

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

Attn: Mr Gideon Raath
EOH Coastal & Environmental Services
Block D, Gillooly's View Office Park (EOH Business Park)
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Date: 21 July 2016

**PROPOSED 132 kV DISTRIBUTION LINES FOR THE RIETKLOOF AND
BRANDVALLEY WIND ENERGY FACILITIES NEAR SUTHERLAND,
WESTERN & NORTHERN CAPE:**

PALAEONTOLOGICAL HERITAGE COMMENT

Dear Sir,

It is proposed to develop a 132 kV distribution line to connect each of the proposed Rietkloof and Brandvalley Wind Energy Facilities (WEFs) to the Eskom grid between Matjiesfontein and Sutherland, Western and Northern Cape. Various route options are under consideration for each WEF (See Figs. 1 & 2 below).

The entire 132 kV distribution line project footprint has already been assessed in terms of palaeontological heritage impacts in the course of combined desktop and field-based studies by the author for the two WEFs (including relevant substations) as well as for several neighbouring transmission line, substation and alternative energy projects, such as the Kareebosch WEF, Karusa WEF and Esizayo WEF (See references).

All these previous studies have concluded that, while fossil material such as Palaeozoic vertebrate, trace fossil and petrified wood remains do indeed occur in this region of the Karoo, the overall palaeontological sensitivity here is generally low because well-preserved, scientifically important fossils are very rare. None of the few, small areas of high palaeontological sensitivity that have been identified in previous field assessment reports will be directly impacted by the distribution lines. Bedrock excavations into potentially fossiliferous bedrocks during construction of the 132 kV distribution line pylons and associated access roads are likely to be small in volume. The impact significance of the proposed 132 kV distribution lines is therefore rated as LOW (negative).

It is concluded that there is no objection on palaeontological heritage grounds to the proposed distribution line project, nor is there any preference on these grounds for any particular route option for the 132 kV distribution lines for the Rietkloof and Brandvalley WEFs. **Given their low impact significance and the fact that the entire development footprint has been previously assessed, no further specialist palaeontological studies are considered necessary in this regard.**

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Given the potential for scientifically important chance fossil finds during the construction phase, the following recommendations for palaeontological monitoring and mitigation should be included within the Environmental Management Programme for the 132 kV distribution lines:

The Environmental Control Officer (ECO) responsible for the 132 kV distribution lines should be made aware of the possible occurrence of scientifically-important fossil remains within the development footprint. During the construction phase all major clearance operations (*e.g.* for new access roads, pylon placements) and deeper (> 1 m) excavations should be monitored for fossil remains on an on-going basis by the ECO. Should substantial fossil remains - such as vertebrate bones and teeth, or petrified logs of fossil wood - be encountered at surface or exposed during construction, the ECO should safeguard these, preferably *in situ*. They should then alert the relevant Heritage Management Authority as soon as possible (*i.e.* Western Cape: Heritage Western Cape (HWC). Protea Assurance Building, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 086-142 142. Fax: 021-483 9842. Email: hwc@pgwc.gov.za. Northern Cape: South African Heritage Resources Agency (SAHRA). Dr Ragna Redelstorff. Heritage Officer Archaeology, Palaeontology & Meteorites Unit, SAHRA. 111 Harrington Street, Cape Town, 8001. Tel: +27 (0)21 202 8651. Fax: +27 (0)21 202 4509. E-mail: rredelstorff@sahra.org.za). This is to ensure that appropriate action (*i.e.* recording, sampling or collection of fossils, recording of relevant geological data) can be taken by a professional palaeontologist at the developer's expense.



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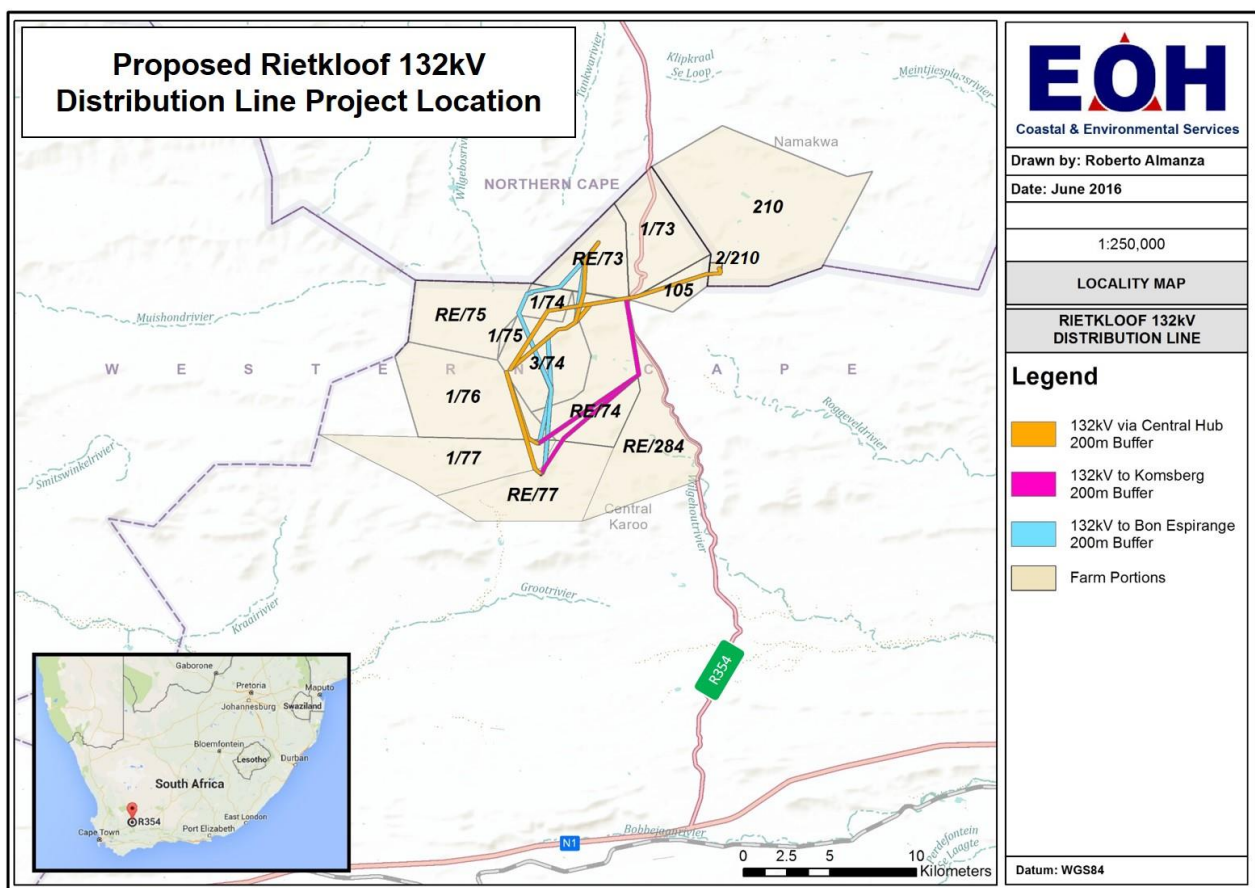


Figure 1: Map showing various routes under consideration for the proposed 132 kV distribution line between the Rietkloof WEF and the Eskom grid (Image provided by EOH).

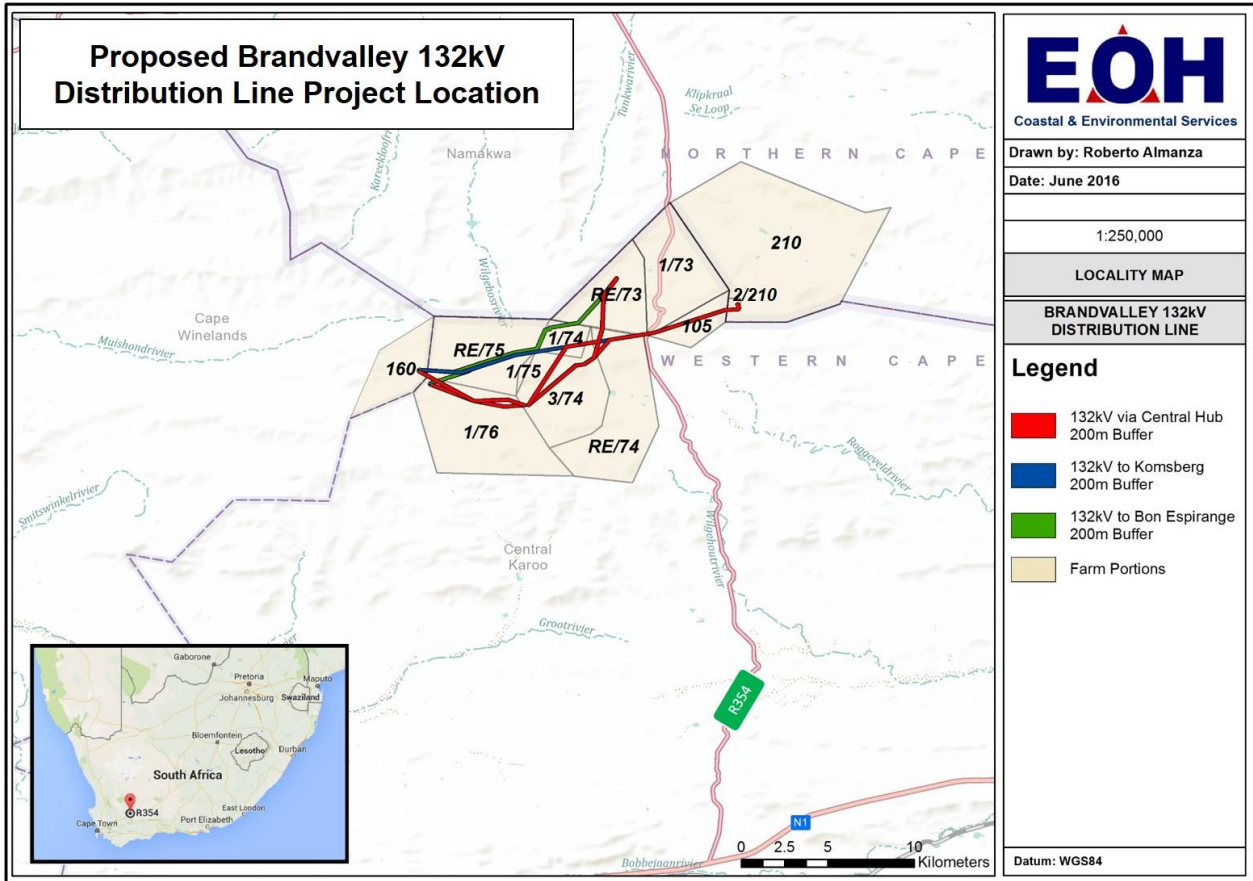


Figure 1: Map showing various routes under consideration for the proposed 132 kV distribution line between the Brandvalley WEF and the Eskom grid (Image provided by EOH).