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Nick Gates
Senior Environmental Consultant & Service Line Manager: EMC
NCC Environmental Services (Pty) Ltd
PO Box 30223
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Dear Mr Gates

RE POSSIBLE PALEONTOLOGICAL IMPACT FOR THE PROPOSED CONSTRUCTION OF THE ADAMS2 BATTERY ENERGY STORAGE SYSTEM (BESS) FACILITY AND ASSOCIATED INFRASTRUCTURE LOCATED IN THE NORTHERN CAPE PROVINCE

1. Project Description

The proposed BESS will be housed inside containers or similar structures with a total footprint of up to 4ha in extent. It will be located adjacent to the existing Adams Solar Facility.

Both Lithium-ion and Redox-flow technology are being considered for the project, depending on which is most feasible at the time of implementation.

The proposed size of the BESS will have a total footprint of up to 4ha in extent.

Proposed associated infrastructure includes:

- i. A Substation with a maximum height of - HV busbar up to 10 m max and an HV Building up to 4 m max.
- ii. Access road to the BESS (6 existing access road), and internal roads (up to 8m wide) within the footprint of the BESS, as needed.
- iii. MV Cabling (underground or overhead) between the BESS and the HV/MV BESS substation.
- iv. HV Cabling (underground or overhead) between the HV/MV BESS substation and the HV substation or for loop in and loop out to the existing HV connection line.

- v. Fencing around the BESS and the substation for increased security measures.
- vi. Temporary laydown area within the 4ha footprint of the BESS.
- vii. Possible firebreak around the BESS facility which is to be located within the 4ha BESS footprint.

2. Project location

Farm No:	PORTION 0 OF ADAMS, 328/KURUMAN RD
GPS co-ordinates:	27° 22' 29.8"S, 23° 00' 34.9"E
Local Municipality:	Joe Morolong Local Municipality
District Municipality:	John Taolo Gaetsewe District Municipality

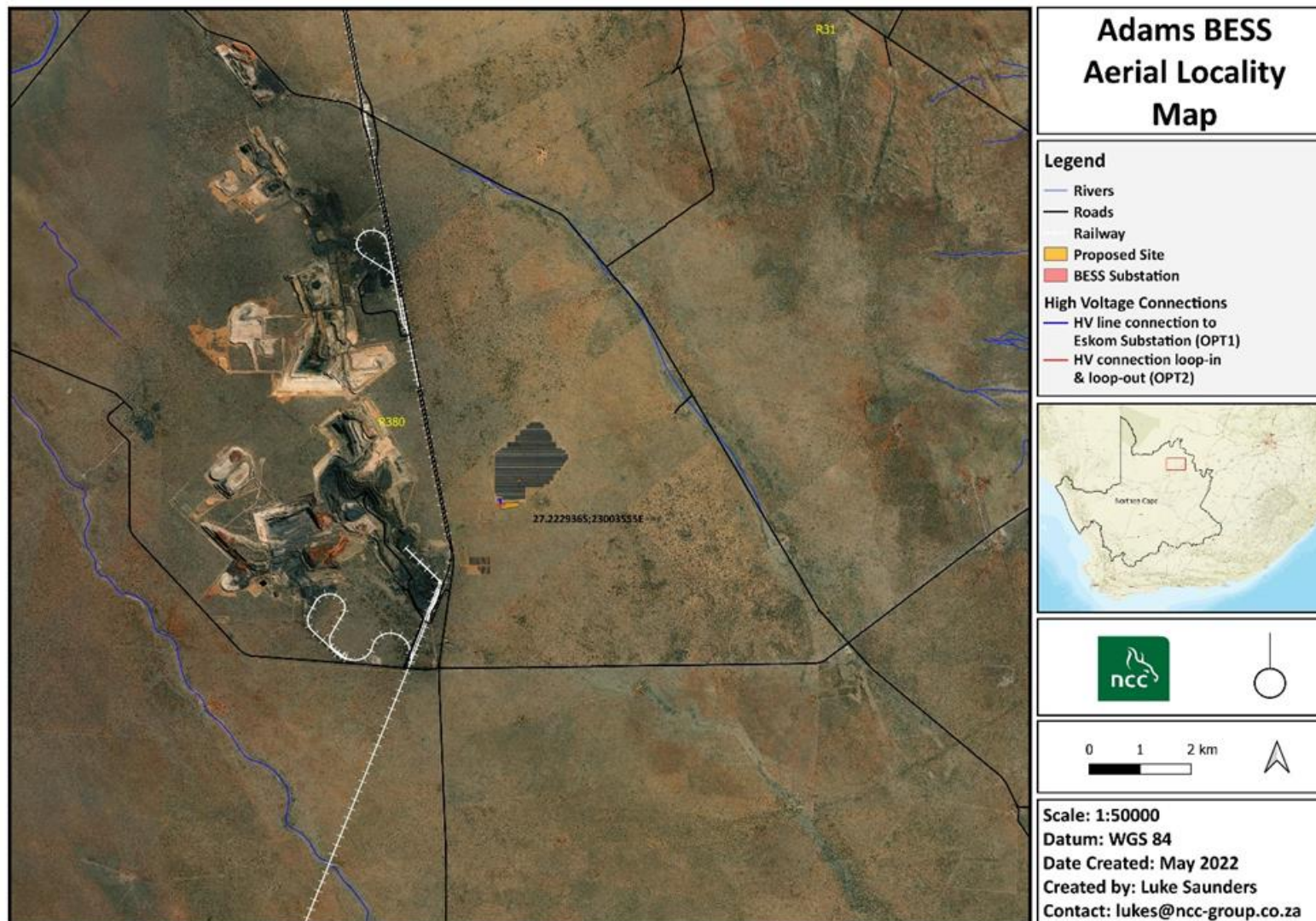


Figure 1: Project location

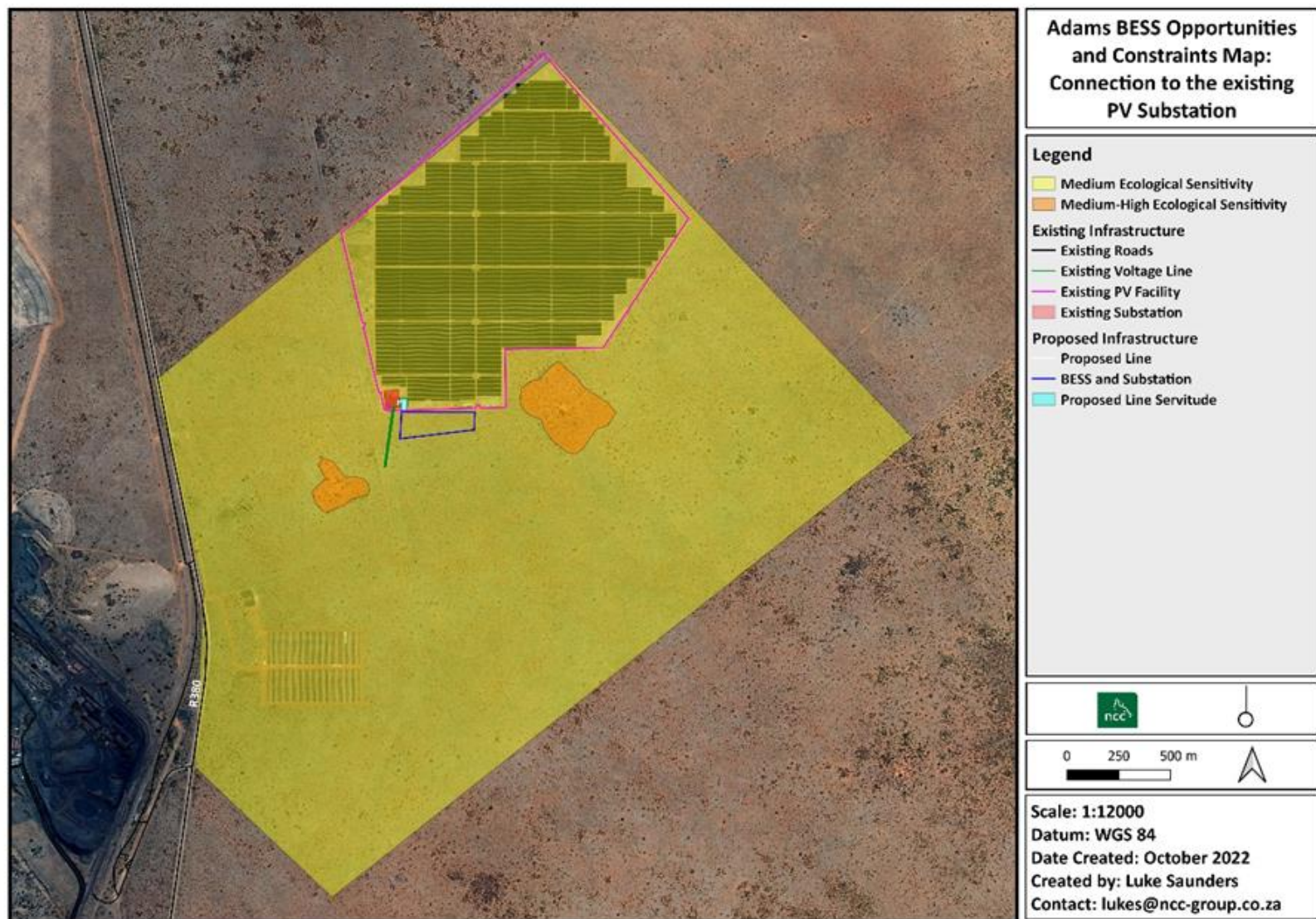
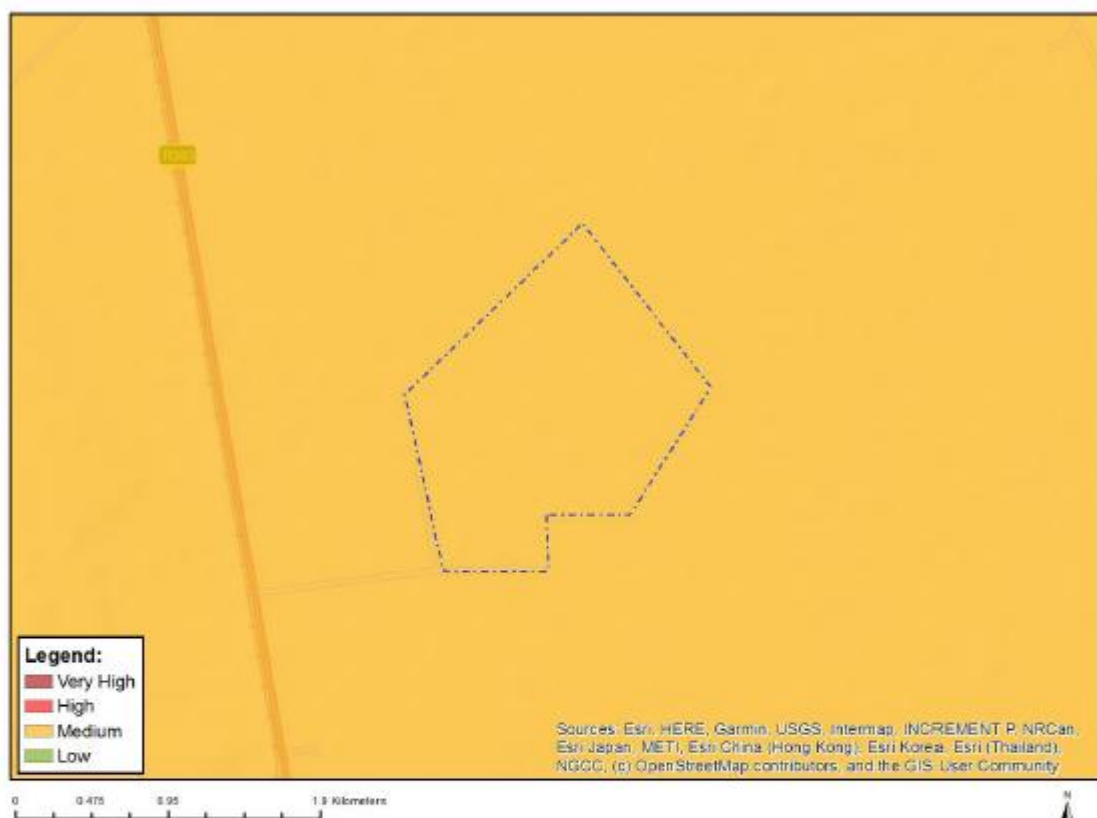


Figure 2: Preferred option

3. Site Sensitivity

Based on the DEFF Screening Tool and the Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in Terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation the site falls within a **Medium** Paleontology sensitivity. From the site visit it can be confirmed that the sensitivity of the site is **Low**.



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity

4. Photographs



Photograph 1: Site characteristics preferred option

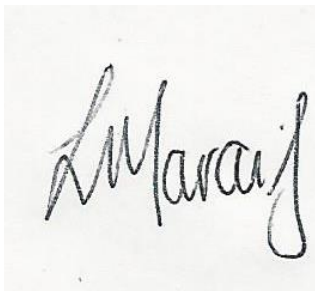


Photograph 2: Site characteristics preferred option

5. Discussion

1. In 2012 Prof Bruce Rubidge conducted a desktop paleontological study for the now existing solar park. The proposed extension of the said solar park is to the south of the existing facility. According to Prof Rubidge the entire area is situated on the Cenozoic Kalahari Group comprising calcretes and eolian sands. As such there is a slight but unlikely possibility of Cenozoic fossils being present in the calcretes and unconsolidated red sands.
2. Prof Rubidge's professional opinion regarding the subject property (from previous experience and fieldwork in the area), concluded that the previous development will not negatively affect palaeontological heritage and suggest that, from a paleontological perspective, this development and thus the current proposed project should proceed.
3. The developer must note that in the case of the unlikely event that fossilized plants or animals are exposed from sedimentary deposits it is essential that a professional palaeontologist must be consulted so that the necessary rescue operations are implemented. Depending on the nature of the fossil discovered, this could entail excavation and removal to a registered palaeontological museum collection. A list of professional palaeontologists is available from South African Heritage Resources Agency (SAHRA).
4. It is the opinion of the writer that the now current proposed site was included in the original desktop study and that a Paleontological Impact Assessment (PIA) is not necessary. Prof Rubidge is a well-known and respected academic and his findings legit.

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. Marais', written on a light-colored background.

Leonie Marais
Heritage Practitioner