

Our Ref:



an agency of the
Department of Arts and Culture

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Date: Thursday March 16, 2017

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CaseID: 10314

Final Comment

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

Attention: Ms Lydia Cape-Ducluzeau
Council for Scientific and Industrial Research
P O Box 320
Stellenbosch
7599
South Africa

The Square Kilometre Array (SKA) project is an international effort to build the world's largest radio telescope, with eventually over a square kilometre (one million square metres) of collecting area. The scale of the SKA represents a huge leap forward in both engineering and research & development towards building and delivering a unique instrument, with the detailed design and preparation now well under way. As one of the largest scientific endeavours in history, the SKA will bring together a wealth of the world's finest scientists, engineers and policy makers to bring the project to fruition.

The Council for Scientific and Industrial Research (CSIR) was appointed by the Department of Environmental Affairs (DEA) to undertake a Strategic Environmental Assessment (SEA) for the Strategic Integrated Project (SIP) 16 – The Square Kilometre Array (SKA), also known as the SKA1_MID.

SAHRA's involvement in the SEA and associated Heritage Assessment has been to provide review of the document and provide guidance in terms of the process to follow as part of the Special Advisory Committee. Several staff at SAHRA (Natasha Higgitt, Phillip Hine, Dr Ragna Redelstorff and Itumeleng Masiteng) provided specific comments on the draft Heritage Assessment on the 5 August 2016 as part of the Committee. A meeting was held on the 13 September 2016 to discuss SAHRA's comments and concerns with CSIR and the heritage specialists. The reports referenced below were the specialist studies conducted as part of the SEA.

Bluff, K; Lavin, J; Wiltshire, N; Orton, J; Oberholzer, B and Lawson, Q. 2016. Heritage Scoping Assessment: SKA Phase 1 Project.

Almond, J.E. 2016. SKA Core and Phase 1 Development Area, Great Karoo, Northern Cape – Palaeontological Heritage.

Bluff, K and Wiltshire, N. SKA Phase 1: SEA Heritage Screener.



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A total of 105 heritage resources were identified within the SKA1_MID proposed development area as part of a desktop and limited field survey, which include 6 Provincial Heritage Sites, 42 sites of Grade IIIa significance, 20 sites of Grade IIIb significance and 37 sites of Grade IIIc significance. The types of sites range from archaeological sites, to historical farmsteads and burial grounds. Recommendations provided in the Heritage Assessment include the following:

- A complete Heritage Impact Assessment is required that satisfies section 38(3) of the NHRA. This HIA should include the following:

-A field assessment for archaeology of the locations of any infrastructure to be developed that impacts dolerite outcrops, Grade IIIA resources or is within 100m of a river bed. The results of this assessment may require that infrastructure be relocated;

-A field assessment for palaeontology of the locations of any infrastructure to be developed that impacts the Beaufort Group and older, consolidated (e.g. calcretised) alluvial deposits;

-A record and assessment of the structures within the SKA footprint area to inform a Conservation Management Plan.

- A Fossil Finds Procedure must be implemented for the construction phase of the project that includes training for ECO's regarding fossil identification;
- A Heritage Conservation Management Plan be drafted for the ongoing management of heritage resources within the SKA development footprint, including maintenance of significant structures and maintenance and access to burial grounds and graves;
- The mitigation measures proposed in the Impact Assessment Tables included in Appendix A to the chapter in the Heritage Assessment must be implemented;
- The town of Carnarvon, and other historic towns, represent potentially important gateways to the SKA project, particularly for visitors to the area, and it is recommended that a major social, heritage and environmental programme be implemented as an on-going project to uplift the presently degraded portions of these townscapes. It is recognised that that some programmes have already been initiated, but that more needs to be done for the image of the town in consultation with Municipalities, the business community and NGOs; and
- The projects identified in section 4.4 of the Heritage Assessment must be implemented.

Recommendations with regard to Heritage related Visual Impacts include the following:

- Given that the position of the dish antennae is determined by technical criteria, re-siting of the dishes



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- may be limited. In cases where the proposed location of dishes coincides with visually sensitive landscape features or sensitive receptors, this can be partly overcome through micro-siting the dishes;
- Particular attention needs to be paid to those dish antennae that are within 1 to 2.5 km of farmsteads, mainly in the proposed spiral arms. These should be subject to a more detailed visual assessment, including photomontages, once a final layout has been prepared; and
 - A number of mitigation measures have been recommended, which could help to reduce the potential visual impacts relating to the project. Mitigations relating to the construction phase, including the location of the construction camps, should be included in the EMP.

An Integrated Environmental Management Programme (IEMP) has been compiled as a result of the findings and recommendations of the SEA and associated specialist studies. Once again, SAHRA staff (Natasha Higgitt) provided specific comments on the IEMP on the 10th March 2017 as part of the Special Advisory Committee. Several issues that were raised as part of the 5 August 2016 comments had not been fully addressed in the final SEA Heritage Assessment, and there were gaps in terms of managing heritage in the context of the development.

Final Comment

It must be noted that each component of the SKA that will trigger a listed NEMA activity, will require a Heritage Impact Assessment (HIA) to be conducted. The HIA must comply with section 38(3) of the NHRA as well as any published Minimum Standards or Guidelines regarding section 38(3). The HIA must be submitted to SAHRA for comment as part of the Public Review period within the regulated NEMA EIA timeframes as stipulated in the NEMA EIA 2014 Regulation.

If a component of the SKA does not trigger any listed NEMA activities, there is still a chance that they may trigger activities as detailed in section 38(1) of the NHRA. Should this occur, a stand-alone HIA must be conducted and submitted to SAHRA, for decision as per section 38 of the NHRA.

SAHRA acknowledges that the SEA process differs from a regular EIA process, and understands that this is the first of many phases of assessment and mitigation relating to the SKA Project. The comments provided on the 10th March 2017 must be addressed in future HIAs and the requested Heritage Management Programme (HMP) must be implemented as part of the IEMP. The recommendations provided in the Heritage Assessment and associated heritage specialist reports must be included in the IEMP.

SAHRA endorses the SKA1_MID project in principle and the recommendations in the specialist studies. However, there are several outstanding issues that have not been addressed with regards to comments provided on the 5th August 2016. Additionally, there are several management principles and protocols within

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the IEMP which require revision prior to submission to DEA. Future HIAs and the requested Heritage Management Plan must address these outstanding concerns and gaps. If these concerns are addressed, SAHRA does not foresee significant impacts to heritage resources arising out of the development of the SKA1_MID Project.

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

Yours faithfully

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/374767>
(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.