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Att: **Jo-Anne Thomas**

15 September 2019

RE: Amendment Application for the Zonnequa Wind Farm (DEA ref.: 14/12/16/3/3/1/1970)

Genesis Zonnequa Wind (Pty) Ltd received Environmental Authorisation on 18 February 2019 for the Zonnequa Wind Farm and is proposing to amend the turbine specifications and layout of the Zonnequa Wind Farm. As part of the Amendment Application, Savannah Environmental has requested comment from 3Foxes Biodiversity Solutions on the ecological implications of the proposed changes to the layout and turbine specifications that would be included in the Amendment.

The intended amendments include:

- Reduction of the number of turbines from up to 56 turbines to up to 35 turbines
- Hub height from up to 130m to up to 150m
- Tip height from up to 205m to up to 240m
- Individual turbine capacity from up to 4.5MW to up to 7MW

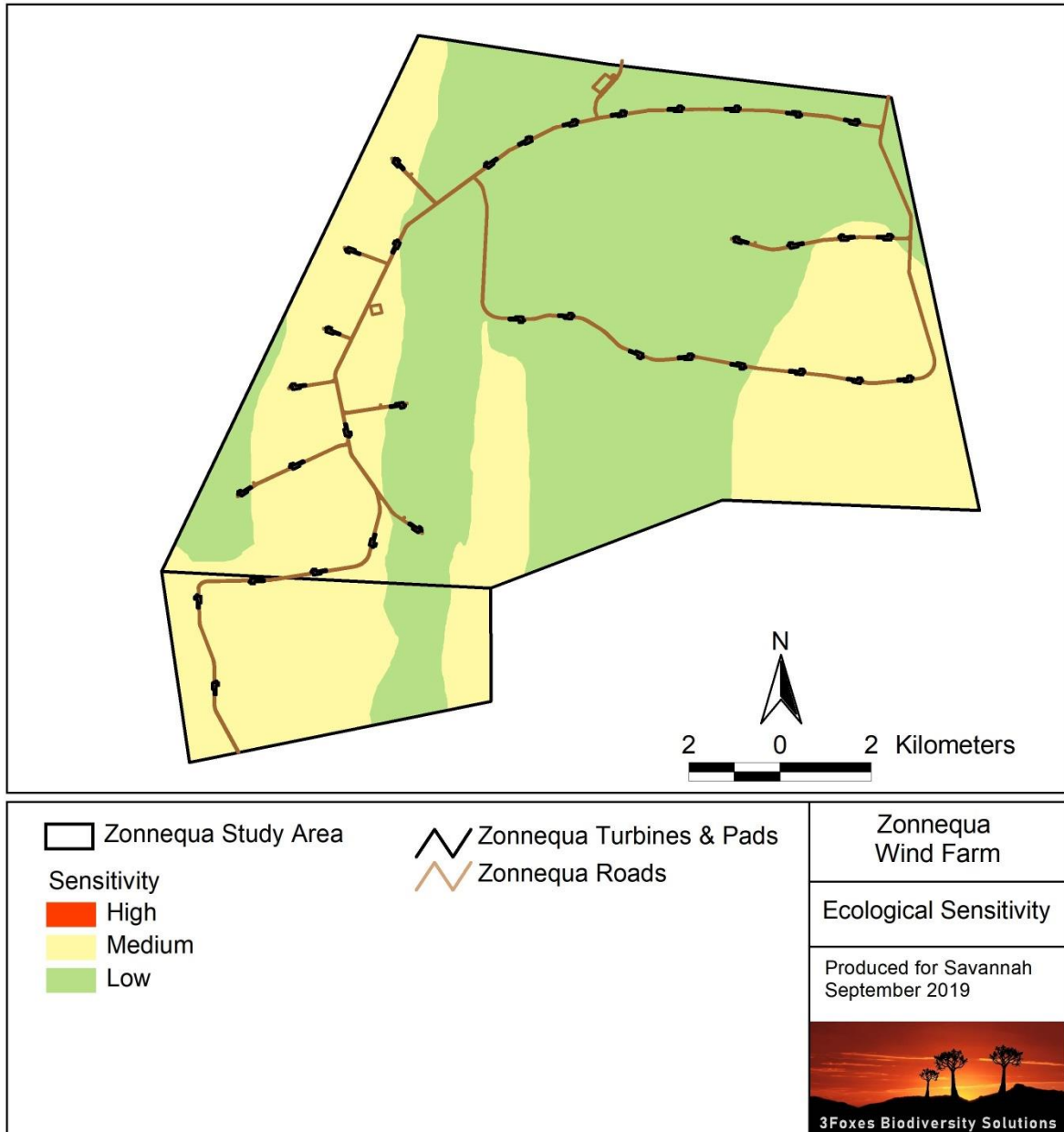
As the turbines will change position with the reduction of the total number of turbines, the layout of the facility will be affected and Savannah Environmental has requested confirmation regarding the assessed impacts in terms of the following:

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

1. Change in Impact or any New Impact Due to the Proposed Amended Layout

I have reviewed the proposed amended layout in reference to both the original assessed layout (containing 56 wind turbines) as well as the ecological sensitivity of the site. The ecological impact of the proposed 35 turbine layout is likely to be somewhat lower than the original 56 turbine layout as a result of the reduced number of turbines and access road footprints. No new impacts are expected to occur with the implementation of the amended layout. The amended layout is illustrated below in reference to the ecological sensitivity of the site. The total footprint of the facility would be reduced but this is not

considered sufficient to change the overall ecological impact of the amended layout as compared to the original layout. The larger turbine size is not considered to be of consequence with regards to terrestrial impacts as, while the turbine hard stand may be larger for each turbine, the reduction in the number of turbines would compensate for any increase in footprint associated with each turbine. In terms of flora, the construction phase impact resulting from the transformation of intact habitat associated with the development was assessed as being of medium significance after mitigation. Although the footprint of the development would be reduced under the amendment, this is not considered sufficient to reduce the overall post-mitigation impact on flora from Medium significance to Low significance. As such, the amendment is considered to have a positive impact on flora as compared to the original layout, but this benefit is not considered to be of sufficient magnitude to warrant a reduction in the assessed impact from medium to low and as such remains unchanged. In terms of fauna, the reduced number of turbines would mean that the average distance between turbines is larger with the result that faunal disturbance from the turbines or maintenance activities on the wind farm during operation would potentially be slightly lower. However, taking a conservative approach in this regard, this is not deemed sufficient to warrant adjustment of the assessed impacts on fauna downward as these were already assessed as being of low significance and consequently, there would be no overall change in the assessed impact on fauna.



The amended layout of the Zonnequa Wind Farm, showing the 35 turbine layout proposed as part of the amendment.

2. Additional Mitigation Measures

No additional mitigation measures or changes to the EMPr would be required in terms of the amendment because no significant change to impacts or new impacts will occur. All the original avoidance and mitigation measures as indicated in the original ecological study are still relevant and applicable to the amended layout and must be implemented.

3. Advantages and Disadvantages of the Proposed Amendment

The major change to the development in terms of the current amendment and which could potentially have significant ecological impacts is the increase in turbine size. Although the turbines in the proposed amendment are larger than those originally assessed, the total output of the facility is capped with the

result that the use of the larger turbines would result in fewer turbines being constructed. As the footprint of the amended layout would be somewhat lower than the original assessment, there would not be an increase in impact as a result of the changes to the turbine specifications and infrastructure layout. As a result, the significance of impacts as assessed in the original study 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 turbine specifications. As such, the amendment is supported from an ecological perspective as it would not increase or change any impacts or lead to new impacts associated with the development and implementation of the amended layout.

Conclusions and Summary Findings

- Overall, the amendment is supported from an ecological perspective as it will result in similar assessed impacts on fauna and flora at the site. Consequently, the proposed amended layout and turbine specifications would not result in a change in the assessed impacts and an adjustment to the original assessed impacts is not required.
- 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.
- The Zonnequa Wind Farm amended layout is supported in terms of terrestrial ecology impacts. Overall, the impact of the amended layout on fauna and flora would be similar to the authorised layout and there are no fatal flaws or critical issues associated with the proposed changes.
- In addition, the cumulative impacts associated with the development of the amended layout are assessed as being relatively low and are considered acceptable. 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

15 September 2019



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