

7 JUly 2021

Ms J. Thomas Savannah Environmental

Dear Ms Thomas

## RE: SAHRA REQUIREMENTS FOR PALAEONTOLOGY FOR THE GREAT KAROO WEF AND ASSOCIATED INFRASTRUCTURE INCLUDING THE BESS AND GRID CONNECTION SAHRIS Cases: 218, 15615, 15700

The area proposed for development of the Great Karoo WEF, BESS, OHL and switching station is underlain by sediments that have very high palaeontological sensitivity according to the SAHRIS Fossil Sensitivity Map (Figure 1). The geology map of the area (Council of GeoScience Map 3220 Sutherland, Figure 2) indicates that the area is underlain by sediments of the Karoo Supergroup assigned to the Beaufort group, within the Abrahamskraal Formation of the Adelaide Subgroup. This was confirmed by Rossouw (2012, SAHRIS ID 44936) in the Desktop Palaeontological Impact Assessment conducted for the proposed Hidden Valley WEF which includes the area proposed for the Great Karoo WEF and associated infrastructure.

In an assessment for the neighbouring Soetwater WEF conducted by Almond (2015, SAHRIS NID 353707) which covers the area traversed by the Great Karoo Grid Connection, it is noted that "that the Lower Beaufort Group bedrocks in the Soetwater Wind Farm study area are generally of **low palaeontological sensitivity** and this also applies to the overlying Late Caenozoic superficial sediments (colluvium, alluvium, calcrete, surface gravels, soils etc)." Almond (2015) goes on to state that "Construction of the proposed Soetwater Wind Farm is unlikely to entail significant impacts on local fossil heritage resources. Due to the general great scarcity of fossil remains as well as the extensive superficial sediment cover observed within the study area, the overall impact significance of the construction phase of the proposed Soetwater Wind Farm is assessed as LOW. The operational and decommissioning phases of the wind farm are very unlikely to involve further adverse impacts on local palaeontological heritage." This same conclusion can be extrapolated to the Great Karoo WEF, BESS, OHL and switching station.

Rossouw (2012) recommended that a palaeontological field assessment be conducted of the turbine footings, access roads, offices and substation and underground cable routes prior to the commencement of development activities associated with the Great Karoo WEF. In addition,



Rossouw (2012) recommended that palaeontological monitoring take place during the construction phase of the Great Karoo WEF development. In their Final Comment for the Great Karoo WEF dated 25 August 2016, SAHRA recommended that a walk-down of the amended layout is required prior to construction. SAHRA had required that this must be conducted by a qualified palaeontologist to ensure that no heritage resources are to be impacted by the new locations of the turbines. If heritage resources are identified at or near any proposed infrastructure, an assessment of the significance of the heritage resources and the impact to the identified heritage resource must be completed. SAHRA had also required that a report detailing the results of the survey must be submitted to SAHRA before construction of the Great Karoo WEF commences. A palaeontological walk down conducted for the Soetwater 132kv OHL confirmed the low palaeontological sensitivity of this area.

In a subsequent letter from SAHRA dated 21 October 2016, SAHRA indicated that "There will be no need for further palaeontological field assessment, as the Desktop Study is sufficient. A map of the identified palaeontological resources relative to the layout of the proposed development must be emailed to the case officer and the ECO must monitor all excavations in the Great Karoo WEF." This recommendation was reiterated in the SAHRA comments provided for the Great Karoo Grid Connection and Great Karoo BESS.

All of the heritage resources, including palaeontological resources, presently known within the footprint of the development area for the Great Karoo WEF, BESS, OHL and associated infrastructure are mapped below in Figure 3.

This letter is therefore submitted in compliance with the above requirement from SAHRA based on all of the heritage and palaeontology information available at present.

Please feel free to contact me should you have any further questions or concerns in this regard.

Yours sincerely

Jenna Lavin Heritage Practitioner





Figure 1: Palaeontological Sensitivity of Great Karoo WEF and associated infrastructure





Figure 2: Geology underlying the Great Karoo WEF and associated infrastructure





Figure 3: All known heritage resources, including palaeontology, located within development footprint of the Great Karoo WEF and associated infrastructure