

PHASE 1 HERITAGE IMPACT ASSESSMENT

POTLAKI: FARMS ZWARTKOPPIES 413 KS &
MOEIJELIJK 412KS
LIMPOPO PROVINCE

FOR: Genis Consultants

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EXECUTIVE SUMMARY

The developer plans to undertake a housing development scheme on the. A heritage survey of this area has detected a number of significant heritage resources. The determination of significance is based on criteria explained in the methodology section of the report. These specifically include four significant Early and Middle Iron Age sites, and historical graves.

The development will have an adverse effect on these heritage resources. Little is known of the archaeological sequence and culture history of the Early and Middle Iron Age in this area, with the result that these archaeological sites also have high scientific value. This is equally true of the Stone Age.

After careful consideration, it is not recommended that any of the archaeological sites be avoided or protected from the development, but instead, it is recommended that phase 2 assessments be mitigated for the sites in order to extract sufficient information before they are destroyed.

Mitigation for the exhumation and relocation of graves that fall within the development area with the local community and relevant authorities is recommended as part of a social impact assessment.

From a heritage point of view, there is no objection with regard to the development on condition that the recommendations are implemented. This will result in no further significant impacts on the heritage resources through all the developmental phases.

1. INTRODUCTION

The **Project Proposal** constitutes an activity that is listed in terms of the Environmental Conservation Act (Act No. 73 of 1989), for which an Environmental Impact Assessment is required to satisfy the requirements of the List of Activities and Regulation for EIA's – Government Gazette of 5 September 1997 - provided for in terms of sections 21, 22 and 26. In addition, the National Heritage Resources Act (Act No. 25 of 1999), protects all archaeological, palaeontological and historical sites and graves, and requires heritage resources impact assessments in terms of Section 38. To satisfy the requirements of the above legislation, a Phase 1 Heritage Impact Assessment (scoping & evaluation) of the proposed mining area was undertaken. In order to comply with legislation, the developer requires information on the heritage resources, and their significance that occur in the proposed development area. This will enable the taking of pro-active measures to limit the adverse effects that the development could have on such heritage resources.

The author was contracted by Genis Geographic and Environmental Information Systems Consultants to undertake a Phase 1 *Heritage Impact Assessment* of the area of the proposed development on the farm Moeijelijk 412 KS and Zwartkoppies 413 KS (Refer to map, South Africa 1:50 000 2429 BD & 2430 AC), where a housing establishment has been proposed. The aim was to determine the presence of heritage resources such as archaeological and historical sites and features, graves and places of religious and cultural significance; to assess the impact of the proposed project on such heritage resources; and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features. Due to the nature of the terrain, the focus has primarily been on archaeological remains.

The report thus provides an overview of the heritage resources and grave sites that were detected on the terrain. The significance of the heritage resources was assessed in terms of criteria defined in the methodology section. It is indicated that these resources will be affected by the proposed development and the report recommends mitigation measures that should be implemented to minimise the adverse effect of the proposed activities on these heritage resources and graves. The mitigation measures also apply to heritage resources not detected during the survey, but which will in all probability be uncovered during excavations and construction of infrastructure and roads.

2. METHOD

2.1 Sources of information

The sources of information were predominantly the field reconnaissance, interviews with locals and the 1996 survey.

A thorough survey of the proposed activity areas was undertaken on foot. Standard archaeological practices for observation were followed. As most archaeological material

occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Locations of archaeological material were recorded by means of a GPS (Garmin 12). Archaeological material and the general conditions on the terrain were photographed with a KODAK DC120 Digital camera.

Local informants knew nothing about archaeological sites and were vague on burial sites. This is understandable as archaeological sites that pre-date the colonial period generally fall beyond the scope of oral history and importantly, that there was not enough time to build the necessary trust.

2.2 Limitations

Although the foot survey was very thorough, it is possible that certain archaeological sites and graves may have been missed. Archaeological sites such as Early Iron Age sites, which seems to dominate the terrain, are often beneath soil surface and if undisturbed may not be detected. The discovery of previously undetected heritage remains must be reported and may require further mitigation measures.

2.3 Categories of significance

The significance of archaeological sites is ranked into the following categories.

No significance: sites that do not require mitigation.

Low significance: sites, which *may* require mitigation.

Medium significance: sites, which require mitigation.

High significance: sites, which must not be disturbed at all.

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. There are many aspects that must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

2.4 Terminology

- Middle Stone Age: Various lithic industries in SA dating from \pm 250 000 yr. - 30 000 yr. before present. In this area the Pietersburg Industry is dominant.
- Late Stone Age: The period from \pm 30 000-yr. to contact period with either Iron Age farmers or European colonists.
- Early Iron Age: Most of the first millennium AD
- Middle Iron Age: 10th to 13th centuries AD
- Late Iron Age: 14th century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*
- Phase 1 assessment: Scoping surveys to establish the presence of and to evaluate heritage resources in a given area
- Phase 2 assessments: In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively the sampling of sites; by collecting material, small test pit excavations or auger sampling.
- Sensitive: Often refers to graves and burial sites although not necessarily a heritage place as well as ideologically significant places such as ritual / religious places. *Sensitive* may also refer to an entire landscape / area known for its significant heritage remains.

3. RELEVANT LEGISLATION

Two sets of legislation are relevant for this study with regard to protection of heritage resources and graves.

3.1 The National Heritage Resources Act (25 of 1999) (NHRA)

This Act established the South African Heritage Resources Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRA). The Act makes provision for the undertaking of heritage resources impact assessments for various categories of development as determined by Section 38. It also provides for the grading of heritage resources and the implementation of a three tier level of responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources. The Act defines cultural significance, archaeological and palaeontological sites and material (Section 35), historical sites and structures, and mine dumps (Section

34), graves and burial sites (Section 36) which falls under its jurisdiction. Archaeological sites and material are generally those resources older than a hundred years, while structures and cultural landscapes older than 60 years, including gravestones, are also protected by Section 34. Procedures for managing grave and burial grounds are clearly set out in Section 36 of the NHRA. Graves older than a 100 years are legislated as archaeological sites and must be dealt with accordingly

Section 38 of the NHRA makes provision for *developers to apply for a permit before any heritage resource may be damaged or destroyed.*

3.2 The Human Tissues Act (65 of 1983)

This Act protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

Graves: 60 years or older fall under the jurisdiction of the National Heritage Resources Act as well as the Human Tissues Act, 1983.

4. ARCHAEOLOGICAL AND HISTORICAL REMAINS

A large number of archaeological and historical sites were detected on the terrain as listed below. Due to the degraded environment, most of the sites are damaged or destroyed by agricultural activities and erosion and have no significance other than being recorded as a record of the area's demographic sequence and distribution pattern. Some of the recorded sites have multi-component material and are listed under more than one heading.

4.1 MIDDLE STONE AGE (MSA)

35. S24°18'53.4" E30°00'06.8"

40. S24°18'39.9" E29°59'23.2"

46. S24°16'55.3" E29°57'13.2"

Middle Stone Age (MSA) material in the form of cores and flakes are found abundantly scattered over the entire area. These sites were recorded as examples of MSA remains because of the relatively high concentration of flakes here. The MSA layer is well under present soil surface from where it is exposed by erosion.

Significance: None.

4.2 EARLY IRON AGE REMAINS

9. S24°18'19.7" E29°58'08.0"

- 10. S24°18'27.2" E29°58'04.8"
- 14. S24°18'48.5" E29°57'49.9"
- 16. S24°18'44.8" E29°58'01.1"
- 17. S24°18'42.2" E29°58'00.2"
- 38. S24°18'24.4" E29°58'59.5"
- 42. S24°18'24.4" E29°58'59.5"
- 46. S24°16'55.3" E29°57'13.2"
- 47. S24°16'12.4" E29°57'21.5"

The Early Iron Age remains belong to the *Doornkop* cultural tradition dating to approximately 800AD. The significant sites here are sites **9** and **10**. Although some damage had been done to both sites, mainly by field cultivation, original floors of the settlements are still *in situ*. Both sites have significant scientific value to answer relevant questions such as the size of Early Iron Age settlements and settlement layout.

Significance: Sites 9 & 10 are of medium significance and require mitigation before being destroyed.

4.3 MIDDLE IRON AGE (*EILAND*) REMAINS

- 4. S24°17'41.6" E29°58'14.4"
- 5. S24°17'49.6" E29°58'15.9"
- 6. S24°17'54.9" E29°58'22.9"
- 7. S24°17'59.3" E29°58'25.5"
- 8. S24°18'10.0" E29°58'21.1"
- 13. S24°18'38.7" E29°57'51.2"
- 18. S24°18'35.6" E29°58'01.5"
- 24. S24°18'09.9" E29°59'30.9"
- 25. S24°18'19.1" E29°59'23.9"
- 26. S24°18'19.9" E29°59'25.7"
- 28. S24°18'30.2" E29°59'26.1"
- 32. S24°18'06.7" E29°59'16.4"
- 33. S24°18'09.0" E29°59'37.4"
- 48. S24°16'15.1" E29°57'29.7"
- 49. S24°16'08.8" E29°57'31.0"
- 50. S24°16'03.0" E29°57'30.9"

The Middle Iron Age remains belong to the *Eiland* cultural tradition which dates to the 11th - 13th centuries. The significant sites here are sites **18** and **50**. Although some damage had been done to both sites, site 50 seems to be mostly undisturbed. Both sites have significant scientific value to answer relevant questions such as the size of Middle Iron Age settlements and settlement layout.

Significance: Sites 18 & 50 are of medium significance and require mitigation before being destroyed.

4.4 LATE IRON AGE

51. S24°16'00.1" E29°57'31.0"

This is a disturbed terrain where pottery fragments of the *Moloko* cultural tradition was detected. It could date anywhere between the 17th – 19th centuries. The *Moloko* tradition is the pottery style of Sotho/Tswana speaking people and still occurs today. The fact that distinguishes the site from recent historical homesteads is that there are no industrial debris on the terrain. It could have significance in determining the first settlement period of the Sotho speaking / Pedi people in the area and thus has scientific value.

Significance: Sites 51 is of low significance, but requires mitigation before being destroyed.

4.5 RECENT HISTORICAL SITES

The sites recorded here consist of recent historical structures associated with modern building techniques and industrial debris. Many of the sites have graves or burial places associated with them. Those with graves are indicated as such.

1. S24°17'53.5" E29°59'49.5"
2. S24°17'13.8" E29°57'47.5"
3. S24°17'07.4" E29°57'44.2" Graveyard
11. S24°18'38.4" E29°58'00.2" Graveyard
12. S24°18'37.9" E29°57'55.3" Grave
13. S24°18'38.7" E29°57'51.2"
15. S24°18'50.3" E29°57'59.7"
16. S24°18'44.8" E29°58'01.1"
19. S24°18'38.2" E29°58'57.3"
20. S24°18'40.3" E29°59'02.9"
21. S24°18'38.8" E29°59'03.9" Grave
22. S24°18'36.5" E29°58'52.0"
23. S24°18'39.4" E29°58'28.5"
27. S24°18'27.6" E29°59'22.5"
29. S24°18'22.3" E29°59'09.6" Grave
30. S24°18'19.6" E29°59'07.8"
31. S24°18'09.1" E29°59'07.8"
34. S24°18'34.6" E29°59'43.1" Grave
36. S24°18'31.5" E29°59'16.3"
37. S24°18'28.1" E29°59'11.7" Grave
39. S24°18'33.4" E29°59'05.5" Graves
40. S24°18'39.9" E29°59'23.2"
41. S24°18'37.6" E29°58'59.5"
43. S24°18'33.4" E29°59'05.5"

44. S24°18'39.9" E29°59'23.2"

45. S24°18'37.6" E29°58'59.5"

There are numerous recent historical sites in the area, many with visible grave associated with them. The recent historical remains are not regarded as significant, but it may well be possible that undetected or unmarked graves are located at these old homesteads, especially those of young children. For that reason it may be necessary to undertake a social impact assessment to determine such graves or burials.

Significance: High local significance for the graves and burial places.

5. EVALUATION

The archaeological remains detected on the demarcated area have been extensively damaged through years of human activities. Little is however known about the occurrence and distribution of the Early Iron Age *Doornkop* and Middle Iron Age *Eiland* cultural traditions in this particular area. It pre-dates the Late Iron Age Sotho-Tswana speakers whose descendants now occupy the area. As a result of this, the scientific significance of the sites must bear considerable weight. Mitigation for phase 2 archaeological assessments are essential in order to extract sufficient and adequate data from selected sites. Sites 9, 10, 18 and 50 are particularly significant in this respect.

The significant Iron Age sites have been evaluated as of low or medium significance and none of high significance. This is due to the fact that they have all had a varying degree of damage. Furthermore, it is impractical to mitigate protection status for these sites because of the nature of the proposed development, which implies intensive human impact, and the fact that the local communities do not regard them as significant as they have no ancestral links with these sites. Neither the Local nor Provincial Authorities have the capacity to enforce and monitor their protection. From a cultural resources management point of view, we are of the opinion that in this instance, the extraction of sufficient data / information must be done now while it is still available. We are also of the opinion that the socio-economic benefits of the project outweigh the conservation value of the heritage sites and therefore recommend mitigation measures to allow for the destruction of the Iron Age archaeological resources

The Middle Stone Age remains are not evaluated as significant due to the fact that it is impractical to access the MSA layer.

It should also be noted that unmarked graves and burials may occur at the recorded archaeological and historical sites, and that human remains may be exposed during earth works (refer to Extract from the National Heritage Resources Act).

All the recorded historical graves have local significance. The grave issue needs to be addressed as part of the social impact assessment. Graves for possible relocations must

be identified at the earliest stage possible to allow adequate time for negotiation and approval from the relevant authorities. Human remains must be treated with sensitivity.

6. RECOMMENDATIONS

In view of the above it is recommended:

1. That phase 2 archaeological assessments be mitigated for Sites 9, 10, 18 and 51.
2. That grave site which may be in the way of development be identified as soon as possible to be dealt with in the social impact assessment and in consultation with the archaeologists when re-location is inevitable.

7. CONCLUSION

This study places much emphasis on the archaeological resources, as they are most likely to be threatened by the proposed development. The demarcated area is rich in significant archaeological material dating from the Early Iron Age, as well as Stone Age remains. There unfortunately exists a general lack of data for the Iron Age sequence and culture history of this particular area.

The entire demarcated area is regarded as a sensitive landscape with regard to heritage resources. The surface land is extensively utilized by the community. For this reason, and including the nature of future development and activities, it is highly unlikely that any protection measures could be implemented successfully. These resources will thus eventually deteriorate into oblivion even if the development is relocated away from the sites. We therefore rather recommend phase 2 assessments of certain identified sites to enable the extraction of sufficient scientific data to assist in our understanding of the archaeology of the area. This data could be used for educational purposes and a heritage awareness programme at a later stage.

Should the above mentioned recommendations be implemented, the impacts of the development on the heritage resources during all phases, i.e. construction, operational, decommissioning, will be negligible.

**Extracts from:
The National Heritage Resources Act (Act No. 25 of 1999)**

Archaeology, palaeontology and meteorites

Subsection 35. (3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority or museum, which must immediately notify such heritage resources authority.

Subsection 35. (4) No person may, without a permit issued by the responsible heritage resources authority-

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite.

Burial grounds and graves

Subsection 36. (6) Subject to the provision of any law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

- (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
- (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

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