

**LETTER OF RECOMMENDATION FOR THE EXEMPTION FROM A PHASE 1
ARCHAEOLOGICAL AND HERITAGE INVESTIGATION FOR THE CLEARANCE OF 3Ha
VEGETATION FOR AGRICULTURAL PURPOSES ON PORTION 35 OF THE FARM KARINO
134JU, NELSPRUIT
MPUMALANGA PROVINCE**



**REPORT COMPILED FOR
CORE ENVIRONMENTAL SERVICES
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AUGUST 2020

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EXECUTIVE SUMMARY

The proposed development area is located on *portion 35 of the farm KARINO 134JU*, near Nelspruit (Mpumalanga). The *Louis Walters TRUST*, (the applicant) in conjunction with CORE Environmental Services are requesting the clearance of 3ha of vegetation for agricultural purposes. This section will be incorporated into existing historically disturbed agricultural lands. The basic environmental application will be submitted to the Mpumalanga Department of Agriculture Rural Development, Land and Environmental Affairs (DARDLEA), for authorization. The study area is situated on topographical map 1:50 000, 2531AC. The farm is currently zoned as agricultural, and no rezoning will take place. There are no existing structures or dwellings on the 3ha study area.

The topography of the site is flat with a slight decline towards the east where a small (dry) drainage line is present, on the border of the property. The survey was conducted during winter when the vegetation was dry and open. Accessibility and visibility in this section was excellent.

It is recommended that the proposed project be exempted from a full phase 1 study as the survey revealed no archaeological, historical remains or graves on the 3ha study area. The proposed development, which are applied for the clearance of vegetation for agricultural purposes, will have no impact on the cultural or historical environment.

Further planning of the project may continue, and no mitigation measures are needed for the proposed development with a condition that should any archaeological or human remains be observed during the clearance of vegetation, a qualified archaeologist must be notified, and an assessment be done.

Disclaimer: *Although all possible care is taken to identify all sites of cultural significance during the investigation, it is possible that hidden or sub-surface sites could be overlooked during the study, Christine Rowe trading as Adansonia Heritage Consultants will not be held liable for such oversights or for costs incurred by the client as a result.*

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condition that the Client pays the full price for the work as agreed, shall be entitled to use for its own benefit and for the specified project only:

- 1) The results of the project;
- 2) The technology described in any report;
- 3) Recommendations delivered to the Client.



Christine Van Wyk Rowe

AUGUST 2020

INTRODUCTION & DESCRIPTION

The proposed development area is located on *portion 35 of the farm KARINO, 134JU*, Nelspruit area (Mpumalanga). The *Louis Walters TRUST*, (the applicant) in conjunction with CORE Environmental Services are requesting the clearance of 3ha of vegetation for agricultural purposes.¹ This section will be incorporated into existing historically disturbed agricultural lands (see map 3). The basic environmental application will be submitted to the Mpumalanga Department of Agriculture Rural Development, Land and Environmental Affairs (DARDLEA), for authorization. The study area is situated on topographical map 1:50 000, 2531AC (map 1). The farm is currently zoned as agricultural, and no rezoning will take place.

The 3ha study area consists of natural vegetation and is situated on the eastern border of the farm. There are no existing structures or dwellings in this section, and there are no graves on the property, which was also confirmed by the owner's son, Mr. Botha.^{2 3} The Botha's owned the farm since 1992. The land uses of the surrounding area are mainly agriculture and game farming (see maps 3 & 4).

¹ Screening Report for Environmental authorization: Core Environmental Services, p. 1.

² Personal communication: Owner, Mr. R. Botha & son Mr. B. Botha, 2020-08-21.

³ Personal communication: CORE Environmental Services, Ms. A-M White, 2020-08-27.

The study area is situated on topographical map 1:50 000, 2531AC (1984) (map 1). Most of the farm were historically cultivated lands as indicated by the 1984 topographical map, with a 3ha section which consisted of natural vegetation towards a small drainage line (see 5).

- **Terms of reference:** CORE Environmental Services requested Adansonia Heritage Consultants to investigate the presence of archaeological and heritage features or graves on the study area for the proposed clearance of vegetation for agricultural purposes, located on *portion 35 of the farm KARINO, 134JU*, Nelspruit area. As specified by section 38 (3) of the NHRA, the investigation focused on the identification and mapping of heritage resources; the assessment, description and evaluation of possible archaeological and heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to such sites.
- **Legal requirements:**
The legal context of the report is grounded in the National Heritage Resources Act no 25, 1999, as well as the National Environmental Management Act (Act no107, 1998) (NEMA) as amended.

SCOPE AND LIMITATIONS

The field investigation provided the opportunity to examine the 3ha piece of land proposed for the clearance of vegetation. The entire site has already been transformed by agriculture as can be seen in the topographical map of 1984 (map 1), and Google image of 2004 (map 4). A 1911 topographical map (Degree Sheet 22) of *Komatipoort* revealed no historic black settlements in the immediate area of the farm (map 2). Mr. B. Botha, son of the owner, stated that they owned and farmed on *portion 35 of the farm KARINO, 134JU* since 1992. They have never encountered any graves, archaeological or historical remains on the farm. They also operate a tourist lodge on the farm.⁴ The fallow agricultural lands are currently used to keep game (figs. 6 & 7).

The 3ha study area consisted of natural vegetation. The survey took place at the end of the winter season when the veld was open and the vegetation low. Visibility during the survey was

⁴ Personal communication: Owner's son, Mr. B. Botha, 2020-08-21.

excellent. The entire section was easily accessible and no limitations were experienced (see Appendix 2: figs. 1 - 5).

METHODOLOGY

The investigation was conducted on foot by two people, and standard archaeological and recording methods were applied (see Appendix 1: Tracks & Paths). A survey of literature was done to obtain information about the archaeology and cultural heritage of the area. There are no museums in the area which could be consulted, and no historical information was available at the municipality. The author relied mainly on aerial images to assemble background information. The layout of the area was plotted with a GPS instrument (Garmin Etrex datum WGS 84). A digital photographic recording method was used.

The author was involved in desktop studies and surveys in the **wider area**, such as:

- *Study for the Proposed Eskom Powerlines, Hazyview – Dwarsloop* (2008);
- *Inspection of Umbhaba Stone-walled settlement, Hazyview*, (2001);
- *a Phase 1 Archaeological and Heritage Impact Assessment for 132Kv Powerlines from Kiepersol substation (Hazyview), to the Nwarele substation Dwarsloop* (2002);
- *a Phase 1 Archaeological and Heritage Impact Assessment for a proposed traffic training academy, Calcutta, Mkhuhlu, Bushbuckridge* (2013);
- *Phase 1 Archaeological and Heritage Impact Assessment for the proposed Nkambeni cemetery in Numbi, Hazyview* (2013); no features of significance were identified;
- *Phase 1 Archaeological and Heritage Impact Assessment for a Development on the farm Agricultural Holding no 56 JU, White River* (2013) was done in the wider area;
- *Phase 1 Archaeological and Heritage Impact Assessment for proposed agricultural development on the farm SIERAAD, Komatipoort area*, (2013) revealed one possible Late Stone Age borer which was identified in a soil sample, one meter below the surface;
- *Phase 1 AIA / HIA for proposed debushing of natural land for agricultural use: Portion 10 of the farm Thankerton 175JU, Hectorspruit, Mpumalanga Province* (2013); revealed some Later Stone Age artifacts which were all out of context and a burial site.
- *Phase 1 AIA / HIA for proposed debushing of natural as well as disturbed land for agricultural use: Portion 2 of the farm Herculina 155JU, Hectorspruit area, Mpumalanga Province*; no significant archaeological or historical features were identified.
- Letter of recommendation for the exemption from a Phase 1 AIA / HIA *for the proposed*

new position for the Gutshwa substation, Gutshwa (near White River) (2016);

- *Phase 1 AIA / HIA for a proposed agricultural development on the farm Krokodilspruit 248JT, White River, Mpumalanga Province – some archaeological features as well as graves were observed.*
- *Phase 1 AIA / HIA for proposed establishment of macadamia plantation on portion 1 of the farm PEEBLES 31JU, White River, Mpumalanga Province;*

The author was involved in desktop studies and surveys in the **immediate area**, such as:

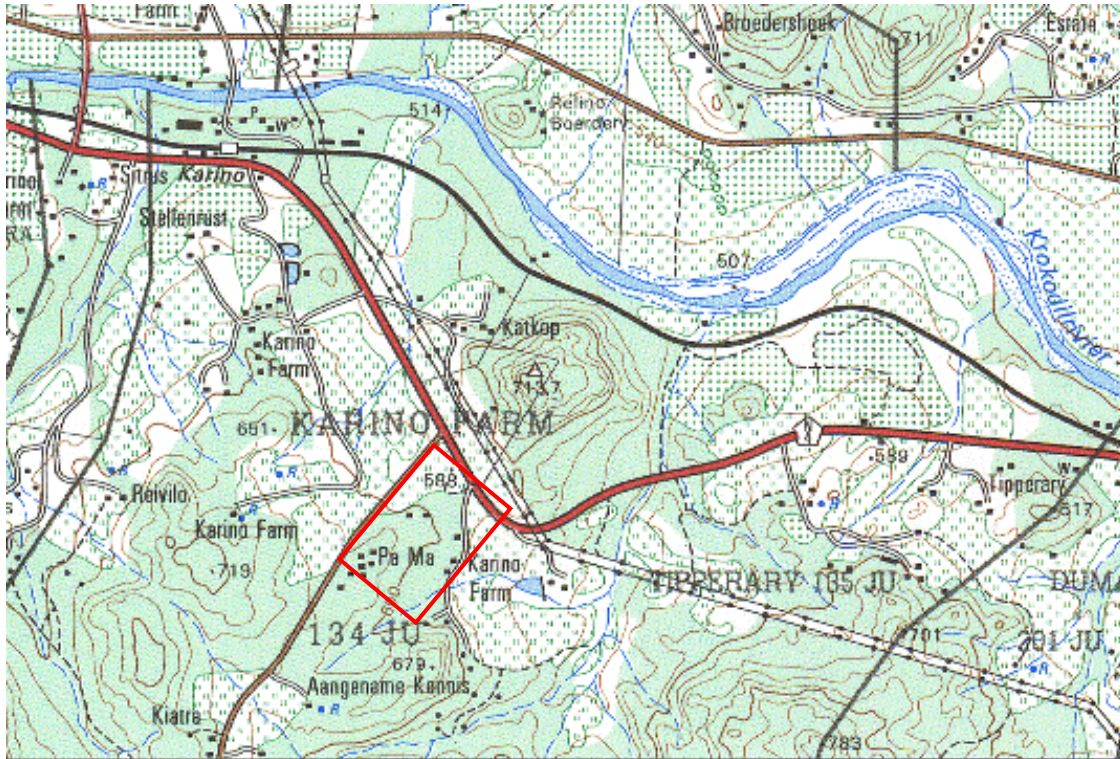
- *Phase 1 AIA / HIA for proposed Residential Township, Tekwane Extension 2, Portion 7 of Tekwane 537JU, Kanyamazane, Mpumalanga Province (2014); the entire area was transformed agricultural lands which revealed a few upper grinders;*
- *Phase 1 AIA / HIA for proposed Reservoir, Bulk sewer and bulk water pipelines, Portion 7 of Tekwane 537JU, Kanyamazane, Mpumalanga Province (2014); mostly disturbed residential areas which revealed no features of significance;*
- *Report on Grave site found at portion 7 of the farm Tekwane 537 JU, in way of amended Bulk Sewer Pipeline, Kanyamazane, Mpumalanga Province (2017) – Large graveyard identified.*
- *Phase 1 AIA / HIA for the proposed construction of a 0.75ML/D water treatment plant and bulk line on government land at Makoko Village (near White River) Kabokweni, Mpumalanga Province (2017) residential township,*
- *Phase 1 AIA / HIA for the proposed 2ha development of the Msogwaba Youth Development Centre on a portion of the farm Nyamasaan 647JU, Msogwaba, Mpumalanga province - no significant archaeological sites were observed (2018).*
- *DESKTOP Heritage Impact Assessment for the proposed Tekwane Hub residential development on Portion 9 of the farm Tekwane 573JU, Mbombela, City of Mbombela, Mpumalanga (2019).*
- *DESKTOP HIA for the proposed construction of a gravity outfall sewer line through a wetland, UMP Township & Portion 74 of the farm Friedenheim 282JU, Mbombela, City of Mbombela, Mpumalanga (2020).*
- *Phase 1 AIA / HIA for the proposed FRIEDENHEIM HOUSING PROJECT: Township establishment on portions 85 & 86 o the farm FRIEDENHEIM 282JT, City of Mbombela (Nelspruit), Mpumalanga Province (2020). No archaeological or heritage features were observed.*

The SAHRA database for archaeological and historical impact assessments was consulted and revealed other Archaeological Impact Assessment reports in the wider and immediate areas:

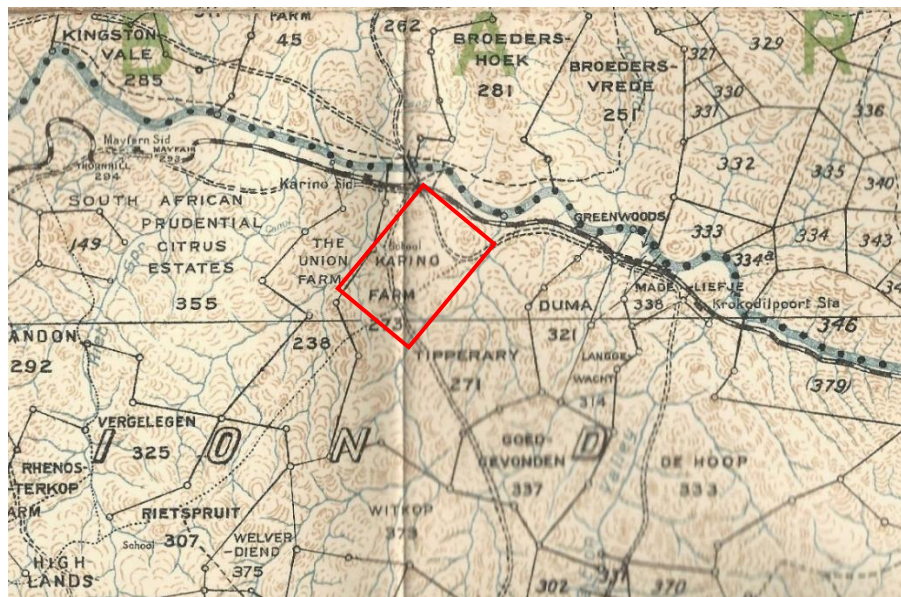
- J. Van Schalkwyk: *Proposed new Lebombo Port of Entry and upgrade of Komatipoort railway station between Mpumalanga (SA) and Mozambique (2008)* – Some historic buildings were identified but no archaeological remains;
- A. Van Vollenhoven: *Report on a cultural Heritage Impact Assessment for the proposed Kangwane Antracite Mine, Komatipoort (2012)* – An archaeological site with Middle and Late Stone Age tools were identified as well as some Iron Age artifacts and decorated pottery. Mitigation measures were recommended by exclusion from the development or a Phase 2 study;
- JP Celliers: *Report on Phase 1 Archaeological Impact assessment on erven at Komatipoort 182 JU Extension 4, Komatipoort (2012)* – Revealed two pieces of undecorated sherds of pottery which was of low significance. It was recommended that any earthmoving activities be monitored by a qualified archaeologist.
- A. Van Vollenhoven: *Archaeological Impact Assessment for Border site at Komatipoort (2012)* – Revealed historic remains linked to the Steinaeker's Horse regiment during the South African War.
- A. Van Vollenhoven: *A Report on a basic assessment relating to cultural heritage resources for the proposed ESKOM Tekwane North line and substations, Mupumalanga Province (2013)* – revealed historic remains of low significance and a cemetery.
- P. Birkholz: *HIA for the proposed development of the Karino Interchange located east of Mbombela, Mpumalanga Province (2017)* – Historical buildings and structures were revealed by no archaeological sites of features were identified.
- A. Van Vollenhoven: HIA for Aurecon, 15 June 2012, *Basic Assessment for the Environmental Impact Assessment for the Friedenheim Office Complex, Nelspruit, Mpumalanga.* – revealed no graves or archaeological sites. Recent buildings were observed.

INVESTIGATION

The 3ha study area consisted of natural vegetation which borders the historically disturbed agricultural lands. The previously disturbed agricultural sections to the north west, are currently used to keep game (impala, zebra and wildebeest) (figs. 6 & 7). The study area forms the border of the farm and slopes gently towards a small dry drainage line in the east (map 5 & figs. 1 - 5). No archaeological, historical sites or graves were observed during the survey.

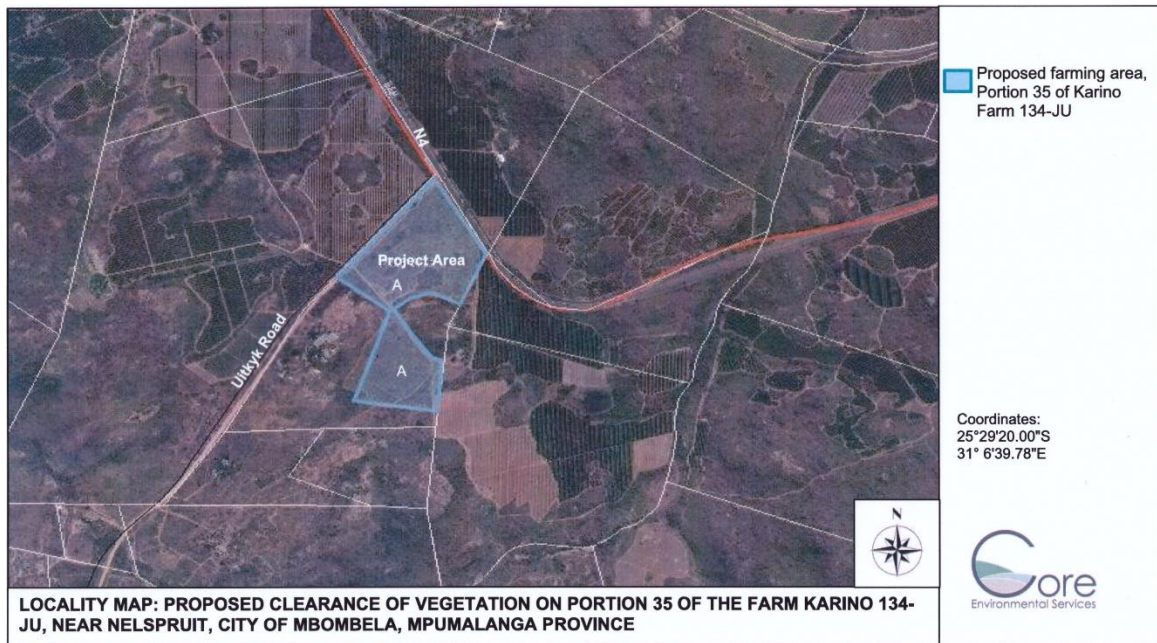


MAP 1: Topographical map 2531AC (1984). The farm is indicated by the red square. Most of the section was previously historically cultivated lands.



MAP 2: The 1911 topographical map (Degree Sheet 22) of *Komatiport* revealed no historic black settlements in the immediate area of the farm.⁵

⁵ Map: 1911 Topographical Map: Komatiport Degree Sheet no. 22.



MAP 3: Google image (2019): The Karino farm (A), located within the wider context. (Map provided by CORE Environmental Services).



Map 4: Google image (2004). This image shows the historically disturbed agricultural lands (yellow lines), as well as the 3ha study area (red line).



Map 5: The 3ha study area consisting of natural vegetation is indicated by the red line.

ARCHAEOLOGICAL BACKGROUND

In order to place the proposed development site, (Karino / Nelspruit) in an archaeological context, primary and secondary sources were consulted. Ethnographical and linguistic studies by early researchers such as Ziervogel, Theal and Van Warmelo shed light on cultural groups living in the area since ca 1400. There are currently no museums in the town of Nelspruit which could be consulted, and no substantial historical information was available at the municipality or information centre. Visibility during the survey was excellent. Some of the agricultural fields were already invaded by alien vegetation, which is spreading towards the natural vegetation. The entire study area was flat with a gentle slope towards a dry drainage line (Appendix 2 for Photographs).

Very little contemporary research has been done on prehistoric African settlements in the study area. Later Stone Age sites in the Kruger National Park date to the last 2500 years and are associated with pottery and microlith stone tools.⁶ The only professionally excavated Early Iron Age site near the study area, besides those in the Kruger National Park, is in the vicinity of Plaston, (White River area), dating to ca 900 AD.⁷ No other archaeological excavations have

⁶ J.S. Bergh (red). *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*, p. 95.

⁷ M.M. Van der Ryst., *Die Ystertydperk*, in J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier*

been conducted to date within the study area, which have been confirmed by academic institutions and specialists in the field.^{8 9}

STONE AGE

The Stone Age is the period in human history when people produced stone tools. The Stone Age in South Africa can be divided in three periods:

Early Stone Age (ESA): +- 2 million – 150 000 years ago;

Middle Stone Age (MSA): +- 150 000 – 30 000 years ago;

Later Stone Age (LSA): +- 40 000 – 1850AD.

IRON AGE

The Iron Age is the period in time when humans manufactured metal artifacts. According to Van der Ryst & Meyer,¹⁰ it can be divided in two separate phases, namely:

Early Iron Age (EIA) +- 200 – 1000 AD;

Late Iron Age (LIA) +- 1000 – 1850 AD.

PRE- COLONIAL HISTORY

The study area was sparsely populated in the 19th century, and although Bergh¹¹ indicated no black groups in the area, early researchers (D. Ziervogel and N.J. Van Warmelo), revealed that the study area was mainly inhabited by the Sotho groups (Pulana & Pai), Swazi from before the 18th century, as well as small groups of Tsonga (Nhlanganu and Tšhangana).^{12 13} (See Map 6: 1935: Map of Van Warmelo). When concentrating on ethnographical history, it is important to include a slightly wider geographical area for it to make sense. Van Warmelo based his 1935 survey of *Bantu Tribes of South Africa* on the number of taxpayers in an area. The survey does not include the extended households of each taxpayer, so it was impossible to reliably indicate how many people were living in one area.¹⁴

Noordelike Provinsies. p. 97.

⁸ Personal information: Dr. J. Pistorius, Pretoria, 2008-04-17.

⁹ Personal information: Dr. MS. Schoeman, University of Pretoria, 2008-03-27.

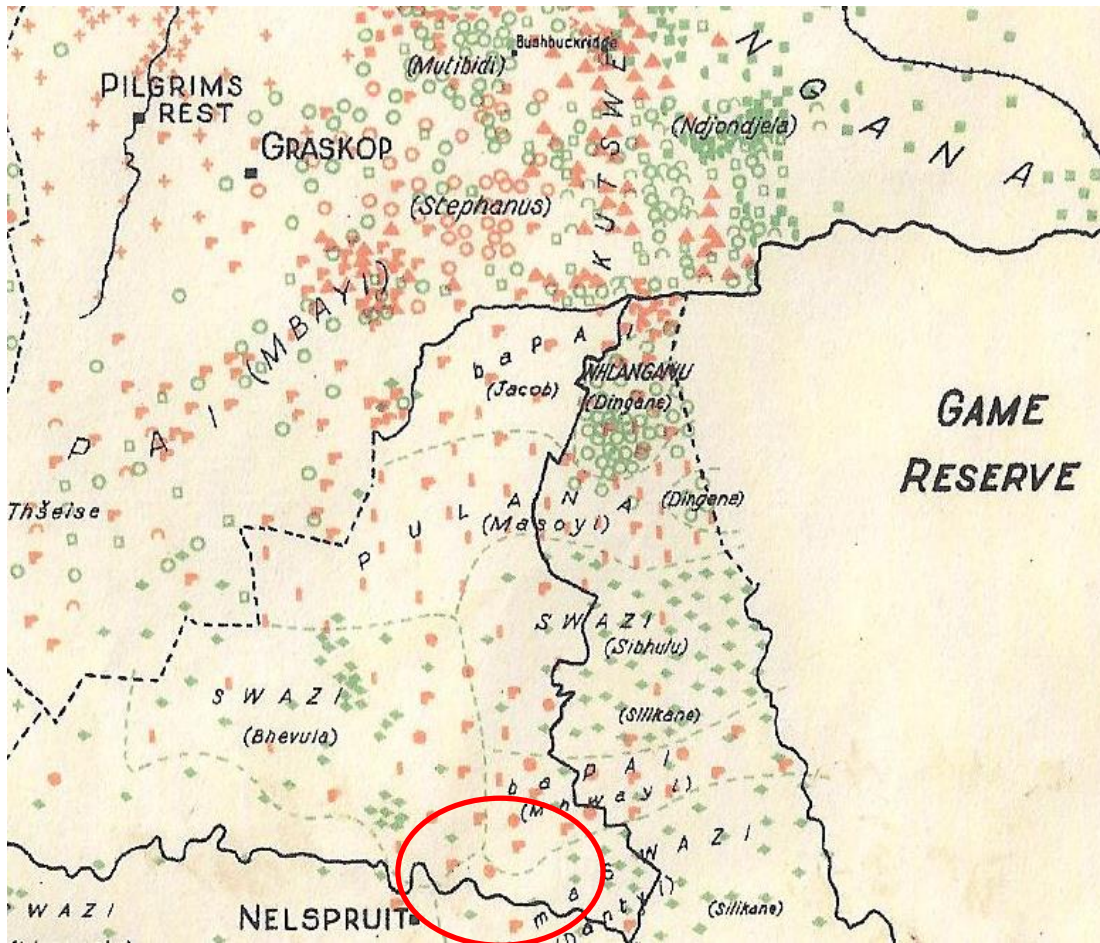
¹⁰ Van der Ryst, M.M, & Meyer, A, Die Ystertydperk in *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, pp. 96 – 98.

¹¹ Van der Ryst, M.M, & Meyer, A, Die Ystertydperk in *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, p.10.

¹² N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. pp. 90-92 & 111.

¹³ H. S. Webb, *The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p.16.

¹⁴ N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p.9.



Map 6: Van Warmelo - 1935: The study area of Nelspruit / Karino was sparsely populated in the past, with mainly Swazi and Sotho groups.



Key: Van Warmelo's 1935 map.

- **History of NELSPRUIT**

Nelspruit is situated in the heart of the Lowveld, on the banks of the Crocodile River. The place Nelspruit, which means literally Nels stream, attracted traders and farmers in high profile because of the natural richness of the soil, adequate water for irrigation and a level valley floor. Nelspruit was named after the owners of the original farm - the three brothers Nel. It began with the construction of a station up the Crocodile river valley, built on their farm. Nelspruit was established as a railhead of the first section of construction on the railway from Mozambique to Pretoria. A time lapse in the Railway construction contract allowed the rail company to raise finance for continued construction of the railway, and during this time Nelspruit became the focal point of the Lowveld - goods still had to be transported to the interior by ox wagon from Nelspruit.

Hugh Lanion Hall (1858-1940) arrived in the area in 1890 and established one of the greatest citrus and subtropical fruit estates in the country, which today is known by the name of *Hall & Sons Limited*.

Settlement in the Lowveld was for many years stifled by two natural barriers - Malaria, transmitted to man by the Anopheles Mosquito, and Nagana, transmitted to cattle, horses and dogs by the Tsetse-fly. Only once the two had been defeated was it possible for large-scale immigration into the area. In 1896 the rinderpest swept through the country killing almost all the cattle. However, this would turn out to be a blessing in disguise in that it also rid the country of the tsetse-fly. The link between the disappearance of the rinderpest and the fly is not known. It was only after the Anglo-Boer War, when cattle first re-entered the Lowveld, that the disappearance of the fly was discovered. The theory by Sir Patrick Manson and others, and the proof by Major Roland Ross of the link between Malarial Fever and mosquitos allowed researchers to develop ways to combat Malaria. Nelspruit grew to be one of the largest producers of tobacco, litchis, mangoes, avocados and other produce. ¹⁵

A township for Nelspruit was laid out in 1923 by the Village Council and named Mbombela (meaning "people from a widespread area now being confined to an over-crowded space"). On 10 November 1950 the National Housing and Planning Commission suggested that the farm *Friedenheim* would be a suitable site for a black township near Nelspruit. The owner of *Friedenheim* objected and after many years and much deliberation and negotiations, the farm Nyamazaan was bought in 1964 and the inhabitants of Mbombela were prepared to move to

¹⁵ History of Nelspruit: mpumalanga-happenings.co.za/nelspruit_homepage.htm, Access: 2020-02-29.

Nyamazaan. They accepted payment for their stands in Mbombela. Their relocation was completed in 1979.¹⁶ Kanyamazane is located 19km from Nelspruit and **7km east of Karino**. Another name for Kanyamazane is Lekazi, derived from the Legogoto Nsikazi Regional Authority that was in charge of the area when Kanyamazane was built. Kanyamazane means “wild animals or game animals,”¹⁷ which obviously referred to the abundance of wildlife associated with the area during the previous centuries.

LOCALITY

The proposed development area is located on *portion 35 of the farm KARINO, 134JU*, Nelspruit area (Mpumalanga), under the jurisdiction of the local municipality of the City of Mbombela, and the Ehlanzeni District Municipality. The *Louis Walters TRUST*, (the applicant) in conjunction with CORE Environmental Services are requesting the clearance of 3ha of vegetation for agricultural purposes,¹⁸ (see GPS co-ordinates below).

The site is accessed, (and is adjacent) from the N4 towards the south (map 3). Most of the farm has been transformed by historically agricultural developed land since at least 2004 (see map 4 & figs 6 & 7). The 3ha study area is the only section (apart from a natural rocky outcrop) that consists of natural vegetation (figs. 1 – 5).

GPS co-ordinates (see maps & google images of the 3ha study area: Maps 1 - 5:

GPS Co-ordinates			
Study area	South	East	Elevation
A	S 25° 29' 36.10"	E 31° 06' 35.39"	598m
B	S 25° 29' 31.96"	E 31° 06' 40.39"	590m
C	S 25° 29' 38.84"	E 31° 06' 40.30"	599m

¹⁶ Bornman, H., *The Pioneers of the Lowveld*, p. 145-146.

¹⁷ Bornman, H., *The Pioneers of the Lowveld*, p. 145.

¹⁸ Screening Report for Environmental authorization: Core Environmental Services, p. 1.

FINDINGS

No archaeological sites, material or graves were found during the survey on the 3ha proposed study area, and it is unlikely that any significant heritage remains will be found. The proposed development will have no impact on the cultural or historical environment.

RECOMMENDATIONS

The impact which will result from the 3ha clearance of vegetation, will have no effect on archaeological, historical heritage resources or graves. There are no compelling reasons to stop the proposed development from a heritage perspective.

MITIGATION

Archaeological material or graves are not always visible during a field survey and therefore some material may only be revealed during the clearance activities of the proposed development. It is therefore recommended that the developers be made aware of this possibility and should human remains, clay or ceramic pottery etc. be observed, a qualified archaeologist must be notified and an assessment be done. Further research might then be necessary in this regard, for which the developer will be responsible.

REFERENCES

NATIONAL LEGISLATION

- Republic of South Africa, *National Heritage Resources Act*, (Act No. 25 of 1999).

LITERARY SOURCES

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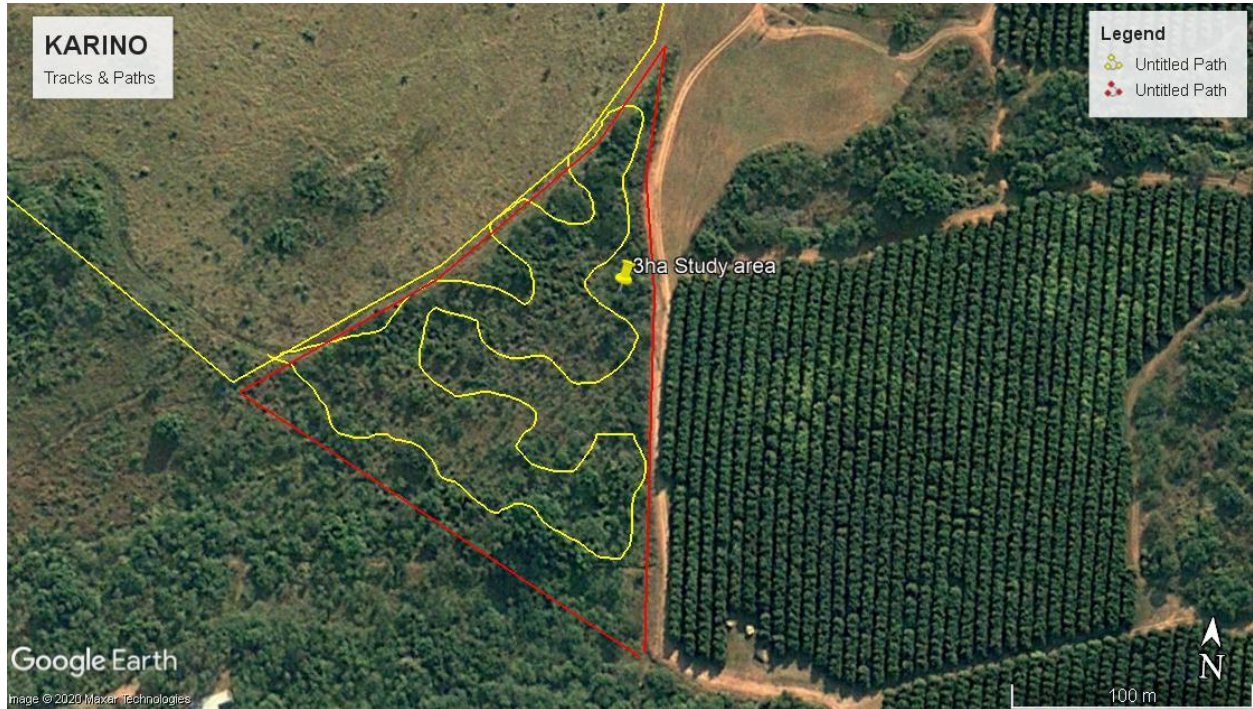
PERSONAL INFORMATION

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- Personal communication: Owner, Mr. R. Botha & son Mr. B Botha, Cell: 0721851389, 2020-08-21.

MISCELLANEOUS

- History of Nelspruit: mpumalangahappenings.co.za/nelspruit_homepage.htm, Access: 2020-02-29.
- Map: 1911 Topographical Map: Komatipoort Degree Sheet no. 22.
- Screening Report for Environmental authorization: Core Environmental Services, 2020.

APPENDIX 1
TRACKS & PATHS USED IN THE SURVEY



Tracks & paths which were used during the survey of the study area.

APPENDIX 2: PHOTOGRAPHIC DOCUMENTATION: KARINO



Fig. 1: A general view of the study area. Visibility was excellent as the veld was dry and open.



Fig. 2: A view of the study area from the north, facing south. The rocky outcrop is outside of the study area.



Fig. 3: A view of the study area from the south, facing north. The hill in the background is outside of the study area.



Fig. 4: A view of the study area facing south-west.



Fig. 5: A view of the study area facing east, near the boundary fence.



Fig. 6: A view of the historically disturbed agricultural lands in the southern section.



Fig. 7: A view of the historically disturbed agricultural lands in the northern section.