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**AMENDED REPORT FOR A PHASE 1 HIA FOR PROPOSED TOWNSHIP DEVELOPMENT
ON THE REMAINDER OF THE FARM BULTFONTEIN 107JR
NEAR SOSHANGUVE, GREATER TSHWANE MUNICIPAL AREA, GAUTENG**

For:

***Enviro Vision Consulting cc
& Texture Environmental Consultants***

REPORT: **APAC019/51**

Amended Report: **APAC023/09**

by:

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SUMMARY

APelser Archaeological Consulting (APAC) was originally appointed by Enviro Vision Consulting cc in 2019 to undertake a Phase 1 HIA for proposed township development on the remainder of the farm Bultfontein 107JR. The study area is located close to Soshanguve in the Greater Tshwane Municipal area of Gauteng. Texture Environmental Consultants were subsequently appointed to continue with the EIA Application for the above-mentioned development after the death of Mr. Cappie Linde of Enviro Vision.

Before his passing, Mr. Linde recommended the following to be included in the EIA Report:

“An Augmented Heritage Impact Assessment report for the entire area according to SAHRA’s Minimum Standards for Heritage Specialist Studies in terms of Section 38 of the National Heritage Resources Act (No. 25 of 1999), including the specialist’s survey tracks. The report should also explore the existence of several Bafokeng kraals (dating back 1000 years plus) that may be located on the southern portion of the property”

This amended report is the result of the above recommendation. APAC cc was contracted by Texture Environmental Consultants, on behalf of Urban Consult Town Planners, to undertake the amendment work and to re-submit the Phase 1 HIA report with the above recommendations taken into consideration.

Background research indicated that there were a number of cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. There were no known sites in the study area. Due to access problems, only a Desktop Based study could be completed initially during February 2019 (**See Report APAC019/16**), but these issues were resolved and a Field Assessment was conducted during May 2019 in the study area. A number of archaeological sites were identified and recorded during this field work. These did not include the reported Bafokeng stone-walled sites (kraals) mentioned by the Bultfontein Land Use Committee. These sites will be discussed in this amended report.

The results of both the desktop & 2019 field assessment are discussed in the report and recommendations on the way forward provided at the end. The recommended amendments are included as well.

Based on the 2019 desktop research and field assessment, as well as the new information included in this amended 2023 Report, from a Cultural Heritage point of view the proposed township development should be allowed to continue, taking into consideration the mitigation measures recommended in this document.

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1. INTRODUCTION

A Pelsers Archaeological Consulting (APAC) was originally appointed by Enviro Vision Consulting cc in 2019 to undertake a Phase 1 HIA for proposed township development on the remainder of the farm Bultfontein 107JR. The study area is located close to Soshanguve in the Greater Tshwane Municipal area of Gauteng. Texture Environmental Consultants were subsequently appointed to continue with the EIA Application for the above-mentioned development after the death of Mr. Cappie Linde of Enviro Vision.

Before his passing, Mr. Linde recommended an Augmented Heritage Impact Assessment report for the entire area according to SAHRA's Minimum Standards for Heritage Specialist Studies, including the specialist's survey tracks. The report also had to explore the possible existence of several Bafokeng kraals (dating back 1000 years plus) that may be located on the southern portion of the property.

This amended report is the result of the above recommendation. Background research indicated that there were a number of cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. There were no known sites in the study area. Due to access problems, only a Desktop Based study could be completed initially during February 2019, but these issues were resolved and a Field Assessment was conducted during May 2019 in the study area. A number of archaeological sites were identified and recorded during this field work. These did not include the reported Bafokeng stone-walled sites (kraals) mentioned by the Bultfontein Land Use Committee. These sites will be discussed in this amended report.

The client indicated the location and boundaries of the study area and the assessment concentrated on this.

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 (Act 25 of 1999)

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

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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- 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 palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological 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 palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological 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 of 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 (Act 107 of 1998)

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.

The specific requirements that specialist studies and reports must adhere to are contained in Appendix 6 of the EIA Regulations.

4. METHODOLOGY

4.1. Review of literature

A review 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. These include Bergh (1999), Huffman (2007) & Lombard et.al (2012)

4.2. Field survey

The field assessment component of the study was conducted in May 2019 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.

4.3. 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.

4.4. Documentation

All sites, objects, features and structures identified are normally 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 study area (proposed township development on the remainder of Bultfontein 107JR) is located close to Soshanguve, in the Greater Tshwane Municipal area of Gauteng.

The topography of the area is generally flat and open, with little or no rocky outcrops or ridges present. A relatively large spruit cuts through the north-western part of the study area, with some smaller ones running in the area as well. The area would have been utilized in the past for agricultural purposes (ploughing, cattle grazing), with a number of cement and ground dams evidence of this. Other impacts on the area included recent large scale sand quarrying activities ESKOM Power Lines and recent formal and informal residential settlement. If any cultural heritage (archaeological and/or historical sites, features or material of origin or any significance did exist here in the past it would have been extensively disturbed or destroyed as a result.

Dense vegetation (tree and grass cover) in sections of the study area during the May 2019 field assessment hampered visibility on the ground. However, sections of the area were open due to sand quarrying and in these areas visibility was good. It is also in these areas where some archaeological sites and material were identified. Details on these finds are provided further on in the report.

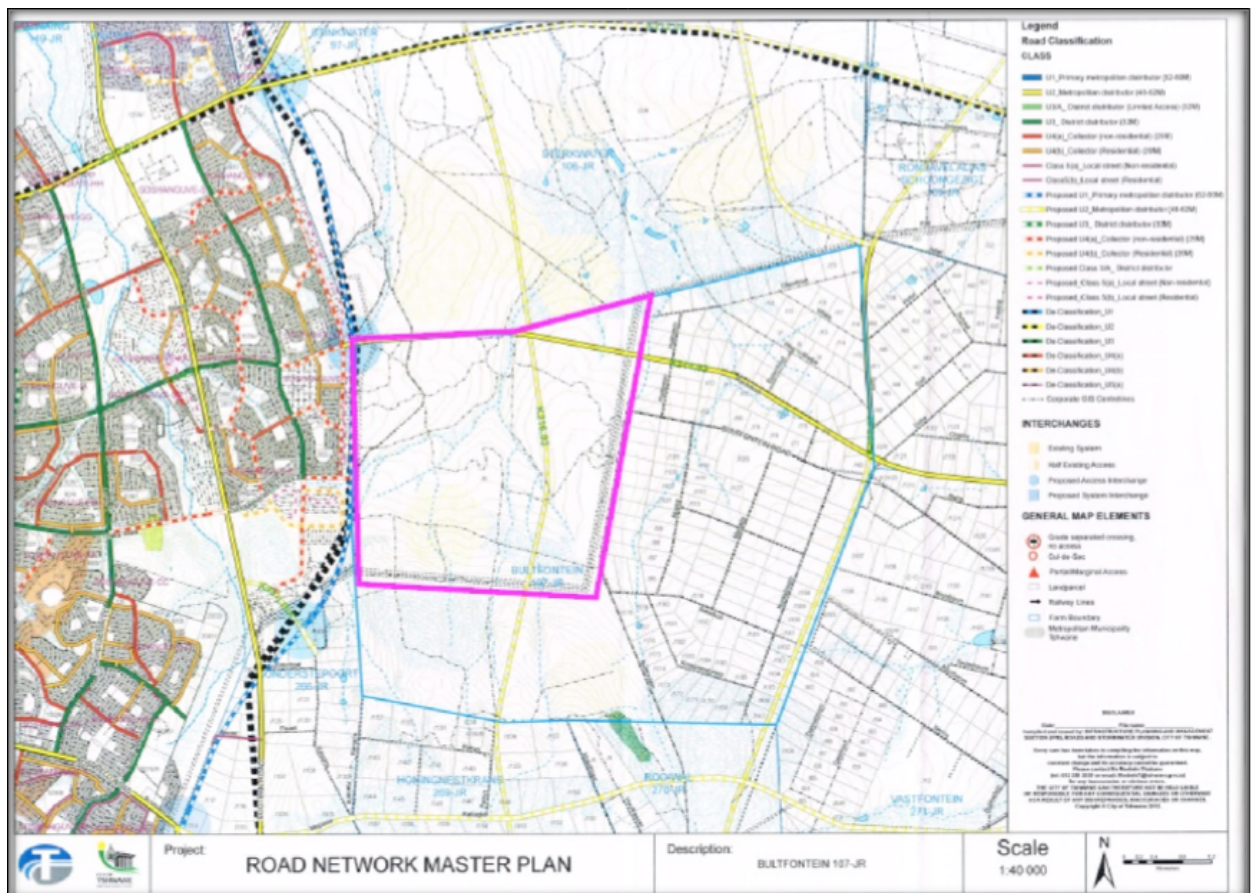


Figure 1: Study Area Location Map (courtesy Enviro Vision).

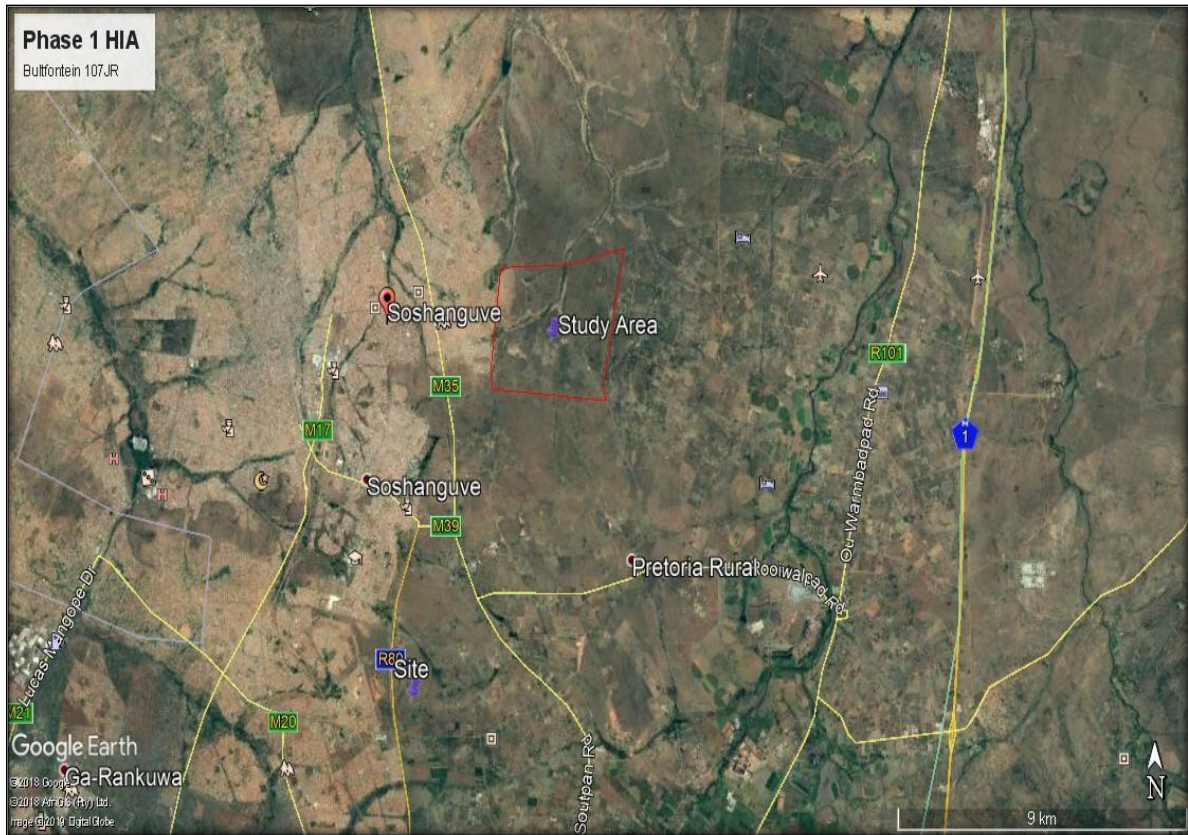


Figure 2: General location of study area (Google Earth 2019).



Figure 3: Closer view of study area location (Google Earth 2019).

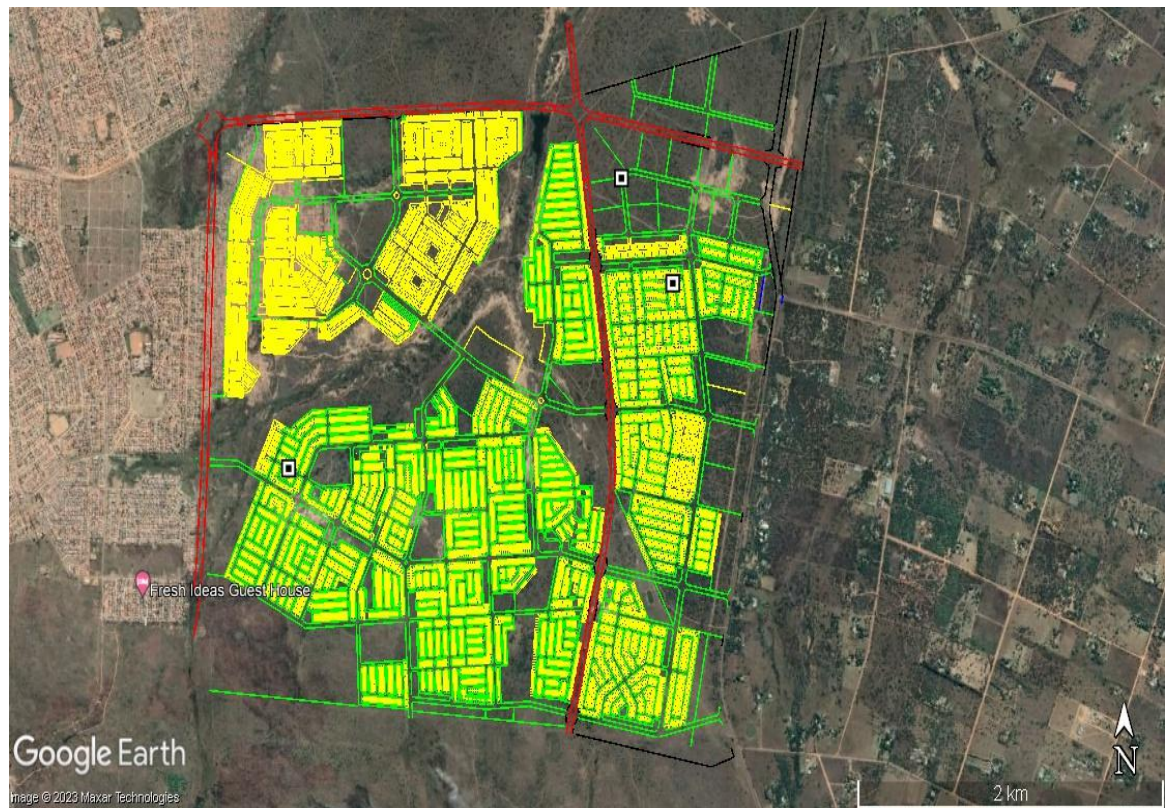


Figure 4: Study area & proposed development layout (provided by Urban Consult Town Planners)



Figure 5: A view of a section of the study area. Note the dense grass cover and trees.



Figure 6: View down Eskom Power Line corridor.



Figure 7: A view of the sand quarrying in the area. This shows only a small section.



Figure 8: The remains of recent residential settlement in the area.



Figure 9: Informal refuse dumping occurs in the area in places.



**Figure 10: Another general view of the area.
A recent soil and stone-built dam is visible as well.**



Figure 11: Another view of a section of the study area.

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 in 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).

Stone Age sites (ESA to LSA) are known in the larger geographical area (some in the so-called Magaliesberg Research Area), which includes rock art sites (Bergh 1999: 4). There are no known Stone Age sites in the specific study area. A relatively large spruit cuts through the north-western part of the study area, with some smaller ones running in the area as well. **It is here (and in the area where sand quarrying is occurring) that a number of sites and material dating the Stone Age were identified and recorded during the assessment.**

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal 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) however indicates that a Middle Iron Age should be included. His dates, which now seem to be 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.

There are no known Iron Age sites close to and in the study area, although there are quite a large number of LIA stone walled sites in the larger geographical area (Bergh 1999: 7). The closest known EIA site is located at Broederstroom (p.6). No Iron Age sites, features or objects were identified during the May 2019 survey in the study area. The research of Prof. Tom Huffman indicates that the following Iron Age traditions might have been present in the larger geographical area in which the study area is located. This includes the Mzonjani facies (related to the Broederstroom site) of the Urewe Tradition dating to between AD450 and AD750 (Huffman 2007: 127); the Uitkomst facies of the same tradition dating to between

AD1650 & AD1820 (p. 171); the Olifantspoort facies of the same, dating to between AD1500 & AD1700 (p.191) and finally the Buispoort facies of the Urewe Tradition dating to between AD1700 & AD1840 (p.203).

No Iron Age sites, features or material were identified in the study area during the May 2019 field assessment.

It needs to be mentioned here that the existence of possible Bafokeng stone-walled sites in the southern portion of the study & development area was brought to the attention of the Heritage Specialist recently (information provided by the Bultfontein Land Use Committee to Mr. Cappie Linde). These sites were not seen by the author of this report during the May 2019 fieldwork however. Using aerial images (Google Earth) some circles (presumably representing the stone-walled enclosures associated with these sites) can be seen in the area, with some also located outside of the study area boundaries.

The historical period started with the moving into the area by the first Europeans. The first groups to move through the larger area were those of Schoon & McLuckie and Moffat & Archbell in 1829, followed by Andrew Smith in 1835 and then David Livingstone in 1847 (Bergh 1999: 12-13), closely followed by the Voortrekkers and first white farmers.

Soshanguve is a township situated about 45 km north of Pretoria, Gauteng, South Africa. It was established in 1974 on land scheduled to be incorporated into a Bantustan bordering on Mabopane in Bophuthatswana, to Sotho, Shangaan, Nguni and Venda people (thus the name) who were resettled from Wallmansthal after being forcibly removed from their land. Schools in Soshanguve, i.e., Wallmansthal High and Khutso Primary, are originally from Wallmansthal. The first section that was built in Soshanguve is Block "K", housing residents of Wallmansthal. It later became part of the City of Tshwane Metropolitan Municipality (www.wikipedia.org).

The oldest map for the farm (of Portion 1) that could be obtained from the database of the Chief Surveyor General dates to 1914 (www.csg.dla.gov.za – CSG Document 10FQ GK01).

This map indicates that the farm was originally given by Deed of Grant to one P.N.C van der Merwe on the 25th of July 1870. In 1914 the farm was located in the District of Pretoria and Ward of Aapjesriver and was numbered as No.212. Portion 1 was surveyed in November 1913. Although no historical sites or features could be identified from this map it shows a number of individual stands or erven that were measured out.

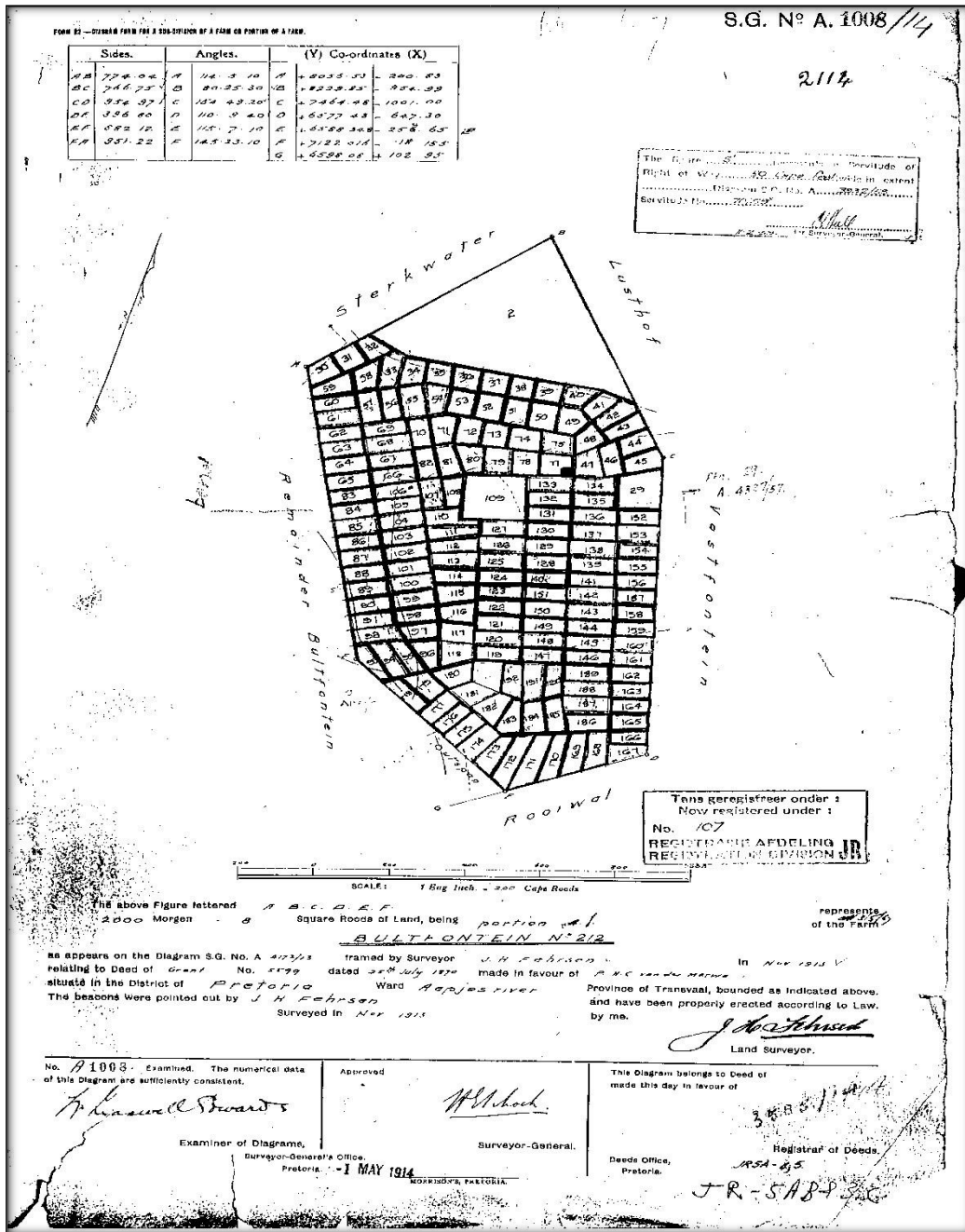


Figure 12: 1914 map of Bultfontein 107JR (www.csg.dla.gov.za).

Results of the Study Area Assessment

Dense grass cover and vegetation during the May 2019 assessment made visibility on the ground difficult. The assessment focused therefore on more open and exposed areas (as a result of the extensive sand quarrying) where visibility and access were easier, especially around the river and stream beds crossing through the area. Sites identified during the earlier February desktop work (on aerial images) such as the recent residential remains and soil/cement dams were not assessed, as they are deemed of no significance from a cultural heritage point of view and not older than 60 years of age. The large and recent residential

developments to the north-west of the area (informal settlement areas) were also not visited during the fieldwork.

A number of Stone Age sites and occurrences (scatters of Middle Stone Age tools) were identified in the area during the field work. These are located in the area where large-scale sand quarrying is currently undertaken and although two of these sites are deemed to be more in-situ the impact of the sand quarrying is deemed to have disturbed and destroyed a large number of sites and occurrences. The sites are also located fairly close to the river/stream beds in the area and it is unlikely that the planned township development will be located here.

However, the sites are fairly significant from an archaeological point of view as not many of these open-air sites are known to exist in the larger area and therefore some mitigation measures will have to be implemented to record the Stone Age archaeology of the area before it is ultimately destroyed through both the quarrying of sand and activities related to the township development. The following mitigation measures are recommended:

1. Mapping of the Stone Age sites and scatters of Stone Age material
2. Surface sampling of representative Stone Age material (stone tools) for curation in a Museum
3. A detailed report on the findings of the mapping and sampling to be submitted to SAHRA after obtaining an archaeological research permit

GPS Location of Sites: Site 1 – S25 29 17.50 E28 09 42.90; Site 2 – S25 29 08.60 E28 09 42.50

Cultural Significance: Medium - High

Heritage Significance: Grade III: Other heritage resources of local importance and therefore worthy of conservation.

Field Ratings: General protection A (IV A): Sites should be mitigated before destruction (High/Medium significance)

Mitigation: See Above.

As mentioned earlier, the possible existence of Bafokeng stone-walled sites in the southern section of the study & proposed development area were brought to the attention of Mr. Cappie Linde by the Bultfontein Land Use Committee before he passed away. These sites were not noticed by the Heritage Specialist during the initial surveys. However, some circles that presumably represent these sites can be seen on aerial images (Google Earth) of the area, with some also visible outside of the area. Whether these features are indeed stone-walled remnants of Bafokeng settlement sites cannot be determined without a doubt at this stage, but based on the aerial imagery it seems highly likely. These sites will have to be mitigated during Phase 2 Archaeological work should the proposed development impact on them.

The following mitigation measures are recommended:

1. Mapping of the Stone-walled sites that fall inside the development area
2. Limited archaeological excavation at these sites in order to recover cultural material to assist with interpreting and reconstructing their history and origin
3. A detailed report on the findings of the mapping and sampling to be submitted to SAHRA after obtaining an archaeological research permit

Cultural Significance: Medium - High

Heritage Significance: Grade III: Other heritage resources of local importance and therefore worthy of conservation.

Field Ratings: General protection A (IV A): Sites should be mitigated before destruction (High/Medium significance)

Mitigation: See Above.

Impact Assessment and Mitigation Measures

The significance of impacts is determined using the following criteria:

Probability: describes the likelihood of the impact actually occurring

- **Improbable:** the possibility of the impact occurring is very low, due to the circumstances, design or experience.
- **Probable:** there is a probability that the impact will occur to the extent that provision must be made therefore.
- **Highly probable:** it is most likely that the impact will occur at some stage of the development.
- **Definite:** the impact will take place regardless of any prevention plans and there can only be relied on mitigation measures or contingency plans to contain the effect.

Duration: the lifetime of the impact

- **Short Term:** the impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.
- **Medium Term:** the impact will last up to the end of the phases, where after it will be negated.
- **Long Term:** the impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.
- **Permanent:** the impact is non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.

Scale: the physical and spatial size of the impact

- **Local:** the impacted area extends only as far as the activity, e.g., footprint
- **Site:** the impact could affect the whole or measurable portion of the abovementioned property.
- **Regional:** the impact could affect the area including the neighboring residential areas.

Magnitude/Severity: Does the impact destroy the environment, or alter its function

- **Low:** the impact alters the affected environment in such a way that natural processes are not affected.
- **Medium:** the affected environment is altered, but functions and processes continue in a modified way.
- **High:** function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

Significance: This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

- **Negligible:** the impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.
- **Low:** the impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.
- **Moderate:** the impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
- **High:** The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.

The significance is calculated by combining the criteria in the following formula:

Sum (Duration, Scale, Magnitude) x Probability

S = Significance weighting; Sc = Scale; D = Duration; M = Magnitude; P = Probability

With a number of sites, features and material of cultural heritage origin and significance found in the area during the May 2019 assessment, as well as the recent location of possible stone-walled Bafokeng settlement sites here, the current site layout provided will have an impact on some sites.

Aspect	Description	Weight

Probability	Improbable	1
	Probable	2
	Highly Probable	4
	Definite	5
Duration	Short Term	1
	Medium Term	3
	Long Term	4
	Permanent	5
Scale	Local	1
	Site	2
	Regional	3
Magnitude/Severity	Low	2
	Medium	6
	High	8
Significance	Sum (Duration, Scale, Magnitude)	x Probability
	Negligible	≤20
	Low	>20≤40
	Moderate	>40≤60
	High	>60

Results: $5+2+6 \times 2 = 26$ i.e., $>20 \leq 40$

The impact of the proposed development on the recorded and known cultural heritage sites in the area is therefore deemed as Low based on the Impact Assessment criteria used. However, there is always a possibility of sites, features and material being missed as a result of various factors such as vegetation cover hampering visibility on the ground, as well as the often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves). These factors need to be taken into consideration and it is therefore recommended that a Chance Finds Protocol be drafted and implemented for the proposed Bultfontein Development.

It is always important to note 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, features or material (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.



Figure 13: A view of Site 1. It is located in an erosion donga.



Figure 14: Another view of Site 1.



Figure 15: MSA flake tools from Site 1.



Figure 16: A hammer stone used to make stone tools from Site 1.



Figure 17: A stone tool found in situ in the erosion donga stratigraphy.



Figure 18: More in situ stone tools at Site 1.



Figure 19: A view of Site 2.



Figure 20: In situ stone tools at Site 2.



Figure 21: Another section of the Site 2 area erosion.



Figure 22: Some of the scatter of stone tools found around Site 2.

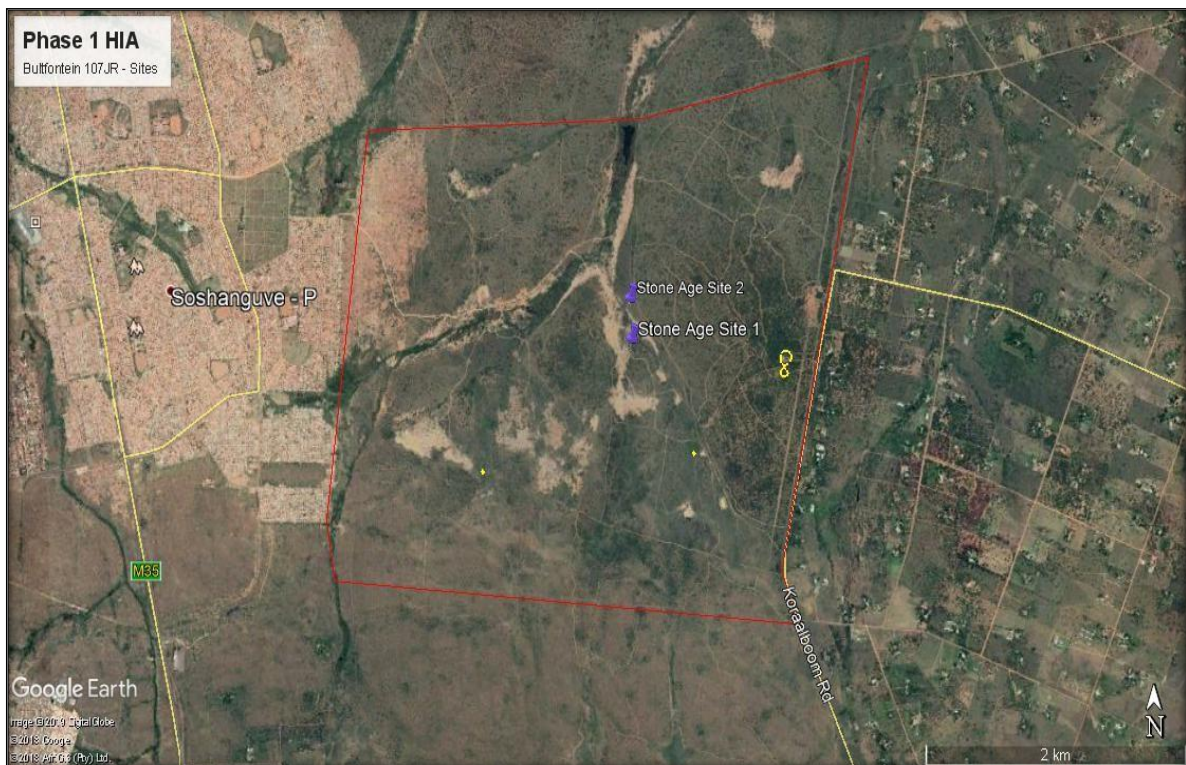


Figure 23: Aerial view of the location of the sites found. The yellow circles indicate recent homestead remains and cement dams (Google Earth 2019).



Figure 24: A closer view of the location of the Stone Age sites found (Google Earth 2019).

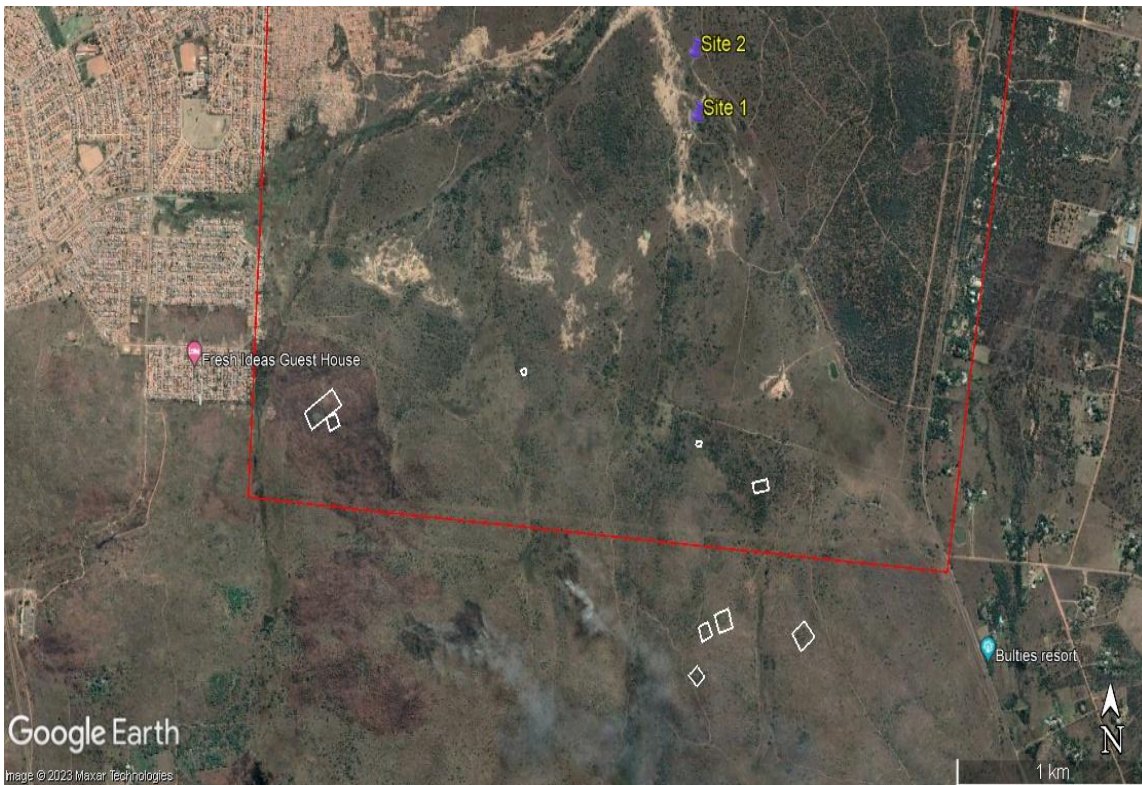


Figure 25: View of the area with the sites recorded in 2019, as well as the location of possible stone-walled Bafokeng settlement sites (in white polygons). A number of these are also located outside of the study & proposed development area (Google Earth 2023).



Figure 26: Closer view of some of the circles that could represent the stone-walled settlement sites in a section of the development area (Google Earth 2023).

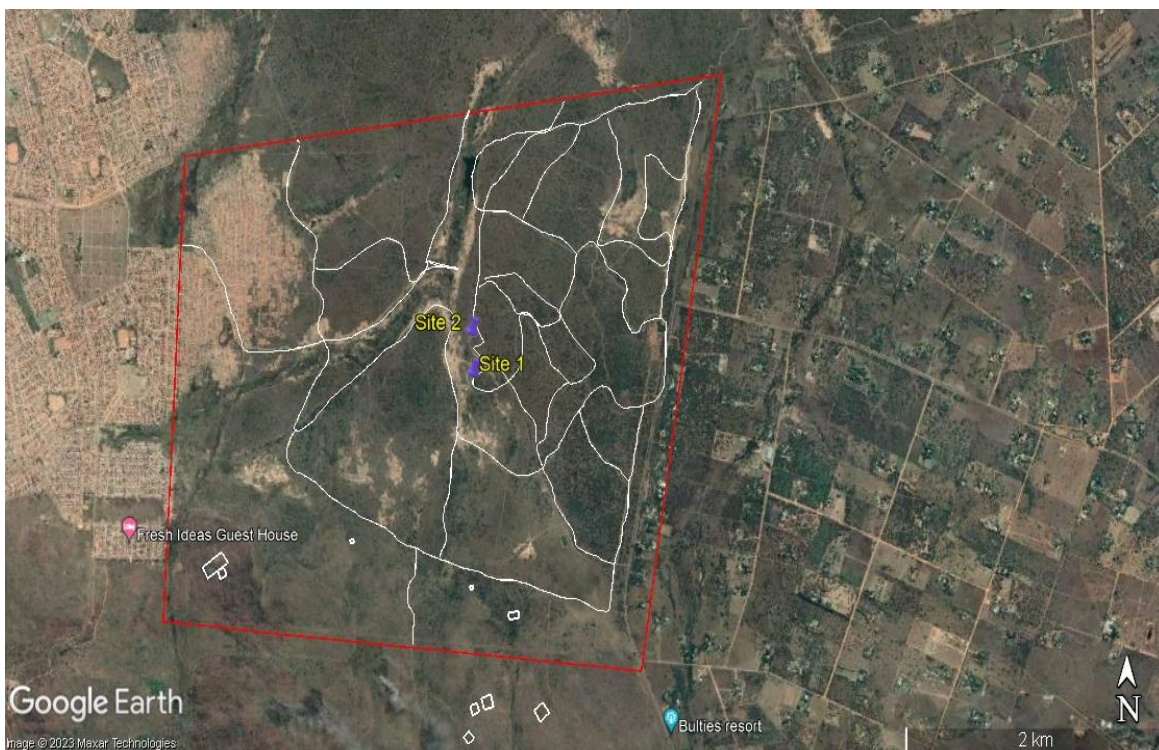


Figure 27: A view of the study & development area footprint with recreated tracks followed during the 2019 assessment (Google Earth 2023).

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was originally appointed by Enviro Vision Consulting cc in 2019 to undertake a Phase 1 HIA for proposed township development on the remainder of the farm Bultfontein 107JR. The study area is located close to Soshanguve in the Greater Tshwane Municipal area of Gauteng. Texture Environmental Consultants were subsequently appointed to continue with the EIA Application for the above-mentioned development after the death of Mr. Cappie Linde of Enviro Vision.

Mr. Linde recommended the following to be included in the EIA Report:

“An Augmented Heritage Impact Assessment report for the entire area according to SAHRA’s Minimum Standards for Heritage Specialist Studies in terms of Section 38 of the National Heritage Resources Act (No. 25 of 1999), including the specialist’s survey tracks. The report should also explore the existence of several Bafokeng kraals (dating back 1000 years plus) that may be located on the southern portion of the property”

Background research indicated that there were a number of cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls. There were no known sites in the study area.

A number of Stone Age sites and occurrences were identified in the area during the field work.

These sites are fairly significant from an archaeological point of view as not many of these open-air sites are known to exist in the larger area and therefore some mitigation measures will have to be implemented to record the Stone Age archaeology of the area before it is ultimately destroyed through both the quarrying of sand and activities related to the township development. The following mitigation measures are recommended:

1. Mapping of the Stone Age sites and scatters of Stone Age material
2. Surface sampling of representative Stone Age material (stone tools) for curation in a Museum
3. A detailed report on the findings of the mapping and sampling to be submitted to SAHRA after obtaining an archaeological research permit

The possible Bafokeng stone-walled sites recently identified in the study and development area will have to be mitigated during Phase 2 Archaeological work as well, should the proposed development impact on them.

The following mitigation measures are recommended:

1. Mapping of the Stone-walled sites that fall inside the development area

2. Limited archaeological excavation at these sites in order to recover cultural material to assist with interpreting and reconstructing their history and origin
3. A detailed report on the findings of the mapping and sampling to be submitted to SAHRA after obtaining an archaeological research permit

The impact of the proposed development on the recorded and known cultural heritage sites in the area is deemed as Low based on the Impact Assessment criteria used. However, there is always a possibility of sites, features and material being missed as a result of various factors such as vegetation cover hampering visibility on the ground, as well as the often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves). These factors need to be taken into consideration and it is therefore recommended that a Chance Finds Protocol be drafted and implemented for the proposed Bultfontein Development.

To conclude, based on the 2019 desktop research and field assessment, as well as the new information included in this amended 2023 Report, from a Cultural Heritage point of view the proposed township development should be allowed to continue, taking into consideration the mitigation measures recommended above.

The often-subterranean nature of archaeological and historical remains (including low stone-packed or unmarked graves) should always be taken into consideration as well. 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, Closer views of study area location and Sites identified: Google Earth 2019 & 2023.

Location Map: Courtesy Enviro Vision Consulting cc.

Development Layout: Provided by Urban Consult Town Planners

Information on possible Bafokeng settlement sites: Courtesy Bultfontein Land Use Committee

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

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.

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.

Pelser, A.J. 2019. **1st Report on a Phase 1 HIA for Proposed Township Development on the Remainder of the farm Bultfontein 107JR near Soshanguve, Greater Tshwane Municipal Area, Gauteng**. Unpublished Report APelser Archaeological Consulting cc: APAC019/16. For: Enviro Vision Consulting cc. February 2019.

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.

Chief Surveyor General Database (www.csg.dla.gov.za): Document 10FQGK01.

www.wikipedia.org.

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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).

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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.

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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:

National Grade I significance: should be managed as part of the national estate

Provincial Grade II significance: should be managed as part of the provincial estate

Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)

Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)

General protection A (IV A): site should be mitigated before destruction (high/medium significance)

General protection B (IV B): site should be recorded before destruction (medium significance)

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General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

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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

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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.