NATURA VIVA cc
Palaeontological Impact Assessments & Heritage Management, Natural History Education, Tourism, Research

Attention: **Mr Shaun MacGregor**
Ecoleges Environmental Consultants
No. 2 Generaal Street
Machadodorp (eNtokozweni), 1170

Date: **20 January 2021**

STUDY APPROACH

The Phase 3 project area is underlain at depth by potentially fossiliferous continental bedrocks of the Lower Beaufort Group (Karoo Supergroup) of Middle Permian age that have yielded sparse but scientifically important vertebrate remains in the Hanover area as well as commoner petrified wood. Also present are unfossiliferous dolerite intrusions and Late Caenozoic superficial sediments (*e.g.* alluvium, surface gravels) which might contain important fossil mammal and other remains as well as reworked fossil wood blocks. Satellite imagery suggests that bedrock exposure is limited but not insignificant within all three study sites. The three study sites have been provisionally assigned a Very High palaeosensitivity on the DFFE Screening Tool map, triggering a full desktop and field-based palaeontological assessment as well as a Site Sensitivity Verification Report.

The most likely outcome, based on comparable project areas in the Hanover - De Aar region of the Great Karoo, is that comparatively few scientifically useful fossil sites will be recorded, while No-Go palaeontological areas are very unlikely to be designated. Most Karoo fossil sites are of limited extent and can be effectively mitigated in the pre-construction phase, so palaeontological constraints on the project footprint are not anticipated, although they cannot be completely excluded in advance.

The proposed palaeontological field study covering all three sites by a professional palaeontologist with extensive Karoo experience would require up to two days on site while reporting would entail another two days specialist input. Fieldwork is best undertaken in dry, sunny weather; fewer daylight hours are an additional limitation during winter.

Yours sincerely,

John E. Almond

Dr John E. Almond
Palaeontologist
***Natura Viva* cc**

-----Original Message-----
From: almond <almond@zsd.co.za>
Sent: Thursday, 20 January 2022 18:11
To: Shaun@ecoleges.co.za
Subject: Re: Hanover Soventix Phase 3 PIA quotation

If the site visit shows that (1) Beaufort Group sedimentary bedrocks are exposed at or near surface but that, in practice, these are unlikely to be fossiliferous due to high levels of weathering / tectonic deformation, or (2) good bedrock exposure is very limited due to pervasive cover by unfossiliferous superficial sediments (alluvium / soils / surface gravels), then it may be possible to eliminate palaeontological heritage from the impact assessment process following a full SSV report backed-up by a Chance Fossil Finds Protocol for the EMPr.

This truncated approach has been discussed by me with SAHRA regarding several solar project areas over the past year and has been accepted by them, provided that it is motivated by good field data.

I am not keen to spend time writing (and modifying) full PIA reports if the site is not of significant palaeontological interest. To do so would waste the EAP's time as well as my own.

Regards,

John

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