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Final Comment

In terms of section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Alicia Govender Savannah Environmental PO Box 148 Sunninghill 2157 Gauteng

Proposed Koingnaas Wind Energy Facility, Namakwa Magisterial District, Northern Cape

Orton, J. September 2011. *Heritage Impact Assessment for the Proposed Koingnaas Wind Energy Facility, Namakwa Magisterial District, Northern Cape* Pether, J. September 2011. *Palaeontological Impact Assessment (Desktop Study) Proposed Wind Energy*

Facility: Koingnaas Wind Energy Facility (Proposed by Just Palm Tree Power)

Just Palm Tree Power has proposed the establishment of a 7 MW wind energy facility on Farm Koingnaas 475 in the Namakwa Magisterial District, Northern Cape. The facility will consist of up to 24 turbines over approximately 160 ha, connected to the existing Koingnaas Substation by a new 11 kV power line. Two alternative alignments have been proposed for the power line, but only one layout option has been presented for the facility.

The site lies within the Koingnaas Complex of De Beers Namaqualand Mines and comprises aeolian sand dunes, partially covered by low dune vegetation, with areas of red sand. There are calcrete exposures between the dunes, while the north-east of site is dominated by Wolfkop Hill.

The archaeological background study reports that extensive work has been conducted in the area, yielding significant information on the inhabitation of the area in the latter half of the Holocene. Heritage resources include shell middens, stone tools, pottery, ostrich eggshell beads and water flasks. Burials are common. Historical material is less common, with occasional farm houses in the wider area, while contact period archaeology has been recorded at shell middens near Hondeklipbaai.

The field survey identified large numbers of heritage resources, most of which were associated with landscape features such as dune ridges, with most clustered around Wolfkop. A representative sample of these sites is presented in the report and includes shell middens with or without artefactual material in addition to the generalised background scatter of tools. Artefacts included grindstones, hammerstones, scrapers and other tools on quartz, silcrete, CCS and quartzite, together with ostrich eggshell and potsherds. Sites KN2011/025-039 which are artefact-rich and clustered on the summit of Wolfkop were identified as possibly being related. Several historical sites were also identified, including iron fragments and a gun flint (Site KN2011/32), historic glass and stoneware (KN2011/066), refined earthenware (KN2011/100; KN2011/110).



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Some isolated historical items were also identified. Archaeological and historical sites likely to be impacted by the development and requiring mitigation were identified (Sites KN2011/012; KN2011/045; KN2011/127 and KN2011/129). The author considered the cultural landscape and comments on the intrusion of mining activity on the sense of place, which lends it an industrial character.

The Visual Impact Assessment considers that the development is within 5kms of the Namaqua National Park and is in an area of high scenic value and tourist potential. The facility will be highly visible from the local towns of Koignnaas, Noop and Hondeklipbaai and the local roads. The assessment points to the already degraded state of the immediate surroundings, which have been impacted by mining activities.

The palaeontological desktop assessment identifies the underlying bedrock as consisting of various granites and gneisses, which are palaeontologically insignificant. This bedrock is incised by fluvial palaeochannels whose kaolinised infill represents the Koingnaas Formation; these sediments can contain plant macrofossils as well as diamonds. They are overlain by the Kleinzee Formation furthest inland, which is in turn overlain by the younger Avontuur Formation closer to the sea and the Hondeklipbaai Formation along the coast. Kleinzee Formation deposits have yielded suid and hominoid teeth, whilt the Avontuur Formation can contain fossil teeth and bones of extinct marine and terrestrial animals. These formations are overlain by younger "raised" Quaternary beaches, while the coastal plain is mantled by aeolian dune sands and older, compacted red dorbank sands.

Decision:

SAHRA supports the recommendations of the specialists and requires that:

- The ECO be advised of the possibility of uncovering fossils during excavation and the exposure of fresh bedrock. Should significant palaeontological discoveries be made, SAHRA and a professional palaeontologist should be alterted immediately and all construction should halt until inspection of the site can be made. Furthermore, provision should be made in the EMP for such discoveries.
- The final layout of the turbines, cables, roads and other infrastructure should be provided to an archaeologist for consideration of possible further mitigation
- Site levelling in the west of the study area could expose new heritage resources. Should this occur, SAHRA and a professional archaeologist should be alerted immediately and all construction should halt until inspection of the site, or adequate site photographs, can be made.
- Sites KN2011/012; KN2011/045; KN2011/127 and KN2011/129 require mitigation in terms of Section 35 of the National Heritage Resources Act (Act 25 of 1999). Mitigation in the form of systematic excavation and sampling must be undertaken before trenching and any other earth-moving activity resulting from this proposed project begins. The visible material boundaries of the sites to be mitigated must be surveyed with the aid of a surveying instrument and a photographic record must be established immediately before, during and after mitigation. The archaeologist will require a mitigation permit from SAHRA in terms of s. 35 of the National Heritage Resources Act (Act 25 of 1999). On receipt of a satisfactory mitigation (Phase 2) permit report from the archaeologist, SAHRA will make further recommendations in terms of the sites such as their final destruction or additional sampling.



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• The recommendations made in the Visual Impact Assessment should be included in the EMP for the project.

If the recommendations made in the specialist report and in this comment are adhered to, the SAHRA Archaeology, Palaeontology and Meteorites Unit has no objection to the development (in terms of the archaeological and palaeontological components of the heritage resources). If any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA and a professional archaeologist and/or palaeontologist, depending on the nature of the finds, must be alerted immediately.

Decisions on Built Environment (e.g. structures over 60 years) and associated Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape *(Mr. Andrew Timothy, email:* ratha.timothy@gmail.com) to whom this Archaeological Review Comment will be copied.

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

Yours faithfully

Kathryn Smuts Heritage Officer: Archaeology

Colette Scheermeyer SAHRA Head Archaeologist South African Heritage Resources Agency

ADMIN: (DEA, Ref: 12/12/20/2154)



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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.



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