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# Archaeological Impact Assessment

## WILDEBEES INFEEED STATION AND ASSOCIATED POWER LINES ON THE FARM HATHERLEY 311 JT, MAMELODI, GAUTENG PROVINCE

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Prepared For  
**City of Tshwane**

By



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# Executive summary

**Site name and location:** Wildebees Infeed station and associated power Lines on the farm Hatherley 311JR, Mamelodi, Gauteng Province.

**1:50 000 Map:** 2528 CB and 2528 CD

**Developer:** City of Tshwane

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**Date of Report:** 3 October 2009

**Findings of the Assessment:** Sixteen sites of heritage significance were identified during the survey. The sites range from Late Iron Age (14 Sites) to possible historical sites (2 Sites). Please refer to section 8 of this report for recommendations.

If these recommendations are adhered to there is from a Heritage point of view no reason why the development can not commence.

## General

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find. The possibility of the occurrence of informal or unmarked graves and archaeological sites can not be excluded. It is important to note that the scope of service was to survey only the development area and not the entire property.

**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. Wits Heritage Contracts Unit 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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# 1. INTRODUCTION

Wits Heritage Contracts Unit was contracted by City of Tshwane to conduct an Archaeological Impact Assessment for the proposed Wildebees infeed station and associated power lines on the farm Hatherley 311JR, Mamelodi, Gauteng Province. The report forms part of the EMP for the proposed project and will also be included into the EIA. The aim of the study is to identify heritage sites, document, and assess their importance within Local, Provincial and national context. 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, in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

The report outlines the approach and methodology utilized before and during the survey, which includes in Phase 1: Information collection from various sources and consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

During the survey, 31 sites with heritage value were identified. General site conditions and features on sites were recorded by means of photos, GPS location, and site description. Possible impacts were identified and mitigation measures are proposed in the following report.

This report must also be submitted to SAHRA provincial office for peer review.

## 1.2 TERMS OF REFERENCE

### **Conduct brief desktop study to:**

Review available literature, previous heritage studies and other relevant information sources. Gather data and compile a background history of the area. Identify known and recorded archaeological and cultural sites; and determine whether the area is renowned for any cultural and heritage resources, such as Stone Age sites, Iron Age sites, informal graveyards or historical homesteads.

### **Conduct a field study to:**

Consult with locals residing in the study area to gather information on oral history, local history, possible informal graves, cemeteries, and other areas of cultural significance. Systematically survey the proposed project area to locate, identify record, photograph and describe sites of archaeological, historical or cultural interest; and record GPS points of significant areas identified. 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 requirements of the local South African Heritage Resources Agency (SAHRA) are met; and ensure that all studies and results are sufficient to comply with the relevant requirements of the Equator Principles, World Bank Standards and IFC Principles and Performance Standards and National legislation. To assist the developer in managing the discovered heritage resources in a responsible manner, in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

## **1.3 Nature of the development**

The proposed development includes three alternatives for the power lines from the proposed in feed station with a footprint of approximately 30ha.

## **1.4 Description of study area**

The geology of the area consists of shale of the Magaliesberg Formation of the Pretoria group of the Transvaal Sequence. Later intrusions of diabase occur in the area. The original vegetation is classified by Acocks 1975 as Bankeveld. Refer to main EIA report for geographical, environmental and demographic issues.

## **2. APPROACH AND METHODOLOGY**

The aim of the study is to extensively cover all data available to compile a background history of the study area; this was accomplished by means of the following phases.

### **2.1 PHYSICAL SURVEYING**

Due to the nature of cultural remains, the majority that occurs below surface, a physical walk through of the study area was conducted. Wits Heritage Contract Unit was appointed to conduct a survey of the proposed development. The study area was surveyed by two professional archaeologists over a period of 2 days, by means of vehicle and extensive surveys on foot. In addition to that the survey team consulted several specialists in their respective fields and recommendations were made in conjunction with them. Prof. T Huffman from the University of the Witwatersrand gave specialist input with regards to the Iron Age component while Mr A. Pelser was consulted about previous work in the area.

Aerial photographs and 1:50 000 maps of the area were consulted and literature of the area were studied before undertaking the survey. The purpose of this was to identify topographical areas of possible historic and pre-historic activity. All sites discovered both inside and bordering the proposed development area was plotted on 1:50 000 maps and their GPS co-ordinates noted. Photographs on digital film were taken at significant sites.



## 3. Abbreviations and definitions

### 3.1 Abbreviations

<i>ASAPA</i> : Association of South African Professional Archaeologists	<i>BPEO</i> : Best Practicable Environmental Option
<i>CRM</i> : Cultural Resource Management	<i>DEA&amp;DP</i> : Department of Environmental Affairs and Development Planning
<i>DEAT</i> : Department of Environmental Affairs and Tourism	<i>DWAF</i> : Department of Water Affairs and Forestry
<i>EIA practitioner</i> : Environmental Impact Assessment Practitioner	<i>EIA</i> : Environmental Impact Assessment
<i>EIA</i> : Early Iron Age	<i>ESA</i> : Early Stone Age
<i>LIA</i> : Late Iron Age	<i>MSA</i> : Middle Stone Age
<i>GPS</i> : Global Positioning System	<i>HIA</i> : Heritage Impact Assessment
<i>I&amp;AP</i> : Interested & Affected Party	<i>IDP</i> : Integrated Development Plan
<i>LSA</i> : Late Stone Age	<i>LIA</i> : Late Iron Age
<i>MSA</i> : Middle Stone Age	<i>MIA</i> : Middle Iron Age
<i>NEMA</i> : National Environmental Management Act	<i>NHR Act</i> : National Heritage Resources Act
<i>PHRA</i> : Provincial Heritage Resources Agency	<i>PSSA</i> : Palaeontological Society of South Africa
<i>ROD</i> : Record of Decision	<i>SACLAP</i> : South African Council for the Landscape Architect Profession
<i>SAHRA</i> : South African Heritage Resources Agency	<i>SAIA</i> : South African Institute of Architects
<i>SAPI</i> : South African Planning Institute	<i>SDF</i> : Spatial Development Framework

### 3.2 Definitions

#### **Archaeological resources:**

This includes material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;

#### **Rock art:**

Being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;

#### **Wrecks:**

Being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the

republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;

**Military:**

Features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

**Cultural significance:**

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

**Development:**

This 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 the change to the nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- carrying out any works on or over or under a place;
- subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- constructing or putting up for display signs or hoardings;
- any change to the natural or existing condition or topography of land;
- any removal or destruction of trees, or removal or vegetation or topsoil

**Heritage resources:**

This means any place or object of cultural significance

**Stakeholders:**

A subgroup of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term includes the proponent, authorities and all interested and affected parties.

## **4. 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 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;
- Make recommendations for the appropriate heritage management of these impacts.

The AIA or HIA, as a specialist sub-section of the Environmental Impact Assessment [EIA] is required under the National Heritage Resources Act NHRA of 1999 (Act 25 of 1999)., Section 38(1), Section 38(8) the National Environmental Management Act (NEMA) and the Mineral and Petroleum Resources Development Act (MPRDA).

The AIA should be submitted, as part of the EIA, BIA or Environmental Management Plan [EMP], to the 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 required additional development information, as per the EIA, BIA / EMP, 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 CRM experience (field supervisor level).

Minimum standards for reports, site documentation and descriptions are set by the Association of Southern African Professional Archaeologists [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 archaeological ethical practice and standards. 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 guidance 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 should be done under 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 a 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 National Heritage Resources Act, with reference to Section 36. Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) 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 will also require the same authorisation as set out for graves younger than 60 years over and above 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 MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment 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 Act 65 of 1983 (Human Tissues Act).

## **5. Baseline Study**

### **5.1 Evaluation of Heritage sites**

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

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

#### **5.1.1 Heritage Site Significance and Mitigation Measures**

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

<b><i>FIELD RATING</i></b>	<b><i>GRADE</i></b>	<b><i>SIGNIFICANCE</i></b>	<b><i>RECOMMENDED MITIGATION</i></b>
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

## 5. Archaeological Context of study area

South Africa has one of the longest archaeological sequences in the world because humanity evolved in the area stretching from the Cape to Ethiopia. Most of this sequence covers the times when our ancestors used stone tools.

Several archival databases and previous phase 1 reports were utilised to give a comprehensive coverage of sites. Most extensively used is the site catalogue compiled by the Archaeology Department of the School of Geography, Archaeology, and Environmental Studies at the University of the Witwatersrand, Johannesburg.

Sites within the databases used were plotted into ArcGIS 9.1, overlaying the relevant 1:50000 topographic maps and the proposed study area. From this, relevant areas, in which a large portion of the sites clustered, were identified and the appropriate literature was reviewed.

Surveys and mitigation projects by the National Cultural History Museum, Wits University, and Archaetnos were reviewed to compile a back ground history of the area.

The archaeology of the area can be divided into the Stone Age, Iron Age and Historical timeframe. These can be divided as follows:

### **Stone Age**

The Stone Age is divided in Early; Middle and Late Stone Age and refers to the earliest people of South Africa who mainly relied on stone for their tools.

*Early Stone Age:* The period from  $\pm 2.5$  million yrs -  $\pm 250\ 000$  yrs ago. Acheulean stone tools are dominant.

*Middle Stone Age:* Various lithic industries in SA dating from  $\pm 250\ 000$  yrs – 25 000 yrs before present. This period is first associated with archaic *Homo sapiens* and later *Homo sapiens sapiens*. Material culture includes stone tools with prepared platforms and stone tools attached to handles.

*Late Stone Age:* The period from  $\pm 25\ 000$ -yrs before present to the period of contact with either Iron Age farmers or European colonists. This period is associated with *Homo sapiens sapiens*. Material culture from this period includes: microlithic stone tools; ostrich eggshell beads and rock art.



## ***Iron Age***

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. Similar to the Stone Age it can be divided into three periods:

*The Early Iron Age:* Most of the first millennium AD.

*The Middle Iron Age:* 10th to 13th centuries AD

*The Late Iron Age:* 14th century to colonial period.

## ***Historic Timeframe***

17th Century to present AD (1600 – 2000)

The historic timeframe intermingles with the later parts of the Stone and Iron Age, and can loosely be regarded as times when written and oral recounts of incidents became available.

## **5.1 Brief background study**

The National Cultural History Museum conducted a thorough cultural historical assessment of Iron Age sites found on the farm Hahterley 113 JR as part of an EIA for the new land fill site. The area their efforts were concentrated on is located opposite the road of the current area under discussion where the current refuse dump is located.

Their investigation consisted of four elements. A survey of relevant literature including archaeological, anthropological and historical literature. An ethno historical investigation that included on site consultation with Ndebele informants. Comparison of the stone walled settlements with other known Ndebele sites in the area and lastly archaeological excavations.

They concluded that the sites were occupied by Southern Ndebele-speaking people from the late 1600's up to the mid 1800's. They recommended that more investigations on Ndebele sites around Pretoria be undertaken to investigate and document these sites that are in danger of disappearing from the record through the rapid urban expansion of Pretoria.

For a detailed record of their finds refer to "Investigation of Late Iron Age Sites on the farm Hatherley 331 JR, Pretoria District published in volume 5 of the journal *Navorsing deur die Nasionale Kultuurhistoriese Museum*. 1996.

## 5.2 Probability of occurrence of sites

From the above information it is clear that a medium possibility of the occurrence of cultural heritage sites could be expected in the study area.

### A. PALAEOONTOLOGICAL LANDSCAPE

#### CONTEXT

Fossil remains. Such resources are typically found in specific geographical areas, e.g. the Karoo and are embedded in ancient rock and limestone/calcrete formations. Exposed by road cuttings and quarry excavation: *Unknown*

### B. ARCHAEOLOGICAL LANDSCAPE

#### CONTEXT

NOTE: *Archaeology is the study of human material and remains (by definition) and is not restricted in any formal way as being below the ground surface.*

*Archaeological* remains dating to the following periods can be expected with in the study area:

#### Stone Age finds

- ESA: *Low Probability*
- MSA: *Medium Probability*
- LSA: *Medium Probability*
- LSA –Herder: *Low Probability*

#### Iron Age Finds

- EIA: *Medium Probability*
- MIA: *Low Probability*
- LIA: *High Probability*

#### Historical finds

- Historical period: *Medium Probability*
- *Historical dumps: Medium Probability*
- *Structural remains: Medium Probability*

**Military Finds**

- *Battle and military sites: Medium Probability*

**Burial/Cemeteries**

- *Burials over 100 years: Medium Probability*
- *Burials younger than 60 years: Medium - High Probability*

Subsurface excavations including ground levelling, landscaping, and foundation preparation can expose any number of these.

## 6. Impact Assessment

During the survey 16 Heritage Sites was identified. For the purposes of this report the sites are divided into Late Iron Age (LIA) stone walled sites and Possible Historical Sites. The following co-ordinates are available for the sites (WGS84).

Site Number	Type Site	Co-ordinates
Site 1	L.I.A	S25 44 25.5 E28 23 35.8
Site 2	L.I.A	S25 44 24.4 E28 23 43.8
Site 3	L.I.A	S25 44 44.3 E28 24 21.1
Site 4	L.I.A	S25 44 40.3 E28 24 09.6
Site 5	Possible Historic	S25 44 28.8 E28 22 59.1
Site 6	Possible Historic	S25 44 28.7 E28 22 57.0
Site 7	L.I.A	S25 44 24.3 E28 24 02.8
Site 8	L.I.A	S25 44 32.8 E28 24 22.5
Site 9	L.I.A	S25 44 51.1 E28 24 10.9
Site 10	L.I.A	S25 45 00.5 E28 24 41.3
Site 11	L.I.A	S25 45 04.4 E28 24 53.8
Site 12	L.I.A	S25 45 03.3 E28 25 02.3
Site 13	L.I.A	S25 44 59.3 E28 24 59.4
Site 14	L.I.A	S25 44 56.3 E28 24 49.9
Site 15	L.I.A	S25 44 59.2 E28 24 55.4
Site 16	L.I.A	S25 44 52.5 E28 24 48.3

# Iron Age Sites

The Sites recorded are typical Late Iron Age stone walled sites that conform to the Central Cattle Pattern (CCP). The walling is constructed of loosely packed diabase rocks using two rows of large stones filled in with smaller rocks. The walls are low (approximately 50cm) and it is concluded that together with the low amount of loose stones from the collapsed walls that the original walls wasn't much higher. Not much cultural deposit occurs on the sites and finds include lower grinding stones and undecorated ceramics. The following heritage significance is applicable for the sites.

<i>FIELD RATING</i>	<i>GRADE</i>	<i>SIGNIFICANCE</i>	<i>RECOMMENDED MITIGATION</i>
Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction.



Figure 1: Lower Grinding Stone





Figure 2: *Low stone walling characteristic of the sites found*



Figure 3: *Low stone walling characteristic of the sites found*

## 6.1 Site 1

This is the location of a highly overgrown Late Iron Age stone walled site. Cultural material consists of a few undecorated ceramics and a lower grinding stone.

## 6.2 Site.2

This is the location of another Late Iron Age stone walled site. The site is relatively small and consists of approximately 3 – 4 enclosures. The site is associated with the much larger site 1. A Recently constructed dirt road impacted negatively on the perimeter of the site. However enough of the site is preserved for documentation. The most notable feature at this site is a possible hut enclosure.

## 6.3 Site.3

This is the location of another Late Iron Age stone walled site on a small ridge. The site is overgrown and it therefore not possible to deduct settlement layout or to determine the extend of the site. At least 4 stone cairns are found possibly associated with the stone walling. The stone walling is constructed of loosely packed diabase rocks using two rows of large stones filled in with smaller rocks. The walls are low (approximately 50cm) and it is concluded that together with the low amount of loose stones that the original walls wasn't much higher.

## 6.4 Site.4

This is the location of another overgrown Late Iron Age stone walled site on a small ridge. Due to vegetation cover it is not possible to deduct settlement layout or to determine the extend of the site.

## 6.5 Site.7

This is the remnants of a Late Iron Age stone walled settlement on a small ridge. A large part of the site has been destroyed by recent agricultural activities. All that remains from the site is single cattle enclosure.

## 6.6 Site.8

This is the location of a Late Iron Age stone walled ward that is fenced off with no access. The site was identified and mitigated by the National Cultural History museum and is being preserved.

## 6.7 Site.9

This is the location of an extensive Stone walled settlement. The site is overgrown and site layout could not be determined. The site is located under power lines that have impacted negatively on the site.

## 6.8 Site.10

The site contains several open stone wall enclosures and is situated on a small ridge. The site is well preserved and ideal for mapping.

## 6.9 Site.11

This is the location of a large Late Iron Age stone walled cattle kraal. . Circular enclosures around the kraal are interpreted as hut bays. More walling is present on the site but overgrown.

## 6.10 Site.12

This is the location of a large Late Iron Age stone walled site located on a low running hill. . The site is overgrown but conforms to the Central Cattle Pattern (CCP) with a enclosing outer wall.

## 6.11 Site.13

This is the location of a well preserved Late Iron Age stone walled site located on a low running hill. . The site consists of a central cattle kraal and scallops placed around the kraal.



## 6.12 Site.14

This is the location of a large Late Iron Age stone walled site located on a low running hill. . The site is overgrown but conforms to the Central Cattle Pattern (CCP) with an outer wall around the central cattle kraal.

## 6.13 Site.15

This is the location of a Late Iron Age stone walled site located on a low ridge. The site is overgrown and settlement layout can not be determined but conforms to the CCP.

## 6.14 Site.16

This is the location of a well preserved Late Iron Age stone walled site located on a low running hill. . The site consists of a central cattle kraal and scallops placed around the kraal. This is of significance since the layout at the site differs from most of the other sites.

## Historic Structures

### 6.15 Site.5

The site is located on a small ridge with partly destroyed stone walling. The site might be historical and therefore could contain unmarked graves. The foundations of a rectangular structure are visible measuring approximately 4 x 6 meters.

<b><i>FIELD RATING</i></b>	<b><i>GRADE</i></b>	<b><i>SIGNIFICANCE</i></b>	<b><i>RECOMMENDED MITIGATION</i></b>
Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction.

### 6.16 Site.6

This site is associated with Site 5 and consists of the stone wall foundations of 2 rectangular structures. The one structure is large and measures approximately 25 x 10 meters while the

second is partly disturbed by ground moving activities. Remnants of more walling are present but due to ground cover it is impossible to determine it to a time period.

<i><b>FIELD RATING</b></i>	<i><b>GRADE</b></i>	<i><b>SIGNIFICANCE</b></i>	<i><b>RECOMMENDED MITIGATION</b></i>
Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction.

## 7. ASSUMPTIONS AND LIMITATIONS

Due to the nature of cultural remains that occur, in most cases, below surface, the possibility remains that some cultural remains may not have been discovered during the survey.

Medium archaeological visibility is present on site but the possibility of the occurrence of informal and unmarked graves or archaeological remains can not be excluded. Although Wits Heritage Contracts unit 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.

## 8. ASSESSMENT AND RECOMMENDATIONS

*A locality map is provided in **Annexure A***

**Findings of the Assessment.** Sixteen sites of heritage significance were identified during the survey. The sites range from Late Iron Age (14 Sites) to possible historical sites (2 Sites).

The Iron Age stone walled sites found during the survey show several similarities (layout etc) with the Late Iron Age stone walled sites documented by the National Cultural History Museum across the road from the present study area. Because of these strong links the stone walled sites found on the remainder of the farm Hatherley could also be linked to Southern Ndebele speaking people with an occupation date ranging between the 1600's up to the 1800's. Another study by Unisa also revealed several Late Iron Age sites associated with the Southern Ndebele on another portion of the farm Hatherley. However several sites like Site13 of the present study have a centre side layout and are more likely associated with what Archaeologist refer to as Klipriviersberg walling and date to the eighteenth and nineteenth centuries build by people from the Fokeng cluster. These assumptions can only be tested by mapping of the settlements in the study area.

Most of the recorded sites will be impacted upon by the proposed Wildebees in feed station and the various alternatives for the powerlines (Annexure A). To minimise the impact on the recorded heritage resources it is recommended that the southern alternative is used for the powerlines that will result in impacting only on one site (Site 9). A deviation of the proposed line is recommended to the west of this power line in order not to impact on site 4 & 5 that was identified as Boer war sites during the EIA for the Snowy Owl Township development

(Annexure B). The sites are preserved and incorporated into open space in the residential development.

Unfortunately the proposed Wildebees station will impact negatively on some of the recorded sites. Most notably Site 5, 7, 14 and 15. It is recommended that the planning team try to relocate the in feed station between the recorded settlements. It is further recommended that the cluster of sites located in that area is documented on scale plan sketches and that the sites impacted upon are test excavated.

Before development can start on this project these recommendations must be adhered by after which a destruction permit for the destruction of the sites affected must be applied for from SAHRA. A watching brief must also be agreed upon to monitor the significant areas during construction.

If these recommendations are adhered by there is from a Heritage point of view no reason why the development can not commence.

### **General**

A heritage resources management plan must be developed for managing the heritage resources in the study area during construction and operation of the development. This can include basic training for construction staff on possible finds, action steps for mitigation measures, surface collections, excavations and communication routes to follow in the case of a discovery.

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

## 9. LIST OF PREPARES

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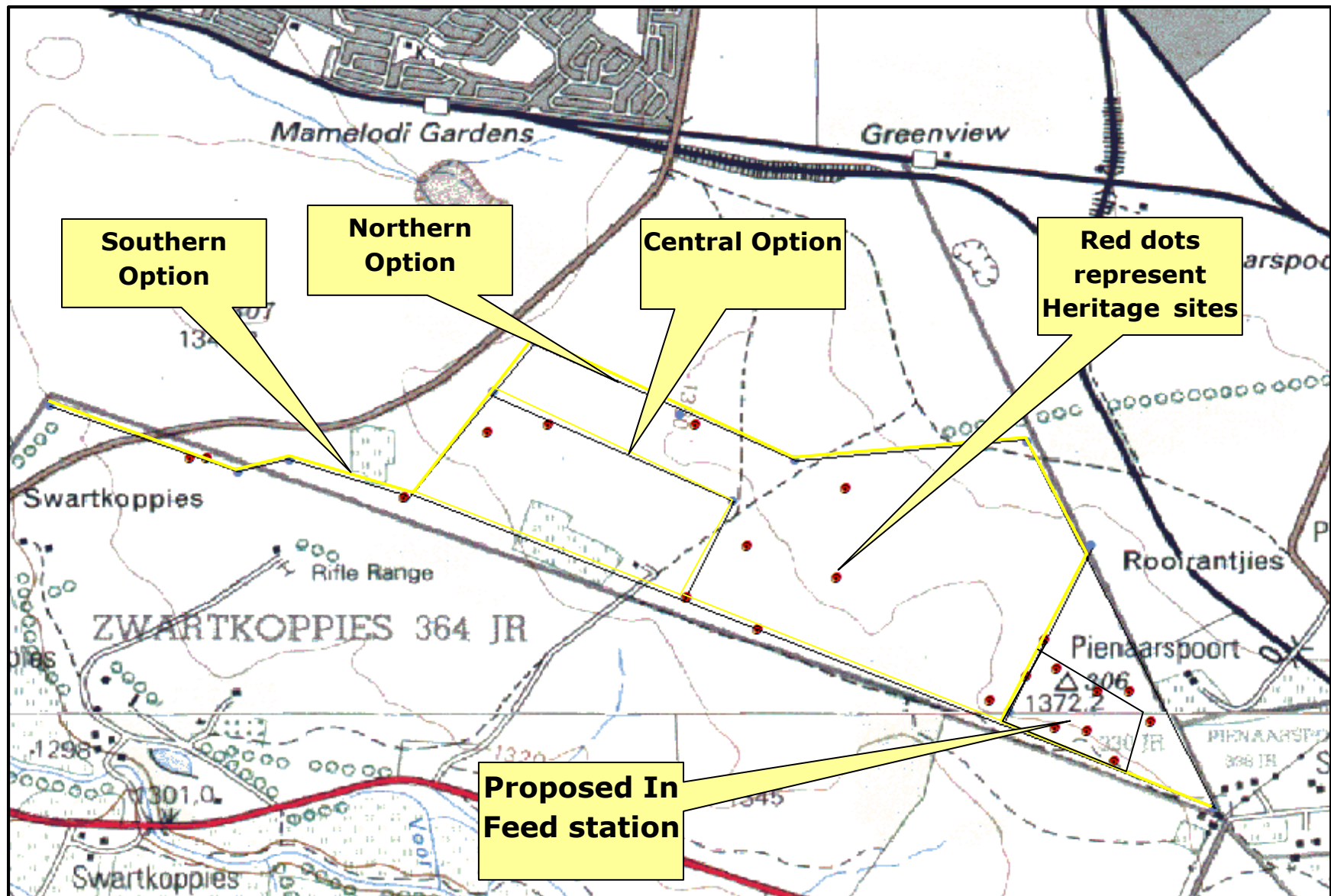
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**ANNEXURE A:**  
**Locality Map**  
**&**  
**Site Distribution Map**





**ANNEXURE B:**  
**Recommended Power Line**  
**Option**

