

Comprehensive and Professional Solutions for all Heritage Related Matters  
**CK 2006/014630/23** **VAT NO.: 4360226270**

**REPORT ON A PHASE 1 HIA FOR THE PROPOSED TOWNSHIP DEVELOPMENT  
PROMISED LAND ON A PORTION OF THE REMAINING EXTENT OF ERVEN 1  
AND 3 KURUMAN AND A PORTION OF THE REMAINING EXTENT OF  
PORTION 3 OF THE FARM KURUMAN RESERVE NO. 690 AT GA-SEGONYANA  
LOCAL MUNICIPALITY**

For:

***Maxim Planning Solutions  
P.O.Box 6848  
FLAMWOOD  
2572***

**REPORT: APAC018/31**

by:

***A.J. Pelsler  
Accredited member of ASAPA***

***June 2018***

**P.O.BOX 73703  
LYNNWOOD RIDGE  
0040  
Tel: 083 459 3091  
Fax: 086 695 7247  
Email: [apac.heritage@gmail.com](mailto:apac.heritage@gmail.com)**

Member: AJ Pelsler BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

©Copyright

**APELSER ARCHAEOLOGICAL CONSULTING**

**The information contained in this report is the sole intellectual property of APELSER Archaeological Consulting. It may only be used for the purposes it was commissioned for by the client.**

**DISCLAIMER:**

**Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.**

**Clients & Developers should not continue with any development actions until SAHRA or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference**

A handwritten signature in black ink, appearing to be 'A. Pelser', is centered on the page.

## SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Phase 1 HIA for the proposed township Promised Land on a Portion of the Remaining Extent of Erven 1 and 3 Kuruman and a Portion of the Remaining Extent of Portion 3 of the farm Kuruman Reserve No. 690 at Ga-Segonyana Local Municipality Northern Cape Province.

The project is conducted under instruction from the Housing Development Agency (HDA).

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel. The report will discuss the results of the desktop and field assessment and provide recommendations on the way forward at the end of the document.

From a Cultural Heritage point of view the development actions can continue, taking into consideration the mitigation measures proposed in the report.

# CONTENTS

	page
SUMMARY .....	3
CONTENTS.....	4
1. INTRODUCTION .....	5
2. TERMS OF REFERENCE .....	5
3. LEGISLATIVE REQUIREMENTS .....	5
4. METHODOLOGY .....	8
5. DESCRIPTION OF THE AREA.....	9
6. DISCUSSION.....	14
7. CONCLUSIONS AND RECOMMENDATIONS .....	25
8. REFERENCES .....	25
APPENDIX A – DEFINITION OF TERMS .....	27
APPENDIX B – DEFINITION/ STATEMENT OF SIGNIFICANCE.....	28
APPENDIX C – SIGNIFICANCE AND FIELD RATING.....	29
APPENDIX D – PROTECTION OF HERITAGE RESOURCES.....	30
APPENDIX E – HERITAGE MANAGEMENT IMPACT ASSESSMENT PHASES.....	31

## **1. INTRODUCTION**

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Phase 1 HIA for the proposed township Promised Land on a Portion of the Remaining Extent of Erven 1 and 3 Kuruman and a Portion of the Remaining Extent of Portion 3 of the farm Kuruman Reserve No. 690 at Ga-Segonyana Local Municipality Northern Cape Province.

The project is conducted under instruction from the Housing Development Agency (HDA).

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel.

The client indicated the location and boundaries of the Project Area, and the assessment focused on this area.

## **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 above-mentioned 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 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 mentioned 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 this 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**

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 detailed 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 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.

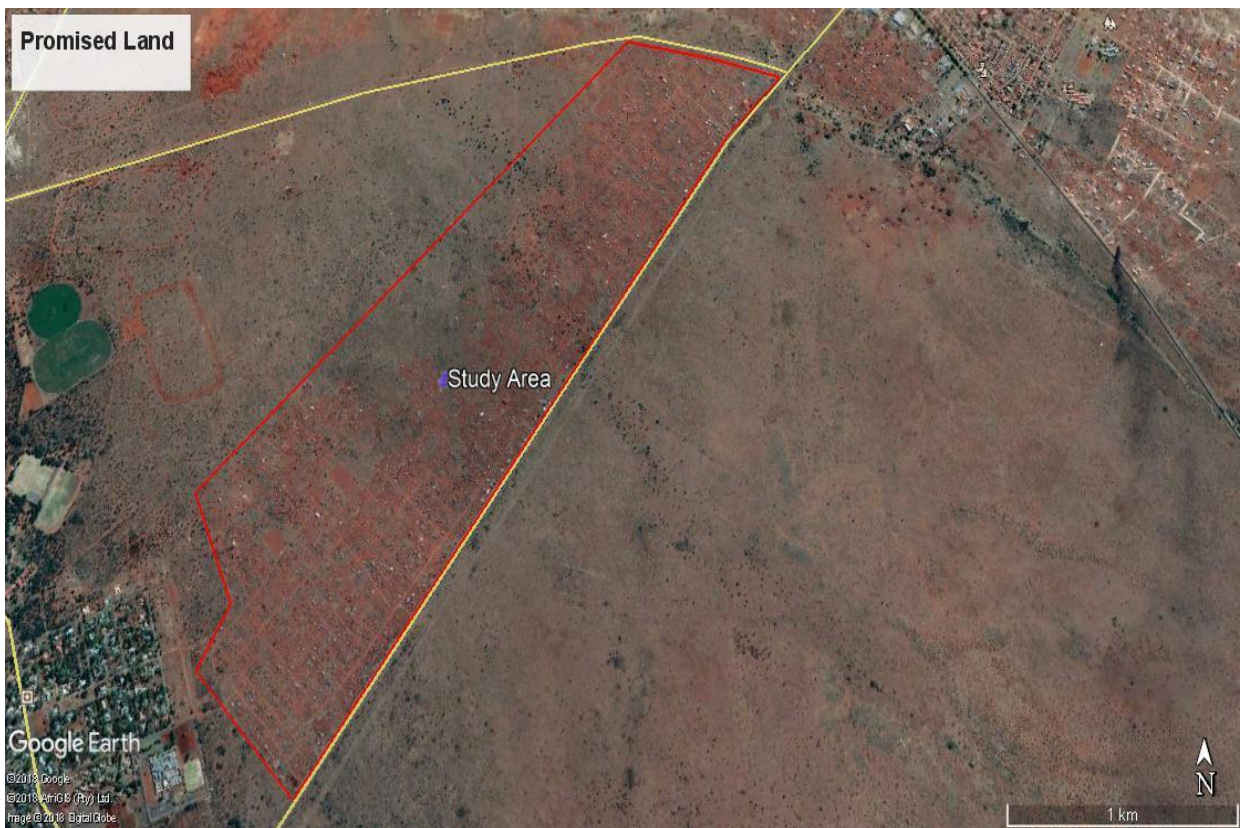
## 5. DESCRIPTION OF THE AREA

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Phase 1 HIA for the proposed township Promised Land on a Portion of the Remaining Extent of Erven 1 and 3 Kuruman and a Portion of the Remaining Extent of Portion 3 of the farm Kuruman Reserve No. 690 at Ga-Segonyana Local Municipality Northern Cape Province. The project is done under instruction from the Housing Development Agency (HAD).

The topography of the study area was generally flat and open, with no real rocky outcrops or ridges occurring. Although in some sections the grass cover was fairly dense, visibility was in general good. The study area has been impacted and disturbed to a large degree already by both informal and formal housing, with plots laid out and cleared. Most of the area is covered by housing and related development already, with very little original vegetation still existing. Dumping of household and other refuse and rubble occurs in the area as well. If any cultural heritage (archaeological and/or historical) sites, features or material did exist here in the past it would have been disturbed or even destroyed as a result.



**Fig.1: General location of study area (Google Earth 2018).**



**Fig.2: Closer view of study area location & footprint (courtesy Maxim Planning Solutions). Google Earth 2018.**



**Fig.3: Closer view of a section of the area. Note the extent of the development (Google Earth 2018).**



**Fig.4: A view of a section showing the housing & roads in the area.**



**Fig.5: Another view showing a part of the area.  
This is one of a number of soccer fields in the area.**



**Fig.6: Another recently opened & cleared area here.**



**Fig.7: Only small patches of vegetation still exist.**



**Fig.8: Dumping of refuse & building rubble occurs throughout.**



**Fig.9: 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 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).

According to David Morris of the McGregor Museum in Kimberley the archaeology of the Northern Cape is rich and varied, covering long spans of human history. The Karoo is particularly bountiful. Some areas are richer than others, and not all sites are equally significant. The significance of sites encountered in the study area may be assessed against previous research in the region and subcontinent. The region's remoteness from research institutions accounts for a relative lack of archaeological research in the area. The area has probably been relatively marginal to human settlement for most of its history, yet it is in fact exceptionally rich in terms of Stone Age sites and rock art, as a relatively few but important studies have shown (Morris 2006).

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylyfeld, Demaneng, Mashwening, King, Rust & Vrede, Paling,

Gloucester and Mount Huxley to the north. Rock engraving sites are known from Beeshoek and Bruce (Morris 2005: 3).

Studies done by Kusel (2009) and by Pelsler & Van Vollenhoven (2011) at Black Rock and Gloria Mines near Hotazel, revealed a number of Early to Later Stone Age artifacts and sites in the larger area.

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.

The expansion of early farmers, who, among other things, cultivated crops, raised livestock, made ceramic containers (pots), mined ore and smelted metals, occurred in this area between AD 400 and AD 1100 and brought the Early Iron Age (EIA) to South Africa. They settled in semi-permanent villages (De Jong 2010: 35).

While there is some evidence that the EIA continued into the 15th century in the South African Lowveld, on the escarpment it had ended by AD1100. The Highveld became active again from the 15th century onwards due to a gradually warmer and wetter climate. From here communities spread to other parts of the interior. This later phase, termed the Late Iron Age (LIA), was accompanied by extensive stonewalled settlements, such as the Thlaping capital Dithakong, 40 km north of Kuruman (De Jong 2010: 35-36).

Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone Age (LSA) Khoisan groups, the so-called 'first people'. Most of them were eventually assimilated by LIA communities and only a few managed to survive, such as the Korana and Griqua. This period of contact is sometimes known as the Ceramic Late Stone Age and is represented by the Blinkklipkop specularite mine near Postmasburg and finds at the Kathu Pan (De Jong 2010: 36).

Factors such as population expansion, increasing pressure on natural resources, the emergence of power blocs, attempts to control trade and penetration by Grikwas, Korana and white communities from the south-west resulted in a period of instability in Southern Africa that began in the late 18th century and effectively ended with the settlement of white farmers in the interior. This period, known as the difaqane or Mfecane, also affected the Northern Cape Province, although at a relatively late stage compared to the rest of Southern Africa. Here, the period of instability, beginning in the mid-1820s, was triggered by the incursion of displaced refugees associated with the Tlokwa, Fokeng, Hlakwa and Phuting tribal groups.

The difaqane coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first was PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were followed by Cowan, Donovan, Burchell and Campbell and resulted in the establishment of a London Mission Society station near Kuruman in 1817 by James Read. Robert Moffat and his wife Mary came to Kuruman in 1820 and the mission has been known as The Moffat Mission Station ever since.

The Great Trek of the Boers from the Cape in 1836 brought large numbers of Voortrekkers up to the borders of large regions known as Bechuanaland and Griqualand West, thereby coming into conflict with many Tswana groups and also the missionaries of the London Mission Society. The conflict between Boer and Tswana communities escalated in the 1860s and 1870s when the Korana and Griqua communities became involved and later also the British government. The conflict mainly centered on land claims by various communities. For decades the western border of the Transvaal Boer republic was not fixed. Only through arbitration (the Keate Arbitration), triggered by the discovery of gold at Tati (1866) and diamonds at Hopetown (1867) was part of the western border finally determined in 1871. Ten years later, the Pretoria Convention fixed the entire western border, thereby finally excluding Bechuanaland and Griqualand West from Boer domination (De Jong 2010: 36).

Kuruman's name is thought to be derived from the name of an 18th century San leader Kudumane (Kalahari Tourism Information Booklet p.32).

### **Information from Wikipedia**

Kuruman is a town with just over 13,000 inhabitants in the Northern Cape province of South Africa. It is known for its scenic beauty and the Eye of Kuruman, a geological feature that brings water from deep underground. It was at first a mission station of the London Missionary Society founded by Robert Moffat in 1821. It was also the place where David Livingstone arrived for his first position as a missionary in 1841. The Kuruman River, which is dry except for flash floods after heavy rain, is named after the town.

Kuruman is regarded as the "Oasis of the Kalahari". It is set out on the Ghaap Plateau and receives its water source from a spring called "The Eye" which rises in a cave in the semidesert thornveld area in the Kalahari region. Kuruman is the main town in the area and the spring gives about 20 to 30 million litres of water daily to approximately 10 000 inhabitants. It is also known as "Die Oog" or "Gasegonyane" in the Kalahari region.

The name Kuruman is derived from the Chief who lived in the area, named Kudumane. Robert Moffat, a missionary from the London Missionary Society, also lived there from 1820 to 1870. Moffat helped build the famous Moffat Church which was completed in 1838 and is still used for regular church services. While living in Kuruman, Moffat translated the bible into the Tswana language: this was the first bible in an indigenous southern African language.

The Eye was claimed to have been discovered in 1801 and this led to the establishment of the mission station in the early 19th century. The Eye then came to be described as "The fountain of Christianity". It is the biggest natural fountain in the Southern Hemisphere. In the early years, Tswana people called this fountain "Gasegonyane" which means "small water calabash with bubbling water"



The oldest map that could be obtained from the Chief Surveyor General's database ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)) for the farm Kuruman Reserve 690 dates to 1969 (CSG Document 10132335). It is for Portion 0 and shows that the farm was then located in the Administrative district of Kuruman in the Province of the Cape of Good Hope (today Northern Cape) and that it was framed in terms of Section 39 of Act 39 of 1927. The Portion 1 map (Document 10173421) dates to 1977 and shows it was surveyed in March 1977. Portion 3 was surveyed in October 1998 according to the 1998 map (CSG Document 10147728). No historical sites or features are indicated on any of these maps.

Maps and diagrams for Erven 1 and 3 were provided to APAC by Maxim Planning Solutions. The oldest of these (Document F3 – 1917: 10065341) dates to 1917 and is for Erf 1. On the document it is however indicated that the diagram was mislaid en route to the Lands Dept. in Pretoria. No copy of this diagram could be obtained. A number of diagram (sheets) for Erf 3 (FA1666/1923: 10166481) was also provided by Maxim to APAC, dating to 1923/4. Information from these does indicate that the land was transferred to the Municipality between February 1918 and October 1923. Although there are indications of a school and church on these maps, these sites do not affect the proposed development area due to the location thereof in relation to the proposed township area.

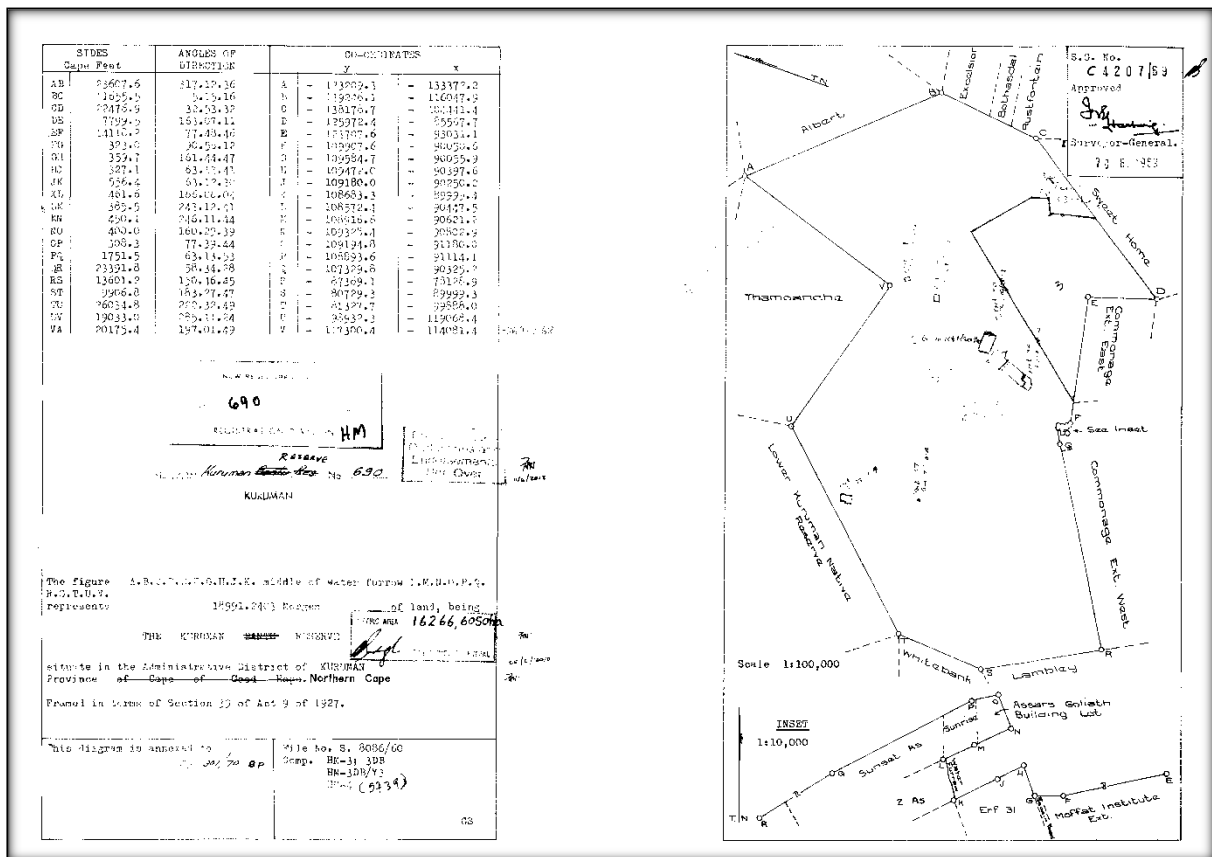
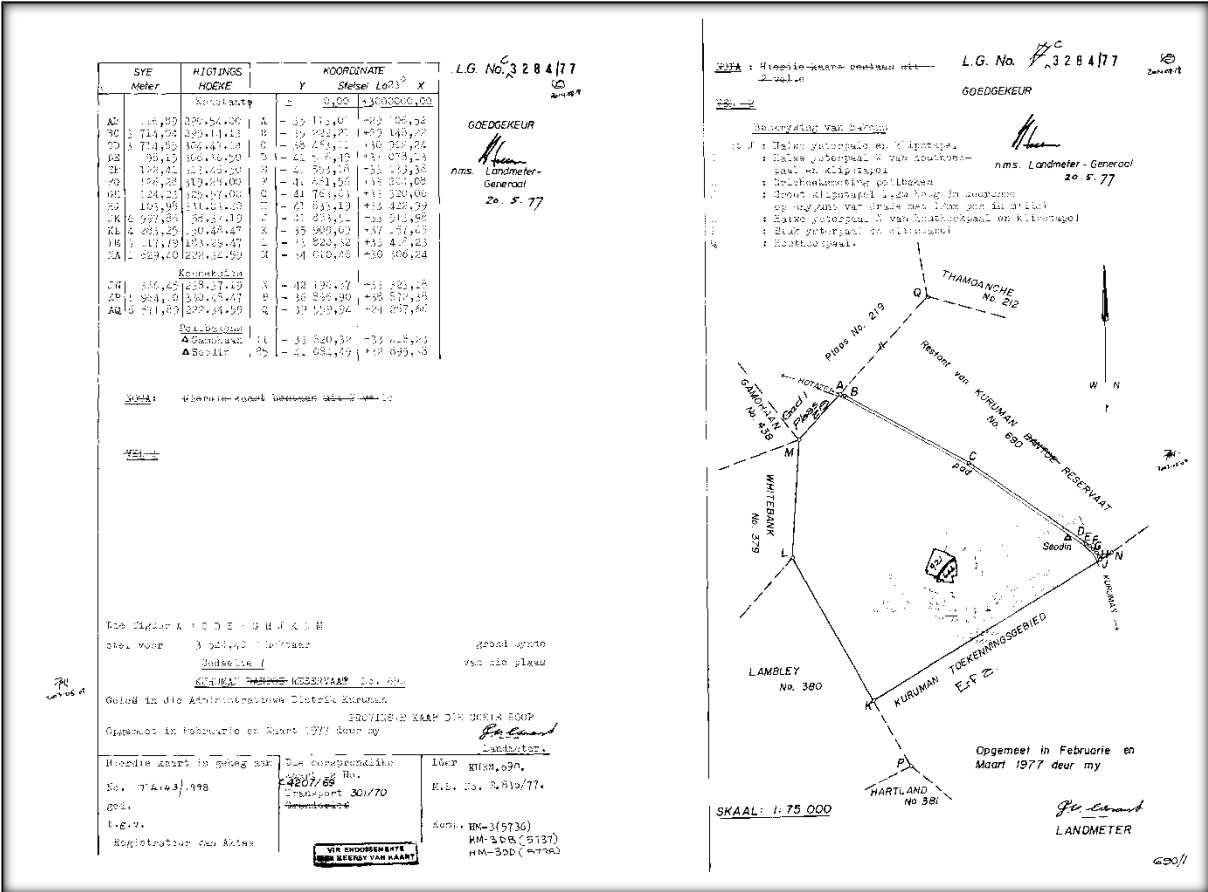


Fig.10: 1969 map of Portion 0 of Kuruman Reserve 690 ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).



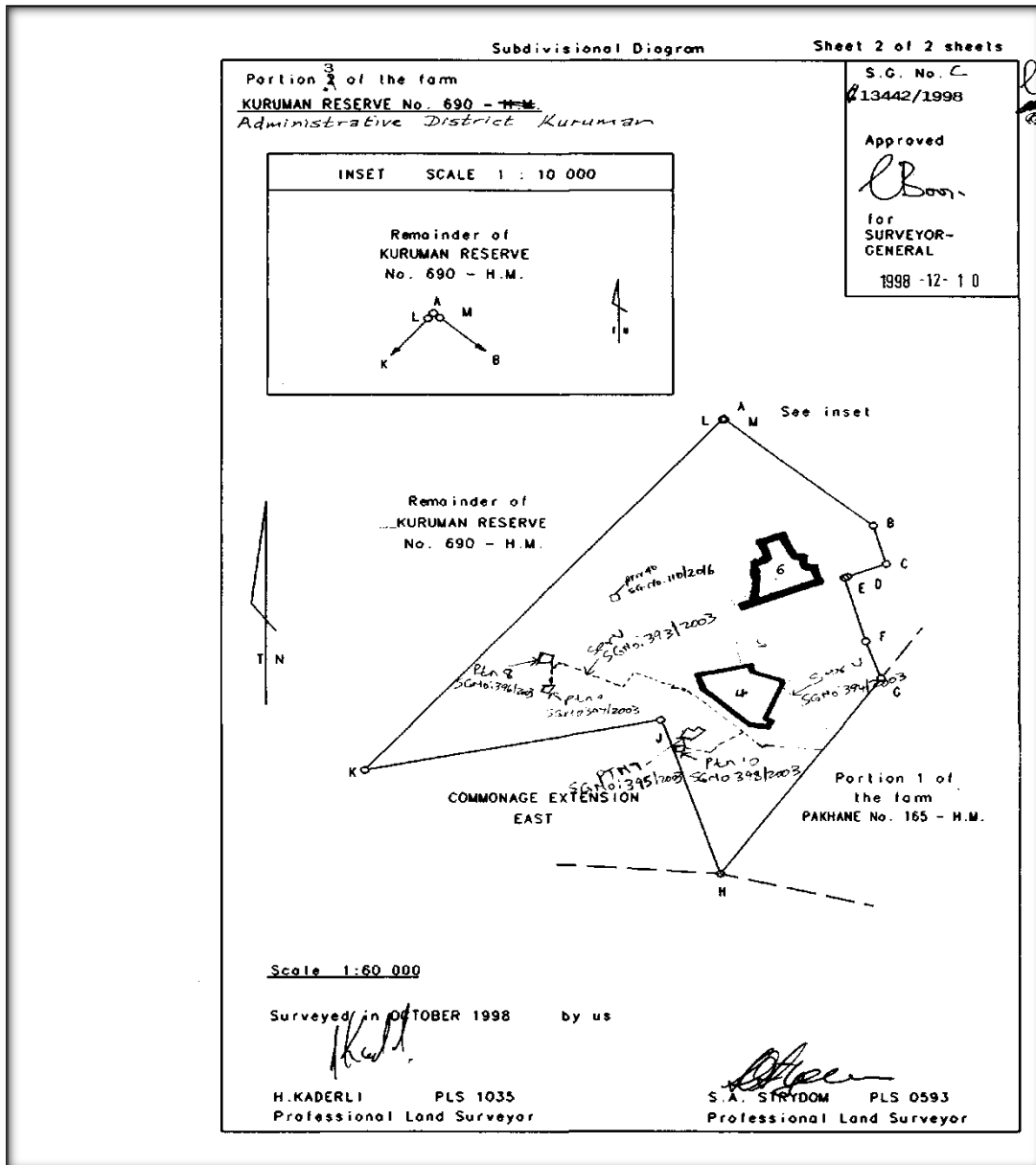


Fig.12: 1998 map of Portion 3 of Kuruman Reserve 690 ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)).

F  
Kuruman Commonage *Opn. B. 39/1917* *followed*  
*as SS/LD.*

Diagram sent Lands Dept. Pretoria was mislaid en route. The triplicate was taken out of cupboard and sent Lands at their request

*see also Opn. 18695/1914 date 2 Aug 1917. Same.*

See Plan 89A

ERF / Kuruman

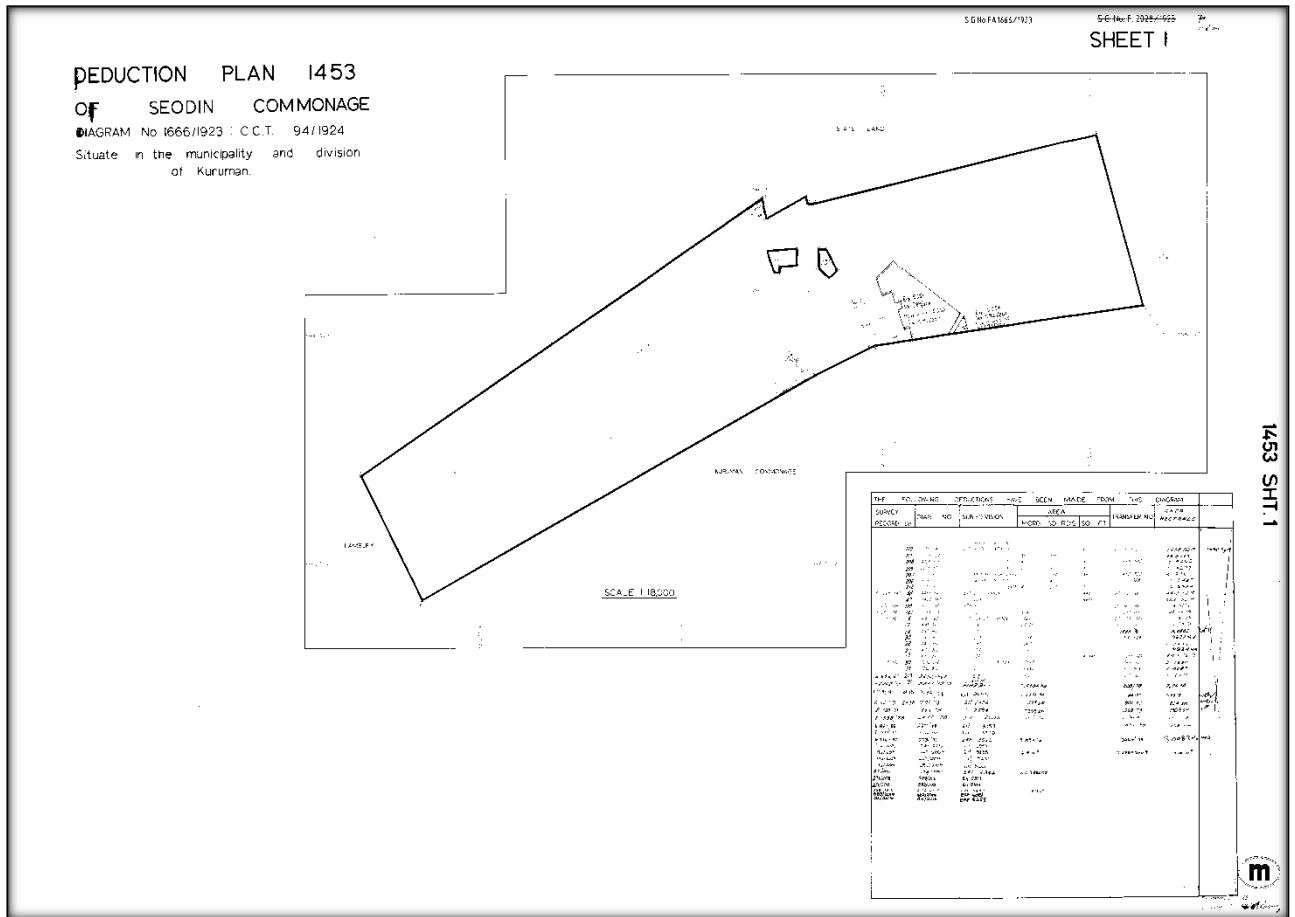
*See Plan 281 LD*

This diagram is to be used in the  
Title Deeds Office Kur. FH 4-5  
used as of 1917.  
.....

*Plan 1561*

**Fig.13: Diagram F39/1917 (10065341) dating to 1917 for Erf 1.**





**Fig.15: Sheet 1 of Map/Diagram FA1666 – 1923 (10166481) Seodin Commage showing Lot 1 and Church/School.**

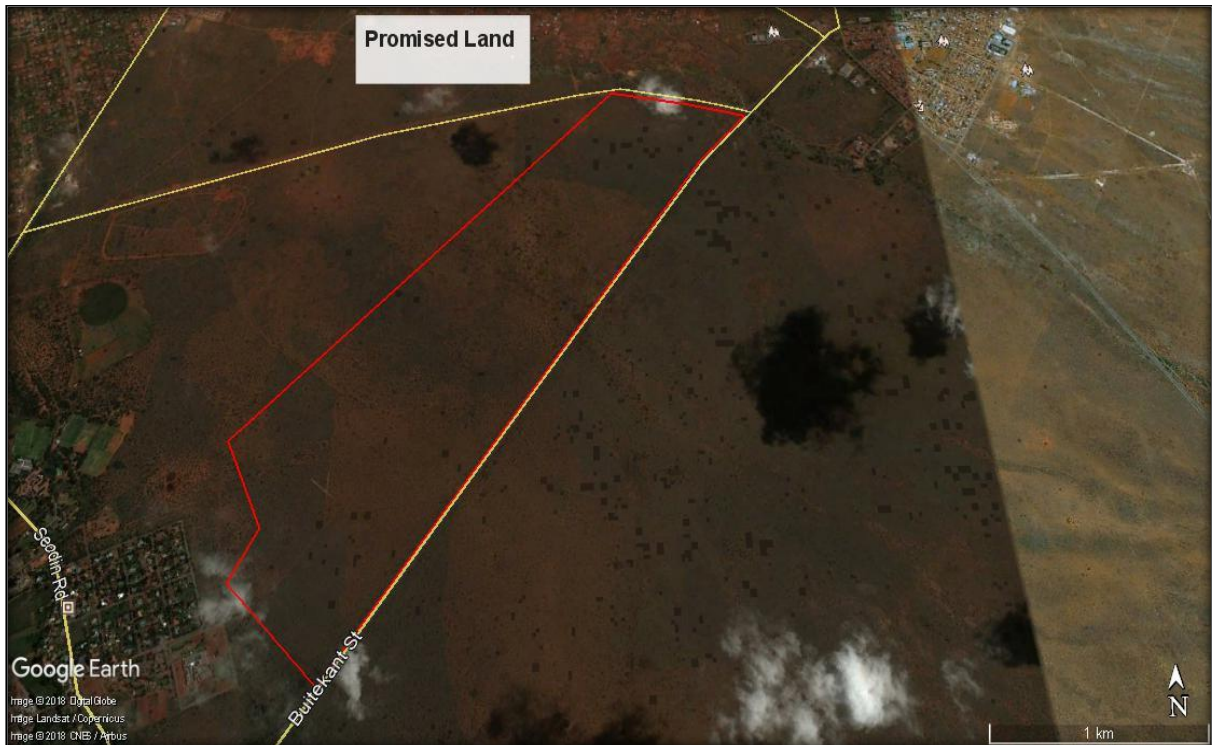
**Results of the June 2018 Fieldwork**

No sites, features or material of cultural heritage (archaeological and/or historical) nature, origin or significance was identified and recorded in the study area during the field assessment. The area has been heavily impacted and disturbed in the recent past by current ongoing residential and related activities. If any did exist here in the past it would have been disturbed or destroyed as a result.

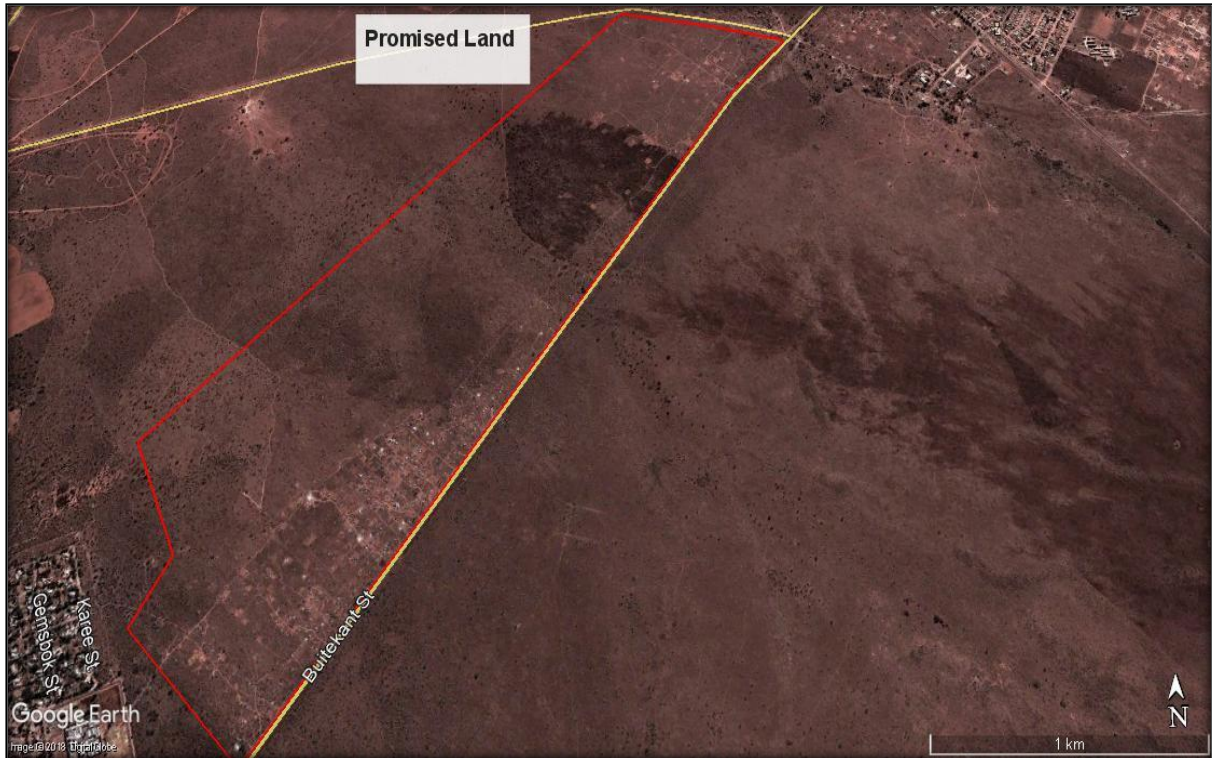
It is clear from aerial views of the study area that recent large scale human settlement has slowly encroached on the area since 2005. This has impacted on the area heavily and any sites (if they did exist) would have been impacted by this to a very large degree. It is therefore highly unlikely that any significant and intact sites, features or material would be present here. From a Cultural Heritage point of view the development of Promised Land can therefore continue.



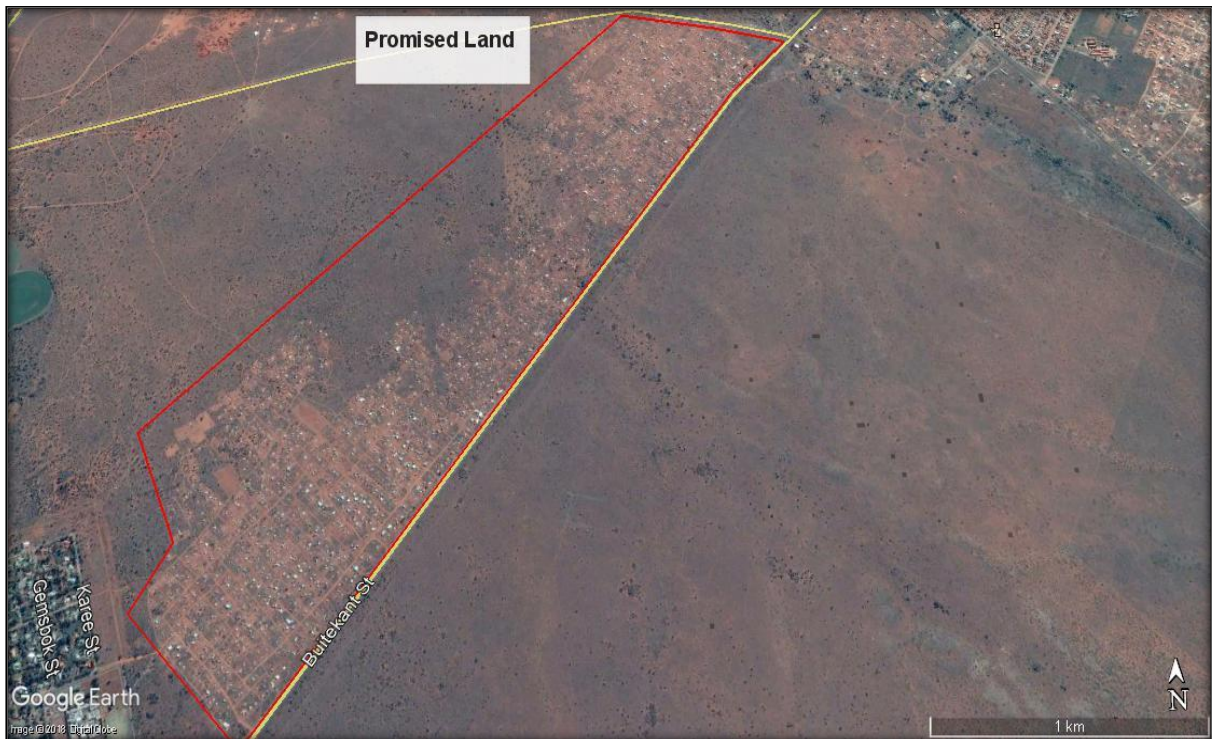
**Fig.16: An aerial view of the area in 2005 (Google Earth 2018).**



**Fig.17: The area in 2010 (Google Earth 2018).**



**Fig.18: By 2012 some settlement had started to occur in the area (Google Earth 2018).**



**Fig.19: The most recent aerial image available for the area (2016). Google Earth 2018.**

*It should be noted that although all efforts were made to cover the total area 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 aspect should be kept in mind when development work commences and if any*



*sites (incl. 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 Maxim Planning Solutions to undertake a Phase 1 HIA for the proposed township Promised Land on a Portion of the Remaining Extent of Erven 1 and 3 Kuruman and a Portion of the Remaining Extent of Portion 3 of the farm Kuruman Reserve No. 690 at Ga-Segonyana Local Municipality Northern Cape Province. The project is conducted under instruction from the Housing Development Agency (HDA).

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel and none was identified and recorded during the recent assessment. The area has been heavily impacted and disturbed in the recent past by current ongoing residential and related activities. If any did exist here in the past it would have been disturbed or destroyed as a result. It is clear from aerial views of the study area that recent large scale human settlement has slowly encroached on the area since 2005. It is therefore highly unlikely that any significant and intact sites, features or material would be present here.

**Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also 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.**

From a cultural heritage point of view the development can therefore continue, taking cognizance of the above recommendations.

## **8. REFERENCES**

Aerial views of study area location and footprint: Google Earth 2018 & Maxim Planning Solutions (Pty) Ltd.

Maps/Diagrams/Plans of the area provided by Maxim Planning Solutions (obtained from the Chief Surveyor General).

**Kalahari Tourism Information Booklet - John Taolo Gaetsewe District Municipality.**  
Not dated.

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

De Jong, R.C. 2010. **Heritage Impact Assessment report: Proposed Manganese and Iron Ore Mining Right Application in respect of the Remainder of the farm Paling 434, Hay**

**Registration Division, Northern Cape Province.** Unpublished Report Cultmatrix Heritage Consultants Project 2010/23 May 2010 for Kai Batla.

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.

Kusel, U., M.van der Ryst and S.Kusel. 2009. **Cultural Heritage Impact Assessment of Manganese Mining Areas on the farms Belgravia 264, Santoy 230, Gloria 226 and Nchwaning 267, at Black Rock, North of Kuruman, Kgalagadi District Municipality Northern Cape Province.** Unpublished Report African Heritage Consultants September 2009. For Assmang Limited.

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.

Morris, David. 2005. **Report on a Phase 1 Archaeological Impact Assessment of proposed mining areas on the farms Ploegfontein, Klipbankfontein, Welgevonden, Leeuwfontein, Wolhaarkop and Kapsteviel, west of Postmasburg, Northern Cape.** Kimberley: McGregor Museum.

Morris, David. 2006. **Archaeological Specialist Input to the EIA Phase for the proposed Aries-Garona ESKOM Transmission Power Line, Northern Cape and Comment on the Garona Substation Extension.** Unpublished Report September 2006 for Tswelopele Environmental.

Pelser, A.J. & A.C.van Vollenhoven. **A Report on a Heritage Impact Assessment (HIA) for a proposed new rail crossing over the Gamagara River for the Gloria Mine Operations, Assmang Black Rock, on Gloria 266, north of Hotazel, Northern Cape.** Unpublished Report Archaeos cc AE1151. May 2011. For EScience Associates (Pty) Ltd.

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.

Wikipedia: [www.wikipedia.com](http://www.wikipedia.com).

Chief Surveyor General Database ([www.csg.dla.gov.za](http://www.csg.dla.gov.za)): Documents  
1.10132335            2. 10173421            3.10147728

**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.