

BA Process for the Proposed Construction of Electrical Grid Infrastructure to support the Rietrug Wind Energy Facility (WEF), Northern and Western Cape Provinces (Rietrug WEF – Electrical Grid Infrastructure)

Our Ref:



an agency of the
Department of Arts and Culture

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South African Heritage Resources Agency | 111 Harrington Street | Cape Town
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Enquiries: Natasha Higgitt
Tel: 021 462 4502
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CaseID: 10494

Date: Friday September 01, 2017
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Final Comment

In terms of Section 38(4), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: South Africa Mainstream Renewable Power Developments (Pty) Ltd

P.O. Box 45063
Claremont
7753

South Africa Mainstream Renewable Power Developments (Pty) Ltd (Mainstream) received three Amended Environmental Authorisations (EAs), dated 10 November 2016 (DEA Reference Numbers: 12/12/20/1782/1; 12/12/20/1782/2; and 12/12/20/1782/3), from the National Department of Environmental Affairs (DEA) to construct and operate the Sutherland Wind Energy Facility (WEF), Sutherland 2 WEF, and Rietrug WEF, each with a generation capacity of 140 MW. Mainstream is now proposing to amend the turbine and hub specifications of each of the separately authorised WEFs (dated 10 November 2016). Three separate EA Amendment Applications were submitted to the DEA accordingly. Mainstream is also proposing to construct electrical infrastructure (including on-site substations, Operational and Maintenance Buildings, laydown areas, service roads, 132 kV distribution lines, and connection to a proposed third party substation) to support the three separately authorised WEF projects (as part of a separate project). Three separate Basic Assessment (BA) Processes are being undertaken for each Electrical Infrastructure project. An integrated Public Participation Process will be undertaken for the proposed projects. This specific application is for the BA Electrical Infrastructure project and is referred to as "Rietrug WEF – Electrical Grid Infrastructure". The proposed project will take place approximately 23 km south of Sutherland and 50 km north of Laingsburg, within the Northern and Western Cape Provinces.

CSIR has been appointed by South Africa Mainstream Renewable Power Developments (Pty) Ltd to conduct an Environmental Authorisation Application for the proposed construction of Electrical Grid Infrastructure to support the Rietrug Wind Energy Facility (WEF), Northern and Western Cape Provinces. A draft Basic Assessment Report (dBAR) has been completed in terms of the National Environmental Management Act, 1998(Act 107 of 1998) (NEMA) and the Environmental Impact Assessment (EIA) Regulations, 2014. The proposed development will include the construction of a 17/44 km 132kV Transmission line from the proposed Rietrug WEF to a third party substation, on-site substation, connection to the third party connection, service road below the line, laydown area and operational and maintenance building. Two alternative routes are being assessed as part of the dBAR.



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Asha Consulting was appointed to conduct the Heritage Component of the dBAR. It must be noted that the discussion of the heritage reports below pertains only to the Northern Cape section of the proposed development.

Orton, J. 2017. Heritage Impact Assessment: Proposed Construction of a substation and 132KV Distribution Line to support the proposed Rietrug WEF, Sutherland and Laingsburg Magisterial Districts, Northern and Western Cape.

A total of 50 heritage resources were identified as part of the HIA within the Northern Cape portion of the proposed development. Of these sites, two sites were rated as highly significant. A Stone Age kraal complex (site 546) is bisected by an access road that might be used during development. A graveyard (site 573) was identified within agricultural lands, near a farm road. One potential sensitive part of Alternative 2 could not be surveyed in the field. No direct impacts are expected on heritage resources for either Alternative 1 or Alternative 2 of the powerline.

Recommendations provided in the report include the following:

- Ensure that all areas not already surveyed as part of this assessment are examined by both an archaeologist and a palaeontologist in order to identify any areas or sites that should be protected or mitigated prior to commencement of development. Note that this requirement pertains to un-surveyed parts of the assessed routes as well as to any alterations to the routing made after completion of this report;
- The Environmental Control Officer (ECO) should be aware of the potential for fossils to be uncovered during excavations. Excavations should be monitored by the ECO during construction and if any fossils are uncovered they should be protected *in situ* and immediately reported to a palaeontologist in order to plan a way forward. It is understood that the ECO would not be able to watch the excavation team full time, but as many holes as possible should be examined along with their spoil heaps;
- The farm road passing through the kraal complex (waypoint 546) may not be widened towards the east and should preferably not be widened at all;
- Significant palaeontological and archaeological sites should be identified on project maps and regarded as no-go zones with buffers of at least 30m around all associated features. There are a number of archaeological sites along both alternatives (Site 576, if possible, 524, 546, and 527). The site (waypoint 576) within the development envelope of the proposed on-site substation is not significant enough to warrant mitigation but should be avoided if possible;
- These no-go sites should be examined periodically by the ECO during the construction phase to ensure that they are being respected;

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- If any archaeological or palaeontological material is encountered during any phase of the project it should be protected in situ and reported to an appropriate specialist and/or to the relevant heritage resources authority so that a decision can be made as to how to proceed.

Almond, J.E. 2017. Palaeontological Heritage: Desktop and field-based Basic Assessment for the proposed Construction of Electrical Grid Infrastructure to support the Rietrug Wind Energy Facility, Northern and Western Cape Province.

The proposed development is underlain by the highly palaeontological sensitive Abrahamskraal formation, known for rich fossil biota including pareiasaur reptiles, therapsids, fish, amphibians, petrified wood, trace fossils and microfossils.

No significant sites were identified within the proposed on-site substation and third party substation sites. A conservation worthy, well-articulated postcranial skeleton of a large tetrapod was identified on Beeren Valley; however, the site will not be impacted by the proposed development.

Recommendations provided in the report include the following:

- The uranium anomalies as shown on page 71 of the PIA must be buffered with a 30 m no-go zone;
- The ECO responsible for the Sutherland WEF electrical grid connection developments should be made aware of the potential occurrence of scientifically-important fossil remains within the development footprint. During the construction phase all major clearance operations (e.g. for new access roads, laydown areas, pylon footings) 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 provincial heritage management authority as soon as possible. This is to ensure that appropriate action -i.e. recording, sampling or collection of fossils, plus recording of relevant geological data -can be taken by a professional palaeontologist at the developer's expense.
- These mitigation recommendations should be incorporated into the Environmental Management Programme (EMPr) for the electrical grid connection project and be included as conditions for its authorization.

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development. Comments regarding the Western Cape portion of the development must be sought from Heritage Western Cape (HWC).

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit accepts the recommendations of the heritage specialists and has no objection to the proposed development. The recommendations of the heritage specialists and the following conditions must be included in the Final BAR and Environmental Management Programme (EMPr):

- If it is not possible to avoid the identified heritage resources, permits in terms of section 35 of the National Heritage Resources Act, Act 25 of 1999 (NHRA) and Chapter IV of the 2000 NHRA Regulations must be applied for in order to mitigate the sites prior to construction;
- A heritage walk-down of the finalised route of the powerline must be completed prior to construction by a qualified archaeologist and palaeontologist. A walk-down report must be submitted to SAHRA prior to construction for comments. No construction may commence without comments from SAHRA;
- A Heritage Management Plan (HMP) must be developed for all heritage resources located within the proposed development footprint, and all heritage resources that require no-go bufferzones. The HMP must be submitted to SAHRA prior to construction commencing;
- The Final BAR and appendices must be submitted to SAHRA for record purposes;
- If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/John Gribble 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Mimi Seetelo 012 320 8490), must be alerted immediately. A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA; and
- If the development receives an Environmental Authorisation (EA), SAHRA must be informed and all documents pertaining to the EA must be uploaded to the SAHRIS Case file.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

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Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Acting Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/383531>
(DEA, Ref:)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.