

# **Heritage Impact Assessment**

Heritage Impact Assessment for the Proposed Leolo Demarcation Project at Ga-Mogoboya, south of Tzaneen, Limpopo Province.

## **Compiled for:**

Tekplan Environmental

## **Survey conducted & Report compiled by:**

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**February 2012**

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## Executive Summary

**Site name and location:** Proposed development of the Leolo Township Extension adjacent to the village of Ga-Mogoboya approximately 30km south of Tzaneen in the Limpopo Province.

**Local Authority:** Mopani District Municipality.

**Developer:** The Department of Local Government and Housing.

**Date of field work:** 22 February 2012.

**Date of report:** February 2012.

**Findings:** No further site-specific actions or any heritage mitigation measures are recommended as no heritage resource sites or finds of value or significance were identified in the indicated study area. The proposed development of the Leolo Township Extension can continue from a heritage point of view.

**Disclaimer:** *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Hutten Heritage Consultants and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.*

## TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>5</b>
<b>2. LEGISLATIVE REQUIREMENTS .....</b>	<b>5</b>
<b>3. PROPOSED PROJECT .....</b>	<b>6</b>
<b>4. PROJECT AREA DESCRIPTION .....</b>	<b>6</b>
<b>5. ARCHAEOLOGICAL HISTORY OF THE AREA.....</b>	<b>7</b>
<b>6. METHODOLOGY .....</b>	<b>9</b>
PHYSICAL SURVEY .....	9
RESTRICTIONS .....	10
DOCUMENTATION.....	10
<b>7. ASSESSMENT CRITERIA .....</b>	<b>10</b>
SITE SIGNIFICANCE.....	10
IMPACT RATING.....	11
CERTAINTY .....	12
DURATION .....	13
MITIGATION.....	13
<b>8. ASSESSMENT OF SITES AND FINDS.....</b>	<b>13</b>
LEOLO TOWNSHIP EXTENSION.....	13
<b>9. RECOMMENDATIONS.....</b>	<b>14</b>
LEOLO TOWNSHIP EXTENSION.....	14
<b>10. REFERENCES .....</b>	<b>15</b>

### **ADDENDUM A   Photographs**

Photo 1: View of the Thabina River.

Photo 2: View of the existing ploughed fields.

Photo 3: View of the gravel road on the southern side.

Photo 4: View of Ko-korwane Hill on the north-eastern side

Photo 5: View of an existing developed stand.

Photo 6: View of the existing dense vegetation.

### **ADDENDUM B   Location Maps**

## **1. Introduction**

Hutten Heritage Consultants was contracted by TEKPLAN ENVIRONMENTAL to conduct a Heritage Impact Assessment (HIA) on the proposed development of the Leolo Township Extension, adjacent and to the south of Ga-Mogoboya village, approximately 30km south of Tzaneen, Limpopo Province.

The aim of the study was to identify all heritage sites, to document and to assess their significance within Local, Provincial and National context. The report outlines the approach and methodology implemented before and during the survey, which includes in Phase 1: Information collection from various sources and social consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

This HIA forms part of the Environmental Impact Assessment (EIA) as required by various Acts and Laws as described under the next heading and is intended for submission to the provincial South African Heritage Resources Agency (SAHRA) for peer review.

Minimum standards for reports, site documentation and descriptions are set by the Association of Southern African Professional Archaeologists (ASAPA) in collaboration with SAHRA. ASAPA is a legal body representing professional archaeology in the Southern African Development Community (SADC) region. As a member of ASAPA, these standards are trying to be adhered to.

The extent of the proposed development sites were determined as well as the extent of the areas to be affected by secondary activities (access routes, construction camps, etc.) during the development.

## **2. Legislative Requirements**

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

National Environmental Management Act (NEMA) Act 107 of 1998

National Heritage Resources Act (NHRA) Act 25 of 1999

Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002

Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

National Environmental Management Act (NEMA) Act 107 of 1998

Basic Environmental Assessment (BEA) – Section (23)(2)(d)

Environmental Scoping Report (ESR) – Section (29)(1)(d)

Environmental Impacts Assessment (EIA) – Section (32)(2)(d)

Environmental Management Plan (EMP) – Section (34)(b)

National Heritage Resources Act (NHRA) Act 25 of 1999

Protection of Heritage resources – Sections 34 to 36; and

Heritage Resources Management – Section 38

Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002  
Section 39(3)  
Development Facilitation Act (DFA) Act 67 of 1995  
The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31

### **3. Proposed Project**

The Department of Local Government and Housing has proposed the development of the Leolo Township Extension approximately 30km south of Tzaneen in the Limpopo Province. This development will include the layout of approximately 500 residential erven, sites for schools, businesses, churches, public open spaces and roads. The size of the development area for the proposed Leolo Township Extension is approximately 50ha. The purpose of the study was to determine if the proposed area was suitable for the development of the residential town from a heritage point of view.

The project was tabled during November 2011 and the developer intends to commence as soon as possible after receipt of the ROD from the Department of Environmental Affairs.

### **4. Project Area Description**

The proposed development of the Leolo Township Extension will be situated adjacent and on the southern side of Ga-Mogoboya village. Ga-Mogoboya village is situated approximately 30 km south of Tzaneen in the Limpopo Province.

The proposed area was situated adjacent and along the southern banks of the Thabina River which ran from west to east (photo 1). The area sloped slightly down from the south to the river in the north. Ploughed fields in between the river and the proposed area formed the northern boundary of the proposed area (photo 2) and a gravel road to Rita and Serara villages formed the southern boundary (Photo 3). An isolated large hill named Ko-korwane was situated on the north-eastern extent of the proposed site (photo 4). Several stands next to the gravel road were already developed (photo 5) and the rest of the area was (or still is) exposed to intensive agricultural activities. The area next to the river proved to be excellent fertile soils for planting mealies and other crops. Most of the current unploughed areas were covered with dense vegetation and grass and the overgrowth of pioneer plants such as several *Acacia* and *Dichrostachys* species probably resulted due to the recent agricultural activities (photo 6).

The proposed development will be approximately 50ha in size and was situated on the Farm Thabina Valley 13 KT. The proposed development will be situated on the The Downs 2430 AA 1:50 000 topographical map (See Appendix B: Location Maps).

## 5. Archaeological History of the Area

The examination of archival records, historical data and cartographic resources represents a critical additional tool for locating and identifying heritage resources and in determining the historical and cultural context of the study area. Therefore an internet literature search was conducted and relevant archaeological and historical texts were also consulted. Relevant topographic maps and satellite imagery were studied. Researching the National Archive records as well as the SAHRA APM Report Mapping Project records, it was determined that four previous archaeological or historical studies had been performed within grid square 2430AA:

Van Schalkwyk, J.A., Moifatswane, S. & Smith, S. **A Survey of Cultural Resources in the Proposed Letsitele Dam Site, Letsitele River.** An unpublished report by the National Cultural History Museum on file at SAHRA as 1996-SAHRA-0029.

Gaigher, S., 2006. **Heritage Impact Assessment for the Proposed Water Supply Project near Mafefe Village, Lebowakgomo, Limpopo Province.** An unpublished report by Archaeo-Info on file at SAHRA as: 2006-SAHRA-0315.

Murumbika, M., 2006. **Archaeological Impact Assessment Study for the Proposed Construction of Electricity Distribution Powerlines Within Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as: 2006-SAHRA-0443.

Murumbika, M., Mabuda, M., 2007. **Phase 1 Cultural and Archaeological Heritage Assessment Study for the Proposed Thabina Regional Water Scheme Pipeline in Greater Tzaneen Local Municipality, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as: 2007-SAHRA-0316.

In addition, this author undertook a heritage impact assessment immediately adjacent to the current study area in 2010:

Hutten, M., 2010. **Heritage Impact Assessment for the Proposed Leolo Village Township Development at Ga-Mogoboya, south of Tzaneen, Limpopo Province.** An unpublished report by Hutten Heritage Consultants compiled for Tekplan Environmental.

The historical background and timeframe of the study area and other areas in Southern Africa can be divided into the Stone Age, Iron Age and Historical period. These can be divided as follows:

### **Stone Age sites**

The Stone Age is divided into the Early; Middle and Late Stone Age. The *Early Stone Age* (ESA) includes the period from 2.5 million years B.P. to 250 000 years B.P. and is associated with Australopithecines and early *Homo* species who practiced stone tool industries such as the Oldowan and Acheullian. The *Middle Stone Age* (MSA) covers

various tool industries, for example the Howiesons Poort industry, in the period from 250 000 years B.P. to 25 000 years B.P. and is associated with archaic and modern *Homo sapiens*. The *Late Stone Age* (LSA) incorporates the period from 25 000 years B.P. up to the Iron Age and Historical Periods and contact between hunter-gatherers and Iron Age farmers or European colonists. This period is associated with modern humans and characterised by lithic tool industries such as Smithfield and Robberg.

To the west of the study area excavations at several well known sites in the region attest to ESA occupation in the region, for example at Makapansgat which provided evidence of long occupation, initially by *Australopithecus africanus* from approximately 3.3 million years B.P. (Bergh 1999). The LSA is represented in the area by the presence of San rock paintings and engravings in the Mohlapiitse River valley in the Wolkberg (Changuion 2008) a few kilometres to the west of the study area.

### **Iron Age**

The Iron Age incorporates the arrival and settlement of Bantu speaking people and overlaps the Pre-Historic and Historical Periods. It can be divided into three phases. The *Early Iron Age* includes the majority of the first millennium A.D. and is characterised by traditions such as Happy Rest and Silver Leaves. The *Middle Iron Age* spans the 10<sup>th</sup> to the 13<sup>th</sup> Centuries A.D. and includes such well known cultures as those at K2 and Mapungubwe. The *Late Iron Age* is taken to stretch from the 14<sup>th</sup> Century up to the colonial period and includes traditions such as Icon and Letaba.

The Early Iron Age in the area is significantly represented by the site at Silver Leaves (north-east of the study area) which has provided the oldest evidence for grain cultivation in southern Africa and represents the earliest phase of the Kwale Branch in South Africa (Klapwijk & Huffman 1996). Despite its aridity and infertility, the Lowveld region also has a significant history of Middle- and Late Iron Age settlement which has been ascribed to its mineral wealth and the attraction of this to metal working communities. There are a number of recorded mining, smelting and salt producing sites in the region, the oldest dating to the 10<sup>th</sup> Century. Studies at Phalaborwa, approximately 90 km east of the study site, have shown it to be a major metal producing centre of copper and iron from the 10<sup>th</sup> Century with tin-bronze and brass appearing from the 17<sup>th</sup> Century onwards (Miller *et al.* 2001).

The Ga-Mogoboya area is today mainly occupied by people who associate themselves with *Sotho* tribes who settled along the base of the escarpment. These tribes entered the Lowveld in separate waves during the 17<sup>th</sup> and 18<sup>th</sup> centuries from the south and south-west and included the *Nareng* of Letswalo and Sekororo, the *Thlabine* of Mogoboya and the *Kgaga* of Maake. They settled in and around the study area to the south of the *Lobedu* tribe (with Modjadji as their Rain Queen) and were culturally influenced by them (Bothma 1969: Van Warmelo 1944). The *Nareng* tribes of Sekororo and Letswalo showed cultural similarities with the *Lobedu* tribe as time past, but studies showed that they came from the Sabie/Graskop area. The *Nareng* of Sekororo's influence and control spread over minor *Sotho* tribes in the Lowveld up to the *Lobedu* area. With this they had control over the *Thlabine* of Mogoboya who were settled in and around the study area.



The *Nareng* of Letswalo's influence and control were diminished after successive raids by the *Swazis* and *Ba-Pedi* during the latter part of the 19<sup>th</sup> century. The origin of the *Thlabine* of Mogoboya is still disputed as some of their cultural attributes could be linked to the *Ba-Pedi* as well as the *Ba-Phalaborwa*. Some of them also claim cultural affinity with the *Lobedu* tribe, but generally they are associated with the *Sotho* tribes of the Lowveld as discussed above (Bothma 1969). The modern names of the villages of Mogoboya, Ga-Mogoboya and the river Thabina are a testament to the historical influence, affinity and heritage of the *Thlabine* tribe of Chief Mogoboya in the study area.

### **Historical Period**

The beginning of the Historical Period overlaps the demise of the late Stone and Iron Ages and is characterised by the first written accounts of the region from 1600 A.D. The area has a long history of exploration and settlement beginning with the use of the area to the north, east and south of the study site by big game hunters beginning in the 1840's and 1850's due to the abundance of game in this region. The 1870's gold rush included the Thabina River (immediately adjacent to the study area) which had a mining settlement of up to 100 diggers on its banks (Cartwright 1974). The history of the area includes the 1895 war between Chief Makgoba and the ZAR, the 1889 establishment of the famous postal coach service from Pietersburg via Haenertsburg to Leydsdorp by Doel Zeederberg (passing near the study area) and the passage of the Anglo-Boer War including a clash between the Bushveldt Carbineers and the Boers at W.H. Viljoen's farm Duiwelskloof in August 1901 (Woolmoore 2002) and the destruction of the last Long Tom guns near Haenertsburg in April 1901 (Changuion 2008).

A notable pioneer in the area was Orlando Baragwanath who together with his partner Frank Lewis had discovered Zambia's copper belt. In the early 1900's Baragwanath and Lewis settled at The Downs a few kilometres south of the study area and constructed a road over the mountain. Their graves are located there today as is that of Chief Ramulutsi although about the latter no further details were available. Both of these grave sites are marked on the 1:50,000 map, The Downs 2430 AA, as is the Nazarene Mission Station to the east of the graves. The Nazarene Church has a history of mission work in the area from the 1930's and their records describe the 1950's forced removal of Chief Mmashila Letswalo and the Banareng people of the Mmamahlola tribe from their traditional homeland in the Wolkberg (above the study area) to the lowveld (Dayhoff 2001).

## **6. Methodology**

### **Physical Survey**

The extent of the proposed development sites were determined as well as the extent of the areas to be affected by secondary activities (access route, construction camp, etc.) during the development.

The physical survey was conducted on foot over the entire area proposed for development. Priority was placed on the undisturbed areas. A systematic inspection of the area on foot along linear transects resulted in the maximum coverage of the proposed area. The survey was conducted on February 22, 2012 and was performed by M. Hutten and field worker T. Mulaudzi.

No sampling was done as no sites or finds of heritage value or significance were found.

### **Interviews**

Several people were interviewed or questioned during the survey. Headman Mahlane Peu was also interviewed and he confirmed that the proposed area was always used for agricultural purposes and that he was not aware of any previous occupation or graves in that area. He emphasized that people were not allowed to use this area for burials as this was reserved for agriculture and/or future developments.

### **Restrictions**

Vegetation proved the major restriction in accessibility to some of the areas and also contributed to poor surface visibility after the spate of recent good rains.

### **Documentation**

All sites/findspots located during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/findspots were plotted using a Global Positioning System (GPS) (Garmin GPSmap 60CSx) and numbered accordingly.

## **7. Assessment Criteria**

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

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

### **Site Significance**

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

<i><b>FIELD RATING</b></i>	<i><b>GRADE</b></i>	<i><b>SIGNIFICANCE</b></i>	<i><b>RECOMMENDED MITIGATION</b></i>
National Significance (NS)	Grade 1	-	Conservation; National Site nomination

Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction
Generally Protected C (GP.C)	Grade 4C	Low Significance	Destruction

### **Impact Rating**

#### *VERY HIGH*

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

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

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

#### *HIGH*

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

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

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

#### *MODERATE*

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

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

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

#### *LOW*

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

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

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

#### *NO SIGNIFICANCE*

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

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

#### **Certainty**

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

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

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

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

### Duration

<i>SHORT TERM:</i>	0 – 5 years
<i>MEDIUM:</i>	6 – 20 years
<i>LONG TERM:</i>	more than 20 years
<i>DEMOLISHED:</i>	site will be demolished or is already demolished

### Mitigation

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

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

## 8. Assessment of Sites and Finds

This section will contain the results of the heritage site/find assessment.

### Leolo Township Extension

**GPS** 24° 01' 30.9" S  
30° 12' 17.8" E

The proposed development of the Leolo Township Extension will be situated adjacent and on the southern side of Ga-Mogoboya village. It was also situated next to and along the southern banks of the Thabina River which ran from west to east. The area sloped slightly down from the south to the river in the north. An isolated large hill named Korkorwane was situated on the north-eastern extent of the proposed site. Several stands next to the gravel road were already developed and the rest of the area was (or still is) exposed to intensive agricultural activities. The area next to the river proved to be excellent fertile soils for planting mealies and other crops. Most of the current unploughed areas were covered with dense vegetation and grass and the overgrowth of pioneer plants such as several *Acacia* and *Dichrostachys* species probably resulted due to the recent agricultural activities.

After intensive investigations, no further sites or finds of any heritage potential were identified.

<i>Heritage Significance:</i>	None
<i>Impact:</i>	None
<i>Impact Significance:</i>	None
<i>Certainty:</i>	None
<i>Duration:</i>	None
<i>Mitigation:</i>	A – No further action necessary

## **9. Recommendations**

The following steps and measures are recommended regarding the investigated area:

### **Leolo Township Extension**

- The proposed area to be developed was largely subject to intensive agricultural activities over an extended period of time. These agricultural activities across most of the proposed area disturbed and most probably destroyed any possible finds of heritage value or significance if any were present.
- No further site-specific actions or any further heritage mitigation measures are recommended as no sites or finds with heritage value or significance were identified in the indicated study area.
- The proposed development of the Leolo Township Extension in the indicated area can continue from a heritage point of view.

## 10. References

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# **APPENDIX A**

## **Photographs**



Photo 1: View of the Thabina river.



Photo 2: View of the existing ploughed fields.



Photo 3: View of the gravel road on the southern side.



Photo 4: View of Ko-korwane Hill on the north-eastern side.



Photo 5: View of one of the developed stands.

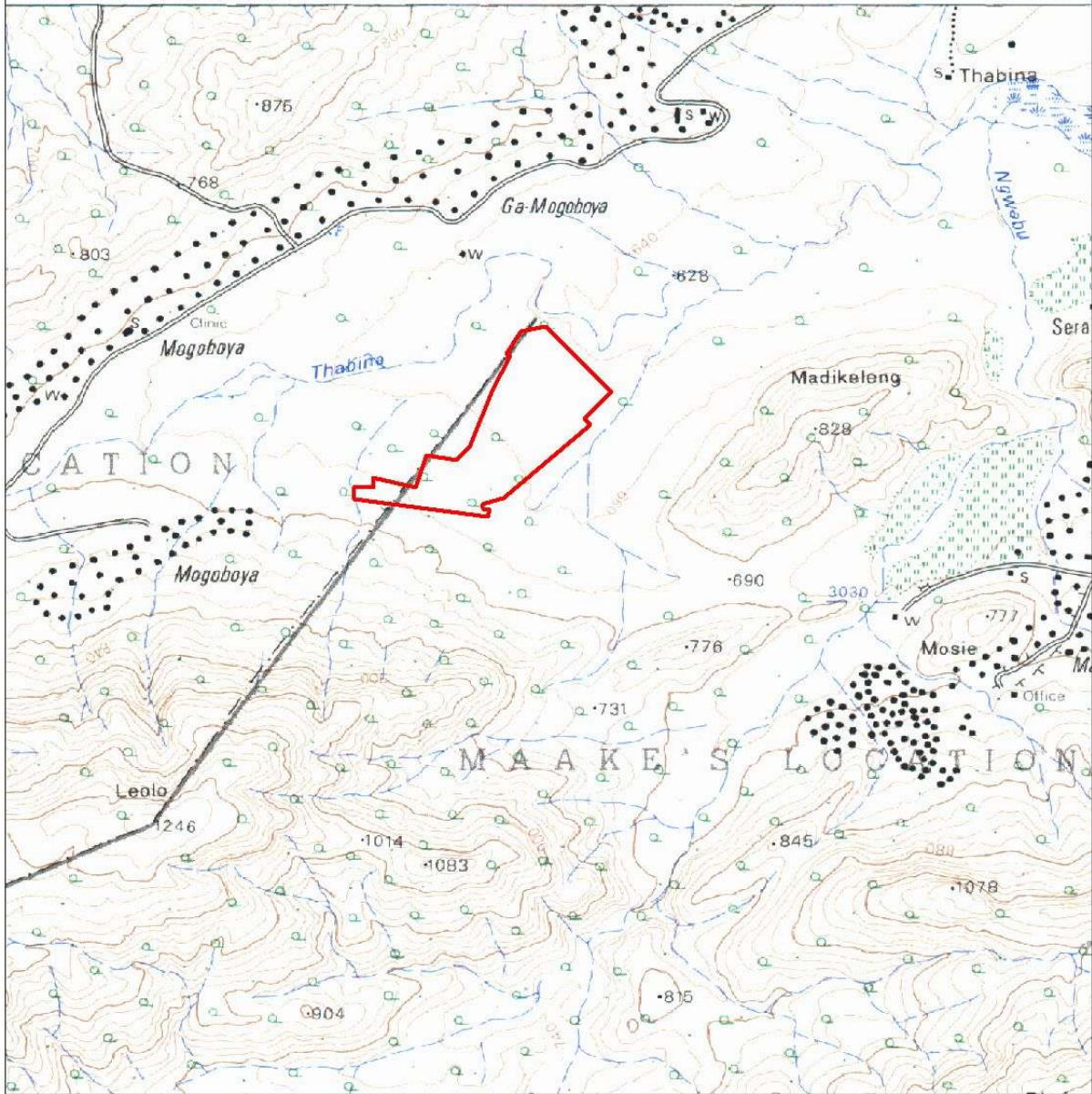


Photo 6: View of the dense vegetation.

# **APPENDIX B**

## **Location Maps**

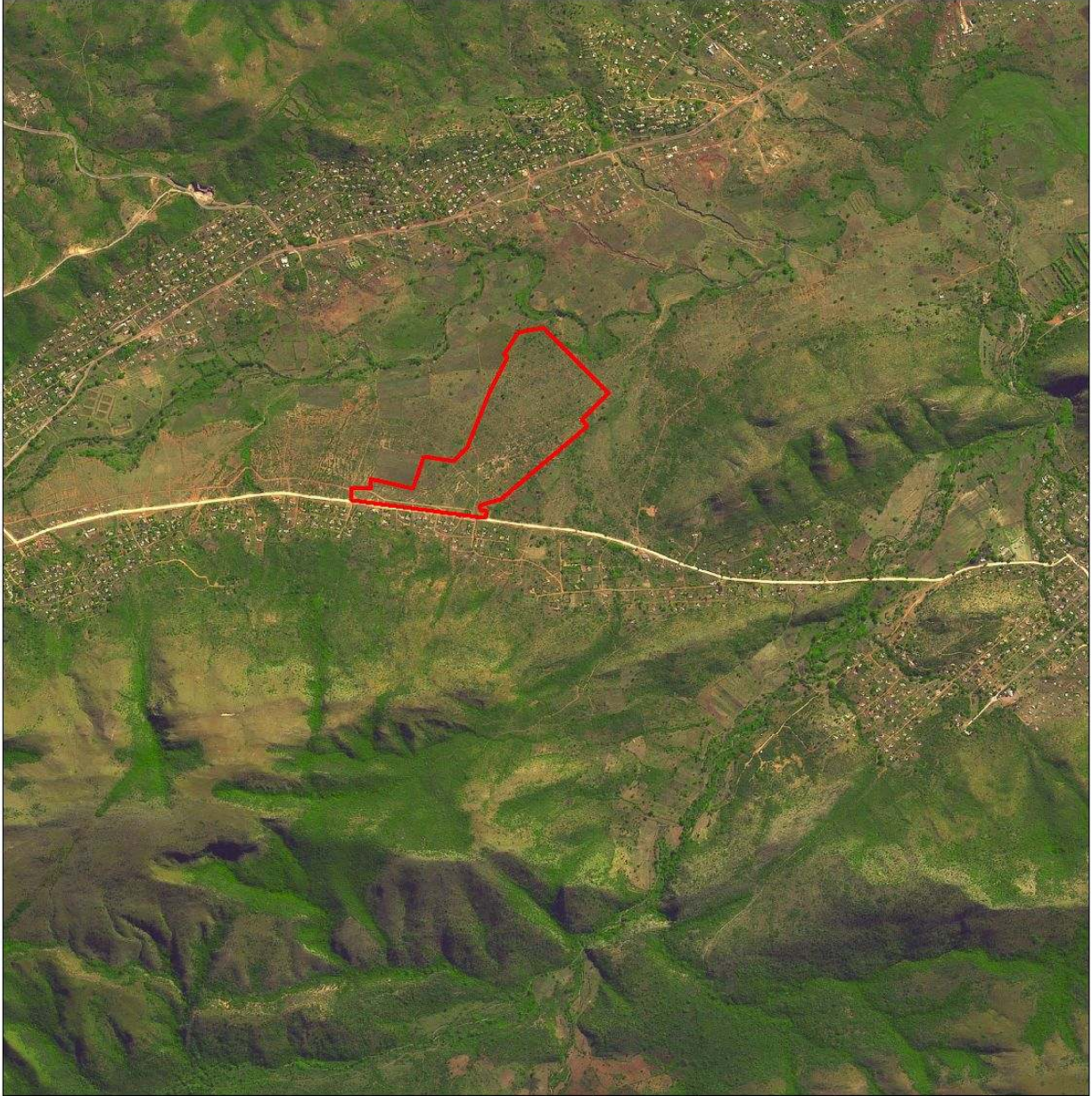
**Leolo Demarcation Project**  
**1:50,000 Series, The Downs 2430 AA**



1:20,000



Leolo Demarcation Project  
Spot 5 National Mosaic 2430A



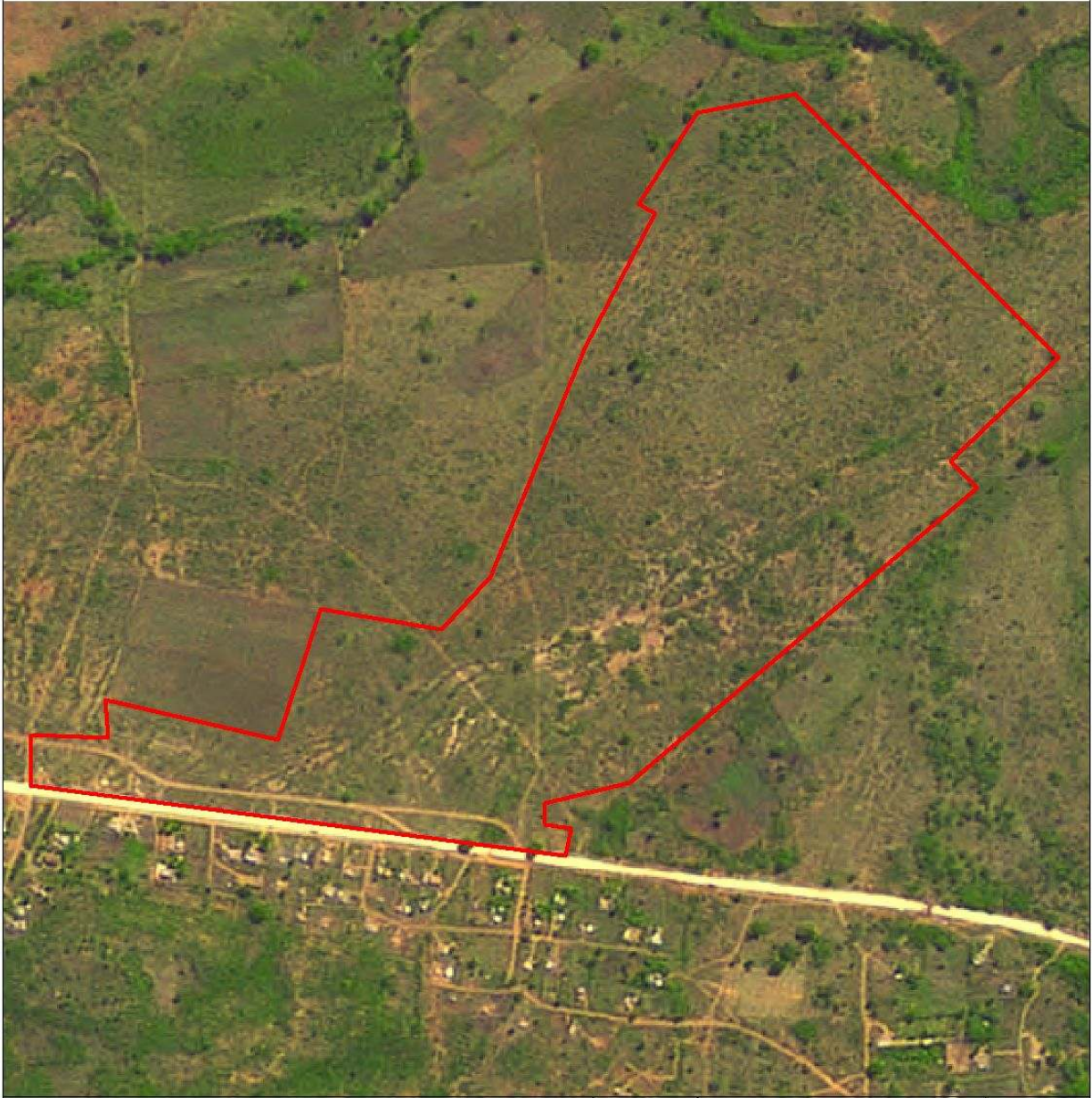
0 1 2 Kilometers

1:20,000



Study Area

Leolo Demarcation Project  
Spot 5 National Mosaic 2430A



0 0.25 0.5 Kilometers

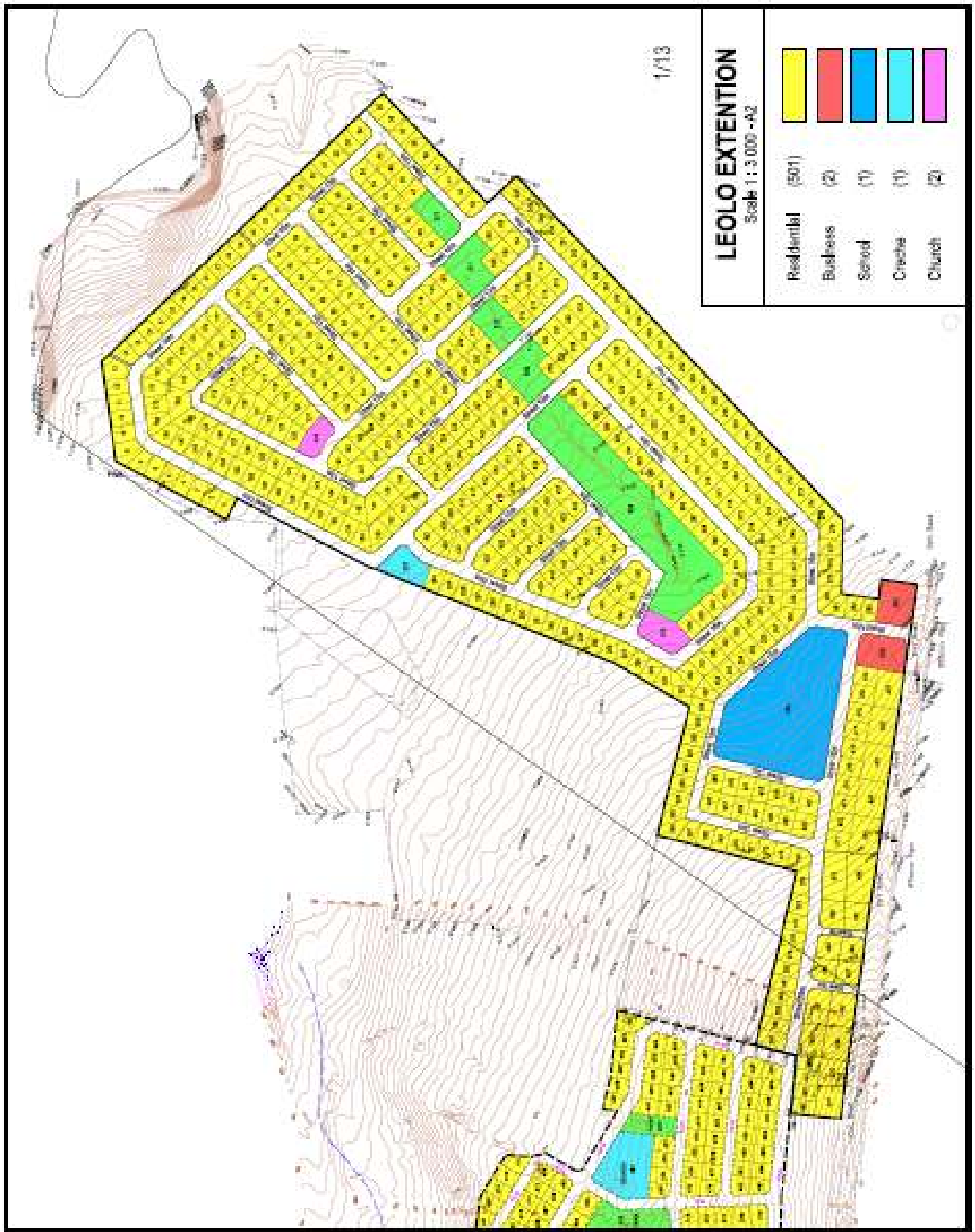


1:5,000



Study Area





Proposed layout for the Leolo Township Extension.