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**A PHASE 1 HIA REPORT FOR THE PROPOSED SATARA  
MOBILE SEASONAL TENTED CAMP IN THE KRUGER NATIONAL PARK  
MPUMALANGA**

For:

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**REPORT: APAC022/74b**

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A handwritten signature in black ink, appearing to be 'A. Pelser', located at the bottom center of the page.

## SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Zunckel Ecological & Environmental Services to conduct a Phase 1 HIA for the proposed Satara Mobile Seasonal Tented Camp development, north-east of the Satara Rest Camp in the Kruger National Park. Two areas had to be assessed (Satara Mananga as Preferred Site & Satara Mavumbye as Alternative Site). The study area is located in the Ehlanzeni District Municipality & Bushbuckridge Local Municipality of Mpumalanga. Each camp will consist of 30 x 2 bed guest tents with ensuite ablutions, a central communal area for lounging and dining, tented accommodation for 25 staff, tents and containers for storage, food preparation, waste management, etc.

Background research indicated that there are some cultural heritage sites and features in the larger geographical area within which the study areas fall. There are some known cultural heritage resources (archaeological and/or historical) in the larger study and close to the proposed development areas, but these will not be directly impacted by the Camp Site development. This report discusses the results of the assessment and provides recommendations on the way forward.

**From a Cultural Heritage perspective it is recommended that the proposed Satara Mobile Seasonal Tented Camp development should be allowed to continue taking into consideration the recommendations put forward at the end of the report. Any of the two sites is suitable from this perspective.**

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## **1. INTRODUCTION**

APelser Archaeological Consulting (APAC) was appointed by Zunckel Ecological & Environmental Services to conduct a Phase 1 HIA for the proposed Satara Mobile Seasonal Tented Camp development, north-east of the Satara Rest Camp in the Kruger National Park. Two areas had to be assessed (Satara Mananga as Preferred Site & Satara Mavumbye as Alternative Site). The study area is located in the Ehlanzeni District Municipality & Bushbuckridge Local Municipality of Mpumalanga. Each camp will consist of 30 x 2 bed guest tents with ensuite ablutions, a central communal area for lounging and dining, tented accommodation for 25 staff, tents and containers for storage, food preparation, waste management, etc.

Background research indicated that there are some cultural heritage sites and features in the larger geographical area within which the study areas fall. There are some known cultural heritage resources (archaeological and/or historical) in the larger study and close to the proposed development areas, but these will not be directly impacted by the Camp Site development.

The client indicated the locations and footprints of the study & proposed development areas and the assessment focused on these and the larger geographical region in which they are situated.

## **2. TERMS OF REFERENCE**

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
5. Review applicable legislative requirements;

## **3. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two Acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

### **3.1. The National Heritage Resources Act**

According to the Act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, 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. Sites of Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the Act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

### **Archaeology, palaeontology and meteorites**

Section 35(4) of the Act deals with archaeology, palaeontology and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

**The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.**

### **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or 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
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

### **3.2. The National Environmental Management Act**

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

## **4. METHODOLOGY**

### **4.1. Survey of literature**

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.



#### **4.2. Field survey**

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed. The assessment was done during August 2022.

#### **4.2. Oral histories**

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

#### **4.3. Documentation**

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

### **5. DESCRIPTION OF THE AREA & THE PROPOSED DEVELOPMENT**

The proposed new Satara Mobile Seasonal Tented Camp development is located north-east of the Satara Rest Camp in the Kruger National Park. Two areas had to be assessed namely the Satara Mananga Preferred Site & Satara Mavumbye Alternative Site. The study area is situated in the Ehlanzeni District Municipality & Bushbuckridge Local Municipality of Mpumalanga.

The Seasonal Mobile Tented Camp will be operated for 5 months during the dry season. The camp will be established in March and April to be operated from the beginning of May until the end of September each year, and will then be dismantled in October. All of the camp infrastructure will be removed from the site at the end of each operating season and will be brought in again for re-establishment the following April. The camp will consist of 30 two-bed guest tents, a communal lounge/dining Bedouin tent, a kitchen tent and storage area using containers, tents to accommodate 20 – 25 staff, a staff lounge/dining tent, parking and access for 1 x 14-Seater Minivan and Trailer for staff transport and laundry, gas and supply delivery/collection; 4 x Open Safari Vehicles for Game Drives and Guest Transfers, and a light utility vehicle for the removal of both solid and liquid waste.

The topography of both assessed sites is fairly flat, with no rocky ridges or outcrops present. Both sites are situated close to the Mavumbye Spruit, on which banks the Camp will be located. The Mananga 4x4 Adventure Trail runs next to both site locations. Visibility on the ground was limited by dense vegetation (grass cover, bushes/shrubs), while the study sites

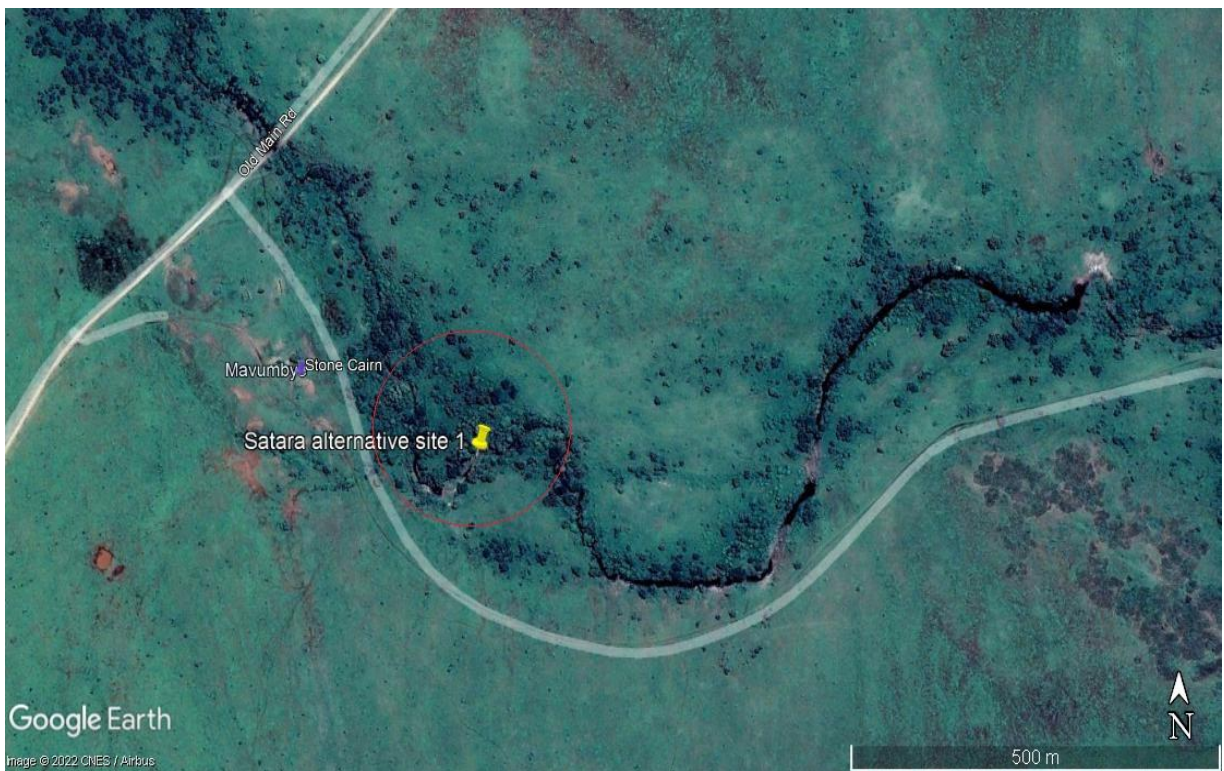
are both characterized by tall trees especially around the river bank (riverine forest). There are some open eroded (caused by water and animal trampling) areas close to the Mananga Site.



**Figure 1: Locality of the two proposed Camp Sites (Google Earth 2022). Alternative Site 1 is Mavumbye & Site 2 is Mananga.**



**Figure 2: Closer view of the Alternative 2 (Mananga) Camp Site Location. The area circled was assessed during the August 2022 fieldwork (Google Earth 2022). The site of Chief Malihane’s residence is indicated, but falls outside the development footprint area.**



**Figure 3: The Alternative 1 (Mavumbye) Camp Site Location and approximate area assessed (Google Earth 2022). An unknown stone cairn was identified outside of the area of impact.**

## 6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

No known Stone Age sites or material were found on the specific study locations, although some LSA sites are known to occur in the larger geographical area (Berg 1999: 4). Two Late-Holocene (Later Stone Age) sites near Hazyview in the Kruger National Park date to the last 2500 years and are associated with pottery and microlithic stone tools (Bergh 1999: 95). This is contemporary to typical hunter-gatherer lifestyle and may also have been sites frequented by San (Celliers 2012: 12). The first inhabitants of the eastern Lowveld were probably the San or Bushmen. They were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout the Lowveld where some of their rock paintings are still visible. A number of these shelters have been documented in the Nelspruit area. It has been argued that the red ochre source for these paintings is to be found at Dumaneni, near Malelane (Celliers 2012: 12).

Stone Age sites and finds are known to occur throughout the Kruger National Park dating right from the ESA to LSA, with most of the sites represented by scatters of individual tools in open-air settings. A number of LSA sites associated with San rock art are also well recorded (Verhoef 1986: 151-152). The closest Stone Age sites to the Satara area is at Pafuri, the Mahkadzi Spruit (near the Letaba Rest Camp), Pumbe Pan (east of Satara) and Bangu/Olifants Gorge (Verhoef 1986: 151-152).

**Although no Stone Age artifacts were found close to the Satara Mananga & Satara Mavumbye sites, the open areas close to Mananga could well contain Stone Age material, with some calcrete deposits noticed here as well during the August 2022 assessment. If any Stone Age tools are to be located here it would be in the form of individual or small scatters of material in an open-air setting.**

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

It was only later that Bantu-speaking tribes moved into this area from the northern parts of Southern Africa and settled here. This period is referred to as the Early Iron Age (AD 200-1500 approx.). These were presumably Sotho-Tswana herder groups. Various historians and ethnographers describe that the Lowveld was frequented by Swazi and Sotho-Tswana groups during historic times i.e. Late Iron Age times during the period AD 1500-1800 (Celliers 2012: 12). Some archaeological research was done during the 1970's at sites belonging to the EIA (Early Iron Age), at Plaston, a settlement close to White River (Celliers 2012: 31). Early Iron Age pottery was also excavated by archaeologist, Prof. Tom Huffman during 1997 on location where the Riverside Government complex is currently situated. This site known as the Riverside site is situated a few kilometers north of Nelspruit next to the confluence of the Nelspruit and Crocodile River (Celliers 2012: 32).

Old trade routes were well established before the period of Colonial expansion and these routes mainly existed as a direct consequence of metallurgy and mining for iron, tin, copper and some gold to make weapons, agricultural equipment and ornaments (Bergh, 1998:103). The earliest signs of iron mining and working in the old Transvaal dates to approximately 300 AD and copper mining and working in Southern Africa may have been practiced as early as 620 AD (Bergh 1999:103; Celliers 2012:12 - 13).

These people were responsible for the establishment of large centres like Monomotapa the Zimbabwe Complex and also the famed Mapungubwe in the Limpopo valley. At around 900 AD Arab merchants established a trade post at Sofala (Beira). From the start of the 11th century, these Arabs had trade relations with the people of Zimbabwe. Textiles, porcelain and glass beads were traded for gold, ivory and other minerals. An ancient trade route passed close-by the current Nelspruit and started from Delagoabay in a westward direction through the Lowveld towards the gold fields of Lydenburg, by passing through Malalapoort, the Nkhomati and Crocodile Rivers to Skipberg in the current Kruger National Park close-by the place where Pretoriuskop Rest Camp is located. From here onwards there were two possible routes up the mountains to reach the goldfields. The first one passed by Spitskop (Sabie) and from there on to Lydenburg. The second passed south of the "Devils Knuckles" to Lydenburg. The Voortrekkers used this route in 1845 when making the wagon route between Ohrigstad and Delagoabay (Berg 1999: 104). There were also several linking routes to existing main routes, one of which started from Sabie or Lydenburg to the route which linked Delagoabay to the Soutpansberg via Pilgrim's Rest. It is also believed that a footpath existed at the foothills of the (Transvaal) Drakensberg which led around the mountain to link again with a major route alongside the Olifants River (Bergh 1999:104; Celliers 2012: 12 - 13).

In 1721 Dutch sailors reached Delagoa Bay and settled there for nine years, during this time they launched a number of expeditions inland. During August 1723 Lt. Jan Steffler and 17 men launched the first of these expeditions but they were ambushed by natives shortly after crossing the Lebombo Mountains. Exactly where they crossed the mountains is uncertain but it is possible that they were actually in northern Swaziland when they were attacked. Steffler succumbed as a result of this ambush and his followers returned to Delagoa Bay (Bergh 1999:116; Celliers 2012: 13).

A second attempt to create an inland route took place two years later in June 1725 when Francois de Cuiper and 34 men departed from Delagoa Bay and travelled in a north-western direction. They reached Gomondwane in the current Kruger National Park where they were also attacked by a local tribe. This resulted in them also having to return to Delagoa Bay. Although this attempt was also not successful it is seen as the first European intrusion into this northern area (Bergh 1999:116).

In the (Eastern Transvaal) Lowveld a sub-group of the Northern Sotho, known as the eastern Sotho, were present nearby the eastern escarpment. They are known as the Pulana, Pai (emaMbayi) and Kutswe, these people moved from northern Swaziland further northwards when Swazi expanded into this area during the mfecane (Bergh 1999:107-108). One of the recorded events relates to the attack of the Ndwande under Zwide on the Pedi in 1825 (Bergh 1999: 114-115). This seems to have started from the Lowveld in the region of the Pretoriuskop area towards Steelpoort.

During the nineteenth century the Lowveld area of Mpumalanga was extensively settled by both Bantu and European groups that migrated into this area. Bantu migration was mainly as a result of political upheaval during the mfecane (“the crushing” in Nguni). This was a period of bloody tribal and faction struggles in present-day KwaZulu Natal and on the Highveld area, which occurred around the early 1820’s until the late 1830’s (Bergh 1999). During this period, a movement of Swazi people took place to the areas north and northwest of Swaziland. As a result reports indicate that the Swazi were living in the Lowveld area by the 1840’s (Bergh 1999).

The Iron Age is also fairly well represented in the Kruger National Park, and includes the well-known Masorini near Phalaborwa, sites in the southern parts of the Park (Verhoef 1986: 153-155) and Makahane & Thulamela in the north (Jordaan 2016: 1-2). There are no known Iron Age sites close to the Mananga & Mavumbuye sites and none were identified during the August 2022 assessment.

In terms of the historical time-period there are a few known sites and cultural heritage resources located close to the Satara Mananga & Satara Mavumbye sites.

Chief Malihane’s residence (kraal) is situated close to the Mananga Tented Camp site as indicated. Based on old maps of the area, showing the location of various similar sites in and around the Kruger National Park between 1905 & 1906, Malihane’s residence was located at the Mavumbye Spruit north of Satara at the time (Pienaar 1990: 412, 471). A 1903 map by Col. James Stevenson-Hamilton also shows that (during the Anglo-Boer War of 1899-1902)

that the infamous Steinaecker's Horse had a small outpost at Malihane, while Major A.A. Fraser (one of the early rangers in the Park area) also manned the temporary rangers post at Malihane's between February and June 1904 (1990: 345, 462).

North of the Mavumbye site there was an old airfield operated for a short time in and around 1932/1933, with remnants of this visible north of the Mavumbye windmill ("windpomp")[Pienaar 1990: 507].

## **Results of the August 2022 field assessment**

### **Satara Mananga Site**

The Satara Mananga Camp (Preferred) Site is located close to the Mananga windmill and the Mavumbye Spruit. The topography of the area relatively flat and open, although dense vegetation (grass and shrubs/bushes) in the area where the Tented Camp will be established limited visibility on the ground. Most of the open, eroded areas around the windmill fall outside of the development footprint and although the possibility of scatters of Stone Age material occurring here exists, these areas will not be impacted by the proposed activities.

The location of Chief Malihane's residence just north of and outside of the Camp Site footprint is recorded, and although this site was not assessed and/or located during the recent field survey, the significance of the site should be taken into consideration and any negative impacts on it be avoided. The association of the site with the early history of the Kruger National Park, including its link with the Anglo-Boer War (1899-1902) and the early rangers (Major Fraser at the Malihane Rangers Outpost) enhances its significance as well. A piece of late 19<sup>th</sup>/early 20<sup>th</sup> century glass found during the assessment here most likely relates to the Malihane Site.

### **Chief Malihane's Residence location (based on Google Earth): S24 18 54.06 E31 50 26.64**

The following mitigation measures are recommended for the Satara Mananga Preferred Site:

1. Demarcation of Chief Malihane's Residence Site with a fence to prevent any accidental damage to the site during the development of the Seasonal Mobile Tented Camp here. Erecting information signage at the site
2. In order to properly demarcate the site, a detailed assessment of the historical site should be undertaken to determine its extent.
3. Drafting of and submission of a Cultural Heritage Management Plan for Chief Malihane's Residence
4. Detailed historical-archaeological research on the site should also be considered in order to recover as much information on the site and its history to preserve it for future generations



**Figure 4: View of a section of the Satara Mananga study area. Note the dense grass cover.**



**Figure 5: Another view of part of the area.**





**Figure 6: General view of the Mananga study area again showing the dense vegetation that limited visibility on the ground in most parts.**



**Figure 7: A view of the vegetation around the Spruit.**



**Figure 8: Some open eroded sections occur around Mananga, but these are located outside of the development footprint.**



**Figure 9: Piece of late 19<sup>th</sup>/early 20<sup>th</sup> century glass liquor bottle found at Mananga.**

### **Satara Mavumbye Site**

The 2<sup>nd</sup> site (Alternative) is the Satara Mavumbye one, which is located close to the Mavumbye “windpomp” and next to (north of) the Mavumbye Spruit.

The landscape (topography and vegetation) is very similar to that of the Satara Mananga Site, with dense vegetation (grass, shrubs/bush) limiting visibility on the ground. Large trees characterize the area close to and on the banks of the Spruit. Sections of the area are a bit more open.

No cultural heritage (archaeological and/or historical) sites, features or material were found in the area where the proposed Tented Camp Site will be located. An unknown stone cairn was found close to the Mavumbye windpomp, but it is uncertain what its age, origin or function is. The feature will not be impacted by the proposed development.

**Stone Cairn Location: S24 18 06.40 E31 47 28.50.**

For the Satara Mavumbye Site the following is recommended:

1. A "Chance finds Protocol" should be implemented and adhered to should any cultural heritage structures, objects, materials, features or previously unknown burials be uncovered during any earth-moving activities in the initial clearing and “construction” phase of the development.
2. Contractor/construction teams need to be inducted to identify possible cultural heritage sites, features or material before engaging any site clearing/earth-moving equipment on-site during the initial project development.



**Figure 10: General view of the area around the Satara Mavumbye site.**



**Figure 11: Another view showing the dense vegetation close to and around the Mavumbye Spruit.**



**Figure 12: Another view of the study area.**



**Figure 13: The unknown stone cairn close to Mavumbye.**

Based on the assessments of the two proposed Satara Mobile Seasonal Tented Camp Sites, both sites can be utilized from a Cultural Heritage perspective. However, if the Preferred Mananga site is chosen the recommended mitigation measures in terms of the Chief Malihane Residence site that is located in close proximity to the proposed Camp Site will have to be taken into consideration and implemented.

***It should also be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.***

## **7. CONCLUSIONS AND RECOMMENDATIONS**

APelser Archaeological Consulting (APAC) was appointed by Zunckel Ecological & Environmental Services to conduct a Phase 1 HIA for the proposed Satara Mobile Seasonal Tented Camp development, north-east of the Satara Rest Camp in the Kruger National Park. Two areas had to be assessed (Satara Mananga as Preferred Site & Satara Mavumbye as Alternative Site). The study area is located in the Ehlanzeni District Municipality & Bushbuckridge Local Municipality of Mpumalanga. Each camp will consist of 30 x 2 bed guest tents with ensuite ablutions, a central communal area for lounging and dining, tented accommodation for 25 staff, tents and containers for storage, food preparation, waste management, etc.

Background research indicated that there are some cultural heritage sites and features in the larger geographical area within which the study areas fall. There are some known cultural heritage resources (archaeological and/or historical) in the larger study and close to the proposed development areas, but these will not be directly impacted by the Camp Site development.

The location of Chief Malihane's residence just north of and outside of the Satara Mananga Camp Site footprint is known, and although the site was not assessed during the recent field survey, the significance of the site should be taken into consideration and any negative impacts on it be avoided. The association of the site with the early history of the Kruger National Park, including its link with the Anglo-Boer War (1899-1902) and the early rangers (Major Fraser at the Malihane Rangers Outpost) enhances its significance as well. A piece of late 19th/early 20th century glass found during the assessment here most likely relates to the Malihane Site.

The following mitigation measures are recommended for the Satara Mananga Preferred Site:

1. The demarcation of Chief Malihane's Residence Site with a fence to prevent any accidental damage to the site during the development of the Seasonal Mobile Tented Camp here. Erecting information signage at the site
2. In order to properly demarcate the site, a detailed assessment of the historical site should be undertaken to determine its extent.
3. The drafting of and submission of a Cultural Heritage Management Plan for Chief Malihane's Residence
4. The detailed historical-archaeological research on the site should also be considered in order to recover as much information on the site and its history to preserve it for future generations

No cultural heritage (archaeological and/or historical) sites, features or material were found in the area where the proposed Satara Mavumbye Tented Camp Site will be located. An unknown stone cairn was found close to the Mavumbye windpomp, but the site will not be impacted by the proposed development.

For the Satara Mavumbye Site the following is recommended:

1. A "Chance finds Protocol" should be implemented and adhered to should any cultural heritage structures, objects, materials, features or previously unknown burials be uncovered during any earth-moving activities in the initial clearing and "construction" phase of the development.
2. Contractor/construction teams need to be inducted to identify possible cultural heritage sites, features or material before engaging any site clearing/earth-moving equipment on-site during the initial project development.

**Finally, from a Cultural Heritage perspective it is recommended that the proposed Satara Mobile Seasonal Tented Camp development be allowed to continue taking into consideration the recommendations put forward above.**

**The subterranean nature of archaeological and/or historical resources (including low stone-packed or unmarked graves) should also always be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.**

## **8. REFERENCES**

General and Closer Views of study area locations and proposed development area footprints: Google Earth 2022.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.**

Pretoria: J.L. van Schaik.

Celliers, J. **Report on Phase 1 Archaeological Impact Assessment on Portions 2, 12 and 16 of the farm Perry's Farm 9 JU and Portion 12 and the remainder of Portion 109 of the farm De Rust 12 JU, Hazyview Mpumalanga Province.** Unpublished Report Kudzala Antiquity. For: Enpact Environmental Consultants. June 2012.

Huffman, T.N. 2007. Handbook to the Iron Age: **The Archaeology of Pre-Colonial Farming Societies in Southern Africa.** Scottsville: University of KwaZulu-Natal Press.

Jordaan, Gerhard. 2016. **An archaeological study of two Early Farming Sites in the southern Kruger National Park, South Africa.** Unpublished MA Dissertation. Department of Anthropology & Archaeology. University of Pretoria.

Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I).** South African Archaeological Bulletin 67 (195): 120–144, 2012.

Pienaar, U de V (red). 1990. **Neem uit die Verlede.** Pretoria: Sigma Pers.

Republic of South Africa. 1999. **National Heritage Resources Act (No 25 of 1999).** Pretoria: the Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act (no 107 of 1998).** Pretoria: The Government Printer.

Verhoef, J. 1986. Notes on archaeology and prehistoric mining in the Kruger National Park. **Koedoe 29: 149-156. Pretoria.**



## **APPENDIX A: DEFINITION OF TERMS:**

**Site:** A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

**Structure:** A permanent building found in isolation or which forms a site in conjunction with other structures.

**Feature:** A coincidental find of movable cultural objects.

**Object:** Artifact (cultural object).

(Also see Knudson 1978: 20).

## **APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE**

**Historic value:** Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

**Aesthetic value:** Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

**Scientific value:** Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

**Social value:** Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

**Rarity:** Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

**Representivity:** Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## **APPENDIX C: SIGNIFICANCE AND FIELD RATING:**

### **Cultural significance:**

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

### **Heritage significance:**

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

### **Field ratings:**

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

## **APPENDIX D: PROTECTION OF HERITAGE RESOURCES:**

### **Formal protection:**

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

### **General protection:**

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.