



**EnviroSci (Pty) Ltd**  
**Reg Number 2018/462716/07**

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23 July 2021

**Rainmaker Energy Projects (Pty) Ltd**

PO Box 163  
Newlands  
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7725.

**RE: TERRESTRIAL AND AQUATIC SPECIALIST IMPACT ASSESSMENT TOWARDS THE SUBSTANTIVE AMENDMENT APPLICATION – PART II AMENDMENT: JULY 2021**

**Background to the Project**

Rainmaker Energy Projects (Pty) Ltd received an Environmental Authorisation (EA) for the construction of the Spreeukloof Wind Energy Facility, including overhead power line and associated infrastructure on a site (the 'Property') near Molteno in the Eastern Cape Province (DEA ref: 12/12/20/1778/5) on 02 November 2012. The original EIA (which received environmental authorisation in May 2011) and associated specialist studies considered five wind energy facilities collectively referred to as the Dorper Wind Farm (DEA ref: 12/12/20/1778). The Dorper Wind Farm consisted of five phases: Dorper Wind Energy Facility, Loperberg Wind Energy Facility, Malabar Wind Energy Facility, Spinning Head Wind Energy Facility and Spreeukloof Wind Energy Facility. The authorisation for the Spreeukloof Wind Energy Facility was received following the application to amend the Dorper Wind Farm authorisation (i.e. splitting of the project into phases) for the broader facility. Subsequent amendments have been granted for the project as follows:

- DFFE Ref: 12/12/20/1778/5 (dated 20 May 2013): Amendment to the properties specified for the project, as well as turbine specification changes.
- DFFE Ref: 12/12/20/1778/5/AM3 (dated 13 June 2016): Amendment to the EA validity (extension)
- DFFE Ref: 12/12/20/1778/5/AM4 (dated 15 November 2018): Amendment to the EA validity (extension)

The purpose of the facility will be to provide up to 65MW of power to be exported to the national energy grid. The project is intended to be bid into future rounds of the Department of Energy's (DoE) Renewable Energy Independent Power Producers Procurement (REIPPP) Programme. The Wind Energy Facility, including overhead powerline, substation infrastructure and all associated infrastructure will occupy and area of up to 1310ha, and include the following:

- Wind turbines and associated foundations to support the turbine towers.
- Underground electrical distribution cabling between the turbines.
- A shared substation with Malabar and Loperberg Wind Farm projects for evacuation to the national energy grid.



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- Internal access roads
- Offices and workshop buildings for maintenance
- Laydown areas.

The facility, including all associated infrastructure is located on the following Property/ies:

- Portion 18 of the Farm Spreeukloof No. 59;

### Scope of this Amendment

The proponent is now applying for a substantive amendment (Part II) towards amending the EA with the inclusion and amendment of the following:

- Amendment of the turbine specifications, to be as follows:
  - The increase of the rotor diameter from '125m' (authorised in 2013) to reflect as 'up to 176m'.
  - Update of the authorised range of the hub height from '120m' (authorised in 2013) to reflect as 'up to 120m'.
- A reduction in the authorised number of turbines from the currently authorised turbine number, to reflect as per the revised layout.
- Update the layout as required to accommodate and reflect the removal of the respective turbines from the total authorised turbine number in the amendment above.
- Update of the project description to reflect the revised 132kV grid connection line location and substation locations for each of Loperberg, Malabar and Spreeukloof.
- Extension of the Environmental Authorisation (EA) validity by an additional two years.
- Amendment to the holder of the Environmental Authorisation
- Amendment to the capacity of the Spreeukloof Wind Farm

These amendments are proposed in order to increase the efficiency of the facility and consequently the economic competitiveness thereof and to ensure the optimisation of the layout while avoiding environmental sensitivities. No additional properties will be affected by the amendments as the proposed amendments are within the original authorised development footprint.

### 3. Specialist Assessment

The undersigned was appointed by the Applicant to undertake an assessment of the site, which included a walkdown conducted in June 2021 of the proposed layout (Figure 1) from a terrestrial ecology and aquatic perspective. As a terrestrial ecologist and aquatic specialist, the undersigned was requested to study the particulars of the proposed amendment and provide an assessment on whether the proposed changes would result in any additional, increased or decreased terrestrial ecology and aquatic impacts to those that were assessed in the original EIA.



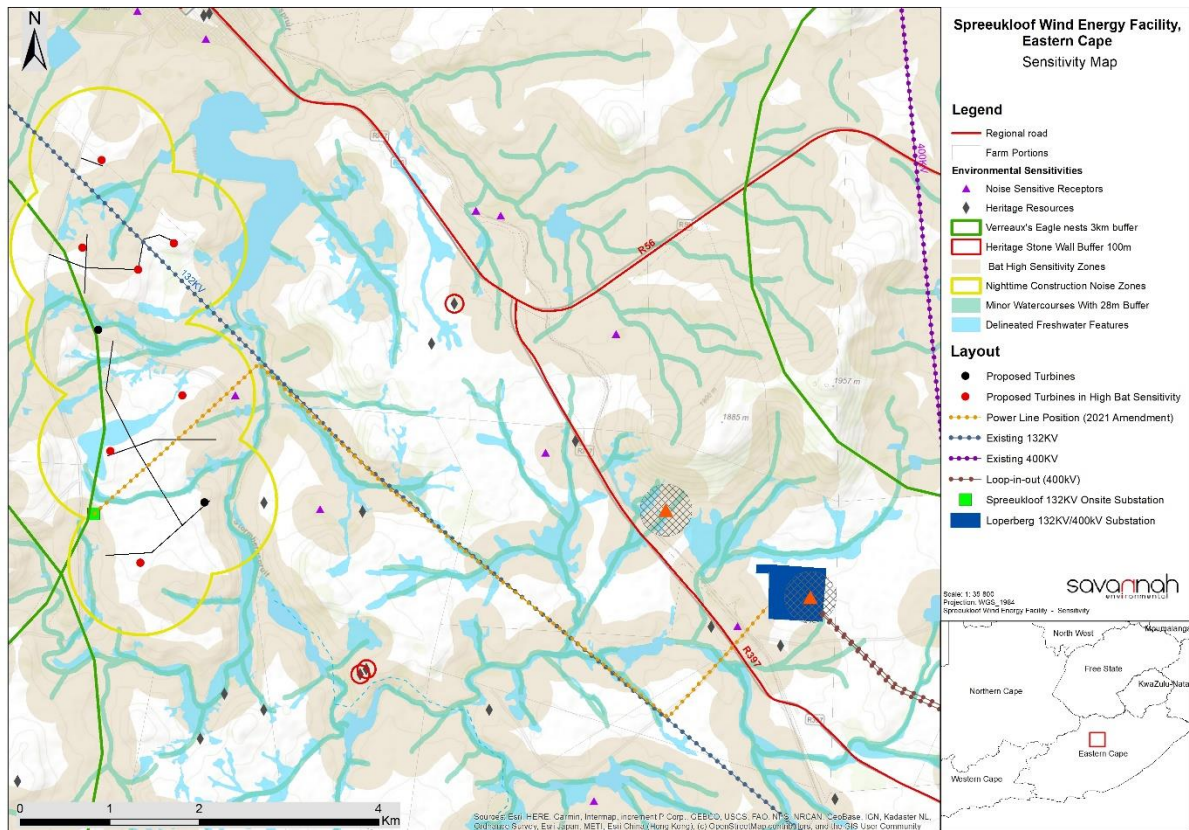
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**Figure Error! No text of specified style in document.: Proposed infrastructure for the current amendment (2021).**

Noting the above considerations, based on the site inspections, I hereby confirm that the following from both a terrestrial ecology and aquatic specialist perspective:

- That the proposed infrastructure will only impact on areas where road crossings will be required, all other infrastructure, i.e. turbines, substations and grid connections will either avoid or span these areas.
- Will not change or increase the nature or severity of any of the impacts originally identified and reported on during the EIA or the subsequent amendment applications (direct and cumulative impacts).
- Will have no additional impacts to those identified previously in the study (direct and cumulative impacts).
- Will not require any additional management outcomes or mitigation measures for the terrestrial or aquatic environment.



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- It is further confirmed that the environment has not changed significantly from that during the original assessment and therefore the extension of the validity of the EA will not result in any additional impacts not considered and assessed before.

The following table addresses the information required to inform the amendment application, as derived from Section 32(1)(a) of the EIA Regulations (2014, as amended):

<p><b>Assessment of all impacts related to the proposed change</b></p>	<p>The refined layout related to the Spreeukloof WEF, as is the subject of the current amendment application, has no material change on the assessment, findings, impacts (direct and cumulative) (including nature, significance category and mitigation measures) and recommendations of the specialist report included within the original EIA. From a terrestrial ecology and aquatic standpoint, the results are identical and the proposed amendments have no material effect on the original specialist assessment conducted for the project and does not impact on an area of higher sensitivity than that originally authorised. The recommendations and findings of the original assessment report (Hoare, 2010) therefore apply without modification to the refined layout. It is further confirmed that the environment has not changed significantly from that during the original assessment and therefore the extension of the validity of the EA will not result in any additional impacts not considered and assessed before.</p>
<p><b>Advantages and disadvantages associated with the proposed change</b></p>	<p>The proposed amendments will not result in any disadvantages or advantages from a terrestrial ecology and aquatic perspective, compared to that originally assessed and authorised.</p>
<p><b>Measures to ensure avoidance, management and mitigation of impacts associated with the proposed change</b></p>	<p>The amendments that are being proposed, have been proposed in order to avoid environmental sensitivities identified as confirmed in the June 2021 site survey &amp; walkthrough. As the proposed amendments do not incur any change in impact (direct or cumulative) from that determined in the original assessment for the project, no additional mitigation measures are required. It is however recommended that a final assessment of the proposed layout with entire construction footprint, is evaluated to ensure all areas are micro-sited outside of the identified aquatic ecosystems (refer Figure 1 above).</p>

This report thereby serves to confirm that from a terrestrial ecology and aquatic perspective, the refined layout as is the subject of the current amendment application, amendments to the turbine specifications, layout, revised grid connection and substation locations, EA validity extension, capacity increase and EA holder change, has no material change on the assessment, findings, impacts (including nature, significance and mitigation measures) and recommendations of the original specialist report. Therefore, the results of the assessment are identical and the change in location that forms part of the proposed amendments have no material effect on the specialist assessment conducted for the project.



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Furthermore, these changes do not impact on an area of higher sensitivity than that originally authorised, thus the recommendations and findings of the report apply without modification to the refined layout.

To conclude, the initial ecological assessment, that included terrestrial ecology and aquatic assessment findings can be upheld, and when coupled to the proposed amended layout, no direct impacts to any critical terrestrial or aquatic ecosystems with a Very High sensitivity are anticipated. The environment has not changed significantly from that during the original assessment and therefore the extension of the validity of the EA will not result in any additional impacts. The proposed amendments are therefore supported in terms of terrestrial ecology and aquatic biodiversity considerations, on the condition that all of the proposed infrastructure:

- i. Will remain outside of the delineated freshwater feature footprints, with the exception of roads which are considered acceptable.
- ii. All works within the regulated area of a watercourse are suitably authorised under the National Water Act (No. 36 of 1998), as relevant and applicable, prior to the commencement of construction.

Please don't hesitate to contact me should you require any additional information.

Yours sincerely

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