foxes Biodiversity Solutions

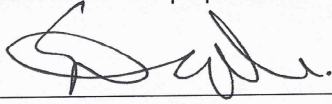
Name of Company:

05 March 2019

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

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



Signature of the Specialist

3Foxes Biodiversity Solutions

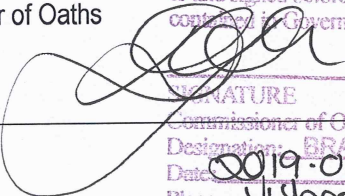
Name of Company

05 March 2019

Date

certify that the DEPONENT has acknowledged that he/she knows and understands the contents of this affidavit, that he/she does not have an objection to taking the oath, and that he/she considers it to be binding on his/her conscience, and which was sworn to and signed before me and that the administering oath complied with the regulations contained in Government Gazette No. R 1253 of 21 July 1972, as amended.

Signature of the Commissioner of Oaths



Dominique Coumb

SIGNATURE

FULL NAMES

Commissioner of Oaths

Designation: BRANCH MANAGER ex officio: Republic of South Africa

Date: 2019-03-05

Place: Vishoek

Business Address: main rd Vishoek





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Att: **Zoë Palmer**

31 January 2019

RE: Amendment Application for the Kokerboom 1 Wind Energy Facility

This statement letter is in reference to the authorized Kokerboom 1 Wind Energy Facility (DEA Ref. 14/12/16/3/3/2/985) and the request from Aurecon South Africa (Pty) Ltd (Aurecon) for comment on the ecological implications of the proposed changes to the layout and turbine specifications that would be included in the amendment application to the Department of Environmental Affairs.

The changes to the technical specifications of the turbines include the following:

- Increase in turbine capacity from 4MW to 6.5MW;
- Increase in rotor diameter from a maximum of 150m, to a maximum of 180m;
- Blade tip height from 225m to 240m;
- A new substation location is proposed approximately 850m south east (30°28'6.42"S 19°26'15.88"E) of the authorised substation location.
- The total footprint of the amended layout would be similar to the authorised layout and would not increase.

In addition to the changes to the turbines, there will also be a small reduction in the total footprint of the access roads and approximately 32km of MV overhead lines may be overhead and not buried. Furthermore, the two construction camps/ laydown areas (combined footprint of approximately 34,100m²) will be relocated to the most practical location/s determined by the contractor, closer to the time of construction. The number of construction camps/ laydown areas will be restricted to up to two sites with a combined footprint not exceeding 34,100m². These locations will remain outside sensitive areas and must be approved by the Environmental Control Officer prior to construction commencing.

As the turbines and associated infrastructure will change position, Aurecon have requested confirmation regarding the assessed impacts in term of the following:

1. Discussion on the change in impact, if any
2. Additional mitigation measures, if any
3. Any disadvantages and advantages that may result due to the amendment

1. Change in Impact Due to Proposed Amended Layout

The amended layout was reviewed in reference to both the original assessed layout as well as the sensitivity of the site. The ecological sensitivity map of the site, depicting the amended layout is presented below in Figure 1.

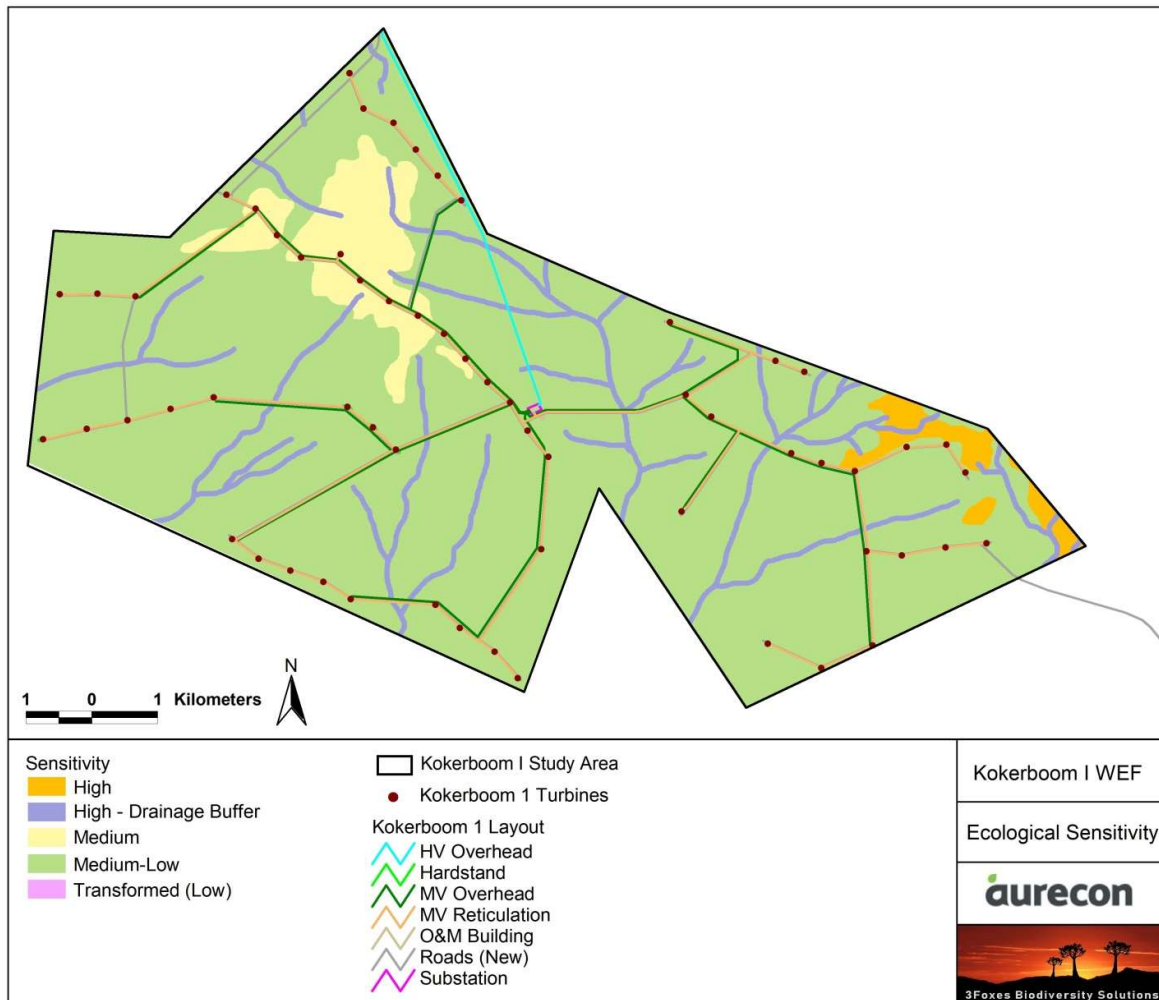


Figure 1. Sensitivity map of the Kokerboom 1 WEF site, depicting the amended layout of the facility.

The ecological impact of the current proposed turbine layout would be similar to the original 64 turbine layout. The total footprint of the layouts is similar and the extent of the footprint within the different sensitivity categories would be similar. The larger turbines that could be used are not considered to generate additional terrestrial ecological impact compared to the use of smaller turbines. Where larger turbines are used, this would result in fewer turbines being required to achieve the required output and

this is seen as having potentially positive impacts as there would be larger gaps between the turbines, which may have some beneficial consequences for fauna¹.

An aspect that requires some attention is the distribution of underground vs. overhead cabling at the site. The current amendment allows for the extent of internal overhead lines to be increased compared to the assessed layout. While this is not seen as having significant direct impacts on terrestrial ecology, there are some potential consequences of this that should be considered. Most importantly, this is likely to have some implications for avifauna and as such, the recommendations of the avifaunal specialist in this regard should take precedence. There are no parts of the site, within the development footprint, that are considered very high sensitivity and where cable trenches are considered unacceptable. As such, there are no ecological reasons to justify the use of overhead lines above trenches at the site, given the potential negative effects on avifauna. As such, the extent of overhead lines on the site should be guided by avifaunal considerations and not ecological ones.

2. Advantages and Disadvantages of the Proposed Amendment

Although it does not result in a significant decrease in impact, there are likely to be some advantages of the reduced number of turbines potentially associated with the amended layout (see Footnote 1), such as reduced noise or increased average distance between wind turbines. As such, the amended layout has a similar impact or is potentially a slight improvement on the original layout in terms of ecological impacts. The significance of impacts as assessed in the original studies are considered still valid and applicable for the current assessment. No upward or downward adjustment of impacts is justified based on the changes to the layout and the turbine size and number. As such, the amendment is supported from an ecological perspective as it would not increase or change any impacts associated with the development.

Conclusions & Summary Findings

- The findings of this statement are contingent of the layout as provided for the assessment. There are a variety of sensitive features at the site, which are currently outside of the development footprint, but which could be impacted by any changes to the road or turbine layout. As such any changes to the road or turbine positions should be checked by the specialist.
- The amendment allows for the extent of internal overhead lines to be increased. From an ecological standpoint, this has little direct consequence. However, as this may have implications for avifauna, the recommendations in that regard must take precedence. There are no parts of the development footprint where trenches should not be allowed.
- Should the development proceed to construction, the final development footprint should be subject to a preconstruction walk-through to locate and identify species of conservation concern that are within the development footprint. Some search and rescue of plant species of conservation concern may be required.

¹ The actual number of turbines constructed will depend on the available turbine technology in South Africa at the specific point in time that construction commence, i.e. the larger the turbine that is utilised, the fewer turbines required. The generation capacity of the WEF will however be capped at 256MW, as authorised by the Department of Environmental Affairs (DEA).

- The Kokerboom 1 Amended layout is well supported in terms of terrestrial ecology impacts. Overall the impact of the amended layout on fauna and flora would be low and there are no fatal flaws or critical issues associated with the proposed changes. As a result, the amendment is supported from an ecological perspective as it will not result in an increase in the significance in any of the assessed ecological impacts.

Prepared by Simon Todd
3Foxes Biodiversity Solutions
31 January 2019

A handwritten signature in black ink, appearing to read 'S. Todd', with a stylized flourish at the end.

Pr.Sci.Nat
SACNASP 400425/11.
