

PHASE 1 CULTURAL HERITAGE IMPACT ASSESSMENT REPORT

APPLICATION FOR TRANSFORMATION OF LAND FROM AGRICULTURE OR FORESTATION ON PORTION 98 OF THE FARM DOORKRAAL 680 LS POLOKWANE LOCAL MUNICIPALITY CAPRICORN DISTRICT LIMPOPO PROVINCE

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Executive Summary

This report addresses the Phase 1 Heritage Impact Assessment of Portion 98 of the farm Doornkraal 680 LS along the R521 / Dendron road about 9km north-north-west of the Polokwane CBD.

The Application Category is Transformation of land | from agriculture or forestation.

- A literature study and pedestrian survey of the study area was undertaken;
- The report did not identify any heritage or cultural resources within the study area;
- An informal cemetery was previously recorded approximately 100m to the north of the study area.
- The report discusses the results for the Archaeological and Cultural Heritage Theme, which identified three areas of sensitivity in proximity to the study area.

The report does not recommend any specific mitigation measures for the management of heritage resources in the study area. From a heritage resources management perspective there is no objection towards any proposed development within the study area.

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1. INTRODUCTION AND TERMS OF REFERENCE

1.1 Introduction

The author was contracted by Adekite Consortium of Environmental Specialists (ACES) as the Environmental Assessment Practitioner (EAP) to undertake a heritage impact assessment of Portion 98 of the farm Doornkraal 680 LS. ACES is conducting a Basic Assessment Report (BAR) (Potgieter 2022) for Gundo Trust Housing Development.

The author surveyed the exact same property in 2006 for Africa Geo-Environmental Service (AGES), but under Portion 85 (it is not know whether this was a number error or if Portion numbers had since been changed) (see Figure 2). This project was however halted. During that survey no heritage resources were recorded in the study area.

1.2 Project description and location

The Application Category for the BAR is **Transformation of land | from agriculture or forestation.**

The project is located on Portion 98 of the farm Doornkraal 680 LS, along the R521 / Dendron road about 9km north-north-west of the Polokwane CBD within the Polokwane Local Municipality in the Capricorn District (see Figure 1 & 2).

1.3 Terms of reference and scope of work

Undertake a Heritage Impact Assessment and submit a specialist report, which addresses the following:

- A desktop and field assessment to gather information on Heritage resources within the proposed application site;
- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance; and
- Identifying key uncertainties and risks.

1.4 Terrain description

The property used to be under intensive crop cultivation for decades and had been ploughed multiple times over the years. Figure 5 depicts this agricultural activity, which the author of this report photographed in 2006. All agriculture on site has ceased.

To the west and south the property borders on recently established township developments. On the eastern side of the property there is a Sasol filling station, a Pub and Grill restaurant and sheds from the past farming activities. Many informal businesses are located along the R521.

2. RELEVANT LEGISLATION

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

2.1 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 (Section 7) 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 (Section 8).

In terms of the National Heritage Resources Act (1999) the following is of relevance in terms of the general protection of heritage resources:

Historical remains

Section 34(1) No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

Archaeological remains

Section 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;
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- (c) trade in, sell for private gain, export or attempt to export from the republic any category of archaeological or palaeontological material or object, or any meteorite; or
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist with the detection or recovery of metals or archaeological material or objects, or use such equipment for the recovery of meteorites.

Subsection 35(5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedures in terms of section 38 has been followed, it may-

- (a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
- (b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;

- (c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
- (d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

Subsection 35(6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated; serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

Burial grounds and graves

Subsection 36(3)

- (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-
- (c) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (d) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

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.

Culture Resource Management

Subsection 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development* ...

must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

***‘development’** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
 - (b) carry out any works on or over or under a place*;
 - (e) any change to the natural or existing condition or topography of land, and
 - (f) any removal or destruction of trees, or removal of vegetation or topsoil;
- *"place means a site, area or region, a building or other structure* ..."
- *"structure means any building, works, device or other facility made by people and which is fixed to the ground ..."

2.2 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.

3. METHODOLOGY

3.1 Sources of information

The main sources of information are a literature review, a pedestrian reconnaissance of the study area and the SAHRIS database. In the SAHRIS database the reports of Birkholtz 2006, Gaigher 2016 & 2017 and Roodt 2007 were relevant to the study. In addition, Google earth and the Topographical Map 2329 DC were studied.

3.2 Limitations

No limitations were experienced with regard to the field survey, although vegetation cover was dense in some places. It must be noted that most archaeological material is subterranean and may have been missed. Chance finds may thus occur.

3.3 Categories of significance

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

No significance: sites that do not require mitigation.
Low significance: sites, which <i>may</i> require mitigation.
Medium significance: sites, which require mitigation.
High significance: sites, which must not be disturbed at all.

The significance of specifically 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.

3.4 Terminology

Early Stone Age: Predominantly the Oldowan artefacts and Acheulian hand axe industry complex dating to + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age:	Various lithic industries in SA dating from \pm 250 000 yrs. - 22 000 yrs. before present.
Late Stone Age:	The period from \pm 22 000-yr. to contact period with either Iron Age farmers or European colonists.
Early Iron Age:	Most of the first millennium AD
Middle Iron Age:	10 th to 13 th centuries AD
Late Iron Age:	14 th century to colonial period. <i>The entire Iron Age represents the spread of Bantu speaking peoples.</i>
Phase 1 assessments:	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 could be undertaken.
Sensitive:	Often refers to graves and burial sites, as well as ideologically significant sites such as ritual / religious places. <i>Sensitive</i> may also refer to an entire landscape / area known for its significant heritage remains.
NHRA	National Heritage Resources Act (Act 25 of 1999)
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System

4. BASELINE INFORMATION

Except for the general historical research by Changuion (1986) and Loubser (1994) who researched the Ndebele archaeology of the area, no other significant research was conducted in the project area. The baseline information is therefore generic.

4.1 The Stone Age

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheul artefacts assemblages. Oldowan tools are regularly referred to as “choppers”. Oldowan artefacts are associated with Homo *habilis*, the first true humans. In South Africa definite occurrences have been found at the sites of Sterkfontein and Swartkrans. Here they are dated to between 1.7 and 2 million years old. Bearing in mind the proximity of the Makapans Valley palaeontological site about 50km south-east of the project area it is possible that they may occur here. This was followed by the Acheulian technology from about 1.4 million years ago which introduced a new level of complexity. The large tools that dominate the Acheulian artefact assemblages range in length from 100 to 200 mm or more. Collectively they are called bifaces because they are normally shaped by flaking on both faces. In plan view, they tend to be pear-shape and are broad relative to their thickness. Most bifaces are pointed and are classified as handaxes, but others have a wide cutting end and are termed cleavers. The Acheulian design persisted for more than a million years and only disappeared about 250 000 years ago. Here, too the Makapans Valley Site is referenced; especially the Cave of Hearths.

The change from Acheulian with their characteristic bifaces, handaxes and cleavers to Middle Stone Age (MSA), which are characterized by flake industries, occurred about 250 000 years ago and ended about 30 000 – 22 000 years ago. For the most part the MSA is associated with modern humans; Homo sapiens. MSA remains are found in open spaces where they are regularly exposed by erosion as well as in caves. Characteristics of the MSA are flake blanks in the 40 – 100 mm size range struck from prepared cores, the striking platforms of the flakes reveal one or more facets, indicating the preparation of the platform before flake removal (the prepared core technique), flakes show dorsal preparation – one or more ridges or arise down the length of the flake – as a result of previous removals from the core, flakes with convergent sides (laterals) and a pointed shape, and flakes with parallel laterals and a rectangular or quadrilateral shape: these can be termed pointed and flake blades respectively. Other flakes in MSA assemblages are irregular in form. The Cave of Hearths in the Makapans Valley Site is referenced.

The change from Middle Stone Age to Later Stone Age (LSA) took place in most parts of southern Africa little more than about 20 000 years ago. It is marked by a series of technological innovations or new tools that, initially at least, were used to do much the same jobs as had been done before, but in a different way. Their introduction was associated with changes in the nature of hunter-gatherer material culture. The innovations associated with the Later Stone Age “package” of tools include rock art – both paintings and engravings, smaller stone tools, so small that the formal tools less than 25mm long are called microliths (sometimes found in the final MSA) and Bows and arrows. Rock art is an important feature of the LSA and is abundant in the Waterberg and the Makgabeng. Rock art has been recorded at the Bakone Malapa Museum and at Moletji, about 25 km to the north-west of the project area (Deacon & Deacon 1999).

4.2 The Iron Age (Early Farming Communities)

According to the most recent archaeological cultural distribution sequences by Huffman (2007), this area falls within the distribution area of various cultural groupings originating out of both the Urewe Tradition (eastern stream of migration) and the Kalundu Tradition (western stream of migration). The facies that may be present are:

Urewe Tradition:	Kwale branch	Mzonjani facies AD 450 – 750 (Early Iron Age)
	Moloko branch	Icon facies AD 1300 - 1500 (Late Iron Age)
Kalundu Tradition:	Happy Rest sub-branch	Doornkopfacies AD 750 - 1000 (Early Iron Age)
		Eilandfacies AD 1000 – 1300 (Middle Iron Age)
		Klingbeil facies AD 1000 - 1200 (Middle Iron Age)
		Letaba facies AD 1600 - 1840 (Late Iron Age)

The Letaba facies is associated with the Ndebele people of the Polokwane area (Loubser 1994).

Stone walled sites are common in the Polokwane area. Three different types of sites associated with stone walling are found in the area, which Loubser (1994:76) numbered as Group I, II and III sites. Stonewalled sites were normally situated on or close to rocky outcrops, due to the need for stone (Huffman 2007:33). No stonewalling is associated with the Early Iron Age (EIA) and all the stonewalled sites on the Polokwane plateau date to the Late Iron Age (LIA), from the 17th century onwards.

Group I

These sites are situated on prominent hilltops and consist of an array of sporadic walls, forming terraces, surrounding an area of relatively large enclosures in the centre. Walls were constructed of equal-sized granite blocks, or overturned builders forming a single line. Walls were inventively

incorporated into the natural topography and they often appear discontinuous from above. Some terraces were formed by middens heaped up against the rocks, while others were purposefully quarried (Loubser 1994:76). This type of site appears to have been inhabited by Melora Nguni, as similar walling on the saddle of Bambo Hill, at the Bakoni Malapa Museum, is regarded as characteristic of Melora walling (Huffman. pers. comm., 2007).

Group II

This group of sites is located at the base of hills or on gradual rises between valleys, generally facing north. Each site consists of orderly concentric units, with a perimeter wall around a corridor leading to a central enclosure, with smaller ones around it. Walls are mostly of quartzite with granite and milky quartz was also used. Walls comprise two outer faces with stone and rubble infill. Large ashy deposits and dense patches of vegetation are diagnostic of this type of site (Loubser 1994:76).

Similar sites are associated with Kone along the Eastern Plateau. These sites were most likely situated there due to the fact that the area falls in the mist belt and would offer some additional moisture. These sites are named Badfontein sites by Huffman (2007:444) in reference to work conducted by Collett and there are a number of these sites depicted in rock engravings in the Lydenburg area (Maggs 1995:138).

The earliest of the Group II sites, situated along the base of hills, were built in the seventeenth century and were inhabited by Ndebele and Kone people. The first such sites that were built on rises between the valleys date to AD 1838, when chief Mungali and others started to settle in these areas. Most of the Group II sites in the area lasted till 1855 when they were abandoned after the Voortrekkers moved into the area (Loubser 1994:141). These sites, which occur on the gradual rises, are bigger and contain more units than the sites along the hills. It would seem that the population of the area increased, as reflected in the size of the larger settlements. There is also evidence that the sites along the hills were still occupied after the construction of the other sites by incoming groups. This area, as elsewhere in Iron Age Africa, settlement size is linked to the power of the chief, the larger the settlement and the more units, the more powerful the chief or headman (Loubser 1994:142).

Group III

These sites are an imploded and random version of Group II sites, with the perimeter wall being scalloped and linked to a series of central enclosures by straight walls. These sites are found at the base of hills and on rises such as Group II sites. Some, however, have also been located on the top of hills. Walls are similarly constructed to Group II walls, with sparse cultural deposits such as middens (Loubser 1994:76). These Group III sites appear to have been built after 1855 when the Voortrekkers took control of the area. Areas where Group II sites were located were seldom reoccupied, most likely out of reverence for the ancestral spirits. These Group III sites were occupied by minor headman with little real power and the site layout reflects the socio-economic situation of these groups during this time (Loubser 1994:143).

4.3 The historical landscape

Polokwane (Pietersburg) was ultimately established in 1886, although people of Europeans descent occupied the area since 1848 and especially after 1867 with the collapse of Schoemansdal, which was located at the base of the Soutpansberg.

The farm Doornkraal 680 LS (originally No 7) was one of the first farms established in the area and already inspected in 1863 by a government official. Surnames associated with the farm's early history are Geyser, Snyman and Roets.

During the First Anglo-Boer War of 1880 – 1881, the Zoutpannsberg Commando under Barend Voster established a camp, known as a “Laer” on the farm. A stone cairn to commemorate the event was erected at the campsite on 16 December 1881 and subsequently replaced by a brick monument, leaving the cairn inside. In 1961 it was decided to replace the monument with a replica in the Doornkraal-Pietersburg Geloftefeesterrein across the road from the original site. While demolishing the original monument, the original stone cairn was rediscovered and also relocated to the Geloftefeesterrein (Changuion 1986).

During May 1943 an obelisk to commemorate the people who had lost their lives during the pioneering days and the two Anglo-Boer wars was erected at the confluence of the Blood and Sand Rivers. This monument was also relocated to the Geloftefeesterrein (Birkholtz 2006).

5. RESULTS OF THE SURVEY

5.1 Palaeontology

The area falls within the grey colour code of the SAHRIS Palaeontological Sensitivity Map. No studies are required.

5.2 Stone Age remains

No Stone Age material was noted on the terrain.

The terrain is not suitable for Rock Art as there are no suitable large loose-standing boulders or rock overhangs which would facilitate rock art.

5.3 The Iron Age (Early Farming Communities)

No Iron Age material was noted on the terrain. The nearest known Iron Age sites are located on the farm Sterkspruit 688 LS on plot 92 Ivydale Smallholdings about 6km south of the project area and on the farm Krugersburg 933 LS, 6.8km south-east of the project area.

5.4 Graves and burials sites

A large informal cemetery containing in excess of a hundred graves is located at co-ordinates S23° 52' 00.4" E29° 25' 59.0" about 100m north of the project area. This cemetery was recorded by the author in 2007 (Roodt 2007). In the report it was stated that “Most of the graves are unmarked and have been unattended for many years with the result that they have lost clear definition. Some of the graves have modern gravestones and are well attended. It must be noted that many, if not most of the graves are older than 60 years and are thus protected by the National Heritage Resources Act (1999).

The cemetery is currently overgrown and not maintained. It should be the responsibility of the Municipality to maintain the grounds.

The graves are regarded as highly significant, but will not be affected by any development on Portion 98 due to sufficient distance from the study area.

5.5 The built environment

No historical structures are present in the study area.

6. DISCUSSION

In the BAR report (Potgieter 2022), the results for the Archaeological and Cultural Heritage Theme identified three areas of sensitivity in close proximity to the study area (Figures 2 & 3). On Figure 2 it is numbered **1 – 3**.

The number **1** area is most probably the cultural heritage site of the “Geloftefeesterrein” with its monuments discussed under paragraph 4.3. The monuments are protected inside the “Geloftefeesterrein”. This will not be directly impacted on by any none industrial development on the study area.

Sensitive area number **2** is most likely the cemetery mentioned under paragraph 5.4. There is ample distance between the cemetery and the study area for it to be avoided by any development.

Sensitive area number **3** is now covered by a recently developed Township (see Figure 2) and could not be verified on site or from any heritage impact assessment studies. It may however relate to the former New Pietersburg which was proclaimed in 1903. It became a non-white Township and was later demolished under the Group Areas Act. Figure 4 shows the layout plan of the Township with the heritage sensitive 3 area on the edge to the north-east. The Municipality has earmarked this area west of the Sand River for Township development as can be seen on Figure 1. Any development on the study area will not impact on heritage resources in the area.

7. EVALUATION AND STATEMENT OF SIGNIFICANCE

7.1 Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.

Table 1: Significance criteria and rating

	Significance	Rating
1.	The importance of the cultural heritage in the community or pattern of South Africa’s history (Historic and political significance)	None
2.	Possession of uncommon, rare or endangered aspects of South Africa’s natural or cultural heritage (Scientific significance).	None
3.	Potential to yield information that will contribute to an understanding of South Africa’s natural or cultural heritage (Research/scientific significance)	None
4.	Importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects (Scientific significance)	None
5.	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)	None
6.	Importance in demonstrating a high degree of	None

	creative or technical achievement at a particular period (Scientific significance)	
7.	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)	High (cemetery outside the study area)
8.	Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)	None
9.	The significance of the site relating to the history of slavery in South Africa.	None

7.2 Section 38(3) An assessment of the impact of the development on such heritage resources.

The study area contains no know heritage resources.

7.3 Section 38(3) (d) An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development.

None.

7.4 Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources.

The development will have no direct impact on established local communities.

7.5 Section 38(3)(f) If heritage resources will be adversely affected by the proposed development the consideration of alternatives.

No heritage resources will be impacted.

7.6 Section 38(3)(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.

No mitigation measures are recommended other than the avoidance of the recorded cemetery.

8. RECOMMENDATIONS

In view of the above no specific mitigation measures are recommended for the management of heritage resources in the study area.

From a heritage resources management perspective, there is no reason why development may not be undertaken in the study area.

9. REFERENCES

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10. MAPS AND IMAGES (Figures 1 – 8)



Figure 1. Google image of the study area in relation to Polokwane.

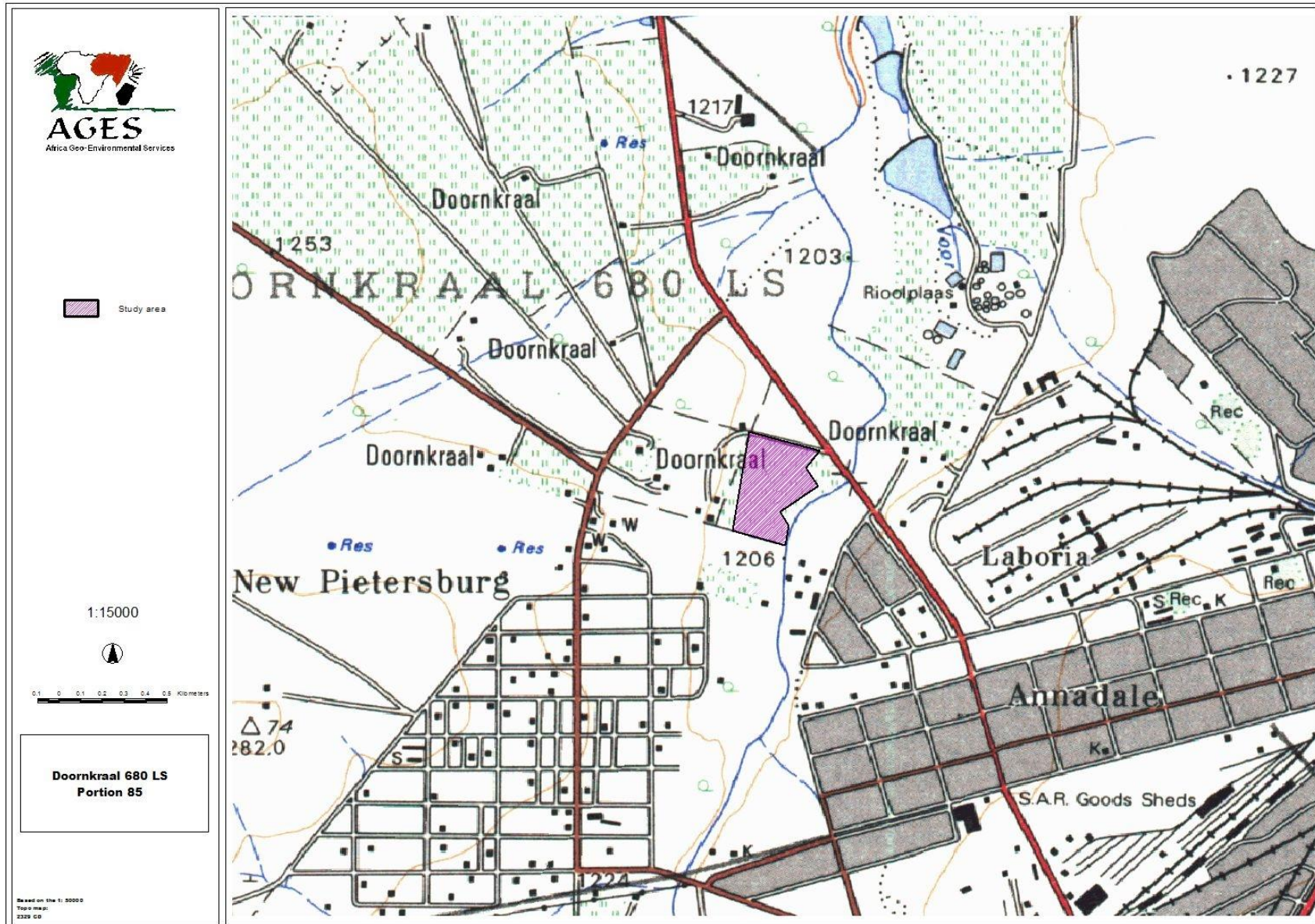


Figure 2. Map supplied by AGES in 2006 for a heritage survey on the exact property now numbered as Portion 98.

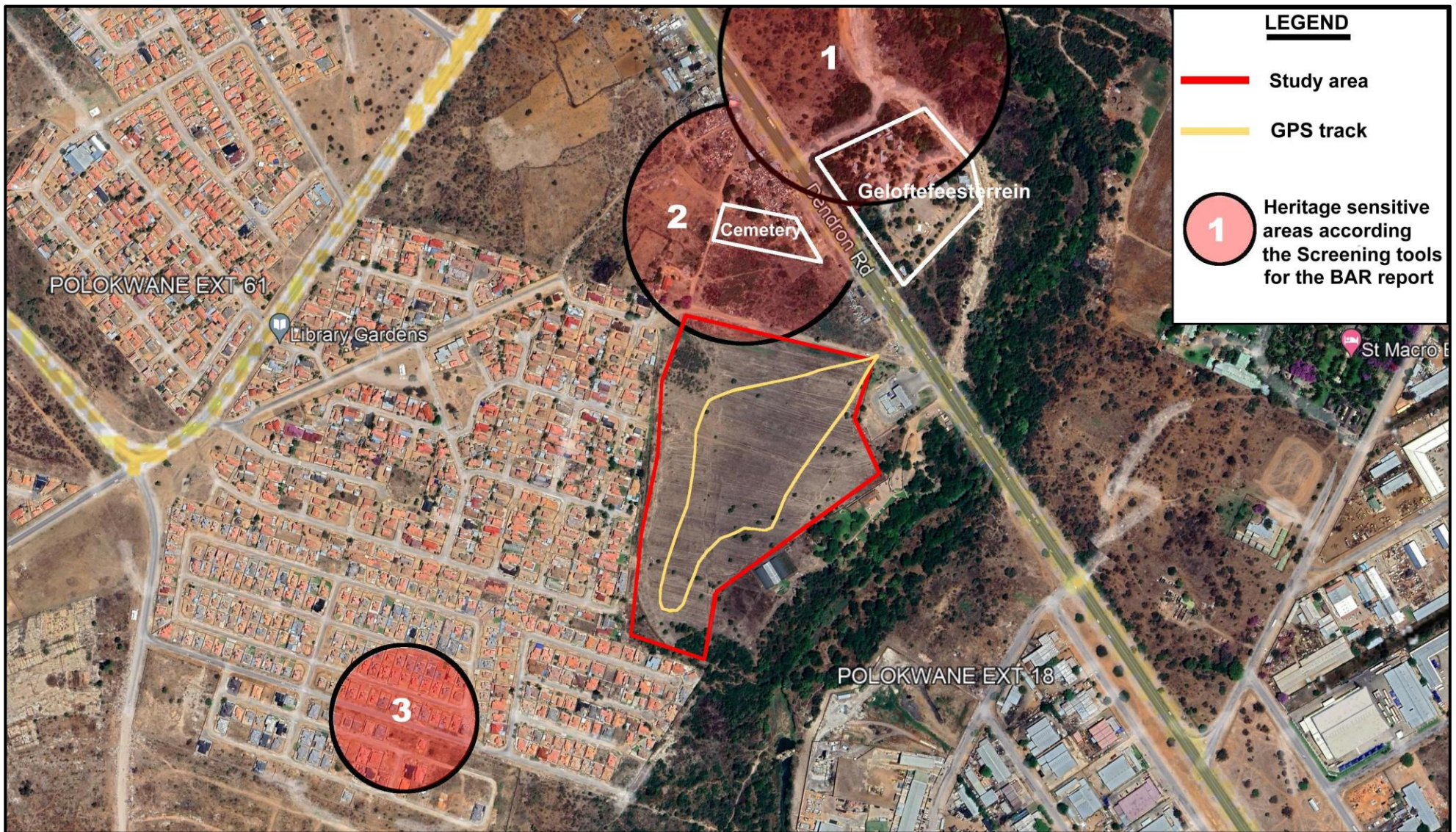


Figure 3. Google earth image of the study area with the overlay of the Map of Relative Archaeological and Cultural Heritage Theme Sensitivity.



Figure 4. Map of the Relative Archaeological and Cultural Heritage Theme Sensitivity.

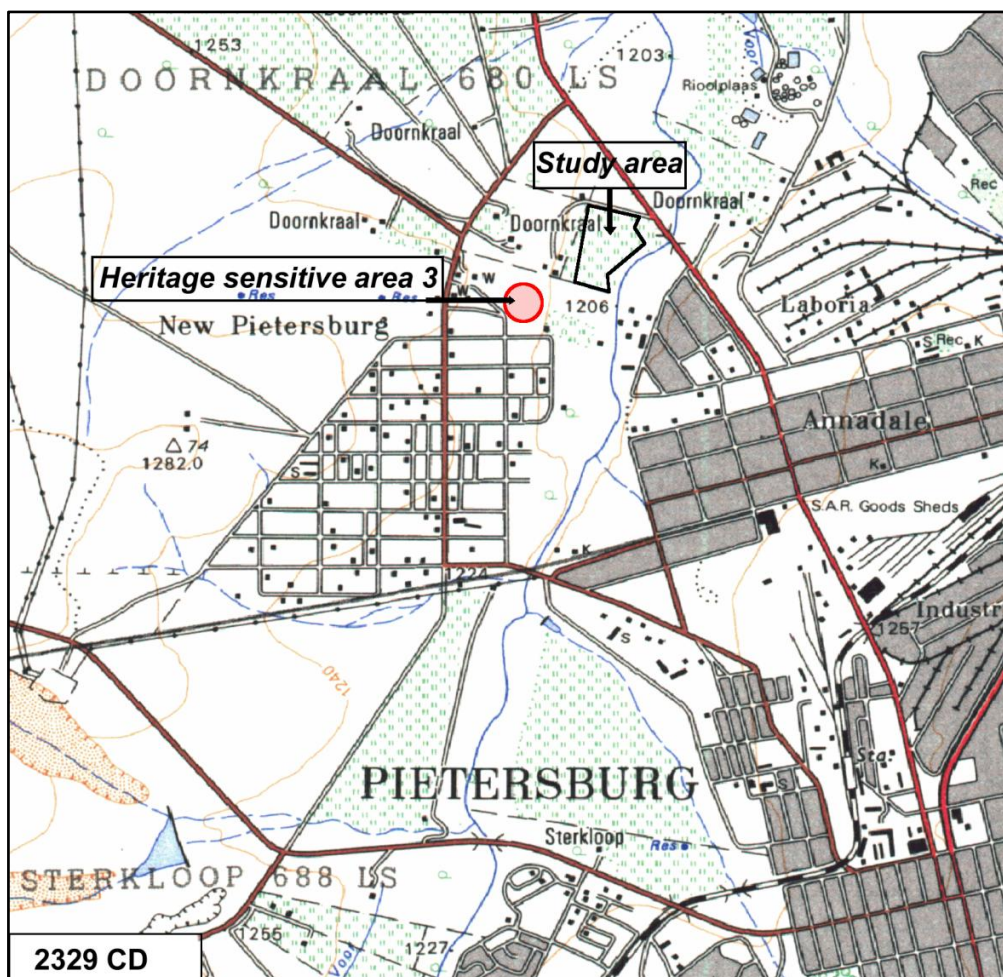


Figure 5. Topographical map showing the location of New Pietersburg in relation to heritage sensitive area 3 from the BAR.



Figure 6. The agricultural activities within the study area photographed in 2006.



Figure 7. The study area in May 2022. All agricultural activities have ceased.



Figure 8. The cemetery to the north of the study area as photographed in 2007.



Figure 9. The overgrown cemetery in May 2022. The arrow points to a gravestone.