

ARCHAEOLOGICAL IMPACT ASSESSMENT PROPOSED LOW COST HOUSING PROJECT IN KAKAMAS, NORTHERN CAPE

Prepared for:

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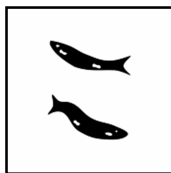
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Executive summary

ACRM was commissioned to conduct an Archaeological Impact Assessment for the proposed development of about 694 low cost housing units on Erf 1928 in Kakamas in the Northern Cape Province.

Kakamas is situated alongside the Orange River, about 80 kms west of Upington. The site for the proposed housing project is located south of the town, and immediately west of the R359. The land is owned by the Kai Garib local municipality and is currently zoned Open Space I. The entire ± 47 ha site has been dramatically transformed over the last two or three years. Erven have already been laid out, un-serviced plots have been fenced off, informal houses have already been constructed, and access roads built. The proposed development site is very severely degraded.

In terms of Section 38 (1) (c) (iii) of the National Heritage Resources Act 1999 (Act 25 of 1999), an Archaeological Impact Assessment of the proposed project is required if the footprint area of the proposed development is more than 5000 m².

The AIA forms part of the Basic Assessment process that is being conducted by EnviroAfrica cc.

The aim of the study is to locate and map any archaeological heritage that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

A foot survey of the proposed development site was undertaken on 28 January 2013, in which the following observations were made:

- No archaeological heritage was encountered during the study.
- There are no visible graves on the proposed development site.
- There are no old buildings, structures or features, old equipment, public memorials or monuments in the footprint area.

The results of the study indicate that the proposed development of low cost housing on Erf 1928 in Kakamas will not have any impact on the archaeological heritage.

The following recommendations are made:

1. No archaeological mitigation is required.
2. Should any unmarked human burials/remains or ostrich eggshell water flask caches be uncovered during construction activities, these must immediately be reported to the archaeologist (Jonathan Kaplan 082 321 0172), or Ms Katy Smuts at the South African Heritage Resources Agency (021 462 4502). Burials, etc must not be removed or disturbed until inspected by the archaeologist.

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1. INTRODUCTION

ACRM was commissioned to conduct an Archaeological Impact Assessment (or AIA) for the proposed development of about 694 low cost housing units on Erf 1928 in Kakamas (Kai Garib Municipality), about 80 kms west of Upington, in the Northern Cape (Figures 1 & 2). The subject property is zoned Open Space I and is owned by the local authority.

The AIA forms part of the Basic Assessment process that is being conducted by EnviroAfrica cc.

The aim of the study is to locate and map any archaeological heritage that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.



Figure 1. Locality map.

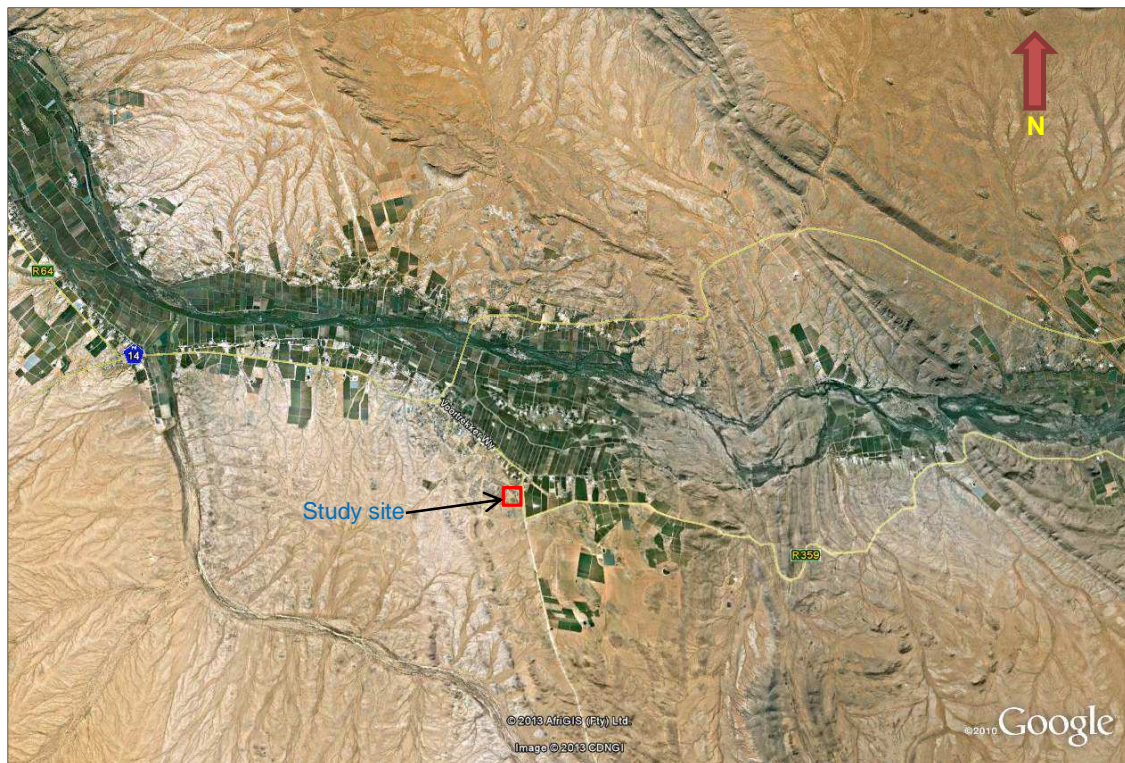


Figure 2. Google Aerial photograph indicating the location site for the proposed development.

2. HERITAGE LEGISLATION

The National Heritage Resources Act (Act No. 25 of 1999) makes provision for a compulsory Heritage Impact Assessment (HIA) when an area exceeding 5000 m² is being developed. This is to determine if the area contains heritage sites and to take the necessary steps to ensure that they are not damaged or destroyed during development.

The NHRA provides protection for the following categories of heritage resources:

- Landscapes, cultural or natural (Section 3 (3))
- Buildings or structures older than 60 years (Section 34);
- Archaeological sites, palaeontological material and meteorites (Section 35);
- Burial grounds and graves (Section 36);
- Public monuments and memorials (Section 37);
- Living heritage (defined in the Act as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous

knowledge systems and the holistic approach to nature, society and social relationships) (Section 2 (d) (xxi)).

3. TERMS OF REFERENCE

The terms of reference for the study were to:

- Determine whether there are likely to be any important archaeological heritage that may be impacted by the proposed development;
- Indicate any constraints that would need to be taken into account in considering the development proposal;
- Identify potentially sensitive archaeological areas, and
- Recommend any further mitigation action.

4. DESCRIPTION OF THE RECEIVING ENVIRONMENT

Erf 1928 (S 28 47 47.7 E 20 37 55.8) is located south of Kakamas, and immediately west of the R359. Access to the site is from Voortrekker Way. The entire ± 47 ha site has been dramatically transformed over the last two or three years. Erven have been laid out, plots have been fenced off, informal houses have already been constructed, and access roads built. There are no services in place yet. Dumping of domestic refuse and rubble is widespread. Pedestrian traffic is extensive and there are numerous small footpaths and tracks that intersect the site. There is a small quartz-covered kopje overlooking the site on the southern boundary, from where the photographs of the site were taken (Figures 3-9). At least two small drainage channels intersect the site. There is virtually no natural vegetation on the proposed development site. The site is very severely degraded.

There are no old buildings, structures or features, or any old equipment on the proposed development site.

There are no visible graves on the subject property.

Surrounding land use is small scale farming (within the footprint area), formal housing, sports fields, and schools in the north, light industry and agriculture east of the R359 and vast tracts of vacant land in the south.

Archaeological study proposed low cost housing development in Kakamas

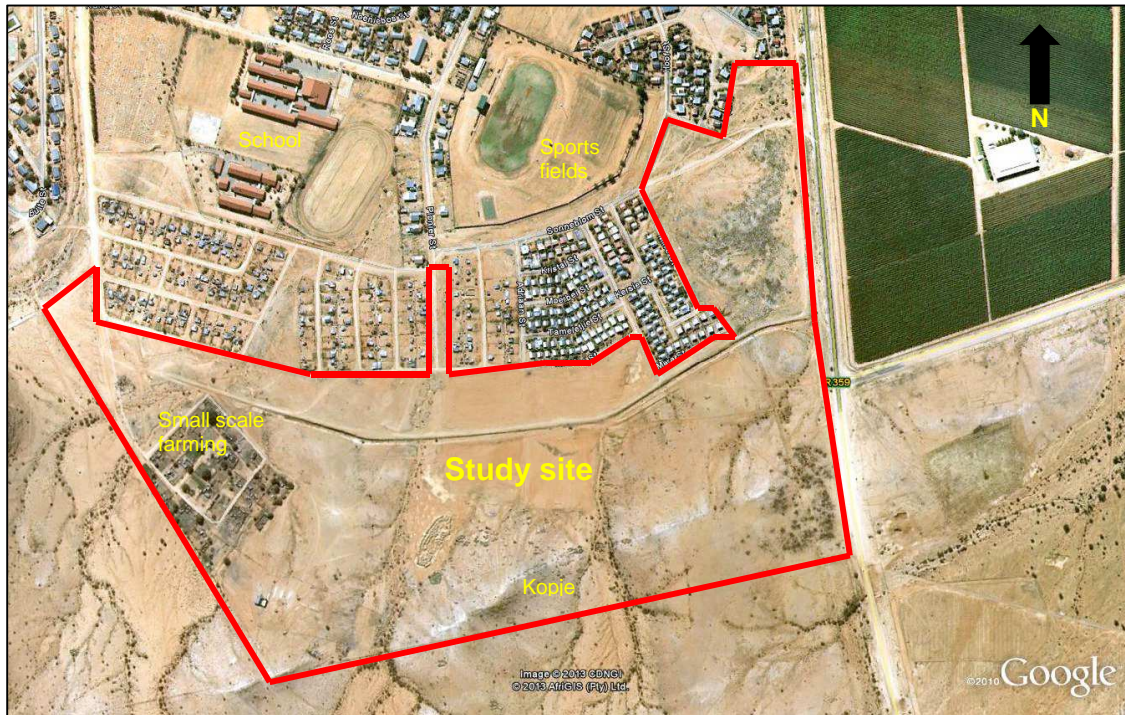


Figure 3. Google aerial photograph of the proposed site including surrounding land use



Figure 4. View of the proposed development site facing north.

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Figure 5. View of the proposed development site facing north



Figure 6. View of the proposed development site facing north



Figure 7. View of the proposed development site facing northwest.



Figure 8. View of the proposed development site facing east. Small scale farming operations (pigs and chickens) is set among the trees in the background.

5. STUDY APPROACH

5.1 Method of survey

A fairly random foot survey of the proposed development site was undertaken by J. Kaplan on 28 January, 2013.

A desk top study was also done.

5.2 Constraints and limitations

There were no constraints or limitations associated with the study and archaeological visibility was very good.

5.3 Identification of potential risks

Given the highly transformed nature of the proposed development site, and the fact that no archaeological heritage was encountered during the study, there are clearly no potential archaeological risks associated with the proposed development.

5.4 Results of the desk top study

Very little archaeological work has been done in Kakamas. Stone artefacts in banded ironstone and indurated shale were documented alongside the R359 during a survey for a water pipeline between the town and Kenhardt (Kaplan 2008), while very low density scatters of MSA implements in banded ironstone, quartzite and indurated shale were encountered during a study for a proposed solar energy farm west of the town's waste water treatment works (Kaplan 2012). Orton (2012) also recorded very low density scatters of LSA and MSA tools in quartz, indurated shale and banded ironstone during a survey for a proposed solar energy farm near the Augrabies Falls National Park a few kilometres further to the northwest. Orton (2012) also describes an archaeological sequence in the Augrabies Falls region which spans the Early, Middle and Later Stone Age pre-colonial history in the region. Much of the information has been generated by excavations of open scatters of stone artefacts, pottery and ostrich eggshell, as well as excavations of several small shelters near the Augrabies Falls and the town of Augrabies. Orton (2012) also notes that many skeletons, most dating to the 18th and 19th Centuries were exhumed from the area between Augrabies and Upington in the late 1930s. Historical sites and remains (such as forts) relating to events such as the Anglo Boer War are also well preserved in the region, including the presence of war graves in Kakamas, Pofadder and Keimoes. Orton (2012) also reports that the water related infrastructure in the Kakamas area was important for agricultural development and several water wheels and excavated tunnels and leiwaters/furrows in Kakamas have been declared Provincial Heritage Sites.

6. FINDINGS

No archaeological heritage was encountered during the survey.

7. ASSESSMENT OF IMPACTS

The overall impact of the proposed development on archaeological heritage will be very low (Table 1).

Potential impacts on archaeological heritage	
Extent of impact:	Site specific
Duration of impact;	Permanent
Intensity	Low
Probability of occurrence:	Improbable
Significance without mitigation	Low
Significance with mitigation	Low
Confidence:	High

Table 1. Assessment of archaeological impacts.

8. CONCLUSION

The survey has identified no impacts to pre-colonial archaeological material.

The receiving environment is not a sensitive or threatened archaeological landscape.

9. RECOMMENDATIONS

With regard to the proposed construction of low cost housing units on Erf 1928 in Kakamas, the following recommendations are made:

1. No further archaeological mitigation is required.
2. Should any unmarked human burials/remains or ostrich eggshell water flask caches be uncovered, or exposed during construction activities, these must immediately be reported to the archaeologist (Jonathan Kaplan 082 321 0172), or Ms Katy Smuts at the South African Heritage Resources Agency (021 462 4502). Burials must not be removed or disturbed until inspected by the archaeologist.

10. REFERENCES

Kaplan, J. 2012. Archaeological Impact Assessment the proposed Keren Energy Keimoes Solar Plant on Erf 1654, Keimoes. Report prepared for EnviroAfrica. Agency for Cultural Resource Management.

Kaplan, J. 2008. Phase 1 Archaeological Impact Assessment proposed construction of a water treatment plant and supply pipeline from Keimoes to Kenhardt, Western Cape Province. Report prepared for EnviroAfrica. Agency for Cultural Resource Management.

Orton, J. 2012. Heritage Impact Assessment for the proposed Augrabies Solar Energy Facility, Kenhardt Magisterial District, Northern Cape. Report prepared for Rosenthal Environmental. Archaeology Contracts Office, University of Cape Town.