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Att: **Jo-Anne Thomas**

08 August 2018

RE: Amendment Application for the Perdekraal West Wind Energy Facility

This statement letter is in reference to the authorized Perdekraal West Wind Energy Facility and the request by Savannah Environmental for comment on the ecological implications of the proposed changes to the layout and turbine specifications that would be included in the Amendment.

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

- Increase in rotor diameter from 70m up to 120m, to 120m up to 155m;
- Hub height maximum of up to 120m;
- Blade tip height 198m;
- Increase in wind turbine generation capacity from 1.5MW to 6MW; and
- Decrease in the number of wind turbines from 60-65 to 47.

As the turbines will change position, Savannah Environmental 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

I have reviewed the amended layout in reference to both the original assessed layout as well as the sensitivity of the site. The site sensitivity is based on the original specialist studies as well as information collected thereafter during the walk-through of the adjacent Perdekraal East WEF.

The ecological impact of the current proposed 47 turbine layout is likely to be similar to the 60-65 turbine layout. This is driven largely by the fact that the roads are the primary generator of terrestrial impact and not the turbines, with the result that the lower number of turbines does not result in a proportional decline in impact. The total footprint of the access roads is however the same under each layout as the larger turbines are spaced further apart. The larger turbine size is not considered to be of significance with regards to the terrestrial impacts as while the turbine hard stand area would be larger for each turbine, this is countered by the lower number of turbines. The reduced number of turbines would mean that the average distance between turbines is larger with the result that faunal disturbance from turbine noise may be lower, but this is not likely to result in a significant overall reduction in impact.

The site falls within the known distribution range of the Riverine Rabbit *Bunolagus monticularis* which is classified as Critically Endangered. The Perdekraal East WEF where construction is was required to conduct extensive preconstruction Riverine Rabbit Monitoring as a result. The results of this have some implications for the current study given the proximity of these two developments to one another. No rabbits were observed at the Perdekraal East site during the extensive monitoring campaign, suggesting that it is either absent or not common on the Perdekraal East site which has similar habitat. However, due to the very high threat level to this species, caution is warranted in the face of uncertainty over its' presence at the site and impacts to favourable habitat for this species should be avoided. Under the amended layout, there are no turbines within the demarcated riparian areas and it is thus confirmed that the layout has met the avoidance requirements in this regard.

The amendment to reduce the number of turbines but increase their size, is seen as having an overall neutral or slightly positive outcome of the amendment and is thus supported.

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 associated with the amended layout, such as reduced noise or increased average distance to a wind turbine. As such, the amended layout has 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 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 of turbine layout. As such any changes to the road or turbine positions should be checked by the specialist.
- 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 Perdekraal West 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.



Figure 1. Map showing the amended layout overlaid in the sensitive features of the Perdekraal West site. This includes the primary riparian corridor in red, the secondary riparian corridor in orange and gravel outcrops with confirmed plant species of concern in purple.

Prepared by Simon Todd

08 August 2018

A handwritten signature in black ink, appearing to read 'Simon Todd'.

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SACNASP 400425/11.