

Ms. Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency (SAHRA)
111 Harrington Street
CAPE TOWN
8001

Your reference CaseID: 12081
Our reference 13622 – Grid
Date 26 February 2018

ATTENTION: MS. NATASHA HIGGITT

Dear Ms. Higgitt

**PROPOSED CONSTRUCTION OF THE !XHA BOOM ON-SITE ESKOM SUBSTATION,
LINKING SUBSTATION AND ASSOCIATED 132KV POWER LINE NEAR LOERIESFONTEIN,
NORTHERN CAPE PROVINCE**

▪ **Response to Interim Comments provided by SAHRA (Case 12081)**

The South African Heritage Resources Agency (SAHRA) interim comment letter for Case ID 12081 dated 18th January 2018 refers (Please see **Appendix A**).

It was stated that, “*The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit disagrees with the low sensitivity given to the Prince Albert Formation as it is deemed to be of high palaeontological sensitivity according to the SAHRIS Fossil Heritage Layer Browser (<http://www.sahra.org.za/sahris/fossil-layers/prince-albert-formation>). Therefore, and in line with recommendations that include that surveying be done by a professional palaeontologist (p.31, Table 1 of the report), the APM Unit endorses such recommendation and requires a professional palaeontologist to survey the proposed development footprint. The surveying report must be submitted to SAHRA before the commencement of any development-related activities. It must be noted that the palaeontological description of the Prince Albert Formation was rather sparse and does not include references.*

Further comments will be issued upon receipt of the above.”

In light of the comments above, the Palaeontology and Heritage specialists were requested to review their respective specialist reports and the recommended high sensitivity of the Prince Albert Formation. Subsequently, the reports have been amended to increase the sensitivity of the Prince Albert Formation as the specialists are in agreement that this formation does in fact have a high palaeontological sensitivity. It should be noted that the palaeontology specialist has also recommended that a detailed palaeontology study be conducted prior to construction in order to assess the value and prominence of fossils in the development area and the effect of the proposed development on the palaeontological heritage. This will consist of a Phase 1 field-based assessment which will be undertaken by a professional palaeontologist. The detailed Phase 1 Report will elaborate on the issues and potential impacts identified during the initial study undertaken for the Basic Assessment (BA). This will be achieved by site visits and research in the site-specific study area as well as a comprehensive assessment of the impacts identified during the BA. The Phase 1 Report will include specific mitigation measures which will address the issue of palaeontology and will be submitted to SAHRA for comment and approval before the commencement of any development-related activities. The palaeontology specialist has also elaborated on the description of the Prince Albert Formation in the updated report and has included references. The updated specialist reports will be uploaded to SAHRIS accordingly, along with the Final Basic Assessment Report (FBAR).

As such, based on the recommendation made by the palaeontology specialist, SiVEST will provide a recommendation in the FBAR that should the DEA issue Environmental Authorisation (EA) for the proposed development, a condition should be included stipulating that a detailed palaeontology study be undertaken for the authorised power line corridor and submitted to SAHRA for comment and approval prior to construction. This is deemed to be an acceptable approach as, as per the interim comment letter dated 18 January 2018, SAHRA stated that *“Therefore, and in line with recommendations that include that surveying be done by a professional palaeontologist (p.31, Table 1 of the report), the APM Unit endorses such recommendation and requires a professional palaeontologist to survey the proposed development footprint. The surveying report must be submitted to SAHRA before the commencement of any development-related activities.”*

Mainstream have agreed to the approach of undertaking the detailed palaeontology study prior to construction for SAHRA to provide final comment and approval and include any additional measures (if and where required) into the Environmental Management Programme (EMPr) to be implemented in the construction phase. Mainstream therefore acknowledged and made provision on this basis to undertake this assessment prior to construction, as required.

Your soonest response will be highly appreciated. Should you have any queries, please feel free to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read "Stephan Jacobs", with a long horizontal stroke extending to the right.

Stephan Jacobs
Environmental Consultant
SiVEST Environmental

Appendices:

Appendix A: SAHRA Interim Comment letter



Appendix A

SAHRA INTERIM COMMENT LETTER



an agency of the
Department of Arts and Culture

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Interim Comment

In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Sivest - Gauteng

PO BOX 2921
Rivonia
2128

Proposed Construction of the !Xha Boom On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province

SiVEST Environmental has been appointed by SA Mainstream Renewable Power Developments (Pty) Ltd to conduct an Environmental Authorisation (EA) Application process for the proposed !Xha Boom On-site Eskom Substation, Linking Substation and associated 132kV Power Line, near Loeriesfontein, Northern Cape Province. A draft Basic Assessment Report (dBAR) has submitted in terms of the National Environmental Management Act, 1998 (NEMA), and the NEMA 2017 Environmental Impact Assessment (EIA) Regulations. The proposed development will include the construction of a 2 ha on-site substation (two locations are being considered), a 5 ha linking substation (two locations are being considered) and a 132kV powerline between 53.4 and 47 km in length (4 route options are being considered). The powerline will have a servitude of 31 m.

PGS Heritage (Pty) Ltd was appointed to conduct the heritage component of the BAR.

Fourie, W, Angel, J and Hutten, M. 2017. !Xha Wind Energy Facility (WEF) – 132kV Grid connection and substation: Heritage Impact Assessment.

A surface scatter of Later Stone Age lithics were identified No heritage resources were identified within a pan within the proposed power line corridor route. The site was rated as a site of low significance and no mitigation was deemed necessary.

Recommendations provided in the report include the following:

- A walk-down of the final layout to determine if any significant sites will be affected;
- Any heritage features of significance identified during this walk down will require formal mitigation or where possible a slight change in design could accommodate such resources;
- Monitor findspot areas if construction is going to take place through them;



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- A management plan for the heritage resources needs to be implemented during construction and operations; and
- Possible surface collections for sites with a medium to high significance as well as conducting a watching brief by heritage practitioner are to be undertaken during the construction phase.

Butler, E. 2016. Palaeontological Desktop Impact Assessment for the Proposed Development of four Leeuwberg Wind Farms and Basic Assessments for the Associated Grid Connection near Loeriesfontein, Northern Cape Province.

It was noted that no separate assessment has been done for this application; it is rather part of a larger development encompassing four farms in total. Different sensitivities and thus different outcomes may apply for each of these farms.

The farm is underlain by unfossiliferous Karoo dolerite as well as sediments of the Prince Albert Formation (Ecca Group). The excavations and site clearance will involve substantial excavations into the superficial sediment cover as well as locally into the underlying bedrock. These excavations will modify the existing topography and may disturb damage, destroy or permanently seal-in fossils at or below the ground surface that are then no longer available for scientific research. According to the geology of the development site there is a possibility of finding fossils in the Ecca Group but the palaeontological sensitivity is low.

Recommendations provided in the report include the following:

- Recommended mitigation of the inevitable damage and destruction of fossil within the proposed development area would involve the surveying, recording, description and collecting of fossils within the development footprint by a professional palaeontologist. This work should take place after initial vegetation clearance has taken place, but before the ground is leveled for construction;
- Impacts on fossil heritage are generally irreversible. Well-documented records and further palaeontological studies of any fossils exposed during construction would represent a positive impact from a scientific perspective. The possibility of a negative impact on the palaeontological heritage of the area can be reduced by the implementation of adequate damage mitigation procedures. If damage mitigation is properly undertaken the benefit scale for the project will lie within the beneficial category;
- Should fossil remains be discovered during any phase of construction, either on the surface or exposed by fresh excavations, the ECO responsible for these developments should be alerted immediately. Such discoveries ought to be protected (preferably in situ) and the ECO should alert SAHRA so that appropriate mitigation (e.g. recording, sampling or collection) can be taken by a professional paleontologist. The specialist involved would require a collection permit from SAHRA.

Proposed Construction of the !Xha Boom On-site Eskom Substation and Power Line

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Fossil material must be curated in an approved collection (e.g. museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA.

The submitted Environmental Management Programme (EMPr) notes the following additional mitigation measures with regards to heritage resources:

- Any finds must be reported to the nearest National Monuments office to comply with the National Heritage Resources Act (Act No 25 of 1999) and to DEA;
- Any finds must be reported to the nearest National Monuments office to comply with the National Heritage Resources Act (Act No 25 of 1999) and to DEA. Local museums as well as the South African Heritage Resource Agency (SAHRA) should be informed if any artefacts are uncovered in the affected area;
- The contractor must ensure that his workforce is aware of the necessity of reporting any possible historical or archaeological finds to the ECO so that appropriate action can be taken;
- Any discovered artefacts shall not be removed under any circumstances. Any destruction of a site can only be allowed once a permit is obtained and the site has been mapped and noted. Permits shall be obtained from the South African Heritage Resources Association (SAHRA) should the proposed site affect any world heritage sites or if any heritage sites are to be destroyed or altered;
- Should any archaeological sites / graves be uncovered during construction, their existence shall be reported to the Project Company and MC immediately.

Interim Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit disagrees with the low sensitivity given to the Prince Albert Formation as it is deemed to be of high palaeontological sensitivity according to the SAHRIS Fossil Heritage Layer Browser (<http://www.sahra.org.za/sahris/fossil-layers/prince-albert-formation>). Therefore, and in line with recommendations that include that surveying be done by a professional palaeontologist (p.31, Table 1 of the report), the APM Unit endorses such recommendation and requires a professional palaeontologist to survey the proposed development footprint. The surveying report must be submitted to SAHRA before the commencement of any development-related activities. It must be noted that the palaeontological description of the Prince Albert Formation was rather sparse and does not include references.

Further comments will be issued upon receipt of the above.

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

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above in the case header.

Yours faithfully

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/487629>
(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.