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**ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT ASSESSMENT FOR
THE PROPOSED NEWLY RE-ESTABLISHED POLICE STATION AT BARBERTON
WITHIN THE CITY OF MBOMBELA LOCAL MUNICIPALITY, EHLANZENI
DISTRICT OF MPUMALANGA PROVINCE.**

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EXECUTIVE SUMMARY

Item	Description
Proposed development and location	Newly re-established Police Station in Barberton within the City of Mbombela, Mpumalanga Province.
Purpose of the study	The purpose of this study is to identify heritage resources within the proposed development area, assess their significance, the impact of the development on the heritage resources and to provide relevant mitigation measures to alleviate impacts to the heritage resources.
Coordinates	25.790073°S 31.051010°E
Municipalities	City of Mbombela Municipality
Predominant structural use	Newly re-established Police Station
Developer	City of Mbombela Municipality
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Heritage Consultant	Vhufa Hashu Heritage Consultants
Consultant Contact Details	Mr. Richard R Munyai
Date of Report	06 June 2022

Vhufa Hashu Heritage Consultants cc has been commissioned by Mang Geo-Enviro Services to conduct the Cultural Heritage Impact Assessment (HIA) study for the proposed Police Station in Barberton Town. The aim of the survey was to investigate the availability of archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structures of historical significance that may be affected by the proposed construction of a Police Station. The proposed study area is located on erf 927, 928, 937, 938, 947, 948, 959 and 960 within City of Mbombela Local Municipality, Mpumalanga Province.

To begin with, a multi-stepped methodology was used to address the terms of reference. This include a robust desktop study that involve review of the 1972 Convention, the Operational Guidelines of 2013, the ICOMOS (International Council of Monuments and Sites, 2011) guidelines on assessing impact on heritage sites. The IUCN guidelines and

standards of best practice were also consulted. Subsequently, a review of the archaeology of the area was carried out using contract archaeology reports, research reports and academic publications. The desktop study was followed by fieldwork carried out by expert archaeologists in conformity with the National Heritage Resources Act (Act 25 of 1999). We are confident that we covered the most sensitive areas of the proposed Police Station. Based on an interdisciplinary methodology, that combined ICOMOS methodology with several techniques from various disciplines, the impact of the proposed Police Station for Barberton Community.

South Africa's historical, archaeological and paleontological heritage resources are unique and non-renewable as defined in section 3 of the NHRA. Heritage Resources as defined in section 3 of the NHRA are given "formal" protection in terms of section 27-29 and 31-32 of the NHRA and "general" protection in terms of sections 33,34,35,36 and 37 of the NHRA. Therefore, no damage, destruction or alteration may occur to heritage resources without a permit issued by a relevant heritage authority.

An assessment of impacts on heritage resources of a development was required in terms of section 38(1 and 8) of the NHRA. Where possible, heritage resources should be preserved *in situ* and conserved for future generations. This can be achieved through a monitoring and management plan that may be stipulated in the conditions issued on a development by an authority as per section 38(4)c of the NHRA. Where it is not possible to retain the heritage resources *in situ*, and the heritage resources are not deemed significant, the loss of information can be reduced by recording and mitigation of the heritage resources through a process of excavation (or sampling) as a condition on the development in terms of section 38(4) .d and e, after obtaining a permit from the relevant Heritage Resources Authority (HRA), at the cost of the developer. This allows us to record a part of the history of the place as part of the national inventory. Assessment and mitigation in the early phase of the development may save the developer considerable delays and related costs.

Proposed activities

Newly re-established Police Station in Barberton within the City of Mbombela, Mpumalanga Province.

Conclusion

The project may be approved since there are no historical and archaeological sites of significance to be impacted by the proposed development. From a Heritage perspective, the development should be allowed to continue.

Acknowledgements

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Rudzani Richard Munyai

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1. INTRODUCTION

City of Mbombela is positioned approximately 110 kilometers from the Mozambique border to the east and 330 kilometers east of Gauteng province. The municipality was formed after amalgamation of several formerly existing local councils in and around the Mbombela region. Recent municipality demarcation Board approved the consolidation of Mbombela and Umjindi local municipality (Southern region) into a single municipality. The subsequent amalgamation follow the request from the Minister of Co-operative Governance, which emphasized redefinition of previous municipalities' boundaries to augment the financial capability of the newly formed City of Mbombela municipality (Spatial Development Framework Review working document, 2018). Merging of these municipalities imposed the prerequisite for the assessment of a state of heritage in the Umjindi local municipality (Southern region) in order to form one spatial heritage development framework which cover the entire extent of the newly formed City of Mbombela Municipality.

Mpumalanga Department of Public Works, Roads and Transport commissioned studies for the proposed Barberton Newly re-established Police Station, on erf 927, 928, 937, 938, 947, 948, 959 and 960, City of Mbombela local Municipality. They appointed Mang Geo-Enviro Services to handle the Environmental Impact Assessment to ensure that the proposed development meets the environmental requirements in line with the National Environmental Management Act 107 of 1998 as amended in 2010. They appointed Vhufahashu heritage Consultants to conduct an Archaeological and Cultural Heritage Impact Assessment study as part of the Environmental Impact Assessment for the proposed project.

In order to comply with relevant legislations, the Applicant requires information on the heritage resources that occur within or near the proposed project. This enables the applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources. Archaeological/ Heritage Impact Assessment (AIA-HIA) are conducted in line with the National Heritage Resources Act of 1999 (Act No. 25 of 1999). The Act protects heritage resources through formal and general protection. The NHRA (Act No. 25 of 1999) provides that certain developmental activities require consents from relevant Heritage Resources Authorities or Agency. The South African Heritage Resources Agency as custodians of the South African Heritage and Monuments sites developed minimum standards for impact assessment processes, in addition to these local

standards, the International Council of Monuments and Sites (ICOMOS) published guidelines that specify and guide impact assessment on heritage sites with Outstanding Universal Value. Furthermore, these guidelines and standards have been strengthened by the Burra Charter of 1999 which require a caution approach to the management of sites, it set out the need to understand the significance of heritage places and the significance guide decisions.

The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) and graves and burial sites (section 36). In order to comply with the legislation, the Applicant requires information on the heritage resources, and their significance that occur within the project area. This enables the Applicant to take pro-active measures to limit the adverse effects that the development could have on such cultural and heritage resources.

2. SITE LOCATION AND PROJECT DESCRIPTION

The proposed site is situated between Wagner Street to the east, Harris Street to the West, De Villiers Street to the South and Van Der Merwe Street to the North GPS S25.790073° E31.051010°. The site is well fenced by Concrete palisade and it is not easily accessed. The site is only accessed through the gate which is facing Sheba Motors along Wagner Street which end at the Police Station Building to the South.



Figure 1: Aerial Photo map.



Figure 2: General view of the proposed site.



Figure 3: View of the Police Caravan within the proposed site.



Figure 4: View of the old tires from the Police cars.



Figure 5: View of a Geo-tech test pit within the proposed site.



Figure 6: View of the the access gate to the site.



Figure 7: View of Wagner Street from Northern side and the proposed site to the right.

3. RELEVANT LEGISLATION

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

3.1. The National Heritage Resource Act (25 of 1999)

This Act established the South African Heritage Resource Agency (SAHRA) as the prime custodians of the heritage resources and makes provision for the undertaking of heritage resources impact assessment for various categories of development as determined by Section 38. It also provides for the grading of heritage resources (Section 7) and the implementation of a three-tier level of responsibility and functions from heritage resources to be undertaken by the State, Provincial and Local authorities, depending on the grade of heritage resources (Section 8)

In terms of the National Heritage Resource Act 25, (1999) the following is of relevance:

Historical remains

Section 34 (1) No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant Provincial Heritage Resources Authority.

Archaeological remains

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

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

- destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;

- trade in ,sell for private gain, export or attempt to export from republic any category of archaeological or paleontological material or object or any meteorite; or
- bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment which assist with the detection or recovery of metal or archaeological material or object or such equipment for the recovery of meteorites.

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

- serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order
- carry out an investigation for the purpose of obtaining information on whether or not an archaeological or paleontological site exists and whether mitigation is necessary;
- if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
- recover the cost of such investigation from the owner or occupier of the land on which it is believed an archaeological or paleontological site is located or from the person proposing to undertake the development if no application for a permit is received within two week of the order being served.

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

Burial grounds and graves

Section 36 (3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority:

- (i) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (ii) bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.

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

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

Cultural Resource Management

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

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

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

- (i) Construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (ii) Any change to the natural or existing condition or topography of land, and
- (iii) Any removal or destruction of trees, or removal of vegetation or topsoil;

place means a site, area or region, a building or other structure

structure means any building, works, device or other facility made by people and which is fixed to the ground.

3.2. The Human Tissue Act (65 of 1983)

This act protects graves younger than 60 years, these falls under the jurisdiction of the National Department of Health and the Provincial Health Department. Approval for the exhumation and reburial must be obtained from the relevant provincial MEC as well as relevant Local Authorities.

4. TERMS OF REFERENCE

The terms of reference for the study were to undertake an archaeological impacts assessment on the proposed development and submit a specialist report, which addresses the following:

- Executive summary
- Scope of work undertaken
- Methodology used to obtain supporting information
- Overview of relevant legislation
- Results of all investigations
- Interpretation of information
- Assessment of impact
- Recommendation on effective management measures
- References

5. METHODOLOGY

Source of information

Most of the information was obtained through the initial site visit made on the 07 June 2022 by Richard Munyai; where systematic inspections of the proposed area were covered along linear transects which resulted in the maximum coverage of the entire site. Standard archaeological observation practices were followed; Visual inspection was supplemented by relevant written source, and oral communications with local communities from the surrounding area. In addition, the site was recorded by hand held GPS (Garmin Montana

650) and plotted on 1:50 000 topographical map. Archaeological/historical material and the general condition of the terrain were photographed with a Garmin 650 Camera.

Assumption and Limitations

It must be pointed out that heritage resources can be found in the unexpected places, it must also be borne in mind that survey may not detect all the heritage resources in a given project area. While some remains may simply be missed during surveys (observation) others may occur below the surface of the earth and may be exposed once constructed commences.

6. ASSESSMENTS CRITERIA

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

- The unique nature of a site.
- The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc).
- The wider historic, archaeological and geographic context of the site.
- The preservation condition and integrity of the site.
- The potential to answer present research questions.

6.1 Site Significance

The site significance classification standards as prescribed in the guideline and endorsed 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 as guidelines in determining the site significance for the purpose of this report.

The classification index is represented in the Table below.

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)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction
Generally Protected C (GP.C)	Grade 4C	Low Significance	Destruction

Grading and rating systems of heritage resources

6.2 Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

Example: The change to soil conditions will impact the natural system, and the impact on affected parties (e.g. farmers) would be HIGH.

MODERATE

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are real, but not substantial.

Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

Example: The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

Example: The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people living some distance away.

NO SIGNIFICANCE

There are no primary or secondary effects at all that are important to scientists or the public.

Example: A change to the geology of a certain formation may be regarded as severe from a geological perspective, but is of NO SIGNIFICANCE in the overall context.

6.3 Certainty

DEFINITE: More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

PROBABLE: Over 70% sure of a particular fact, or of the likelihood of an impact occurring.

POSSIBLE: Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.

UNSURE: Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

6.4 Duration

SHORT TERM : 0 – 5 years

MEDIUM: 6 – 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

6.5 Mitigation

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- ✓ **A** – No further action necessary
- ✓ **B** – Mapping of the site and controlled sampling required
- ✓ **C** – Preserve site, or extensive data collection and mapping required; and
- ✓ **D** – Preserve site

7. BRIEF SYNTHESIS ON THE ARCHAEOLOGICAL AND HERITAGE.

Existing knowledge indicates the presence of prominent heritage sites within the Mbombela local Municipality (Huffman, 2007; Delius 2007).

7.1 Barberton

The pre-history of Barberton goes back to the Iron Age period well represented by a considerable number of Late Iron Age, stone walled sites, dating from the 18th and the 19th centuries associated with the Swazi cultural group (some of which may have been occupied as early as the 16th century), occur along and on top of the rocky ridges in the area. These settlements and features in these sites, such as huts, were built with dry stone,

reed and clay available from the mountain and the Klip River (Mason 1968, 1986). Its origin owes much to the party of prospectors comprising of Graham Barber and his two cousins (Fred and Henry Barber) who found their way into the narrow gorge just east of the town of Barberton in 1884. To finance mineral prospecting in the area the trio sold their farm to Dr Edwin and Charles Atherstone (Hilton-Barber, 2015:66). Graham Barber noted a white thread of quartz on the cliff after panning the sample in the Rimer's Creek which run through the Gorge the discoveries' send a wave of excitement throughout South Africa and beyond its boundaries. People flocked in numbers to the area. It became inevitable that the great rush would follow, and a town would come into being. During the discovery the Mining commissioner broke a bottle of Hollands Square face Gin over a sample of Barberton reef and named the site of prospectors' camp Barberton (Bulpin, 1970:788). However, some documents maintain that a Portuguese Gin was broken in the area while Swazi tobacco was consumed (Hilton-Barber 2015:68). A small town dominated by shanties and shacks with few canteens, gins palaces, stock exchange and numerous taverns. Town planning was encouraged by the presence of influential areas connected by streets.

7.2. Stone Age sequence (ESA, MSA and LSA)

The Early Stone Age of the area is fairly well understood and stretches from 250 000 years ago. The earliest stone tools are known as the Acheulian industry and are dominated by heavy butchering tools. Inferential evidence suggests that these simple tools were used to chop and butcher meat, de- skin animals and probably to smash bones to obtain marrow (Phillipson, 2005). The presence of cut marks from animal fossil bones dating to this period has led to the conclusion by researchers that human ancestors were scavengers and not hunters (Wadley, 2007; Esterhuysen, 2007). They may have preyed on drowned or crippled animals or shared a kill by other predators, which explains why some ESA sites contain high proportions of bone from large and dangerous game (Wadley, 2007). Some of these remarkable archaeological sites that yielded Early Stone Age tools (Acheulian hand axes) that were dated to nearly 100 000 years ago are scattered throughout Southern Africa (Walker, Chazan & Morris 2013).

The Acheulian industries are characterized by the presence of bifacial hand axes and cleavers. These bifacial tools emerged started around 1.5 million years ago (mya) at places such as Sterkfontein. The Acheulian techno-complex was characterized by a great deal of

standardization of tools across widely separated areas from Africa to Eurasia (Sharon, 2009). Evidence presented from Sterkfontein cave in Gauteng, Kathu pan in the Kalahari, Makapansgat in Limpopo as the Swudwala caves in Mpumalanga shows that the first tool making hominids belong to either an early species of the Homo or an immediate ancestor which is yet to be discovered here in South Africa (Esterhuysen, 2007). The Acheulian industries are well represented in the archaeology of the Cradle of Humankind particularly at sites such as Sterkfontein and Kromdraai and Kathu pan (Walker, Chazan & Morris 2013). A large collection of these stone tools are on display at the main entrance of Swudwala caves in Mpumalanga Province.

The Middle Stone Age dating between roughly 250 000 years ago and 25 000 years before present succeeded the Early Stone Age. Comparatively, Middle Stone Age tools are smaller than those of the Early Stone Age period. They are characterized by smaller hand axes, cleavers, and flake and blade industries. The period is marked by the emergence of modern humans and is characterized by the appearance of fairly complex technology, modern human behavior, art, and symbolism (Thompson & Marean, 2008). A variety of MSA tools includes blades, flakes, scraper and pointed tools that may have been hafted onto shafts or handles and used as spear heads. Residue analyses on some of the stone tools indicate that these tools were certainly used as spear heads (Wadley, 2007). The presence of spear heads on some of the MSA assemblages is an indication that these group of people were hunters who targeted middle sized game such as hartebeest, wildebeest and zebra (Wadley, 2007), Some assemblages are show the presence of bone tools such as bone points.

The Late Stone Age (LSA) which stretches from 25 000 years ago to about 2000 years ago is the last phase in the Stone Age sequence. The LSA is characterized by the use of micro lithic tools some of which were found in most sites around the Mpumalanga region. Many of the sites have been seriously damaged by illegal attempts to discover the burial places of legendary gold that Paul Kruger is said to have buried during his flight at the end of the Anglo Boer War. It is not uncommon to find sites where the entire stratigraphy has been completely destroyed (Hampson, Challis, Blundell & De Rosner, 2001).

7.3. Rock art associated with the Late Stone Age and the Iron Age sequence

The province is known owing to the extremely presence of Khoisan people who were also the first permanent inhabitants of the region. San rock art represent unique example of the

survival of human cultural endeavor that is part of remarkable religious tradition which is at least 27,500 years old. Rock art is distinctive prehistoric art that occur in various forms namely: Petroglyph (engravings) and rock paintings (Pictographs). The art is fragile including the cultural landscape in which they are situated, once damaged, or destroyed; they can never be repaired or replaced. The art, sites and landscape provide links with important elements to our past which allows us to establish the sense of orientation about our place in time.

The rock art is one of the rare arts done in the San tradition, together with the ethnography, and the history of African communities (Swazi/ Ndebele and the Sotho) in the area provides a valuable commentary by which the indigenous people themselves relates their history and the processes attached to the rock art sites. Historical records relate that people of mixed San and indigenous Swazi descent were living in the wider area as they were engaged in rain making, a practice that was carried on by San people in many parts of southern Africa. The rock paintings tradition is characterized by the earliest tradition of finely detailed images that reflect belief and san cosmology, most of the paintings are in red ochre; survey shows animal figures are more common than any other categories, followed by items such as lines, dots and animal figures etc. This is usually in the South African context where painting of animal and human images pre dominates. As such rock art sites generally have tremendous cultural significance.

Furthermore, the sites were used for traditional and religious ceremonies for the creator of the art as well as the recent African group's descendants. For example The Sudwala cave is currently used by Somqubas descendants as the place where they worship and held traditional beer drinking ceremonies. There are several different traditions that can be correlated with the cosmology of the San hunter gathering, such as that of Iron Age farmers. Early farming community art is different from the San art. The art is characterized by few finger paintings and geometric design in thick red and sometimes white pigment which probably belongs to herder art tradition.

The rock art in some comparatively restricted parts of southern Africa has been intensively studied for many years (Dart 1929; Bleeck 1933; Pager 1971; Vinnicombe 1976; Lewis Williams 1981; Maggs 1967; Halket 1987; Hollman 1993; Eastwood & Blundell, 1999). Within the region rock art images were first recorded in the early 1980s within the Kruger National Park, little is known about rock art sites in the immediate environs of Mbombela

or Mpumalanga as a whole. Van riet Lowe (1952) catalogue of rock art sites in South Africa list only 10 in the neighboring Barberton and Nelspruit district (to the south and west of Bongani Reserve) and a mere four in the Kruger National Park.

Recently over 100 sites in and around Bongani Mountains Loge Game Reserves on the southern border of Kruger National Park have been discovered (Hampson, Challis, Blundell & de Rosner, 2001). Records shows that there are several rock art sites recently discovered within concession farm holdings around the Mbombela town (Nelspruit)(Mathoho and Munyai 2016).

Few recorded open sites with agriculturalist engravings occur in a broader region (Maggs, 1995). Sometimes the engravings are characterized by rock engravings of concentric metrics form which represent a stone wall settlement plan. Most of the painted images are extremely faded, despite the fact that granite is comparatively resistant to weathering.

Rock art sites have considerable historical significance as material records of transition between cultural eras. Finally, the sites have great educational value as places where lecturers and students can visit to learn about the history and cultural heritage of the area. Through sites visits and educational tours it helps the province economic growth. Although some research has been conducted in the wider area, there is still potential for archaeological, ethnographic and historical research which can provide additional information to enhance the interpretation of the rock art.

7.3.1. Early Iron Age Sequence

7.3.2. Iron Age (EIA, LIA)

Documents suggest that the Iron Age communities moved into southern Africa by c. AD 200, entering the study area either by moving down via coastal plains route of Mozambique or through the Inland. Their movement followed various rivers inland such as the Crocodile, Sabie, Nsikazi, White River and Gutshwa. Being cultivators, they preferred the rich alluvial soils to settle on. These agro pastoralist brought with them variety of domestic grain including sorghum and millet (Maggs & Ward 1984). Maize did not form part of their dietary package since this type of grain was introduced into southern Africa much later, at roughly 1550 AD.

These landscapes, drainage systems and good climatic conditions could have influenced diverse societies including wildlife and farming communities to settle within the region. It

is indisputable that the natural environment has played the dominant part; nevertheless it is not deterministic (Katsamudanga, 2007). The introduction of farming communities in southern Africa early in the first millennium AD is characterized by the appearance of distinctive pottery wares (Huffman, 2007), metal working (Friede, 1979), agriculture and sedentism (Maggs, 1980; Phillipson, 2005). Mining and metallurgy were largely limited to the reduction of iron and copper ore for the manufacturing of utilitarian and decorative implements.

The archaeology of Early Iron Age sites within the Mbombela Local Municipality is not well understood because of limited research conducted to date, even when their existence in the region is acknowledged. Research coverage has been previously skewed towards the Lydenburg perhaps this is because of the location of major sites within the Lydenburg. This has left hinterland regions for example, the areas that lie east and west of Mbombela town largely unexplored.

Archaeological investigation by T.M. Evers of the Department of Archaeology, University of Witwatersrand revealed the presence of Early Iron Age site in close proximity to Mbombela Town. The site was accidentally discovered during the construction of a house on holding 119 at Plaston near White River. The site was excavated on February 1976, some of the finds include stratigraphy that consist of grey sand soil underlain by a brown grey sand within which the early Iron age occurrence is stratified (Evers, 1977). A piece of granite with several grooves, two lump of ocher and several ceramic vessels were uncovered. Ceramic vessels of Plaston site comprised of seventy seven vessels of different shapes, motif and decorations. All the vessels were of homogenous coarse clay matrix. The pottery assemblages of the Plaston site has been assigned to other already recognized in the Eastern Transvaal. The top most one is assemblages which bear very strong resemblances to the Kliengbeil, Lydenburg and Eiland sites. The Lydenburg Heads site dated to the late fifth Century AD (Inskeep, 1971). The full range of Plaston vessel shapes and decoration layout is present here. Many of these sites have been found in the Kruger National Park over the past 20 years (Meyer, 1986). Meyer identified seven different Early Iron age sites ceramic tradition on the eleven excavated sites.

It is generally believed that there are various phases within the Iron Age sequence. The earliest sites most likely range between AD 280 and 450 (Silver Leaves-250-395, Pta 2360, Pta 2459, Pta 914) and are represented by the site of Silver Leaves near Tzaneen (Klapwijk,

1974; Huffman, 2007). The site is generally assumed to be the precursor of Iron Age sites within the Limpopo Province. This first phase was followed by Happy Rest, with sites dating between AD 450 and 750 (Eiland Salt Works-AD390-435, Pta 1524, Pta1608, Pta 1607, Wits 764, Happy Rest-AD430-555, Pta 2421-Klein Africa 415-535, Pta 1168). Happy Rest and Klein Africa are situated in close proximity to the Soutpansberg Mountains (Prinsloo, 1974; Huffman, 2007). The current thinking based on preliminary studies is that Garonga Phase (SK 172 bone 800Pta 3507) mostly ranges between AD 750 and 1000 (Huffman, 2007; Burret 2007). This phase is represented by sites near Mica and Kruger Park (Meyer, 1986; Burret 2007).

All Early Iron age sites were recorded situated in close proximity to water sources (Archeo-info, 2000; Huffman, 2007, Burret, 2007; Mathoho, 2012; unpublished Mphil, thesis). The position of this type of settlement are associated with environmental element that could be interpreted as what the environment offers as opportunities for early farming communities survival (Katsamudanga 2007).

Iron Age occupation of the region seems to have taken place on a significant scale and at least three different phases of occupation have been identified, however the last period of pre-colonial occupation consisted of Sotho and Swazi speaking people that settled on stone-walled sites and caves. At present it is not clear, but, judged on the pottery found; these sites might even date to early historic times. As this was a period of population movement, conflict and change. Considering the time period that they were occupied, they also feature in the early historic period.

7.3.3. Stone wall sites associated with the Late Iron Age and historical periods

The region lies within the asserted traditional territories where previous research works was conducted by Mason (1960,) Collet (1982), Maggs (1995), Evers (1975) Esterhysen & Smith (2007). Their research work shed more light in the understanding of the archaeology of the Mpumalanga escarpment. A high density of archaeological settlement sites are known to cover approximately 150 kilometer stretch of land as reflected by an aerial photographic survey .Sites distribution is relatively easy to establish, because they are not covered by *black wattle* or *Eucalyptus* plantations and they can be easily be plotted using air photographs (Mason1968; Evers 1975). With specifics to the earlier archaeological work, particularly those of Evers (1975) and Collett (1982), Maggs (1976) have shown that most of the stone walling sites within the region fit broadly into the well-known phenomenon of

stone-built settlements of Black, agriculturist communities which flourished in grassland areas of South Africa within the past 500 years. Other aspects of the material culture are typically Late Iron Age, as is the basic economy, with evidence of cattle and small livestock as well as the African cultigens *Sorghum* and *Vigna* ("cow peas") (Collett, 1982).

The chronology remains imprecise, partly because of the paucity of fieldwork and partly because radiocarbon dating itself becomes of limited value for samples younger than AD 1600. Few available dates do, however, suggest that Marateng flourished within the last four hundred years (Evers & Vogel 1980). The distribution of Marateng settlements is relatively easy to establish as they show up well on air photos, provided they are not blanketed by bush or timber plantations. Both Mason (1968) and Evers (1975) used air photos to plot sites, however their map seems to be the first attempt to show a complete distribution of this settlement type. The result suggests a virtually continuous belt of settlement running from Ohringstad in the north, through Lydenburg and Machadosdorp, to Carolina in the south, a distance of 150 km. From this belt several lines of outliers lead off eastwards down the Komati valley and upper tributaries of the Crocodile, but nowhere reach the Lowveld.

Evers (1975) have identified three basic settlement layout namely: The first and simple consisted of two concentric circles, the inner circle was thought to be the cattle kraal and the space between the circles representing area in which huts were built, the second type was an elaboration of the first in that the inner circle had one or more smaller enclosures attached to it, again huts were built between this complex and the outer ring wall. The third type was an agglomeration of small circles that did not conform to the pattern of the other two. Esterhysen & Smith (2007) maintained that it is not clear whether these different kinds of settlement were occupied by different people at the same time or different periods, but however based on the general density of the stone wall settlement in the region; there must have been a substantial increase in population or movement of people in the area.

Collet (1982) classified these settlements and contended that they comprised of three basic units, namely: homesteads, terraces and livestock enclosure. Some of these stone walling are Koni identified with the extensive Badfontein type of walling found along the Mpumalanga escarpment, more or less contemporary with Melora. Badfontein walling emphasizes the centre/side axis of the Central Cattle Pattern expressed through concentric

circles: the inner circle encompassed cattle, the next marked the men's court, and the outer ring the zone of houses.

Rock engravings in the same area depict this settlement layout pattern. The slopes were terraced with lines of stones that ran along the contours, and livestock tracks to the outside of the settlement edged in stones. Oral traditions place Koni (Ndebele) in this escarpment area before the Pedi, and some walled settlements must first date before AD 1650, perhaps as early as AD 1600 which was characterised by the second dispersal. The centre/side layout pattern indicates that they were of Langa origin from northern KwaZulu-Natal. Later, as the associated ceramics show, they became allied to the Pedi. These Badfontein probably chose the escarpment because it is part of a mist belt that would have offered some relief to dry conditions during the Little Ice Age (Huffman, 2007).

Based on such datable phenomena as initiation cycles, other northern and southern groups are thought to have left KwaZulu-Natal between about AD 1630 and 1670. These dates, of course, are tentative. At about the same time, around AD 1700, cool and very dry conditions prevailed throughout the subcontinent. Analysis of climatic data shows that this was the worst time in the Little Ice Age. Dated with remarkable precision, this event is so close to the historical dating that the severe conditions were the most likely reason for the third set of movements. Although the reason may have been the same, there were so many small groups at different times that a co-ordinated movement was unlikely.

Ceramic descriptions of these sites clearly reflect Moloko falling within the range of Sotho-Tswana wares (Collet, 1982; Huffman, 2007). Classification and analysis indicated that this ceramics belongs to Marateng pottery, which is the reminiscent of the Pedi pottery. Ethnography and the Pedi oral history of the region show that these groups of people were called the Koni (Ndebele). As part of this uncoordinated movement, several small groups entered the Pretoria area. These include the well-known Manala and Ndzundza Ndebele who claim Musi as a legendary leader. Significantly, Ndzundza capitals in the Steelpoort area to the northeast, such as KwaMaza have a Moor Park variant of stonewalling: kraals and middens lay down slope of the most important residential zone. Pedi pottery (*Marateng*) in Ndzundza settlements demonstrates interaction with northern neighbours.

Fortunately, the history of many Nguni-derived groups on the plateau today is accessible to oral traditions. Generally, those who live north of the Springbok Flats are known collectively as Northern (Transvaal) Ndebele and those below as Southern (Transvaal) Ndebele. Generally again, many northern groups claim Langa as a legendary leader and many of those to the south claim Musi (Van Warmelo, 1935). If they retained the Nguni language, they are called Ndebele, while those who adopted Sotho-Tswana are Koni (Sotho-Tswana for *Nguni*).

The third set of movements also included various groups that claim Langa as a legendary leader. Most of these Langa people were supposed to have followed the escarpment north through Swaziland before turning west to climb onto the plateau. Thus, there was a different Langa route out of KwaZulu-Natal. The main route most Langa Ndebele took north, through the Swaziland and Mpumalanga low-veld, suggests that the original Langa homeland was in northern KwaZulu-Natal. It is significant that most Nguni groups today who claim Langa ancestry live in that area. The combination of oral history, routes and settlement patterns shows that the division between Langa and Musi is ancient, extending back to at least the middle of the Moor Park phase, and that this division has a geographical expression (Huffman, 2007).

In 1800 communities around the region were living harmoniously, trading and farming it was up to the year 1826 when Mzilikazi Khumalo fled from King Shaka's rule and reaches the region devastating the communities.

7.3.4. Early African settlement

Documents suggest that the Lowveld was habituated by Sotho/Tswana speaker. Their villages were associated with stone walls and terraces, land clearings and agriculture. They were cultivators and miners of copper, gold and iron. Towards the end of the 19th Century the Swazis began raiding their livestock and then move northwards into places such as Mbombela either by pushing the early inhabitants or assimilating them into their ranks. By the late 1870s the Swazi settlement extended north of Swaziland border and westwards along the Crocodile River. The lower part of the region remained largely uninhabited due to the presence of tsetse flies. The Swazi movement was possibly necessitated by land shortages resulting from both increases in Swazi human and livestock population. Some historians argued that their movement was mainly based on land restrictions imposed by the king.

Most of the major villages were located along the river valley in close proximity to major stream such as De kaap, Queens, Crocodile, Komati and Lomati Rivers. Their economy was based on subsistence agriculture and livestock herding. The agricultural crops include Maize, beans, cow peas, groundnuts and variety of squash (Packard, 2001). The less privileged African communities were scattered over the flats, in 1877 rinderpest epidemic wipe out both cattle and game in the region. The disease crippled their economy, both production of food stuffs which was supplemented by spoils acquired through periodic raiding activities collapsed. The epidemic greatly reduced the availability of milk which in a soured forms known as *emasí* which was a major component of Swazi diet (Packard, 1984, 2001). The absence of cattle with which to trade for grain forced many Swazi men to seek wage employment; they were forced to work at gold mines at Barberton and then later on the Rand or white owned farms.

7.3.5. European settlement

Historical documents suggest that the Mpumalanga region was previously known due to the first hunters and explorers who ventured in to the region from the Cape Colony. At that time, several black tribes occupied the area Mpumalanga region these African cultural groups included Sotho, Swazi and Ndebele.

The great trek was initiated by group of people who wanted to be free, since the British recognized independence of the area north of the Vaal River. The first movement northwards was initiated under the leadership of Louis Trichardt and Hans van Rensburg in 1835. This group left the Cape Colony to cross Orange and Vaal River on their way to the north. They arrived in the region at around April 1836 and set up settlements in various locations. However relation between the two groups (Trichardt and van Rensburg) became tense. They splited and move off in different directions. One of the earliest settlements, in 1836 was in the Soutpansberg, north of Pietersburg. The second Voortrekker movement was acknowledge to have been led by Andries Hendrik Potgieter who arrived in 1848, however other historical sources suggest that Andries Hendrik Potgieter established Ohringstad in 1845. Later in 1848 he led a group that settled on the site Trichardt's group had abandoned, just outside present day Louis Trichardt and established a town Zoutpansbergdorp.

Whites began settling in the region in the middle of the 19th century. This could be associated with the tragic trek of a party of Afrikaner led by Louis Trichardt to Mozambique in 1837. This movement ended in a few deaths of most of the settlers and they had to withdraw to higher lying areas of Mpumalanga. They had tried to settle in Ohringstad valley in 1843 and in 1848 the valley was abandoned and Lydenburg was established. Both areas were fever ridden with malaria and Nagana epidemic. President Burgers sought to end the isolation of the Transvaal by developing relations with non-English colonial powers, and in 1875 began a round of negotiations with Portugal to secure access to the sea via a rail link to Delagoa Bay.

None the less in 1884 alluvial gold was discovered near the present town of Barberton and Whites begin settling in the eastern Lowveld. The subsequent gold rush in 1886 attracted 10000 diggers. Gold mining led to land speculation and expansion of white claim to land in the Lowveld area. Mining created a market for agriculture. The Boers dispensed plots of land to white newcomers and most of the land were acquired from the Mswati who gave land to the Boers outside his jurisdiction because he wanted the Boers protection against the Zulus. It was during this time where the Boers began to resort to child labour, using African children captured in raids on villages. Soon a trade in children developed, especially with the Swazi, who wanted to develop a relationship with the Boers.

By 1890s most miner's foodstuffs market had shifted to Witwatersrand but the construction of railway line connecting South Africa and Mozambique created a second wave of agricultural development. The agricultural system of the region was extremely labour intensive. Not all white settlers shared the economic opportunities created by agriculture some were hunters for game and trading in ivory and animal hides with Portuguese. These goods were much in demands in Europe and they could be transported to Mozambique and exported from there.

After the unsuccessful Bloemfontein conference the Transvaal government had realized that War with the British was inevitable. They began to prepare themselves, so did the British. On 8 September the British cabinet decided to send 10 000 men to Natal to strengthen the defense of this British outpost. In retaliation on 27 September President Paul Kruger called up all Boers between the age of 16 and 60 of the Transvaal and persuaded President Steyn of Free State Province to follow the suit. The Boer realized the advantage of striking first, the commandos were therefore ordered to the borders. The commandos of Lydenburg and Carolina were deployed to strengthen to defend the

Swaziland borders. Both Boer republics mobilized their artillery units and rallied (Changuion, 2001).

The first Anglo-Boer War broke out from 1880 to 1881. The Anglo Boer war delayed further advancement, Industrial, mining and agricultural until the twentieth century. By 1910 pockets of agriculture had emerged along the River Valley around Nelspruit and Barberton (Packard, 2001). The introduction of DDT and its success in getting rid of Malaria carrying mosquitoes encourage poor white farmers to settle in large numbers, many of them moved to settle in the Lowveld towns and engaged in various forms of commerce or served as skilled laborer. Statistical records show that white population of the Nelspruit town nearly doubled growing from 2,186 to 4.247. From 1951 to 1960 Nelspruit had 11.839 white populations (Packard, 2001).

Most of the historical sensitivity areas is represented by a period associated with the development of farm homestead as well as infrastructure (e.g. roads) many of these farms have been in the ownership of families for generations. As a result they possess a large corpus of information with regarding to the area and its history. A significant numbers of battles and skirmishes took places in the region. There are remains of blockhouses that should be anticipated on the ridges and at river crossings.

8. ASSESSMENT OF SITES AND FINDS

This section contains the results of the heritage site/find assessment. The phase 1 heritage scoping assessment program as required in terms of the section 38 of the National Heritage Resource Act (Act 25 of 1999) done for the proposed development.

There are no primary or secondary effect at all that are important to scientist or the general public that will be impacted by the proposed project activities.

Heritage Significance: No significance

Impact: Negative

Impact Significance: None

Certainty: Probable

Duration: Permanent

Mitigation: A

9. CONCLUSION AND RECOMMENDATIONS

In conclusion, Phase 1 HIA for the proposed construction of New re-establishment Police Station within the City of Mbombela has been conducted successfully. The landscape proves to be fairly uniform and lacking other features that might have focused past activities. The objective of the HIA is to limit primary and secondary impacts on archaeological and cultural heritage in the path of the proposed development and infrastructure footprint. No further studies / Mitigations are recommended given the fact that within the proposed development site and its surrounding there are no archaeological or place of historical significance to be impacted by the proposed project. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed development. We recommend to the South African Heritage Resource Agency to approve the project as planned.

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Addendum 1: Definitions and Acronyms

Archaeological Material remains resulting from human activities, 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.

Chance Finds Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Cultural Heritage Resources Same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and paleontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or *graves* and their associated materials; geological or natural features of cultural importance or scientific significance.

Cultural Significance The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

Grave A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

Historic Material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

In Situ material *Material culture* and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Late Iron Age this period is associated with the development of complex societies and state systems in southern Africa.

Material culture Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Site A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

EXPLANATION OF ABBREVIATIONS USED IN THIS DOCUMENT

AIA	Archaeological Impact Assessment
ASAPA	South African Archaeological Professional Association
BA	Basic Assessment
CMP	Conservation Management Plan
EIA	Early Iron Age
EMP	Environmental Management Plan
ESA	Early Stone Age
GP	General Protection
GPS	Geographical Positioning System
HIA	Heritage Impact Assessment
HMP	Heritage Management Plan
ICOMOS	International Council of Monuments and sites
LIA	Late Iron Age
LSA	Late Stone Age
MIA	Middle Iron Age
MSA	Middle Stone Age
NASA	National Archives of South Africa
NEMA	National Environmental Management Act (No.107 of 1998)
NHRA	National Heritage Resources Agency
PRHA	Provincial Heritage Resources Authority
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VHHC	Vhufa Hashu Heritage Consultants

ADDENDUM 2: Types and ranges as outlined by the National Heritage Resource Act (Act 25 of 1999)

The National Heritage Act (Act No 25 of 1999, Art 3) outlines the following types and ranges of the heritage resources that qualify as part of the national estate, namely:

- (a) Places, buildings structures and equipment of cultural significance;
- (b) Places to which oral tradition are attached or which are associated with living heritage;
- (c) Historical settlement and townscapes
- (d) Landscape and natural features of cultural significance;
- (e) Geological sites of scientific or cultural importance
- (f) Archaeological and paleontological sites
- (g) Graves and burial ground including-
 - (I) Ancestral graves
 - (II) Royal graves and graves of traditional leaders
 - (III) Graves of victim of conflict
 - (IV) Graves of individuals designated by the minister by notice in the gazette;
 - (V) Historical graves and cemeteries; and
 - (VI) Other human remains which are not covered by in terms of the Human Tissue Act,1983(Act No 65 of 1983)
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including-
 - (I) object recovered from soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (II) objects to which oral traditions are attached or which are associated with living heritage
 - (III) ethnographic art and objects;
 - (IV) military objects;
 - (V) objects of decorative or fine art;
 - (VI) object of scientific or technological interest; and
 - (VII) books, records, documents, photographs, positive and negatives, graphic, film or video material or sound recording, excluding those that are public records as defined in section1(xiv) of the National Archives of South Africa Act,1996(Act No 43 of 1996).

The National Heritage Resource Act (Act No 25 of 1999, Art 3) also 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 the following:

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- (h) Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa
- (i) Sites of significance relating to the history of slavery in South Africa.