

Heritage Scoping Report

**For the proposed bird hide and hiking trail, Maropeng
Visitors Centre, Krugersdorp**

Prepared For

La Terra Earth Sciences (Pty) Ltd

By



TEL: +27 82 373 8491. E –MAIL JACO.HERITAGE@GMAIL.COM

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CLIENT:

La Terra Earth Sciences (Pty) Ltd

CONTACT PERSON:

Mpho Manyabe

Tel: 011 463 3592

Fax: 011 463 8074

Wedgewood Office Park, Block F, 3 Muswell Road, Bryanston


SIGNATURE:

LEADING CONSULTANT:

Heritage Contracts and Archaeological Consulting CC

CONTACT PERSON:

Jaco van der Walt

Heritage Contracts and Archaeological Consulting

Professional Member of the Association of Southern African Professional Archaeologist (#159)

I, Jaco van der Walt as duly authorised representative of Heritage Contracts and Archaeological Consulting CC, hereby confirm my independence as a specialist and declare that neither I nor the Heritage Contracts and Archaeological Consulting CC have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.


SIGNATURE:

EXECUTIVE SUMMARY

Site name and location: The Gauteng Department of Agriculture and Rural Development (GDARD) are applying for Environmental Authorisation (EA) for the construction of a bird hide and a hiking trail located at Maropeng visitors centre, Krugersdorp area, Gauteng Province. The Hiking Trail will traverse 2 farms portions: i.e. Portion 3 of Spring Farm no 588JQ and Portion 4 of the farm WaterKloof 515 JQ.

Purpose of the study: Scoping report requested by the South African Heritage Resources Agency (SAHRA) to determine the presence of cultural heritage sites and the impact of the proposed project on these resources within the development footprint of the proposed project.

1:50 000 Topographic Map: 2527 DC

EIA Consultant: La Terra Earth Sciences (Pty) Ltd

Heritage Consultant: Heritage Contracts and Archaeological Consulting CC (HCAC).

Contact person: Jaco van der Walt Tel: +27 82 373 8491

E -mail jaco.heritage@gmail.com.

Date of Report: 22 November 2011

Findings of the Assessment: Heritage Resources within the Cradle of Humankind can be divided into the following discrete categories:

- ~ Karstic landscapes and landforms, including subterranean caves
- ~ Pre-cambrian fossils
- ~ Palaeontological sites
- ~ Archaeological Stone Age and Iron Age sites
- ~ 19th and 20th century historical and "historical archaeological" sites
- ~ living culture: traditional medicinal and other ethnobotanical knowledge systems and oral traditions.

Cumulatively the small scale of the project will have a negligible impact on the larger Cradle of Humankind (COH) World Heritage Site (WHS) and above mentioned heritage resources that encompasses a large area of some 47 000 ha. On a local scale no impact are foreseen on any of the above mentioned Heritage Resources within the COH. The aim of this report is to assess the impact of the hiking trail (that will have no earth works as part of the construction) and the construction of the bird hide on resources in the area.

It is our opinion that no heritage resources will be adversely affected by the proposed development and supports the application for exemption of a full phase 1 Heritage Impact Assessment by the client if the recommendations in section 7 of this report are adhered by.

General

The possible occurrence of unmarked or informal graves and subsurface finds cannot be excluded. If during construction any possible finds are made, operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

Disclaimer: *Although all possible care is taken to identify sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Heritage Contracts and Archaeological Consulting CC and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.*

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The results of the project;

The technology described in any report;

Recommendations delivered to the Client

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ABBREVIATIONS

ASAPA: Association of South African Professional Archaeologists	SAHRA: South African Heritage Resources Agency
CRM: Cultural Resource Management	MIA: Middle Iron Age
EAP: Environmental Assessment Practitioner	EIA: Environmental Impact Assessment*
EIA: Early Iron Age*	ESA: Early Stone Age
GPS: Global Positioning System	HIA: Heritage Impact Assessment
LSA: Late Stone Age	LIA: Late Iron Age
MSA: Middle Stone Age	PRHA: Provincial Heritage Resource Agency
BA: Basic Assessment	ECO: Environmental Control Officer
AIA: Archaeological Impact Assessment	NEMA: National Environmental Management Act (Act 108 of 1998)
MPRDA: Minerals and Petroleum Resources Development Act (Act 28 of 2002)	SADC: Southern African Development Community
MEC: Member of the Executive Committee	Cradle of Humankind (COH)
World Heritage Site (WHS)	

**Although EIA refers to both Environmental Impact Assessment and the Early Iron Age both are internationally accepted abbreviations and must be read and interpreted in the context it is used.*

GLOSSARY

Archaeological site (remains of human activity over 100 years old)

Early Stone Age (~ 2.6 million to 250 000 years ago)

Middle Stone Age (~ 250 000 to 25 000 years ago)

Late Stone Age (~ 25 000 to 500 years ago)

The Iron Age (~ AD 400 to 1840)

Historic (~ AD 1840 to 1950)

Historic building (over 60 years old)

1 BACKGROUND INFORMATION

<i>Kind of Study</i>	Heritage Scoping
<i>Type of development</i>	Bird hide and hiking trail
<i>Rezoning/ subdivision of land</i>	Not applicable
<i>Local Municipality:</i>	Mogale City Local Municipality
<i>Consultant:</i>	La Terra Earth Sciences (Pty) Ltd
<i>Farm:</i>	Portion 3 of Spring Farm no 588JQ and Portion 4 of the farm Waterkloof 515 JQ

A Letter from the South African Heritage Resources Agency (SAHRA) dated 26 August 2011 to the Environmental Assessment Practitioner (EAP) La Terra Earth Sciences (Pty) Ltd, herein referred to as La Terra, requested that although the proposed project does not necessarily trigger a Heritage Impact Report as per the National Heritage Resources Act, Act (Act 25 of 1999) (NHRA), Sections 38.(1) S38.(1)(e) and S38 (7) of the Act allow heritage authorities to specify other projects that may have an impact on heritage resources even if they are less than the prescribed sizes. Heritage Contracts and Archaeological Consulting CC was subsequently contracted by La Terra to compile a Heritage Scoping Report for the proposed project. The report forms part of the Basic Assessment (BA) for the proposed project.

The aim of the study is to identify cultural heritage sites, document, and assess their importance within local, provincial and national context. It serves to assess the impact of the proposed project on non-renewable heritage resources, and to submit appropriate recommendations with regard to the responsible cultural resources management measures that might be required to assist the developer in managing the discovered heritage resources in a responsible manner. It is also conducted to protect, preserve, and develop such resources within the framework provided by the NHRA.

The report outlines the approach and methodology utilized before and during the survey, which includes: Phase 1, a review of the project description and activities as well as a search on several databases; Phase 2, the physical surveying of the area on foot and by vehicle; Phase 3, reporting the outcome of the study.

During the survey two heritage sites were recorded. General site conditions and features on sites were recorded by means of photographs, GPS locations, and site descriptions. Possible impacts were identified and mitigation measures are proposed in the report following below.

1.1 Terms of Reference

Conduct a field study to:

Systematically survey the proposed project area to locate, identify, record, photograph and describe sites of archaeological, historical or cultural interest; to record GPS points of identified as significant areas; to determine the levels of significance of the various types of heritage resources recorded in the project area.

Reporting:

Identify the anticipated impacts, as well as cumulative impacts, of the operational units of the proposed project activity on the identified heritage resources for all 3 phases of the project; i.e. construction, operation and decommissioning phases. Consider alternatives, should any significant sites be impacted adversely by the proposed project. Ensure that all studies and results comply with the relevant legislation and the code of ethics and guidelines of the Association of South African Professional Archaeologists (ASAPA).

To assist the developer in managing the discovered heritage resources in a responsible manner, and to protect, preserve, and develop them within the framework provided by the NHRA.

1.2. Archaeological Legislation and Best Practice

Phase 1 Archaeological Impact Assessments or Heritage Impact Assessments are a pre-requisite for development in South Africa as prescribed by the SAHRA and stipulated by legislation. The overall purpose of a heritage specialist input is to:

- Identify any heritage resources, which may be affected;
- Assess the nature and degree of significance of such resources;
- Establish heritage informants/constraints to guide the development process through establishing thresholds of impact significance;
- Assess the negative and positive impact of the development on these resources; and
- Make recommendations for the appropriate heritage management of these impacts.

The Archaeological Impact Assessment (AIA) or Heritage Impact Assessment (HIA), as a specialist subsection of the Environmental Impact Assessment (EIA), is required under the NHRA Section 38, subsections 1 and 8 of the National Environmental Management Act (Act 108 of 1998) (NEMA) and the Mineral and Petroleum Resources Development Act (Act 28 of 2002) (MPRDA).

The AIA should be submitted, as part of the EIA, Basic Assessment (BA) or Environmental Management Programme (EMPr), to the Provincial Heritage Agency (PHRA) if established in the province or to SAHRA. SAHRA will be ultimately responsible for the professional evaluation of Phase 1 AIA reports upon which review comments will be issued. 'Best practice' requires Phase 1 AIA reports and additional development information, as per the EIA, BA/EMPr, to be submitted in duplicate to SAHRA after completion of the study. SAHRA accepts Phase 1 AIA reports authored by professional archaeologists, accredited with ASAPA.

Minimum accreditation requirements include an Honours degree in archaeology or related discipline and 3 years post-university Cultural Resources Management (CRM) experience (field supervisor level).

Minimum standards for reports, site documentation and descriptions are set by ASAPA in collaboration with SAHRA. ASAPA is a legal body, based in South Africa, representing professional archaeology in the Southern African Development Community [SADC] region. ASAPA is primarily involved in the overseeing of ethical practice and standards regarding the archaeological profession. Membership is based on proposal and secondment by other professional members.

Phase 1 AIA's are primarily concerned with the location and identification of sites situated within a proposed development area. Identified sites should be assessed according to their significance. Relevant conservation or Phase 2 mitigation recommendations should be made. Recommendations are subject to evaluation by SAHRA.

Conservation or Phase 2 mitigation recommendations, as approved by SAHRA, are to be used as guidelines **in the developer's decision making process.**

Phase 2 archaeological projects are primarily based on salvage/mitigation excavations preceding development destruction or impact on a site. Phase 2 excavations can only be conducted with a permit, issued by SAHRA to the appointed archaeologist. Permit conditions are prescribed by SAHRA and includes (as minimum requirements) reporting back strategies to SAHRA and deposition of excavated material at an accredited repository.

In the event of a site conservation option being preferred by the developer, a site management plan, prepared by a professional archaeologist and approved by SAHRA, will suffice as minimum requirement.

After mitigation is conducted on a site, a destruction permit must be applied for from SAHRA before development may proceed.

Human remains older than 60 years are protected by the NHRA, with reference to Section 36. Graves older than 60 years, but younger than 100 years fall under Section 36 of the NHRA, as well as the Human Tissues Act (Act 65 of 1983), and are the jurisdiction of SAHRA. The procedure for Consultation Regarding Burial Grounds and Graves (Section 36[5 of the NHRA) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority, require the same authorisation as set out for graves younger than 60 years, in addition to SAHRA authorisation. If the grave is not situated inside a formal cemetery, but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

Human remains that are less than 60 years old are protected under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), as well as the Human Tissues Act (Act 65 of 1983), and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the office of the relevant Provincial Premier. This function is usually delegated to the Provincial Member of the Executive Committee (MEC) for Local Government and Planning; or in some cases, the MEC for Housing and Welfare.

Authorisation for exhumation and re-interment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to.

In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of the Human Tissue Act (Act 65 of 1983).

1.3 Description of Study Area

1.3.1 Location Data

The proposed project entails the construction of a bird hide measuring 6 x 4 meters on Portion 3 of the farm Spring Farm. The Hiking Trail will traverse 2 farms portions i.e. Portion 3 of Spring Farm no 588JQ and Portion 4 of the farm WaterKloof 515 JQ. The bird hide and hiking trail is located at the Maropeng Visitors centre approximately 21km north of Krugersdorp, west of the R563 and north of the T7 provincial roads. The site is located just outside of the Cradle of Human Kind World Heritage Site.

The area consists of open grass veld and archaeological visibility is high.



Figure 1: General site conditions at the hiking trail

1.3.2. Location Map

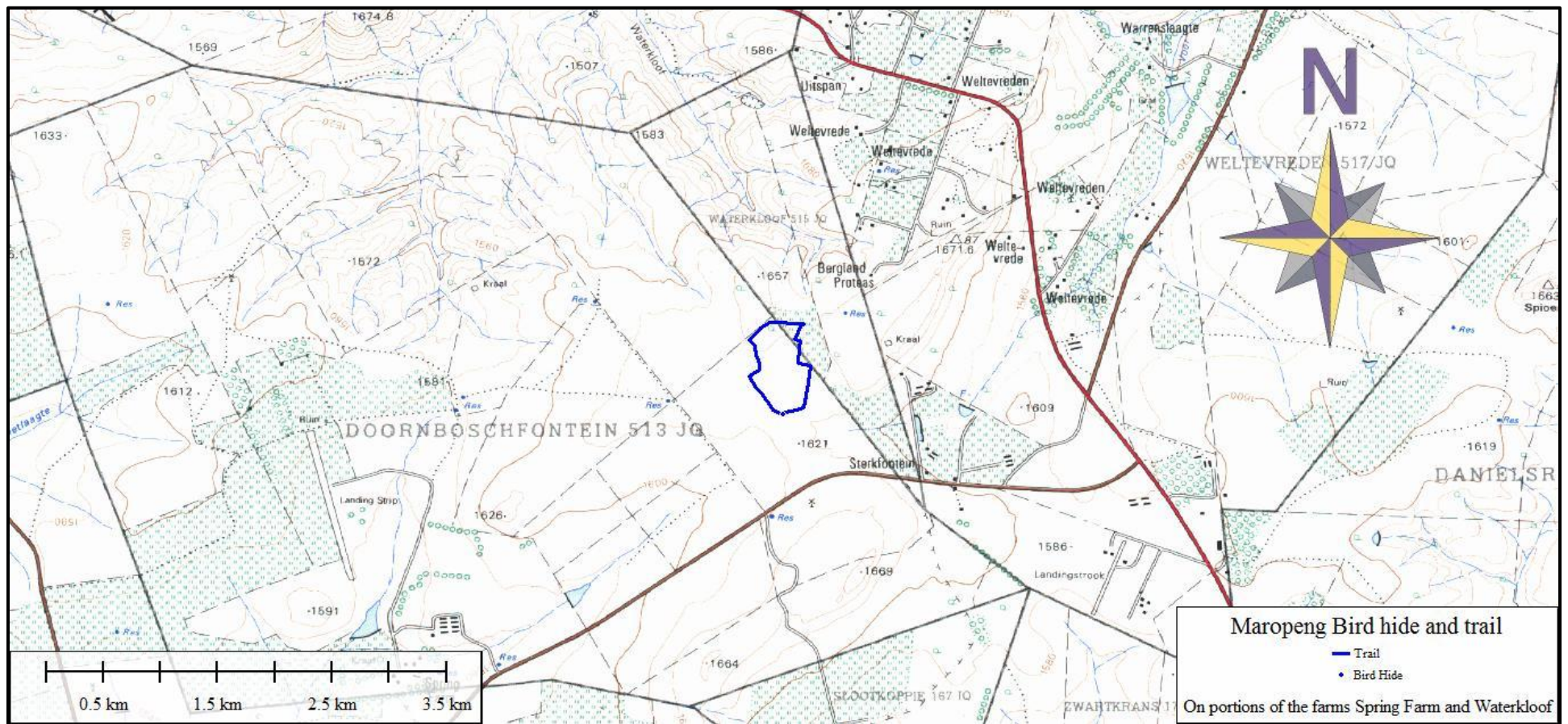


Figure 2: Location map of the proposed project indicating the proposed trail and bird hide that were assessed.

1.3.3. Google Maps



Figure 3: Google image showing the hiking trail in blue, and track log of the areas that was covered in black, note the location of two sites that was recorded during the survey.

2. APPROACH AND METHODOLOGY

The aim of the study was to determine which construction activities are expected for the completion of the bird hide and hiking trail. To determine the impact of the construction activities and tourists on heritage resources in the area; this was accomplished by means of the following phases.

2.1 Phase 1 – Project activities

The construction of the hiking trail will consist only of the cutting of the grass making a track of approximately 2 meters wide (Fig 4). The trail will be kept as natural as possible and no earth moving activities are planned for this part of the project since no walkways etc. will be constructed. The total length of the hiking trail is 2.3km.

At present there are no plans regarding the construction of the bird hide apart from the fact that it will measure 4x6 meters, but it can be expected that some earth works will be necessary here.



Figure 4: An example of what the trail would look like, taken at Maropeng

2.1.2 Information Collection

The SAHRA report mapping project (Version 1.0) was consulted to further collect data from CRM practitioners who undertook work in the area to provide the most comprehensive account of the history of the area where possible.

2.1.3 Public Consultation

A Brief consultation with the management of the Maropeng visitors centre was conducted during this phase.

2.1.4 Google Earth and Mapping Survey

Google Earth and 1:50 000 maps of the area were utilised to identify possible places where heritage significant sites might be located.

2.1.5 Genealogical Society of South Africa

The database of the genealogical society was consulted to collect data on any known graves in the area.

2.2 Phase 2 - Physical Surveying

Due to the nature of cultural remains, the majority that occurs below surface, a field survey of the study area was conducted and was surveyed on foot on 28 October 2011.

All sites discovered inside the proposed development area, were plotted on 1:50 000 maps and their GPS co-ordinates noted. Digital photographs were taken at all the sites.

3. Restrictions

Due to the fact that most cultural remains may occur below surface, the possibility remains that some features or artefacts may not have been discovered/ recorded during the survey. Only the surface infrastructure footprint area was surveyed, as indicated in the location map, and not the entire farm. Although Heritage Contracts and Archaeological Consulting CC surveyed the area as thorough as possible, it is incumbent upon the developer to inform the relevant heritage agency should further cultural remains be unearthed or laid open during the process of development.

4. Databases Consulted

Wits and Archaeological Data Base

On the 1:50 000 map sheet 2527 DC 100 previously recorded sites exist. These sites range from Stone Age, Engravings, Iron Age and Historic sites. None of these sites are however located within the study area.

SAHRA Report Mapping Project

No previous CRM projects were done on the study area according to the SAHRA Report Mapping Project version 1. One study was however done to the east of the proposed project by Huffman 1999.

Genealogical society and Google Earth Monuments

Neither the genealogical society nor the monuments database at Google Earth (Google Earth also includes some archaeological sites and historical battlefields) have any recorded sites in the study area.

Public Consultation

During consultation with the management of the Maropeng visitors centre (Ms Lindsay Marshall), the location of two sites were mentioned and are discussed later in the report.

5. HERITAGE SITE SIGNIFICANCE AND MITIGATION MEASURES

The presence and distribution of heritage resources define a 'heritage landscape'. In this landscape, every site is relevant. In addition, because heritage resources are non-renewable, heritage surveys need to investigate an entire project area, or a representative sample, depending on the nature of the project. In the case of the proposed bird hide and trail the local extent of its impact necessitates a representative sample and only the footprint of the areas demarcated for development were surveyed. In all initial investigations, however, the specialists are responsible only for the identification of resources visible on the surface.

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The following criteria were used to establish site significance:

1. The unique nature of a site;
2. The integrity of the archaeological/cultural heritage deposit;
3. The wider historic, archaeological and geographic context of the site;
4. The location of the site in relation to other similar sites or features;
5. The depth of the archaeological deposit (when it can be determined/is known);
6. The preservation condition of the site; and
7. Potential to answer present research questions.

Furthermore, the NHRA distinguishes nine criteria for places and objects to qualify as 'part of the national estate' if they have cultural significance or other special value. These criteria are:

1. its importance in/to the community, **or pattern of South Africa's history**; its possession of uncommon, **rare or endangered aspects of South Africa's natural or cultural heritage**;
2. its potential to yield information that will contribute to an understanding of **South Africa's natural or cultural heritage**;
3. **its importance in demonstrating the principal characteristics of a particular class of South Africa's** natural or cultural places or objects;
4. its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
5. its importance in demonstrating a high degree of creative or technical achievement at a particular period;
6. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
7. its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa;
8. sites of significance relating to the history of slavery in South Africa.

5.1. Field Rating of Sites

Site significance classification standards prescribed by the SAHRA (2006), and approved by ASAPA for the SADC region, were used for the purpose of this report. The recommendations for each site should be read in conjunction with section 9 of this report.

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium Significance	Recording before destruction
Generally Protected C (GP.C)	-	Low Significance	Destruction

6. BASELINE STUDY -DESCRIPTION OF SITES

6.1 Site Layout Map

It is important to note that the entire farm was not surveyed, but only the footprint of the proposed trail and bird hide as indicated in Figure 5.

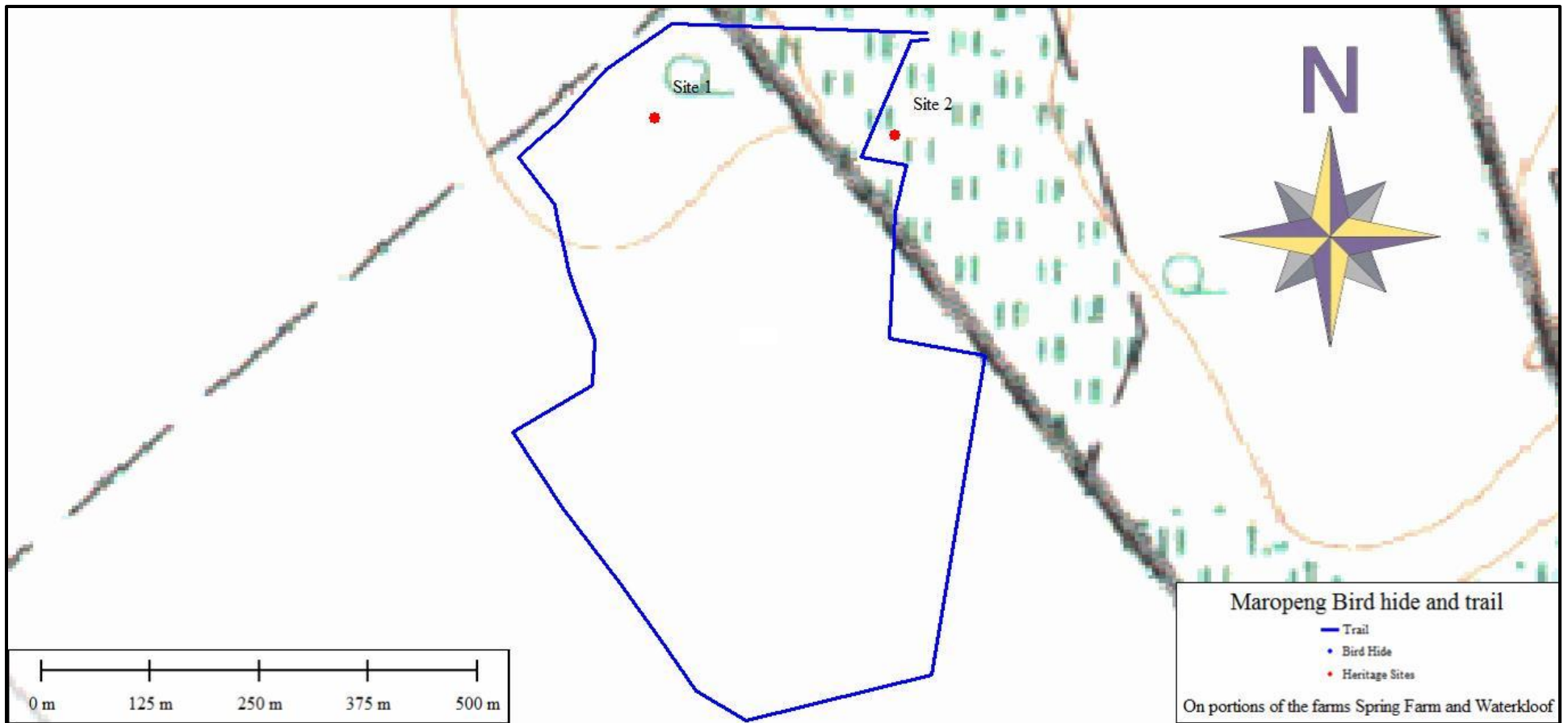


Figure 5: Site distribution map.

6.2. Sites with Coordinates

Two sites were recorded during the survey of the footprint of the proposed development.

Site Number	Landscape	Type Site	Cultural Markers	Co ordinate
Site 1	Archaeological and Cultural Heritage	L.I.A	Stone Walling	S25 58 04.4 E27 39 34.8
Site 2	Archaeological and Cultural Heritage	Stone Age	Open excavation	S25 58 05.1 E27 39 43.7

6.3. Site Descriptions

The proposed project area is in close proximity to the well-known COHWWHS. Since this report is just a scoping report it is not the aim of this report to provide the reader with a comprehensive literature review of the Cradle. However some important points will be highlighted.

COH is an area of diverse geology, geomorphology and vegetation, including rocky ridges of quartzite and dolomite, long hills and dales of grassland, valleys of deep and fertile residual dolomitic soils and wetlands with reed beds and riverine thickets.

Although climatic change would have brought about a changing kaleidoscope of plant communities over the millennia, at any period in the past, the landscape would have provided a diversity of natural resources to attract and be exploited by early people and animals, from Australopithecine times to the present. Their fossilised remains have provided palaeontologists and palaeoanthropologists with a wealth of material to study, and have made South Africa famous as the COH.

This landscape, which has provided the stage on which evolution is playing itself out, is in itself a valuable National Heritage Resource. These factors have meant that there is a rich and varied record of paleontological and archaeological sites spanning the period 4.0 ma to the present, and encompassing the Pre-Stone Age (pre-lithic artefact period), the Earlier, Middle and Later Stone Ages, the Iron Age, as well as Rock Art sites, which occur close to the COH (Mahobe Consortium 2008).

6.3.1 Site 1

Site Number	Site 1	1:50 000 map nr	2527 DC
Site Data	Description:		
Type of site	Open site		
Site categories	Possible Late Iron Age or historic		
Context	Primary		
Cultural affinities, approximate age and significant features of the site;	The site is located in a cluster of trees consisting of a single stone wall enclosure. The walls are well preserved and approximately a meter high. The site is highly overgrown and it is not possible to see if any archaeological deposit is present. The site is located 80 meters from the proposed hiking trail. The age of the site is unknown but likely to be post 1600.		
Description of artefacts	Circular Stone Walled enclosure. No ceramics were noted.		
Estimation or measurement of the extent	The enclosure measures approximately 15 meter in diameter..		
Depth and stratification of the site	Not known		

Photographs



Figure 6: Overgrown walling at Site 1



Figure 7 Well preserved Stone Walled enclosure

Field Rating

(Recommended grading or field significance) of the site:

Generally Protected B

Statement of Significance (Heritage Value)

Medium Significance.

Impact Evaluation of development on site

No direct impact is foreseen on the site since the site is located 80 meters away from the hiking trail.

6.3.2 Site 2

Site Number	Site 2	1:50 000 map nr	2527 DC
Site Data	Description:		
Type of site	Open scatter		
Site categories	Stone Age		
Context	Primary		
Cultural affinities, approximate age and significant features of the site;	The site consists of an open excavation managed by a post graduate student from Wits University. The excavation is located next to the path way to the main entrance of the Maropeng centre. The cultural affinity and age of the archaeological material is unknown.		
Description of artefacts	N.A		
Estimation or measurement of the extent	The extent of the site is not known as the site is covered by sand.		
Depth and stratification of the site	Not known		

Photographs



Figure 8: Open excavation next to the existing pathway to Maropeng.

Field Rating (Recommended grading or field significance) of the site:	Generally Protected B
Statement of Significance (Heritage Value)	Medium significance.
Impact Evaluation of development on site	No impact is foreseen on the site since no earth works will occur for construction of the hiking trail.

7. RECOMMENDATIONS

Hiking Trail

Two heritage sites were identified during the survey. Site 1 consists of a stone wall enclosure and is located approximately 80 meters from the proposed hiking trail and no impact is foreseen on the site and no further mitigation is necessary. However some management measures will be required for the site to keep hikers away from the site and is discussed below. Site 2 is an on-going Stone Age excavation; the proposed hiking trail will be passing close to the site (2 meters). Since no earthworks will occur for the construction of the trail, no further mitigation is necessary, but some management measures as discussed below will be required to protect the site from the impact of tourists.

Bird Hide

No information is available regarding the construction and specifications for the bird hide but it is assumed that some earthworks will be needed. No archaeological material has been noted on the surface in this area but due to the sensitive nature of the area it is recommended that the planning team design the bird hide in such a manner as to have the lowest possible footprint, stilts will possibly be the best option. It is further recommended that a Stone Age archaeologist monitors the site during construction to mitigate and record accidental finds.

7.1. Management Measures

Here brief consideration is given to measures that would be required during implementation of the proposed hiking trail and bird hide. No Archaeological mitigation is necessary prior to the start of construction (based on approval by SAHRA), but management measures would need to be taken into account to avoid damage to the local heritage by tourist wandering of the hiking trail.

To ensure that these management measures are policed it should form part of the Heritage Management Plan of Maropeng and Cultural Heritage Resources Management Project for the COH.

OBJECTIVE: prevent unnecessary disturbance and/or destruction of archaeological sites or features that has not been mitigated for the development.

Project component/s	All phases of construction and operation		
Potential impact	Damage/disturbance to archaeological sites, theft of archaeological artifacts, damage due to tourists.		
Activity risk/source	Tourists/hikers climbing over stone walls at site 1 and disturbing the walling or stepping on and collapsing of excavated profiles at site 2.		
Mitigation: target/objective	To retain archaeological heritage in undisturbed condition such that future researchers could still work at the sites in their current condition.		
Mitigation: Action/control		Responsibility	Timeframe
Ensure that tourists remain within the designated areas of the hiking trail.		Maropeng Management	Construction and operation phases.
Performance indicator	Archaeological sites remain undamaged.		
Monitoring	No pedestrians allowed outside of the demarcated hiking trail.		

Threats, Impacts and Problems

The major threat to the identified heritage resources are the impact tourists and hikers will have on the identified sites. Anticipated problems are

- The lack of monitoring, policing, and control.
- The lack of a responsible management authority, and management personnel to implement the management measures.

8. CONCLUSIONS

Heritage Resources within the COH can be divided into the following discrete categories:

- ~ Karstic landscapes and landforms, including subterranean caves
- ~ Pre-cambrian fossils
- ~ Palaeontological sites
- ~ Archaeological Stone Age and Iron Age sites
- ~ 19th and 20th century historical and "historical archaeological" sites
- ~ living culture: traditional medicinal and other ethnobotanical knowledge systems and oral traditions.

Cumulatively the small scale of the project will have a negligible impact on the larger COHWHS and above mentioned heritage resources that encompasses a large area of some 47 000 ha. On a local scale no impact are foreseen on any of the above mentioned Heritage Resources within the COH. The aim of this report was to assess the impact of the hiking trail (that will have no earth works as part of the construction) and the construction of the bird hide on resources in the area.

It is our opinion that no heritage resources will be adversely affected by the proposed development and supports the application for exemption of a full phase 1 HIA by the client if the recommendations in section 7 of this report are adhered by.

General

The possible occurrence of unmarked or informal graves and subsurface finds cannot be excluded. If during construction any possible finds are made, operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

9. PROJECT TEAM

Jaco van der Walt, Project Manager

.10. REFERENCES

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