

# NOTIFICATION OF INTENT TO DEVELOP

## VLNR Weather Tower, Limpopo Province

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**Contents**

1. Introduction .....	4
2. Project Location .....	4
3. Project Details.....	6
3.1 Receiving Environment .....	6
4. Legislative Framework.....	6
4.1 Heritage Site Significance and Mitigation Measures .....	8
5. Limitations and assumptions .....	8
6. Heritage Resources .....	9
6.1. Paleontological resources .....	10
6.2. Archaeological background.....	11
6.2.1. Stone Age.....	11
6.2.2. The Iron Age .....	12
6.3. Historical Information .....	18
7. Plan of Study.....	20
Annexure A - Chance find procedure.....	23

## Figures

Figure 1. Regional setting of the project. ....	4
Figure 2. Local setting (1:50 000 Topographical map). ....	5
Figure 3. Aerial image of the study area. ....	6
Figure 4. The approximate study area as indicated on the SAHRA paleontological sensitivity map. ..	10
Figure 5: Iron Age ceramic facies for the Mapungubwe region (Adapted from Huffman 2009b). ....	13
Figure 6: Definition of <i>Mzonjani</i> ceramics on the left and <i>Happy Rest</i> ceramics on the right (Adapted from Huffman 2007a). ....	14
Figure 7: Definition of <i>Zhizo</i> ceramics on the left and <i>Leokwe</i> ceramics on the right (Adapted from Huffman 2007a). ....	15
Figure 8: Map of southern Africa indicating migration routes of different Iron Age Traditions (Adapted from Huffman 2007a). ....	15
Figure 9: Definition of <i>K2</i> ceramics on the left and <i>TK2</i> ceramics on the right (Adapted from Huffman 2007a) Transitional occupation was equally divided between floodplain and escarpment where there is a clear distinction between cattle and agriculturally orientated settlements. By about AD 1250, the <i>TK2 facies</i> changed into classic Mapungubwe ceramics. ....	16
Figure 10. Known sites in relation to the proposed tower. ....	17
Figure 11. The proposed Project in relation to the Mapungubwe World Heritage Site. ....	19

## Tables

Table 1. Heritage Field ratings .....	8
Table 2. Potential EIA triggers .....	20
Table 3. NHRA Triggers .....	22

## 1. Introduction

Beyond Heritage (Pty) Ltd was requested by Alta van Dyk Environmental Consultants to submit a Notice of Intention to Develop (NID) to SAHRA for the proposed VLNR Weather Tower located within the Venetia Limpopo Nature Reserve (VLNR) owned by De Beers Consolidated Mines (Pty) Ltd (De Beers) in the Limpopo Province (Figure 1 -3).

## 2. Project Location

<b>Province</b>	Limpopo Province
<b>Location Detail</b>	The Project is located on the Farm Faure 33 MS
<b>GPS Co-ordinates (Relative center point of study area)</b>	Two options are being considered and the approximate locations are as follows: Option 1 - 22°15'59.18"S and 29°19'49.45"E Option 2 - 22°15'59.76"S and 29°19'53.73"E

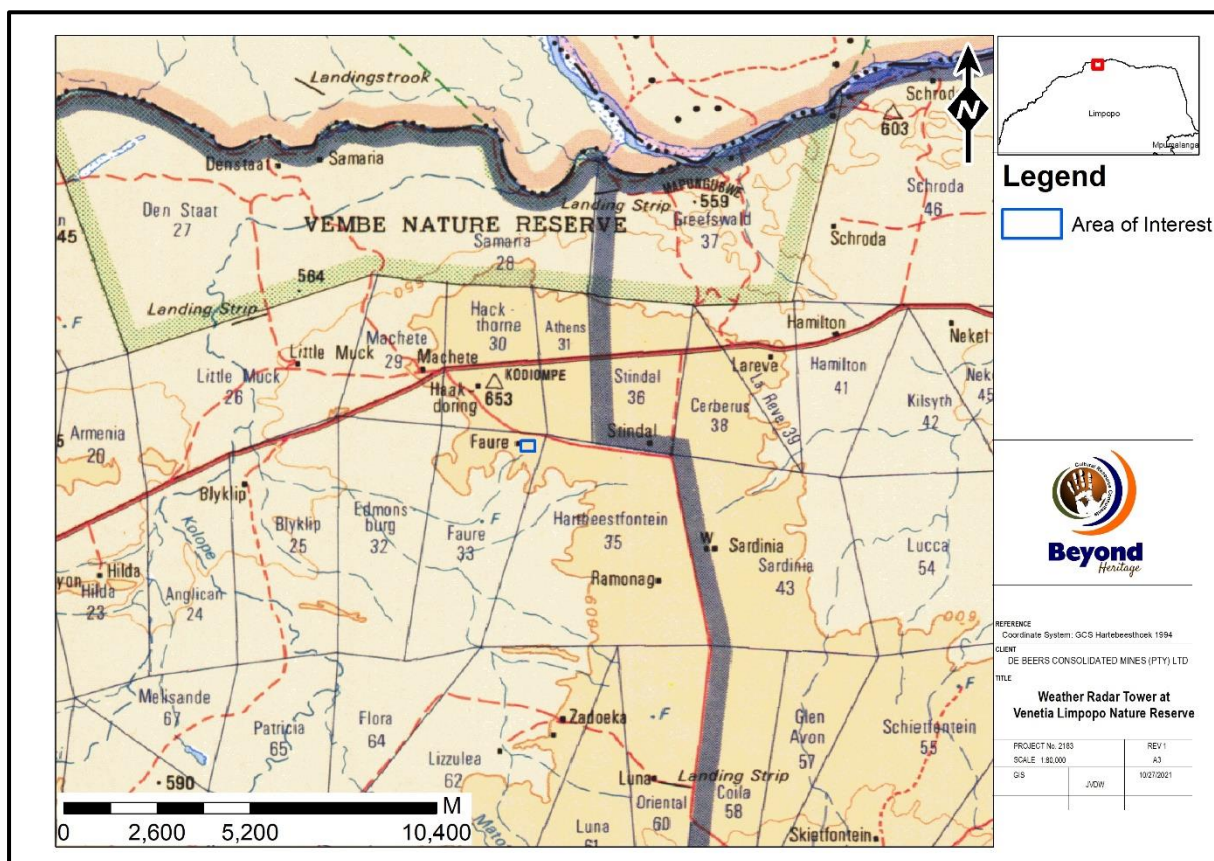


Figure 1. Regional setting of the project.

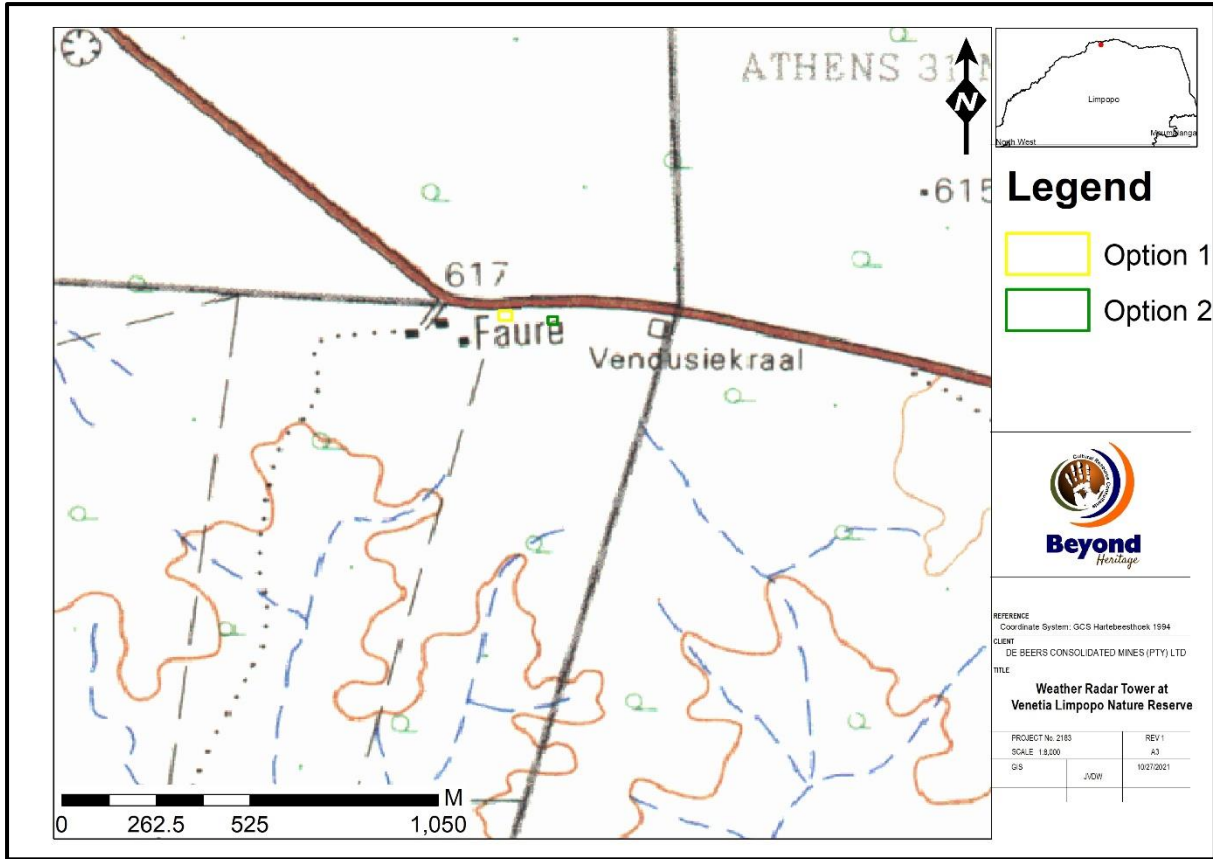


Figure 2. Local setting (1:50 000 Topographical map).

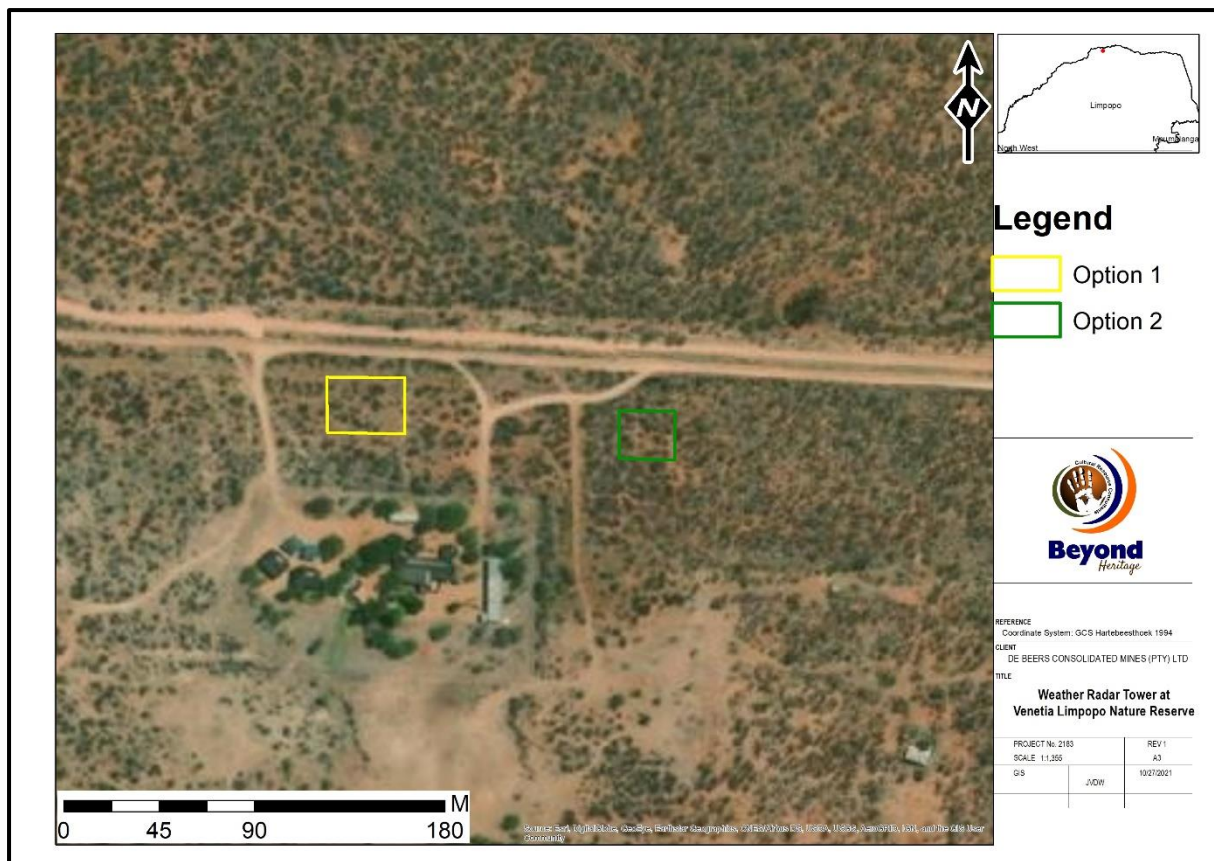


Figure 3. Aerial image of the study area.

### 3. Project Details

De Beers Consolidated Mines (Pty) Ltd (De Beers) is planning to install a weather radar tower at its Venetia Limpopo Nature Reserve (VLNR), in conjunction with the South African Weather Services (SAWS) to assist the mine with weather tracking and forecasting. The proposed weather radar tower is required for Venetia to receive advancing warning of a severe storm event as part of an early flood warning system for the safety of the underground workers and workings.

The proposed weather radar tower will be between 20 – 40m in height, with a footprint area of approximately 900 m<sup>2</sup> (30 x 30 m). An existing farm road will be used to gain access to the proposed site, and an existing powerline will be utilised for electricity supply. No reservoirs will be developed as part of this project, and a maximum of 1 000l (1 m<sup>3</sup>) of diesel will be stored on site.

#### 3.1 Receiving Environment

The proposed project is located on the Farm Faure 33 MS in the Limpopo Province. The project is located within 10km of the Mapungubwe National Park.

### 4. Legislative Framework

For this project, the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) is of importance and the following sites and features are protected:

- a. Archaeological artefacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

Section 34 (1) of the NHRA deals with structures that are older than 60 years. Section 35(4) of the NHRA deals with archaeology, palaeontology and meteorites. Section 36 of the NHRA, deals with human remains older than 60 years. Unidentified/unknown graves are also handled as older than 60 years until proven otherwise.

The Department (The Department of Economic Development, Environment & Tourism ) has reviewed the submission for the project and arrived at a conclusion that based on the information provided, the proposed activity does not trigger any of the listed activity in terms of the Environmental Impact Assessment (EIA) Regulations, 2014 promulgated under the National Environmental Management Act (NEMA), 1998 (Act no 107 of 1998) as amended and therefore does not legally require an Environmental Authorisation from the Department.

The Notification of Intent to Develop (NID) is submitted to SAHRA in terms of Sections 38(1) and 38(8) of the NHRA. This NID is submitted to outline what (if any) heritage resources are likely to be affected, how the character of the site will change and what processes need to be followed.

#### 4.1 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. 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. National and Provincial Monuments are recognised for conservation purposes. The following interrelated criteria were used to establish site significance:

- » The unique nature of a site;
- » The integrity of the archaeological/cultural heritage 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; and
- » Potential to answer present research questions.

The criteria above will be used to place identified sites within the South African Heritage Resources Agency's (SAHRA's) (2006) system of grading of places and objects that form part of the national estate. This system is approved by the Association of South African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region.

**Table 1. Heritage Field ratings**

<b>FIELD RATING</b>	<b>GRADE</b>	<b>SIGNIFICANCE</b>	<b>RECOMMENDED MITIGATION</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. Limitations and assumptions

The study area was not subjected to a field survey at this stage in the process. It is assumed that information obtained for the wider area is applicable to the study area as referenced here. Additional information could become available in future that could change the results of this report.



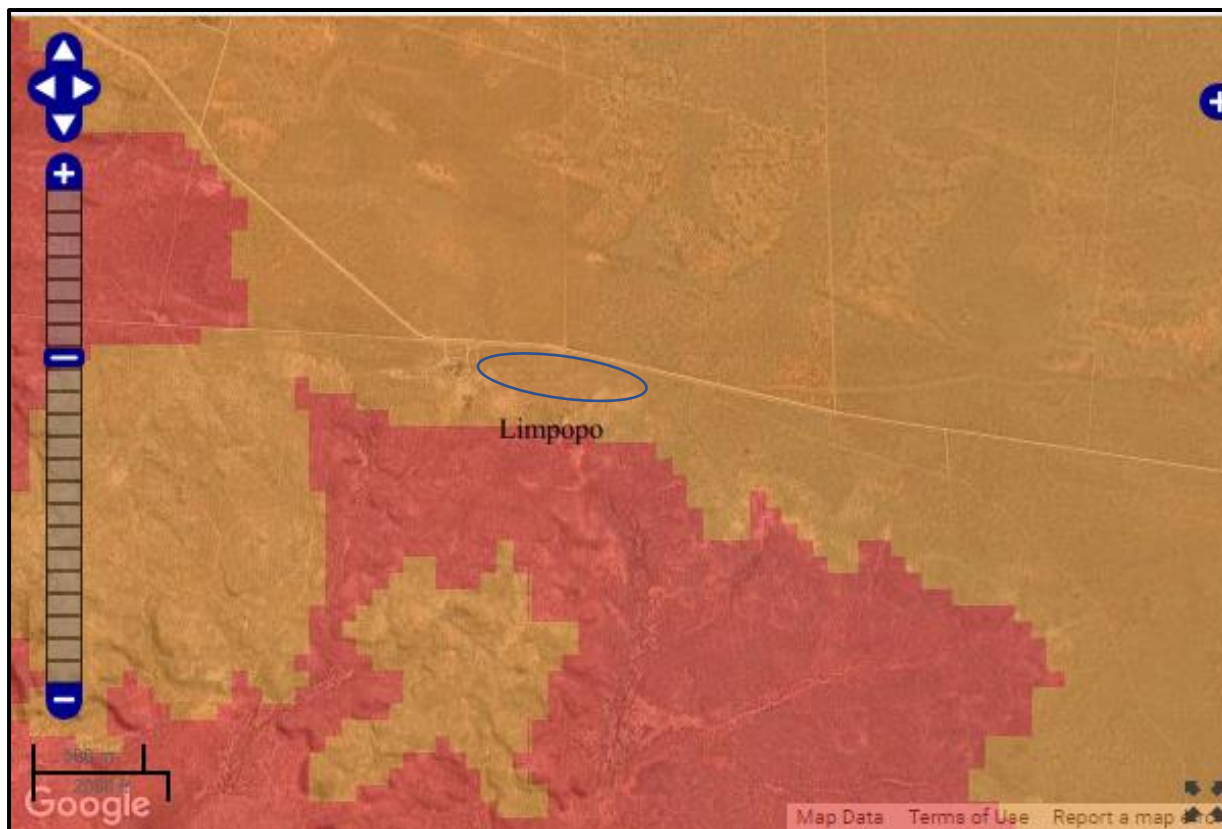
## **6. Heritage Resources**

Heritage resources are defined in Section 2 of the NHRA as “any place or object of cultural significance”, where cultural significance can be understood as meaning “aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance”. Heritage resources together constitute the National Estate, as defined in Section 3 of the NHRA, and each resource is recognized and protected under the Act.

A variety of heritage resources contribute to the heritage character of the area, and these are briefly dealt with below. Each category of heritage resource was assessed to derive the heritage character of the area. This was done by consultation of heritage reports captured into SAHRIS as well as other archaeological databases.

### 6.1. Paleontological resources

According to the paleontological sensitivity of the study area based on the SAHRA Paleontological map a minimum of a desktop study is required (Figure 4).



Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map

Figure 4. The approximate study area as indicated on the SAHRA paleontological sensitivity map.

## 6.2. Archaeological background

The archaeological record for the greater study area consists of the Stone Age and Iron Age.

### 6.2.1. Stone Age

South Africa has a long and complex Stone Age sequence of more than 2 million years. The broad sequence includes the Later Stone Age (LSA), the Middle Stone Age (MSA) and the Earlier Stone Age (ESA). Each of these phases contain sub-phases or industrial complexes, and within these we can expect regional variation regarding characteristics and time ranges. The three main phases can be divided as follows;

\* Later Stone Age; associated with Khoi and San societies and their immediate predecessors.

Recently to ~30 thousand years ago

\* Middle Stone Age; associated with *Homo sapiens* and archaic modern humans. 30-300 thousand years ago.

\* Earlier Stone Age; associated with early *Homo* groups such as *Homo habilis* and *Homo erectus*. 400 000-> 2 million years ago.

The larger geographical area was inhabited since the ESA and was subjected to intensive research (Kuman *et al* 2000). Isolated hand axes have been found on Venetia, but they have little value. The most important site is Kudu Koppie on the farm Samaria. It is one of the few sites in the country with late ESA stratified under the MSA (Pollarolo & Kuman 2009). Other ESA artefacts have eroded from the edge of the escarpment facing the Limpopo River. These ESA (and MSA) artefacts rest on top of a calcrete layer, or on the sandstone bedrock. The artefacts include numerous cores made from quartzite cobbles found at the foot of the escarpment. These cobbles in turn are eroding out of decalcified alluvial gravels deposited by the Limpopo River (Huffman & van der Walt 2011).

MSA artefacts are common throughout the Limpopo Valley, but unless they occur in undisturbed deposits, they have little significance. Generally, a few MSA artefacts, such as cores, can occur anywhere across the plateau, while many more lay scattered along the escarpments because of deflation and erosion (Le Baron *et al.* 2010). The homogenous distribution suggests resources were also evenly distributed across the plateau. It is not possible to tell, however, if the scatter is the result of short intensive use or repeated use over a longer period. The sand mantel above the calcrete and sandstone varies from 0.1 to 5.6m in depth. It is largely derived from the Clarens Formation that forms the local sandstone bedrock. The mantel itself dates to the Holocene, in this case from about 14 000 to 25 000 years ago (Kuman *et al.* 2005). As a rule, only LSA artefacts occur in the sand. In terms of the MSA evidence of bipolar flaking that is associated with the MSA Pietersburg Industry (Mason 1962) occurs at the earlier Limpopo site, Kudu Koppie (Sumner 2013).

During the LSA, people started to occupy sites on a recurring basis often in rock shelters and caves and often left panels of rock art in these shelters a rock art survey on both sides of the Limpopo Sashi confluence area identified close to 150 rock art sites (Eastwood and Cnoops 1999). Work on both open sites and rock shelters indicate that LSA people lived in the area from about 11 000 years ago (Van Doornum 2008). Occupation intensified, however, when farmers moved into the valley. One important shelter on the farm Little Muck suggests that Iron Age farmers took over some rock shelters from foragers for their own ritual use (Hall & Smith 2000).

### 6.2.2. The Iron Age

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the pre-Historic and Historic periods. The Iron Age is characterised by the ability of these early people to manipulate and work Iron ore into implements that assisted them in creating a favourable environment to make a better living. The Iron Age is divided into three distinct 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.

Phases within each period are marked by different ceramic *facies* (Figure 5). A short summary of occupation in the Limpopo valley will now be discussed.

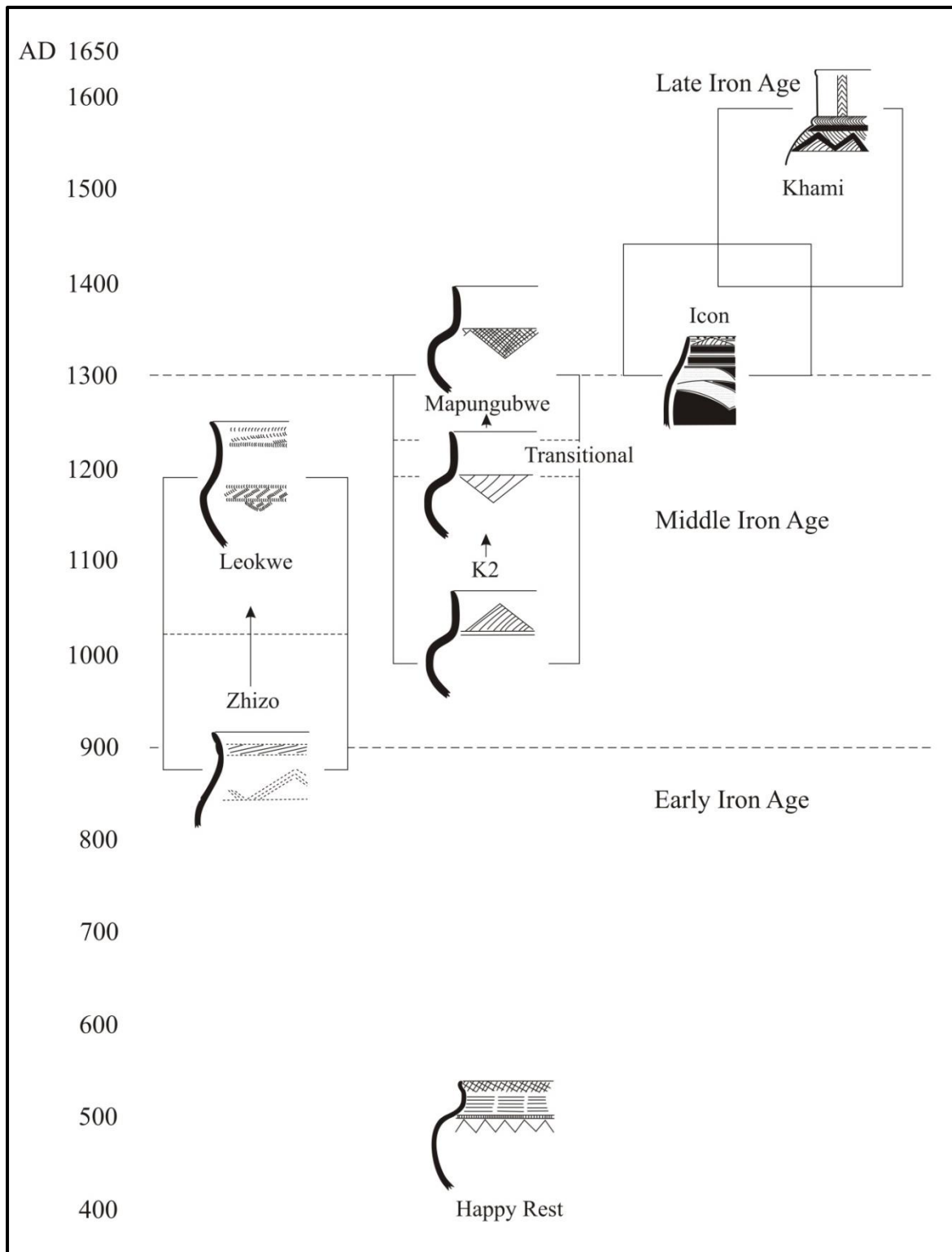


Figure 5: Iron Age ceramic facies for the Mapungubwe region (Adapted from Huffman 2009b).

### Early Iron Age

Between AD 500 and 700, agro-pastoralists joined the hunter gatherers in the region. This was marked by ceramics belonging to the *Happy Rest* and *Mzonjani* facies (Figure 6). These societies were patrilineal (cf. Hammond-Tooke 1993) and spoke an Eastern Bantu language (Huffman & Herbert 1994/1995).

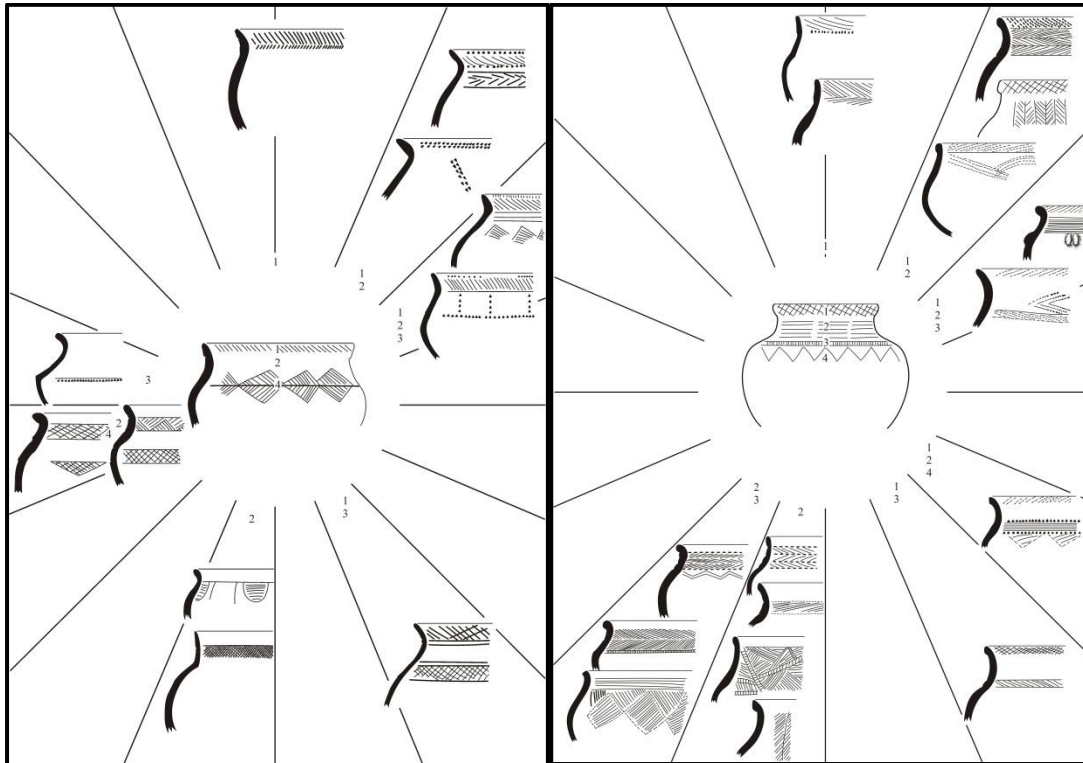


Figure 6: Definition of *Mzonjani* ceramics on the left and *Happy Rest* ceramics on the right (Adapted from Huffman 2007a).

After this initial intrusion, agro-pastoralists seem to have abandoned the area until AD 900 because of adverse climatic conditions (Huffman 1996a). From AD 900 to 1000, *Zhizo* pottery (Figure 7) marks the second phase of occupation. *Zhizo* ceramics belong to the Nkope Branch of the Urewe Tradition (or Central Stream) (Figure 8). Initially it was thought that *Zhizo* people moved into the area to practise agriculture (Huffman 1996a). However, isotopic analysis shows that the climate was no better than today (Smith 2005). *Zhizo* farmers would therefore have found farming difficult, and some other factors must have lured them to the area. Presumably, they moved into the valley to take advantage of the East Coast trade (Huffman 2000; Smith 2005), where the Limpopo River acted as a route into the interior. The location of settlements (most are located well away from the rich agricultural soils around the floodplain because elephants would have destroyed the crops) as well as ivory chippings and exotic goods at Schroda (Hanisch 1980) suggest that trade was the main attraction. Ivory, like gold, was a lucrative export commodity, and historical accounts record large amounts of ivory reaching Sofala from the interior (Kusimba 1999). In addition, the wide distribution of *Zhizo*-period glass beads (Wood 2005) suggests that *Zhizo* people traded them for grain with more successful farmers outside the valley.

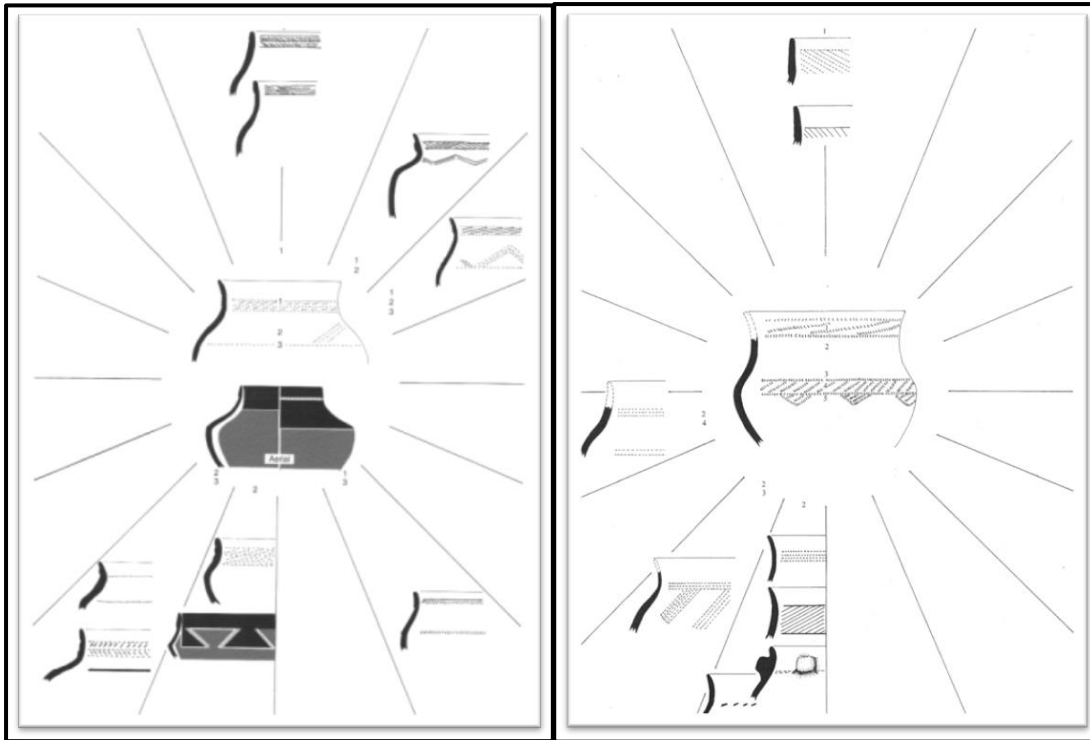


Figure 7: Definition of *Zhizo* ceramics on the left and *Leokwe* ceramics on the right (Adapted from Huffman 2007a).

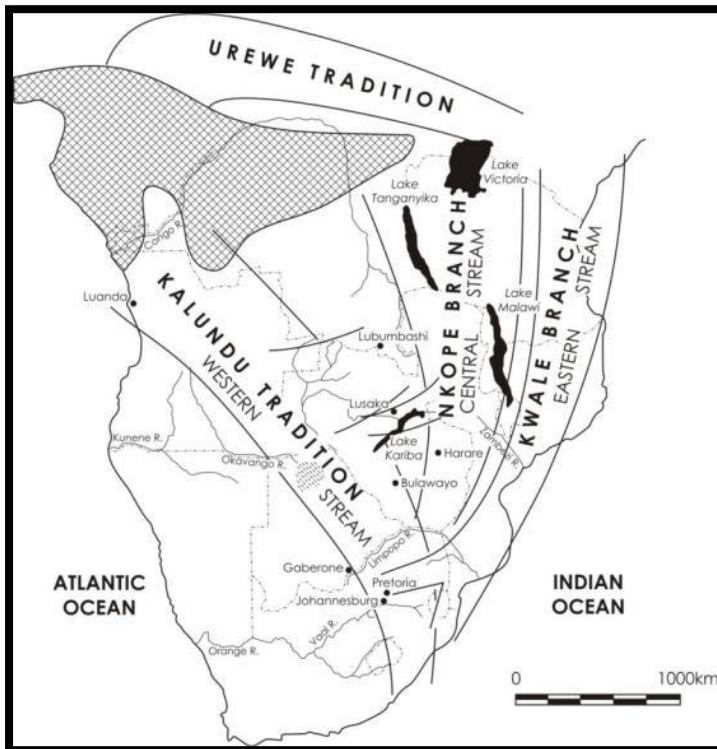


Figure 8: Map of southern Africa indicating migration routes of different Iron Age Traditions (Adapted from Huffman 2007a).

### **Middle Iron Age**

After approximately 100 years, around AD 1010, the Zhizo political control over the area and coastal trade was terminated by the arrival of new agro-pastoralists that archaeologists refer to as Leopard's Kopje. Leopard's Kopje ceramics are derived from the *Doornkop* facies (formerly Lydenburg) to the south (Huffman 2007a), an Early Iron Age phase of the Kalundu Tradition (Figure 8).

After replacing the Zhizo chiefdom, Leopard's Kopje people established their capital at K2, located at the base of Bambandyanalo Hill (Fouché 1937; Gardner 1963). K2 was occupied between AD 1000 and 1220 (Vogel 2000). This period was marked by higher rainfall (Smith 2005), resulting in an emphasis on floodplain agriculture (Huffman 2000; Smith 2005) allowing for population growth.

Changes in world view are marked by a shift away from the Central Cattle Pattern (CCP) to the elite Zimbabwe Pattern (ZP). The new ideology of sacred leadership was materialised when Leopard's Kopje people abandoned K2 for Mapungubwe, less than a kilometre away.

During this period (AD 1200 to 1250) of transition the ceramic style also changed (Figure 9). These transitional ceramic facies are now termed *Transitional K2*, or *TK2*.

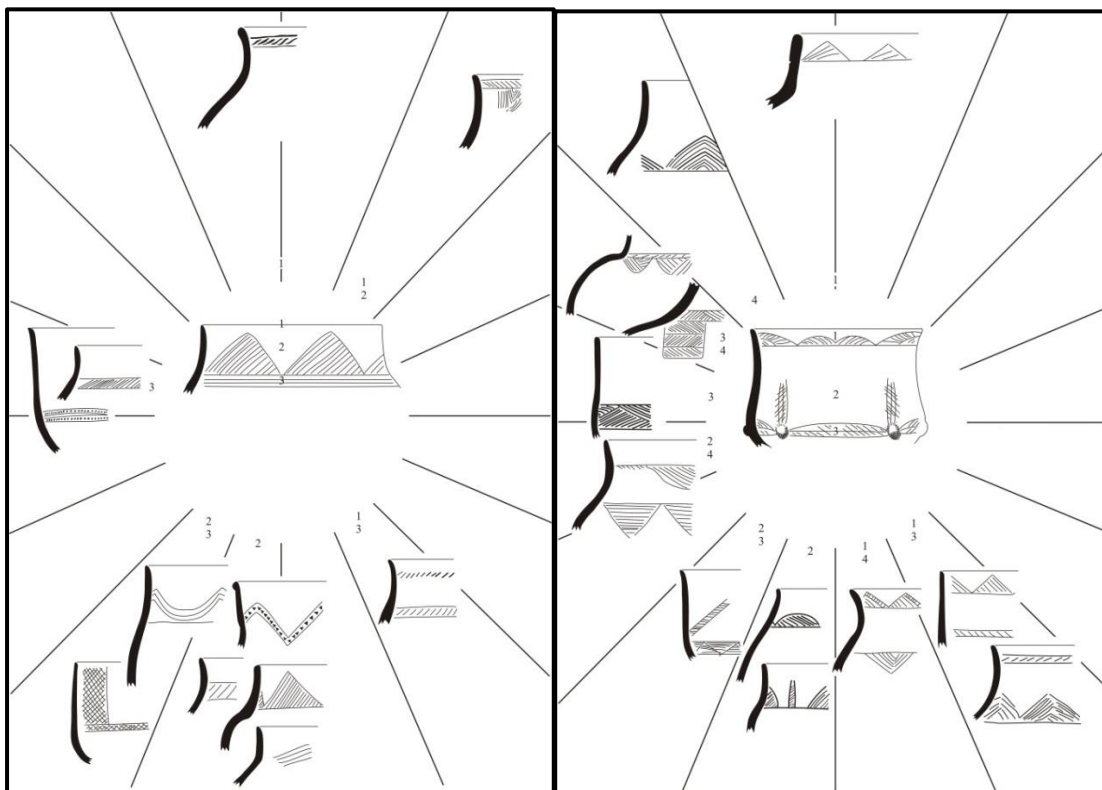


Figure 9: Definition of *K2* ceramics on the left and *TK2* ceramics on the right (Adapted from Huffman 2007a). Transitional occupation was equally divided between floodplain and escarpment where there is a clear distinction between cattle and agriculturally orientated settlements. By about AD 1250, the *TK2* facies changed into classic Mapungubwe ceramics.

Based on the Wits database there are known Iron Age sites located close to the proposed tower (Figure 10). No impact is expected on these sites.



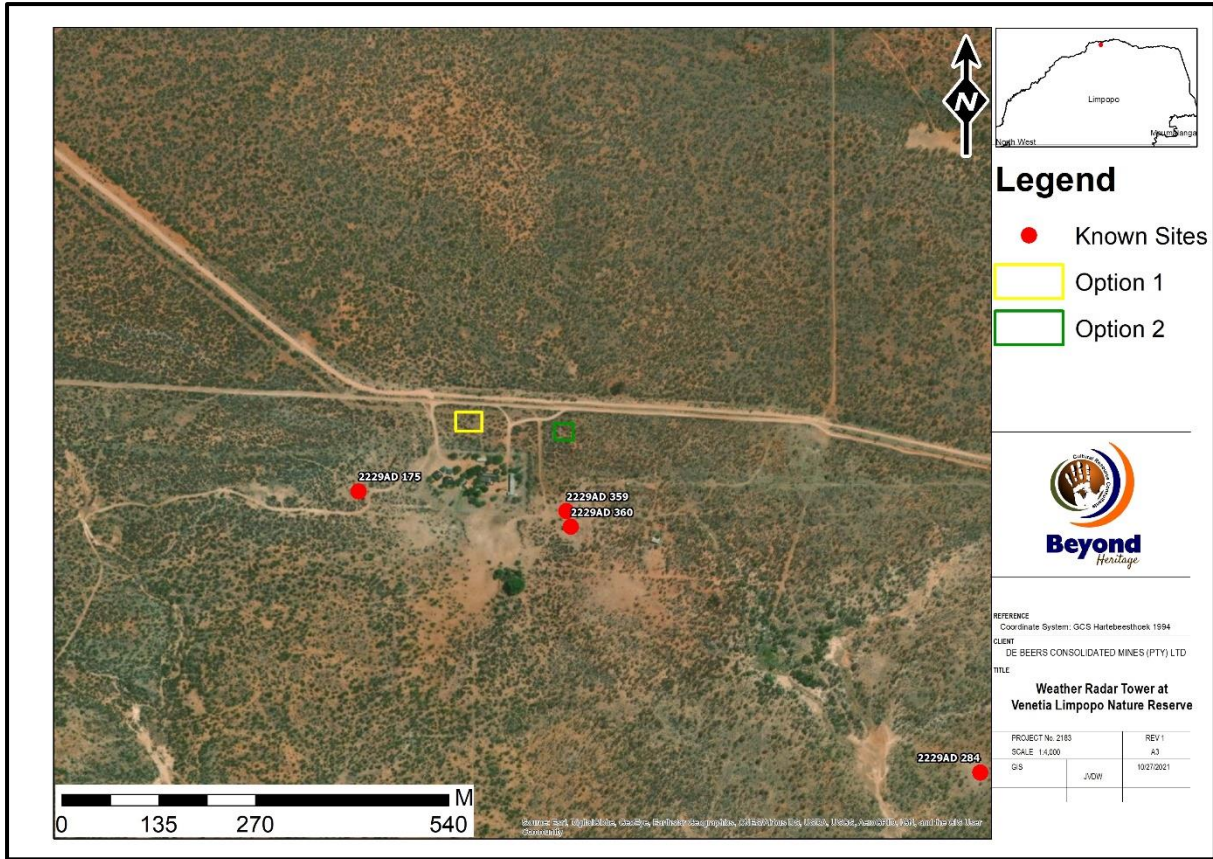


Figure 10. Known sites in relation to the proposed tower.

### 6.3. Historical Information

Musina was occupied by pre-historic copper miners, before prospector John Pascoe Grenfell laid out claims in 1904 and the mining town of “Messina” developed from there (Bulpin, 1980). It is still a mining town, but a lot of attention is currently on the cross-border trade with Zimbabwe. Musina is the seat of the local municipality and is also the economic and commercial hub of the region.

The World Heritage site of Mapungubwe is located approximately 13km to the north of the development and the proposed tower is located within the buffer zone (Figure 11). The Mapungubwe Cultural Landscape is comprised of:

- Remains of palaces – (Mapungubwe period);
- Archaeological remains testifying to Mapungubwe’s growth 900-1200 AD (Zhizo, Leopard’s Kopje);
- Remains of early settlement: Stone Age & Iron Age & rock art;
- ‘Natural’ landscape surrounding the built remains;
- Intangible heritage: Mapungubwe Hill associated with sacredness, beliefs, customs and traditions of local communities;
- Living heritage: continuing traditions and associations such as rain making, and participation by local communities in reburial ceremonies;
- Landscape sharing and interaction between farmers and hunter-gatherers.

The following is a direct extract from the VLNR Lodge HIA by Van der Walt (2020) - *Diamond-bearing gravels were discovered as early as 1903 close to the Limpopo River, 35km north-east of the present mine. De Beers Group began a sampling programme in 1969 to locate the source of these alluvial diamonds. Viable kimberlite pipes were discovered in 1980. Work on the mine started in 1990, Venetia mine opened in 1992 and full production was achieved in 1993.*

*The Vhembe/Dongola National Park was declared on 09 April 1998 (GN 490 in GG 18814). The Mapungubwe Cultural Landscape (MCL) was gazetted as a National heritage site by the South African Heritage Resources Agency (SAHRA) in December 2001. The MCL was inscribed on the United Nations Education, Scientific and Cultural Organization’s (UNESCO) World Heritage List in 2003. In Government Notice No. 71 of 30 January 2009 (GN 31832) the then Minister Marthinus van Schalkwyk declared the MCL as a World Heritage Site in terms of the World Heritage Convention Act (Act 49 of 1999), and delegated specified powers of management to SANParks. The park name was changed to Mapungubwe National Park (MPNP) on 30 July 2004 (GN 900 in GG 26602). The park also forms the core of the Vhembe Biosphere Reserve. At international level, close liaison is required with the UNESCO World Heritage Centre and the Greater Mapungubwe Transfrontier Conservation Area (GMTFCA) involving Botswana, Zimbabwe and South Africa. The core area of the World heritage site comprises 28,168.66 ha. Various privately owned properties make up the buffer zone, which, added to the core, comprises some 100,000 ha.*

*Venetia Mine is located approximately 22km south of the Mapungubwe National Park. In 2014 the Unesco committee approved a new boundary and buffer zone for Mapungubwe in response to the past concerns regarding the impacts of mining on the site. The Venetia Mining Rights Area have been*

removed from the 2009 proclaimed boundary as per the 2014 revised buffer zone. Venetia Mine is surrounded by the Venetia Limpopo Nature Reserve (VLNR) that was established in 1991. The gazetted buffer zone surrounding the core of the Mapungubwe Cultural Landscape World Heritage Site (MCLWHS) extended to approximately 20 km from the core at the Mapungubwe Hill.

Since the listing of Mapungubwe as a World Heritage Site in 2003, the management authorities have always ensured co-existence between responsible diamond mining at Venetia, located on the periphery of the buffer zone, but with operational assets such as boreholes, pump stations and water storage dam located within the core of the WHS. The large section of the buffer zone falls in the De Beers VLNR whose objectives include maintaining the integrity and authenticity of the cultural landscape through continuous monitoring and impact assessments in the VLNR and areas affected by the Venetia Mine water provision assets. De Beers has had a long-term role in managing mining and sustainable conservation in the region. The VLNR, which surrounds the Venetia Mine, has created a viable buffer between the mined area and the biophysical and cultural resources conservation area. The reserve, which now forms part of the MCLWHS buffer zone, has always added extra protection to cultural heritage sites around the core of the listed property.

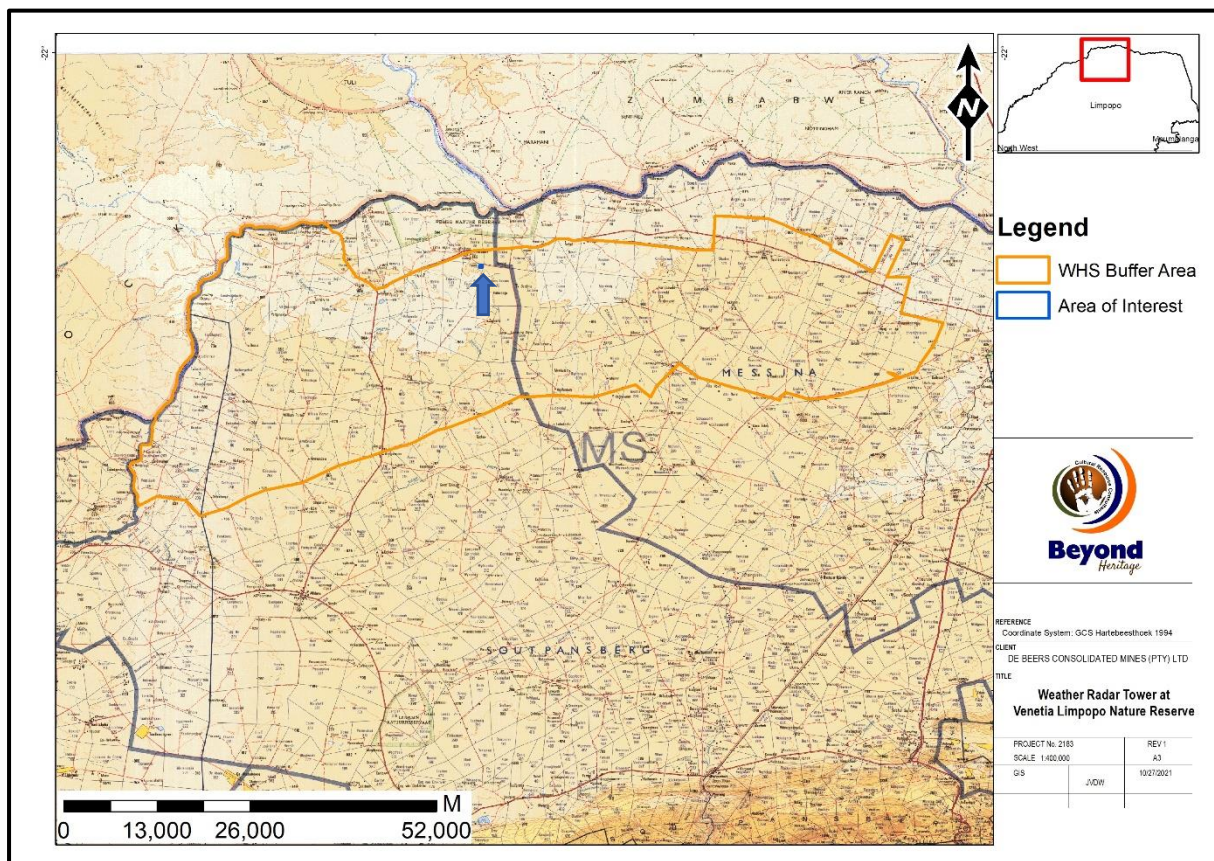


Figure 11. The proposed Project in relation to the Mapungubwe World Heritage Site.

## 7. Plan of Study

In terms of Section 38. If the proposed development activities do not trigger any NEMA EA application or any of the section 38(1) NHRA triggers (Table 2 and 3), therefore a section 38 process does not need to be completed. However, taking cognisance of the fact that the development is in a heritage site/protected area, the known sites that occur in the area and the provision of Chapter III section 8(1) or Chapter IV section 11(1)m of 2000 NHRA Regulations, Beyond Heritage seeks confirmation from the SAHRA that the project can commence based on the favourable outcome of a field visit and the avoidance of known sites in the area and pending a paleontological desktop study.

Table 2. Potential EIA triggers

Potential listed activity(ies) number and government notice as per the EIA Regulations.	As per the identified listed activity (ies), provide reason/s as to whether or not the proposed activity requires an Environmental Authorisation.
<p><b>Listing Notice 1 Activity 12</b></p> <p>The development of-</p> <ul style="list-style-type: none"> <li>i. dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</li> <li>ii. <u>infrastructure or structures with a physical footprint of 100 square metres or more;</u></li> </ul> <p>where such development occurs-</p> <ul style="list-style-type: none"> <li>a. within a watercourse;</li> <li>b. in front of a development setback; or</li> <li>c. if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;-</li> </ul>	<p>The proposed weather radar tower will be located at least 70 m from the nearest drainage line; therefore this activity is <u>not triggered</u>.</p>
<p><b>Listing Notice 1 Activity 13</b></p> <p>The development of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80m<sup>3</sup> but not exceeding 500m<sup>3</sup>.</p>	<p>A maximum volume of 1000 ℓ (1 m<sup>3</sup>) of diesel will be stored on site, therefore this activity is <u>not triggered</u>.</p>
<p><b>Listing Notice 1 Activity 19</b></p> <p>The infilling or depositing of any material of more than 10m<sup>3</sup> into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10m<sup>3</sup> from a watercourse.</p>	<p>The proposed weather radar tower will be located at least 70 m from the nearest drainage line, therefore this activity is <u>not triggered</u>.</p>
<p><b>Listing 3 Activity 3</b></p> <p>The development of masts or towers of any material or type used for telecommunication</p>	<p>It was confirmed by LEDET that the weather tower does not trigger this activity – please refer to attached correspondence.</p>

Potential listed activity(ies) number and government notice as per the EIA Regulations.	As per the identified listed activity (ies), provide reason/s as to whether or not the proposed activity requires an Environmental Authorisation.
<p>broadcasting or radio transmission purposes where the mast or tower-</p> <ul style="list-style-type: none"> <li>a. is to be placed on a site not previously used for this purpose; and</li> <li>b. will exceed 15 meters in height- but excluding attachments to existing buildings and masts on rooftops.</li> </ul>	<p>This activity is <u>not triggered</u>.</p>
<p><b>Listing 3 Activity 10</b></p> <p>The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</p>	<p>A maximum volume of 1000 ℓ (1 m<sup>3</sup>) of diesel will be stored on site, therefore this activity is <u>not triggered</u>.</p>
<p><b>Listing 3 Activity 12</b></p> <p>The clearance of an area of 300m<sup>2</sup> or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p><b><u>Limpopo:</u></b></p> <ul style="list-style-type: none"> <li>i. within any critically endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</li> <li>ii. Within critical biodiversity areas identified in bioregional plans; or</li> <li>iii. On land, where at the time of coming into effect of this Notice or thereafter such land was zoned open space, conservation of had an equivalent zoning or proclamation in terms of NEMPAA.</li> </ul>	<p>The footprint area for the weather tower is 900m<sup>2</sup> and potentially triggers this activity.</p> <ul style="list-style-type: none"> <li>i. The proposed site does not fall within a critically endangered ecosystem listed in the National list of ecosystems that are threatened and in need of protection (Government Notice No 1002 of December 2011);</li> <li>ii. The area does not have a bioregional plan that has been gazetted, only the Draft Vhembe District Bioregional Plan.</li> <li>iii The farm Faure 33 MS is zoned as agriculture.</li> </ul> <p>The activity is therefore <u>not triggered</u>.</p>
<p><b>Listing 3 Activity 14</b></p> <p>The development of-</p> <ul style="list-style-type: none"> <li>i. dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 10 square metres; or</li> </ul>	<p>The proposed weather radar tower will be located at least 70 m from the nearest drainage line, therefore this activity is <u>not triggered</u>.</p>

Potential listed activity(ies) number and government notice as per the EIA Regulations.	As per the identified listed activity (ies), provide reason/s as to whether or not the proposed activity requires an Environmental Authorisation.
ii. <u>infrastructure or structures with a physical footprint of 10 square metres or more:</u> where such development occurs- a. within a watercourse; b. in front of a development setback; or c. if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;-	

Table 3. NHRA Triggers

Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300 m in length.	No	NA
Construction of a bridge or similar structure exceeding 50 m in length.	No	The proposed weather radar tower will be between 20 – 40m in height
Development exceeding 5000 m <sup>2</sup>	No	Footprint area of approximately 900 m <sup>2</sup> (30 x 30 m).
Development involving more than 3 erven or sub divisions	No	NA
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	NA
Re-zoning of site exceeding 10 000 m <sup>2</sup>	No	NA
Any other development category, public open space, squares, parks or recreational grounds	No	NA

**Summary of recommended plan of study:**

The following is recommended and based on written approval and confirmation from SAHRA supporting the application for exemption from a full HIA:

- Site visit to the proposed options to confirm the lack of heritage features in these areas;
- Palaeontological desktop study;
- Avoidance of known heritage sites during construction and implementation of a chance finds procedure as outlined under Annexure A.

### **Annexure A - Chance find procedure**

The possibility of the occurrence of subsurface finds cannot be excluded. Therefore, if during construction any possible finds such as stone tool scatters, artefacts or bone and fossil remains are made, the operations must be stopped and a qualified archaeologist must be contacted for an assessment of the find and therefore chance find procedures should be put in place as part of the EMP. A short summary of chance find procedures is discussed below.

This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds as discussed below.

- If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.
- It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find and confirm the extent of the work stoppage in that area.
- The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA.