

UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG



Palaeosciences Centre, East Campus, 1 Jan Smuts Avenue, Braamfontein, Johannesburg
Private Bag 3, WITS 2050, Johannesburg, SOUTH AFRICA Tel: 011 717 6682

Marion.bamford@wits.ac.za

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Heritage Western Cape
CEO: Mr Michael Janse van Rensburg
Private Bag X9067, Cape Town, 8000
3rd Floor, Protea Assurance Building,
Greenmarket Square, Cape Town, 8001

Dear Sir

RE: Request for Exemption of any Palaeontological Impact Assessment for the proposed construction of a PV Solar Energy Facility, north and east of Hopefield, Western Cape Province

In my capacity as a professional palaeontologist, I am requesting exemption for palaeontological impact assessment in terms of the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) which requires that the proposed development must be preceded by the relevant impact assessment, in this case for palaeontology.

Project Description:

Ecocompliance was appointed by Solar Capital Pty Ltd (Solar Capital) as the lead consultant to manage the Environmental Impact Assessment (EIA) process for the establishment of the proposed Hopefield photovoltaic solar energy facility (PVSEF) and associated infrastructure located approximately 3km from the town of Hopefield and approximately 115km north of Cape Town city in the Western Cape Province. The proposed project site is composed of different farm portions that together form the Hopefield Solar Energy Project.

Those farm portions are as follows:

1. Portugeese Fontyn 167,
2. Farm Portugeese Fontyn 2/167; and
3. Farm Theewatervlei 315

The total extent of all five farm portions is 3 302 Ha but the area considered for the proposed development is 2 998ha in extent (see Figure 1). The proposed project is

envisaged to make use of the photovoltaic (PV) technology with a maximum output of approximately 1.6GW that will be constructed in a phased approach over time. It is important to note that the proposed solar project will not be connected to the Eskom grid but will be used as part of an Ammonia production facility proposed in Saldanha Industrial Development Zone (IDZ) located about 30 km to the northwest. The study area is located within the jurisdiction of the Saldanha Local Municipality.

Infrastructure associated with the facility will include, inter alia:

- Photovoltaic solar panels with associated steel structures
- Foundations to support the PV panels;
- Cabling between the project components, to be laid underground where practical;
- Internal access roads; and
- Workshop area for maintenance and storage

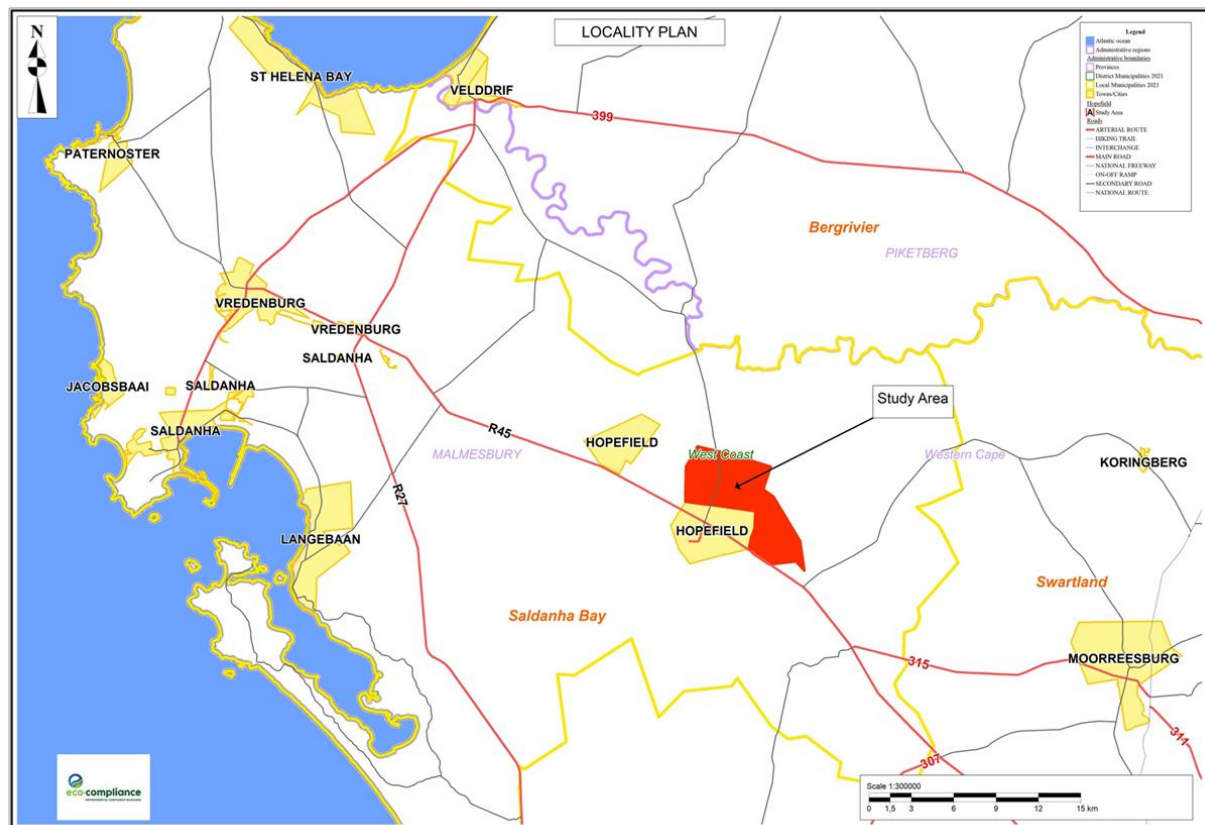


Figure 1: Locality map for the Hopefield PVSEF – red area. Map supplied by Eco compliance.

Geology and Palaeontology

The project footprint is on the Moorresberg Formation of the Malmesbury Group which is Neoproterozoic aged low grade metamorphosed volcanic sediments (Gresse et al., 2006), and on the sands and sandy loam of the Springfontein Formation of the Sandveld Group. The latter is composed of aeolian sands of Middle Pleistocene to Holocene age (Roberts et al., 2006). The Moorresberg Formation is volcanic in origin and so has no chance of preserving fossils while the Springfontein Formation is composed of sands. Sands do not preserve fossils, especially aeolian sands.

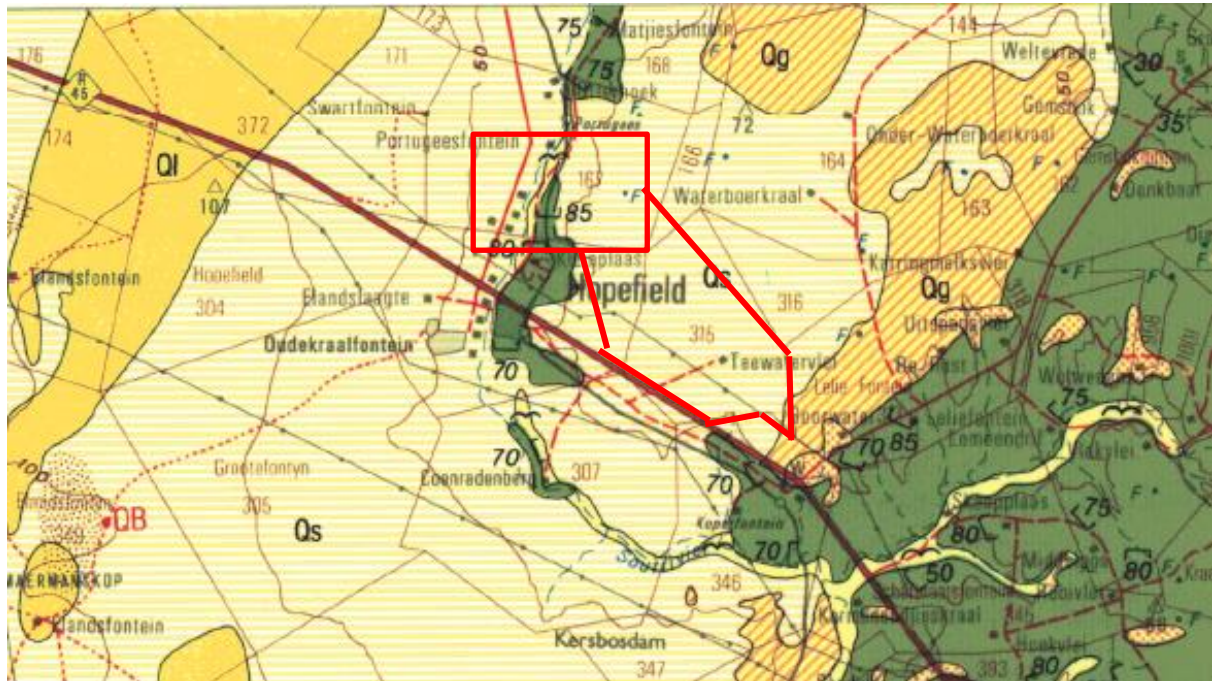


Figure 2: Geological map of the area around the Hopefield PVSEF. The location of the proposed project is indicated within the red outline. Abbreviations of the rock types are in Table 1 below. Map enlarged from the Geological Survey 1: 250 000 map 3318 Cape Town.

Table 1: Abbreviations for the geological map.

Symbol	Group/Formation	Lithology	Approximate Age
Q	Fluvial sands and alluvium	Sands	Quaternary Ca 1.0 Ma to present
Qg	Quaternary	Loam and sandy loam	Quaternary Ca 1.0 Ma to present
Ql	Langebaan Fm Sandveld Group	Limestone and calcrete	Quaternary Ca 1.0 Ma to present
Qs	Springfontein Fm Sandveld Group	Light-grey to pale-red windblown sand and sandy loam	Quaternary Ca 1.0 Ma to present
Nm	Moorresberg Fm, Malmesbury Group	Greywacke and phyllite with lenses of quartz schist, limestone and grit	Neoproterozoic Ca 600 Ma

The low significance of the palaeosensitivity is confirmed by the blue colouration in the SAHRIS map (Figure 3). Along the stream the fluvial sands might have transported fossils but the watercourses are exempt from any development.

Since there is very little chance of fossils occurring in the project footprint, we request **exemption from any further palaeontological impact assessment**. Nonetheless, a Fossil chance find Protocol is added here in case fossils are found by the responsible person on site when excavations for foundations and infrastructure commence.



Figure 3: SAHRIS palaeosensitivity map for the site for the proposed Hopefield PVSEF footprint within the yellow rectangle. Background colours indicate the following degrees of sensitivity: red = very highly sensitive; orange/yellow = high; green = moderate; blue = low; grey = insignificant/zero.

Yours faithfully

Prof Marion Bamford
Palaeobotanist; PhD (Wits 1990)

References cited:

Gresse, P.G., von Veh, M.W., Frimmel, H.E., 2006. Namibian (Neoproterozoic) to Early Cambrian Successions. In: Johnson, M.R., Anhaeusser, C.R. and Thomas, R.J., (Eds). The Geology of South Africa. Geological Society of South Africa, Johannesburg / Council for Geoscience, Pretoria. Pp 395-420.

Roberts, D.L., Botha, G.A., Maud, R.R., Pether, J., 2006. Coastal Cenozoic deposits. In: Johnson, M.R., Anhaeusser, C.R. and Thomas, R.J., (Eds). The Geology of South Africa. Geological Society of South Africa, Johannesburg / Council for Geoscience, Pretoria. Pp 605-628.

Palaeosensitivity map:

<https://sahris.sahra.org.za/map/palaeo>

Fossil Chance Find Protocol

Monitoring Programme for Palaeontology – to commence once the excavations / drilling activities begin.

1. The following procedure is only required if fossils are seen on the surface and when drilling/excavations commence.
2. When excavations begin the rocks and discard must be given a cursory inspection by the environmental officer or designated person. Any fossiliferous material (plants, insects, bone or coal) should be put aside in a suitably protected place. This way the project activities will not be interrupted.
3. Photographs of similar fossils can be provided to the developer to assist in recognizing the fossil plants, vertebrates, invertebrates or trace fossils in the shales and mudstones (Figure 6). This information will be built into the EMP's training and awareness plan and procedures if required by HWC.
4. Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment.
5. If there is any possible fossil material found by the developer/environmental officer then the qualified palaeontologist sub-contracted for this project, should visit the site to inspect the selected material and check the dumps where feasible.
6. Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a HWC permit must be obtained. Annual reports must be submitted to HWC as required by the relevant permits.
7. If no good fossil material is recovered then no site inspections by the palaeontologist will be necessary. A final report by the palaeontologist must be sent to HWC once the project has been completed and only if there are fossils.
8. If no fossils are found and the excavations have finished then no further monitoring is required.

Declaration of Independence

This letter has been compiled by Professor Marion Bamford, of the University of the Witwatersrand, sub-contracted by Ecocompliance, South Africa. The views expressed in this report are entirely those of the author and no other interest was displayed during the decision making process for the Project.

Specialist: Prof Marion Bamford



Signature: