

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Natasha Higgitt
Tel: 021 462 4502
Email: nhiggitt@sahra.org.za
CaseID: 11227

Date: Tuesday July 25, 2017
Page No: 1

Final Comment

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

Attention: Enviroafrica CC

PO Box 5367
Heilderberg
7135

Project Location and Description The proposed development site is located at 28°19' 06''S, 24°13' 31''E, 30km on the R31 road northwest of Kuruman. The proposed development is an array of 18540 crystalline solar photovoltaic (PV) modules grouped into tables or panels of 20 modules each. It is proposed that the PV tables would form an array covering an area of 20ha, circumscribed with a perimeter fire access road and fence. The PV tables will be raised approximately 500mm above ground level and will have single axis tracking systems allowing the generation of approximately 5MW of alternating current. Proposed associated infrastructure includes a fenced construction staging area, a maintenance shed, three inverter-transformer stations on concrete pads and two office buildings all on the 20ha site, as well as a switch panel and 1,9km of 22kV overhead powerline from the southern section of the PV array for connection to the power grid, at Eskom's Riries substation north of the proposed development site, on the opposite side of the R31.

Enviro Africa CC has been appointed by Roma Energy Mount Roper (Pty) Ltd to conduct a Basic Assessment Process in support of an Environmental Authorisation (EA) Application for the Proposed Solar PV Plant on the farm Mount Roper 321, Ga-Segonyana Local Municipality, Northern Cape Province. A Basic Assessment Report (BAR) has been completed in term of the National Environmental Management Act, 1998 (NEMA) and the NEMA 2017 Environmental Impact Assessment (EIA) Regulations. The proposed development will comprise the construction of 20 ha of solar photovoltaic modules grouped into tables or panels. Associated infrastructure will include fenced construction staging area, a maintenance shed, six central inverters and three transformers on concrete pads, one to two office buildings, a switch panel for connection to the power grid, and a 0.9 km 22kV powerline connection to the Riries Substation.

The Agency for Cultural Resources Management has been appointed to conduct the Archaeological Impact Assessment (AIA) and Natura Viva CC has been appointed to conduct the Palaeontological Component.

Kaplan, J. 2017. Archaeological Impact Assessment, Roma Energy Mount Roper PV Plant on Farm 321 near Kuruman, Northern Cape Province.



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

An assessment of the project area was conducted in 2012 where 31 archaeological occurrences were identified within the proposed development area, which included mostly Later Stone Age (LSA) and Middle Stone Age (MSA) artefacts, and one Early Stone Age (ESA) biface. The heritage resources were graded as having a medium-low (Grade 3B-3C) significance rating.

The project area was resurveyed in 2017, and 13 occurrences of stone age artefacts were identified. All of these occurrences were graded as having low (Grade 3C) significance rating. As the solar panels will be mounted on small footings and the excavations for the footings will be 1.5 m in diameter, the ground disturbance will be limited.

Recommendations provided in the 2012 report were re-emphasised in the 2017 report:

- The footprint area across the northern portion of the development site must be re-surveyed once the vegetation has been cleared from the site. Archaeological visibility will be higher and many more tools are likely to be encountered on the ironstone gravels which cover this portion of the farm. These should be documented before any physical construction takes place on the site, so as to record a more representative sample of the archaeological record.
- Should any unmarked human burial/remains or ostrich eggshell water flask caches be uncovered, or exposed during construction activities, these must immediately be reported to the contracted archaeologist or SAHRA.

Almond, J. E. 2017. Recommendation Exemption from Further Palaeontological Studies and Mitigation: Proposed Mount Roper Roma Solar Plant, Farm Mount Roper 321 near Kuruman, Ga-Segonyana Local Municipality, Northern Cape.

The proposed development area is underlain by banded ironstone of the Daniëlskuil Formation which is known to contain microfossils. The banded ironstone is overlain by colluvial deposits and wind-blown sands of Pleistocene or younger age that are not palaeontologically sensitive. The impact of the development is considered to be low.

Recommendations provided in the report include the following:

- It is therefore recommended that, pending the exposure of significant new fossils during development, exemption from further specialist palaeontological studies and mitigation be granted for this solar development;
- During the construction phase, all major clearance operations and deeper (>1 m) excavation should be

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Natasha Higgitt
Tel: 021 462 4502
Email: nhiggitt@sahra.org.za

Date: Tuesday July 25, 2017
Page No: 3

CaseID: 11227

- monitored for fossil remains on an on-going basis by the Environmental Control Officer (ECO); and
- Should any substantial fossil remains (e.g. vertebrate bones and teeth, shells, petrified wood, calcretised burrows) be encountered during excavation, these should be reported to SAHRA for possible mitigation by a professional palaeontologist;
 - These mitigation recommendations should be incorporated into the Environmental Management Programme (EMPr) for the solar project.

Final Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit has no objections to the proposed development. The recommendations of the heritage specialists and the following conditions must be included in the EMPr for the project:

- 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

Natasha Higgitt

POST APPLICATION BASIC ASSESSMENT REPORT: SOLAR PHOTOVOLTAIC FACILITY – MOUNT ROPER (DEA Reference: 14/12/16/3/3/1/1753)

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Natasha Higgitt
Tel: 021 462 4502
Email: nhiggitt@sahra.org.za
CaseID: 11227

Date: Tuesday July 25, 2017
Page No: 4

Heritage Officer
South African Heritage Resources Agency

John Gribble
Manager: Maritime and Underwater Cultural Heritage Unit / Acting Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/404647>
(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.