Jo-Anne Thomas
Savannah Environmental
By email: joanne@savannahsa.com

30 March 2022

Dear Jo-Anne,

RE: ADDENDUM TO THE BAT SPECIALIST IMPACT ASSESSMENT FOR THE PROPOSED WIND GARDEN WIND FARM IN THE EASTERN CAPE.

This addendum considers the potential change to bat impacts associated with the change in turbine dimensions (from a maximum hub-height of 120 m to 115 m), the reduction in turbines (from a maximum of 47 to 23) and the subsequent alteration of facility layout identified for the Wind Garden Wind Farm and its associated infrastructure, in relation to that which was originally presented in the initial bat specialist impact assessment report (Arcus, 2021).

The purpose behind the compilation of this addendum is largely due to the consideration, by the applicant, of current best available technology. Such changes under consideration includes wind turbines with a lower hub height than initially applied for (i.e. reduced from 120m to 115m). Furthermore, an optimised layout has further been proposed, consideration a reduction in the overall number of wind turbines and ancillary infrastructure such as roads.

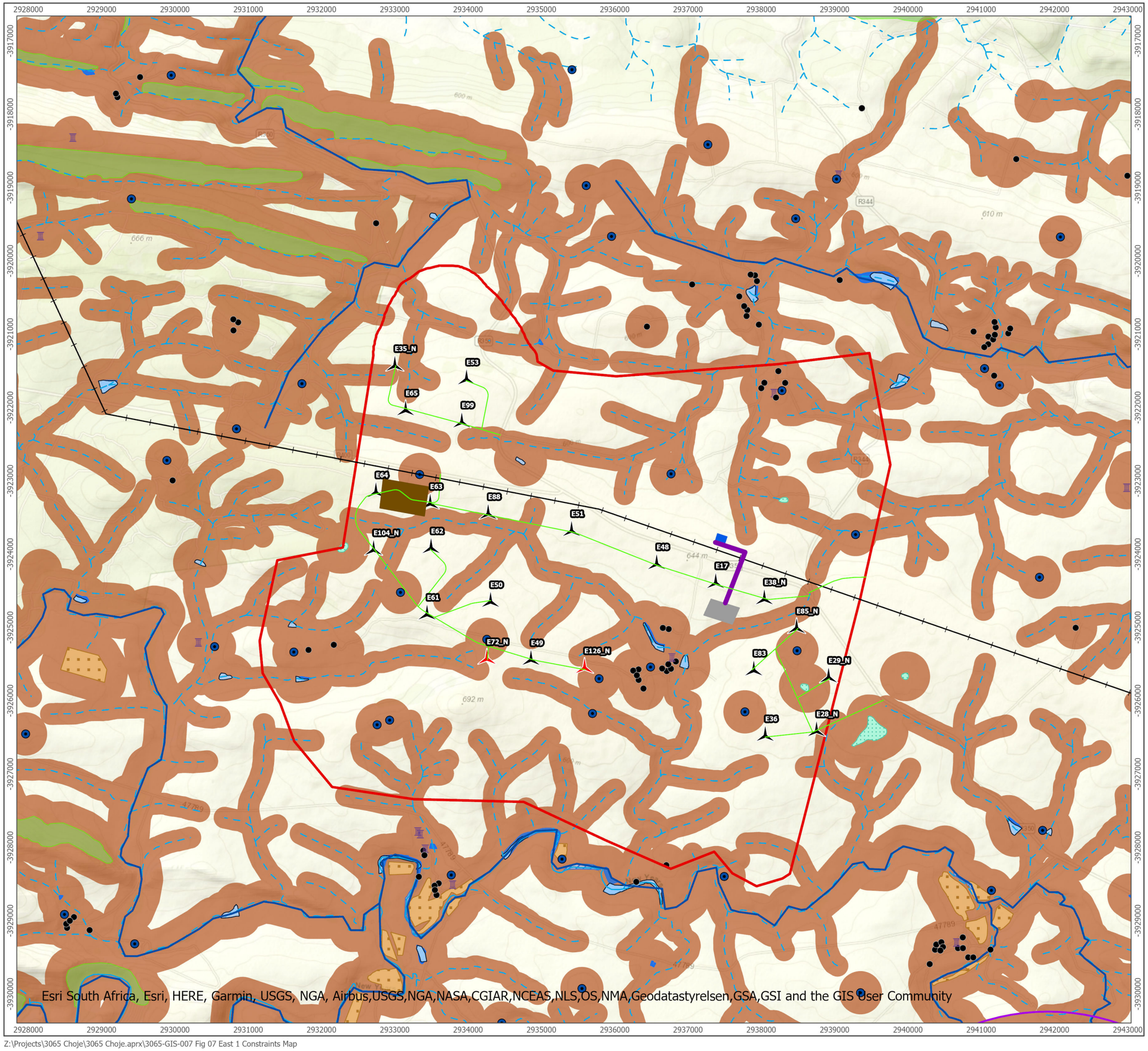
The proposed change to turbine dimensions include a change in hub-height from 120 m to 115 m, with the turbine diameter remaining unchanged. Although a greater ground to lower-tip height is preferred, bat activity is generally higher near ground level at Wind Garden and impacts to bats are not perceived to significantly increase with these proposed changes (5 m reduction in lower-tip height) and is acceptable in the specialist's opinion.

The overall reduction in turbines is considered a positive change for the proposed facility, in terms of its potential impacts to bats. This change may potentially decrease the risks associated with bats and wind turbines in the area. However, with the reduction and alteration of the facility layout, two turbines (E72_N and E126_N) in the new layout have slightly moved from their original positions and now encroach into bat No-Go areas for wind turbines (Figure 1). Although the reduction in the overall number of turbines could potentially reduce the overall impact on bats in the area, which is seen as a positive impact, it must be noted that a single badly placed turbine may potentially have more significant impacts on bats than the remainder of turbines combined.

Nonetheless, given that these buffers are being encroached by Turbine E72_N, at 239m from a water reservoir, and Turbine E126_N, at 221m from a water reservoir (as well as both buffers being associated with man-made water reservoirs), it is considered acceptable that these two wind turbines may stay in their currently proposed positions, provided that strict mitigation measures are applied to reduce impacts to bats. Specific protocols would need to be followed for these reservoirs, including either completely covering, replacing or demolishing the identified features associated with these no-go areas. By doing so, this would allow for such features to not be used by bats, subsequently leading to reduced usage of the area near the proposed wind turbine locations. As such, these reservoirs would need to be completely covered, replaced with fully enclosed tanks (without the opportunity to be accessed by bats), or potentially demolished to

prevent any usage by bats for drinking purposes – ultimately reducing the sensitivity of the area. Such mitigation measures are considered a pre-requisite for the placement of these two wind turbines (E72_N and E126_N) within these sensitive feature buffers, and only applies to those features and areas identified.

Should these mitigation measures be followed, as well as all of those defined in the initial bat impact assessment report, it is the specialist's opinion that the newly proposed amendments are considered acceptable for further consideration, in terms of the bat community on site.



ARCUS

- Wind Garden WEF Boundary
- Proposed Turbine
- Turbine Within Buffer
- Existing 132kV Route
- 132kV OH Powerline
- Access Roads
- BoP
- 132kV Substation
- 132kV Collector Substation
- Bat Roost 2.5km Buffer
- Bat No Go for Turbines (other infrastructure permitted)

Important Bat Resources

- Water Reservoir
- Buildings
- Ruin
- Non-Perennial River
- Perennial River
- NFEPA River
- NFEPA Wetlands
- NBA Artifical Wetlands
- Channelled valley-bottom wetland
- Depression wetland
- Dam
- Non-perennial pan
- Cultivated Land
- Forest and Woodlands

1:50,000 Scale @ A3

0 1 2 km

NORTH

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Addendum Constraints Map
Figure 1

Wind Garden WEF
Basic Assessment Report Addendum

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