

*SPECIALIST REPORT*

**A PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR A  
PROPOSED CITRUS PLANTATION ON PORTION 5 OF THE FARM DUMA 201-JU,  
CITY OF MBOMBELA MUNICIPALITY, MPUMALANGA PROVINCE**

**REPORT COMPILED FOR**  
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**NOVEMBER 2020**

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## **EXECUTIVE SUMMARY**

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on the footprint of *portion 5 of the farm DUMA201JU*, City of Mbombela (Nelspruit). The study area is situated on topographical maps 1:50 000, 2531AC & 2531CA. This area falls under the jurisdiction of the City of Mbombela Local Municipality, and the Ehlanzeni District Municipality, Mpumalanga Province.

The National Heritage Resources Act, no 25 (1999)(NHRA), protects all heritage resources, which are classified as national estate. The NHRA stipulates that any person who intends to undertake a development, is subjected to the provisions of the Act.

The applicant, *AEONIK FARMS SEQUOIA (Pty) Ltd.*, in co-operation with *MP Stream Environmental and Safety Planners (Pty)* are proposing the clearing of indigenous vegetation for citrus plantation. The proposed project seeks to clear less than 20 hectares (19.9ha) on the 220ha property. The property is situated on the foothills of the Crocodile Gorge Mountains, and consists mostly of natural vegetation apart from a small 2ha section in the extreme north which was previously cultivated land.

The survey revealed no archaeological or historical features of significance within the study areas. A small burial site is situated to the south-east of Site A, and several undecorated clay potsherds were observed on the eastern border, but these features fall outside of the project site. All the structures on the property are of a recent nature, and are not older than 60 years.

No archaeological or historical features were observed within the study areas. Archaeological material or human remains may only be revealed during de-bushing operations and it is recommended that when earthmoving activities commence, it be monitored by a qualified archaeologist which will assess any finds should it be necessary. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed agricultural development, to continue.

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



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C. Rowe

NOVEMBER 2021

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**A PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR A PROPOSED  
CITRUS PLANTATION ON PORTION 5 OF THE FARM DUMA 201-JU, CITY OF MBOMBELA  
MUNICIPALITY, MPUMALANGA PROVINCE**

**A. BACKGROUND INFORMATION TO THE PROJECT**

The applicant, *AEONIK FARMS SEQUOIA (Pty) Ltd.*, in co-operation with *MP Stream Environmental and Safety Planners (Pty)*, are proposing the clearing of indigenous vegetation for agricultural purposes (citrus plantation) on *portion 5 of the farm DUMA201JU*, City of Mbombela. The proposed project seeks to clear less than 20 hectares (19.9ha) on the 220ha property. The property is situated on the foothills of the Crocodile Gorge Mountains, and consists mostly of natural vegetation apart from a small 2ha section in the extreme north which was previously cultivated. <sup>1</sup>

The proposed site for the development is located south of the N4 National Road, approximately 20km to the east of Nelspruit. Agricultural developments, formal and informal settlements may be seen to the north and west of the project site (see map 4: proposed development area). The study area consists mainly of natural vegetation (apart from 2ha), and no agricultural activities are currently taking place. <sup>2</sup>

Environmental consultants, Mr. Sibosiso Langa and Ms. Anne-Mari White were interviewed and assisted during the site survey, <sup>3 4</sup> as well as the Farm Manager, Mr. Paul Ngobane. <sup>5</sup>

Topographical maps and Google Earth images were studied for any evidence of previously disturbed sections. Several drainage lines are sloping towards the north, and draining into the Crocodile River (map 4). The farm is situated on the foothills of the Crocodile Gorge Mountains. The topography is mountainous and rugged with small to large granite outcrops present across the site. The biodiversity study of November 2021, selected the least sensitive habitats for the proposed citrus development (figs. 4,5,7,9,10,11) (map 4). <sup>6</sup>

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<sup>1</sup> MP Stream: BID for BA for proposed citrus plantation on portion 5 of the farm DUMA, p.1.

<sup>2</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, p. 1. Access: 2021-11-18.

<sup>3</sup> Personal communication: Mr. Sibosiso Langa – MP Stream, 2021-11-04.

<sup>4</sup> Personal communication: Ms. A-M White, CORE Env. Services, 2021-11-04.

<sup>5</sup> Personal communication: Mr. P. Ngobane, Farm Manager, 2021-11-04.

<sup>6</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, p. 1. Access: 2021-11-18.

Adansonia Heritage Consultants were appointed to conduct a Phase 1 heritage impact assessment (HIA) on archaeological and other heritage resources. A literature study, relevant to the study area as well as a foot survey was done, to determine that no archaeological or heritage resources will be impacted upon by the proposed development (See maps 5 & 6 topographical maps 1:50 000, 2531AC & 2531CA).

The aims of this report are to source all relevant information on archaeological and heritage resources in the study area, and to advise the client on sensitive heritage areas as well as where it is viable for the development to take place in terms of the specifications as set out in the National Heritage Resources Act no., 25 of 1999 (NHRA). Recommendations for maximum conservation measures for any heritage resources will also be made. The study area is indicated in maps 1 - 6, & Appendices 1 & 2.

- This study forms part of an EIA, Consultant: *MP STREAM Environmental & Safety Planners*: Mr. Sibosiso Langa (EAP), Nelspruit, 1200 / P.O. Box 313, Kanyamazane Cell: 0731733894 / e-mail: [mpstreamenviro@gmail.com](mailto:mpstreamenviro@gmail.com). The EIA is in the Planning & Scoping phase. <sup>7</sup>
- Type of development: Agriculture (Citrus) on *portion 5 of the farm DUMA 201JU*, near Nelspruit, Mpumalanga Province (see map 4: proposed development sections).
- The study area consists of mostly natural vegetation cover with a small 2ha previously disturbed agricultural land. The site is east of Nelspruit, on the foothills of the Crocodile Gorge mountains, and to the south of the N4 national road. <sup>8</sup>
- The area is zoned as agricultural and no rezoning will take place.
- Location of Province, Magisterial district / Local Authority and Property (farms): The area falls within the Mpumalanga Province under the jurisdiction of the Ehlanzeni District Municipality and the City of Mbombela Local Municipality.
- Land owner / applicant: *AEONIK FARMS SEQUOIA (Pty) Ltd.* <sup>9</sup>

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<sup>7</sup> MP Stream: BID for BA for proposed citrus plantation on portion 5 of the farm DUMA, p.1.

<sup>8</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, p. 1. Access: 2021-11-18.

<sup>9</sup> MP Stream: BID for BA for proposed citrus plantation on portion 5 of the farm DUMA, p.1.

**Terms of reference:** As specified by section 38 (3) of the NHRA, the following information is provided in this report.

- a) The identification and mapping of heritage resources where applicable;
- b) Assessment of the significance of the heritage resources;
- c) Alternatives given to affected heritage resources by the development;
- d) Plans for measures of mitigation.

**Legal requirements:**

The legal context of the report is grounded within the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management Act (Act No. 107 of 1998) (NEMA as amended).

• **Section 38 of the NHRA**

This report constitutes a heritage impact assessment investigation linked to the environmental impact assessment required for the development. The proposed development is a listed activity in terms of Section 38 (1) of the NHRA. Section 38 (2) of the NHRA requires the submission of an HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA).

Heritage conservation and management in South Africa is governed by the NHRA and falls under the overall jurisdiction of the South African Heritage Resources Agency (SAHRA) and its provincial offices and counterparts.

Section 38 of the NHRA requires a Heritage Impact Assessment (HIA) to be conducted by an independent heritage management consultant, for the following development categories:

- The construction of a road, wall, powerline, pipeline, canal or similar form of linear development or barrier exceeding 300m in length;
- Any development or other activity which will change the character of a site: exceeding 5000m<sup>2</sup> in extent;
- the rezoning of a site exceeding 10 000m<sup>2</sup> in extent;

In addition, the new EIA regulation promulgated in terms of NEMA, determines that any environmental report will include cultural (heritage) issues.

The end purpose of this report is to alert the client, as well as interested and affected parties

about existing heritage resources that may be affected by the proposed development, and to recommend mitigation measures aimed at reducing the risks of any adverse impacts on these heritage resources. Such measures could include the recording of any heritage buildings or structures older than 60 years prior to demolition, in terms of section 34 of the NHRA and also other sections of this act dealing with archaeological sites, buildings and graves.

The NHRA section 2 (xvi) states that a “heritage resource” means any place or object of cultural significance, and in section 2 (vi) that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. Apart from a heritage report assisting a client to make informed development decisions, it also serves to provide the relevant heritage resources authority with the necessary data to perform their statutory duties under the NHRA. After evaluating the heritage scoping report, the heritage resources authority will decide on the status of the resource, whether the development may proceed as proposed or whether mitigation is acceptable, and whether the heritage resources require formal protection such as Grade I, II or III, with relevant parties having to comply with all aspects pertaining to such a grading.

- **Section 35 of the NHRA**

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant archaeological sites that may be discovered. In the case of such chance finds, the heritage practitioner will assist in investigating the extent and significance of the finds and consult with an archaeologist about further action. This may entail removal of material after documenting the find or mapping of larger sections before destruction. Some undecorated clay potsherds were observed on the farm, but they are outside of the study area.

- **Section 36 of the NHRA**

Section 36 of the NHRA stipulates that no person may, without a permit issued by SAHRA, 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. It is possible that chance burials might be discovered during development of road infrastructure or construction activities. A small burial site was observed on the farm, but it falls outside of the project area.



- **Section 34 of the NHRA**

Section 34 of the NHRA stipulates that no person may alter, damage, destroy, relocate etc., any building or structure older than 60 years without a permit issued by SAHRA or a provincial heritage resources authority. Only recent structures were observed during the survey. See discussion in text.

- **Section 37 of the NHRA**

This section deals with public monuments and memorials but does not apply in this report.

- **NEMA**

The regulations in terms of Chapter 5 of the National Environmental Management Act, (107/1998), provides for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard. In terms of the Environmental Impact Assessment (EIA) regulations (under the NEMA Act, as amended), the proposed development constitutes listed activities which requires environmental authorisations prior to commencement with the development, such as:

**LN1 Activity no. 27:** *The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity.;*

**LN1 Activity no. 12:** *12 i: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan: (ii) within critical biodiversity areas identified in bioregional plans. (f) In Mpumalanga: aa. A protected area identified in terms of NEMPAA, excluding conservancies; bb. National Protected Area Expansion Strategy Focus Areas; cc. World Heritage Sites; hh Areas within 10 kilometers from national parks or world heritage sites or 5 kilometers from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve, where such areas comprise indigenous vegetation;*<sup>10</sup>

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<sup>10</sup> MP Stream: BID for BA for proposed citrus plantation on portion 5 of the farm DUMA, pp. 1-2.

## **B BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA**

- **Literature review, museum databases & previous relevant impact assessments**

The study area on *portion 5 of the farm DUMA 201JU*, City of Mbombela is located approximately 20km east of Nelspruit, and south of the N4 national road.

The wider area is rich in archaeological history and the first evidence of ancient mining occurred between 46 000 and 28 500 years ago during the Middle Stone Age. Hematite or red ochre was mined at Dumaneni (near Malelane, approximately 40km east of the study area) and is regarded as one of the oldest mines in the world. Iron ore was also mined in the area, and a furnace as well as iron slag was documented.<sup>11</sup>

Bushman (or San) presence is evident in the wider area as research by rock art enthusiasts revealed 109 sites in the Kruger National Park,<sup>12</sup> and over 100 rock art sites at Bongani Mountain Lodge and its immediate surrounds<sup>13</sup> (north-west of the study area), as well as many sites in the Nelspruit, Rocky's Drift and White River areas. Thirty- one rock art sites were recorded by the author on the Mpumalanga Drakensberg Escarpment. Rock art sites were also recorded in Swaziland.<sup>14 15</sup> The Bushman painters most probably obtained the ochre which was used as a pigment in the paintings, from the Dumaneni ochre mine.<sup>16 17</sup> No rock art sites were observed on **DUMA**.

### **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.

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<sup>11</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 1.

<sup>12</sup> English, M. Die Rotskuns van die Boesmans in die NKW, in *De Vos Pienaar, U., Neem uit die Verlede*, p. 18-24.

<sup>13</sup> Hampson, et al., The rock art of Bongani Mountain Lodge, SA Archaeological Bulletin 57: p. 15.

<sup>14</sup> Rowe, C. 2009. Heritage Management of Archaeological, Historical and Industrial resources on the Blyde River Canyon Nature Reserve, MA dissertation. Pretoria: UP.

<sup>15</sup> Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

<sup>16</sup> Bornman, H. *The Pioneers of the Lowveld*, p. 1.

<sup>17</sup> Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

## IRON AGE

The Iron Age is the period in time when humans manufactured metal artifacts. According to Van der Ryst & Meyer,<sup>18</sup> 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 populated during the 19<sup>th</sup> century, and early researchers (D. Ziervogel and N.J. Van Warmelo), revealed that the study area was mainly inhabited by the Sotho groups (especially BaPai / Kutswe), Swazi from before the 18<sup>th</sup> century, as well as small groups of Tsonga (Nhlanganu and Tšhangana).<sup>19 20</sup> (See Map 1: 1935: Map of Van Warmelo).

Primary and secondary sources were consulted to place the surrounding area in an archaeological context. Ethnographical and linguistic studies by early researchers such as Ziervogel and Van Warmelo shed light on the cultural groups living in the area since ca 1600. Historic and academic sources by Meyer, Voight, Bergh, De Jongh, Evers, Myburgh, Thackeray and Van der Ryst were consulted, as well as historic sources by Makhura and Webb.

Primary sources were consulted from the Pilgrim's Rest Museum Archives for a background on the pre-history and history of the study area. Several circular stone-walled complexes and terraces as well as graves have been recorded in the vicinities of Hazyview<sup>21</sup>, Bushbuckridge, Graskop and Sabie. Clay potsherds and upper as well as lower grinders, are scattered at most of the sites.<sup>22</sup> Many of these occur in caves as a result of the Swazi attacks during the 1900's on smaller groups. The 1920 topographical map (Degree Sheet 22) of *Komatipoort* revealed no historic black settlements in the immediate area of **DUMA** (see Map 2).<sup>23</sup>

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

- *Study for the Proposed Eskom Powerlines, Hazyview – Dwarsloop* (2008);

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<sup>18</sup> Van der Ryst, M.M, & Meyer, A, Die Ystertydperk in *Geskiedenis Atlas van Suid-Afrika Die Vier Noordelike Provinsies*, pp. 96 – 98.

<sup>19</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. pp. 90-92 & 111.

<sup>20</sup> H. S. Webb, The Native Inhabitants of the Southern Lowveld, in *Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p.16.

<sup>21</sup> PRMA: Information file 9/2.

<sup>22</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 3.

<sup>23</sup> Map: 1920 Topographical Map: KOMATIPOORT Degree Sheet no. 22 / B1.

- *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 of the farm Friedenheim 282JT, City of Mbombela (**Nelspruit**), Mpumalanga (2020): Historical foundations of no significance were identified;*
- Phase 1 AIA / HIA for the *proposed Louws Creek Dam project: Construction of an irrigation dam on portions of the remaining extent of the farm ESPERADO 253JU & portions 1 & 2 of ESPERADO ANNEX 222JU, **Louw's Creek-Kaapmuiden** area, Mpumalanga Province, July 2020.*
- *Letter of recommendation for the exemption from a Phase 1 AIA & HIA for the clearance of 3ha vegetation for agricultural purposes on portion 35 of the farm **Karino** 134JU, Nelspruit, Mpumalanga (August 2020);*
- Phase 1 AIA / HIA for the *proposed Gouveia-Crocodile River project: Agricultural & residential development on the remainder of portions 8 & 13 & portion 14 of the farm Malelane Estate A, 140JU, **Malelane**, Mpumalanga Province, Feb 2021.*

The SAHRA database for archaeological and historical impact assessments was consulted and revealed other recent 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, Mpumalanga 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.

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.<sup>24</sup> The only professionally excavated Early Iron Age site near the area, besides those in the Kruger National Park, was the Plaston site east of White River, dating ca 900 AD.<sup>25</sup> No other archaeological excavations have been conducted to date within the study area, which have been confirmed by academic institutions and specialists

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<sup>24</sup> J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*, p. 95.

<sup>25</sup> M.M. Van der Ryst., *Die Ystertydperk*, in J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*. p. 97.

in the field.<sup>26 27</sup> Several stone walled settlements with terracing was recorded in the area close to Hazyview,<sup>28</sup> as well as several which were documented in the southern parts of the Kruger National Park.<sup>29</sup> The southern Kruger Park and Nelspruit / Bongani Nature Reserve areas have an abundance of San rock art sites,<sup>30</sup> but none was identified on the study area.

Several early ethnographical and linguistic studies by early researchers such as D. Ziervogel and N.J. Van Warmelo, revealed that the study area was mainly inhabited by the Sotho groups (Pulana & Pai) and Swazi from before the 18<sup>th</sup> century.<sup>31 32</sup> (See map 1: 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.<sup>33</sup>

The whole district is divided in two, with the Drakensberg Escarpment in the west, and the Low Veld (in which the study area is situated) towards the east. Today, we found that the boundaries of groups are intersected and overlapping.<sup>34</sup> Languages such as Zulu, Xhosa, Swazi, Nhlangu, Nkuna, sePedi, hiPau and seRôka, are commonly spoken throughout this area.<sup>35</sup>

During the middle of the 18<sup>th</sup> century some Sotho and Swazi groups combined under a fighting chief Simkulu. The tribe so formed became known as the BakaNgomane. The principal settlement of Simkulu was in the vicinity of the confluence of the Crocodile and Komati Rivers. It is believed that the BakaNgomane chiefs were also buried there.<sup>36</sup>

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<sup>26</sup> Personal information: Dr. J. Pistorius, Pretoria, 2008-04-17.

<sup>27</sup> Personal information: Dr. MS. Schoeman, University of Pretoria, 2008-03-27.

<sup>28</sup> C. Van Wyk, *Inspection of Umbhaha Stone-walled settlement, Hazyview*, pp. 1-2.

<sup>29</sup> Eloff J.F., *Verslag oor Argeologiese Navorsing in die Krugerwildtuin*, June / July, 1982.

<sup>30</sup> Hampson, J., et al., The rock art of Bongani Mountain Lodge and its environs, *South African Archaeological Bulletin* 57: pp. 17-28.

<sup>31</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. pp. 90-92 & 111.

<sup>32</sup> H. S. Webb, The Native Inhabitants of the Southern Lowveld, in *Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p.16.

<sup>33</sup> N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p.9.

<sup>34</sup> N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 51.

<sup>35</sup> M. De Jongh (ed)., *Swatini*, p. 21.

<sup>36</sup> Bornman H., *The Pioneers of the Lowveld* pp. 10-11.

The Swazi under Mswati II (1845), commenced on a career of largescale raids, on the prosperous tribal lands to the north of Swaziland. His regiments such as the *Nyatsi* and the *Malelane* brought terror to African homes as far afield as Mozambique.<sup>37</sup> During their northern expansion they forced the local inhabitants out of Swaziland, or absorbed them.<sup>38</sup> There is evidence of resistance, but the Eastern Sotho groups who lived in the northern parts of Swaziland, moved mainly northwards.<sup>39</sup> This appears to have taken place towards the end of the 18<sup>th</sup> century,<sup>40</sup> when these groups fled from Swaziland to areas such as **Nelspruit**, White River, Bushbuckridge, Klaserie, Blyde River and Komatipoort.<sup>41</sup>

Mswati II built a line of military outposts from west to east of the upper Komati River and the Mlambongwane (Kaa River). At each outpost, he stationed regiments to watch and stop the BaPedi returning to their old haunts.<sup>42</sup> Shaka in the course of his military actions, came into conflict with Zwide Mkhathshwa (1819). Notwithstanding Zwide's numerical superiority, Shaka defeated him. The remnants of Zwide's tribe fled into the Eastern Transvaal where they settled. They ultimately found a new kingdom in Gaza land, which extended from just north of the current Maputo, up the east coast as far as the Zambezi River.<sup>43</sup>

Soshangane was a very powerful chief of the Gaza people, even though he was under the rule of Zwide. Soshangane decided to leave and was given full passage through Swaziland. He passed on his way through the Komati gorge, today known as Komatipoort, taking with him a great booty of cattle and women. Meanwhile more Shangane arrived and by 1896 some 2000 refugees settled between Bushbuckridge and Acornhoek where they are still living today. With the establishment of the Sabie Game Reserve (later known as the Kruger National Park), the BakaNgomane, their Shangaan protégés and Swazis who lived within its borders, were evicted in 1902, and went westward into Klaserie and Bushbuckridge areas, or south of the Crocodile River and established themselves in the Tenbosch and Coal Mine (Strijdom Block) areas, west and south of Komatipoort. The Swazi of Khandzalive moved to Mjejane or Emjejane, the

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<sup>37</sup> Bornman H., *The Pioneers of the Lowveld* p 11.

<sup>38</sup> A.C. Myburgh, *The Tribes of Barberton District*, p. 10.

<sup>39</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. p. 111.

<sup>40</sup> H. S. Webb, *The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p. 14

<sup>41</sup> *Ibid.*, p. 16.

<sup>42</sup> Bornman H., *The Pioneers of the Lowveld* p. 12.

<sup>43</sup> Bornman, H., *The Pioneers of the Lowveld*, p.17.



current name for Hectorspruit <sup>44</sup> (see also: Map 1: 1935 Van Warmelo).

### **Swazi**

The Swazi people descended from the southern Bantu (Nguni) who migrated from central Africa in the 15<sup>th</sup> and 16<sup>th</sup> centuries.<sup>45</sup> The differences between the Swazi and the Natal Nguni were probably never great, their culture as far as is known from the comparatively little research being carried out, does not show striking differences. Their language is a 'Tekeza' variation of Zulu, but through having escaped being drawn into the mainstream of the Zulus of the *Shaka* period, they became independent and their claim to be grouped apart as a culture is now well founded.<sup>46</sup>

### **Eastern Sotho group: The Pai**

Van Warmelo identified the groups in northern Swaziland and the Pilgrim's Rest district before 1886 (including Sabie, Hazyview & White River), as Eastern Sotho (Pulana, Pai and Kutswe). According to Von Wielligh, the **Pai** occupied the area as far south as the Komati River (umLumati). Most of the younger generation has adopted the Swazi language.<sup>47</sup>

The Swazi constantly attacked the Eastern Sotho groups during the nineteenth century. The Pai fled to the caves in the mountains near MacMac (between Sabie and Pilgrim's Rest), while some of them (which were subjugated by a Swazi leader) fled from *Mswazi* in about 1853 to Sekukuniland (Steelpoort area), but decided to turn back towards their country along the Sabie River (1882). By this time, Europeans had already settled in this area when gold was discovered in 1873.<sup>48</sup>

### **Eastern Sotho group: The Pulana**

The history of the **Pulana** goes back to the Barberton area from where they trekked via Krokodilpoort (**Nelspruit district**) to settle north-east of Pretoriuskop (near Hazyview). When the Swazi invaded them, they moved on and split up under several chieftainships,<sup>49</sup> of who chief Kobêng (after which Kowyns' Pass was named), is well-known in the area's history.

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<sup>44</sup> Bornman, H., *The Pioneers of the Lowveld*, p.19.

<sup>45</sup> SWAZILAND: <http://en.wikipedia.org/wiki/Swaziland> p.1.

<sup>46</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 83.

<sup>47</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, pp. 3-5.

<sup>48</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 11.

<sup>49</sup> *Ibid.*, p. 108.

The Pulana roughly lived in the following areas: north of the Crocodile River, west of the western boundary of the Kruger National Park as far north as its crossing the Sabie River, south of the Sabie river until its cutting through the main road from Pretoriuskop (including Hazyview and close to White River), to Bushbuckridge, west of this road as far as Klaserie, south of a line drawn from Klaserie to the confluence of the Blyde and Orighstad rivers, and east of the Blyde River. This large area is divided in two by the main road from Pilgrim's Rest to Bushbuckridge. This road was since ancient times the only connection between the Low Veld and Escarpment, and became known as "Kowyns' Pass".<sup>50</sup> The majority of Pulana lived to the north of this line, while south of this line the Pulana are scattered in groups into which are wedged Pai groups on both sides of the Sabie River, and Swazi peoples in the south, and south-eastern portions.<sup>51 52</sup>

### **Eastern Sotho group: The Kutswe**

The **Kutswe** trekked from the northern parts of Swaziland northwards as a result of pressure from the Swazi in the south.<sup>53</sup> The Kutswe settled north-east of the present **Nelspruit** at a river called Kutswe (Gutshwa)<sup>54</sup> from where they got their present name. From here they moved on and settled at various places, and ruins of their kraals are scattered from Pretoriuskop, Hazyview (Phabeni) as well as on the farms Welgevonden 364, Lothian 258, Boschhoek 47, Sandford 46, Culcutta 51 and Oakley 262.<sup>55</sup> They occupied additional areas between White River and Sabie, and had sufficient influence amongst the Pai during the early 20<sup>th</sup> century, to establish authority over more than 2000 individuals living on farms on both sides of the Sabie River from the town of Sabie as far as the main road from White River / Hazyview to Bushbuckridge.<sup>56</sup>

The historical background of the study area confirmed that it was occupied since the 17<sup>th</sup> century by mainly Swazi and to a lesser extent, Sotho groups. These groups have intermarried extensively or were absorbed by other groups in time.<sup>57</sup>

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<sup>50</sup> M. De Jongh, (ed)., *Swatini*, p. 21.

<sup>51</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 107.

<sup>52</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. p. 111.

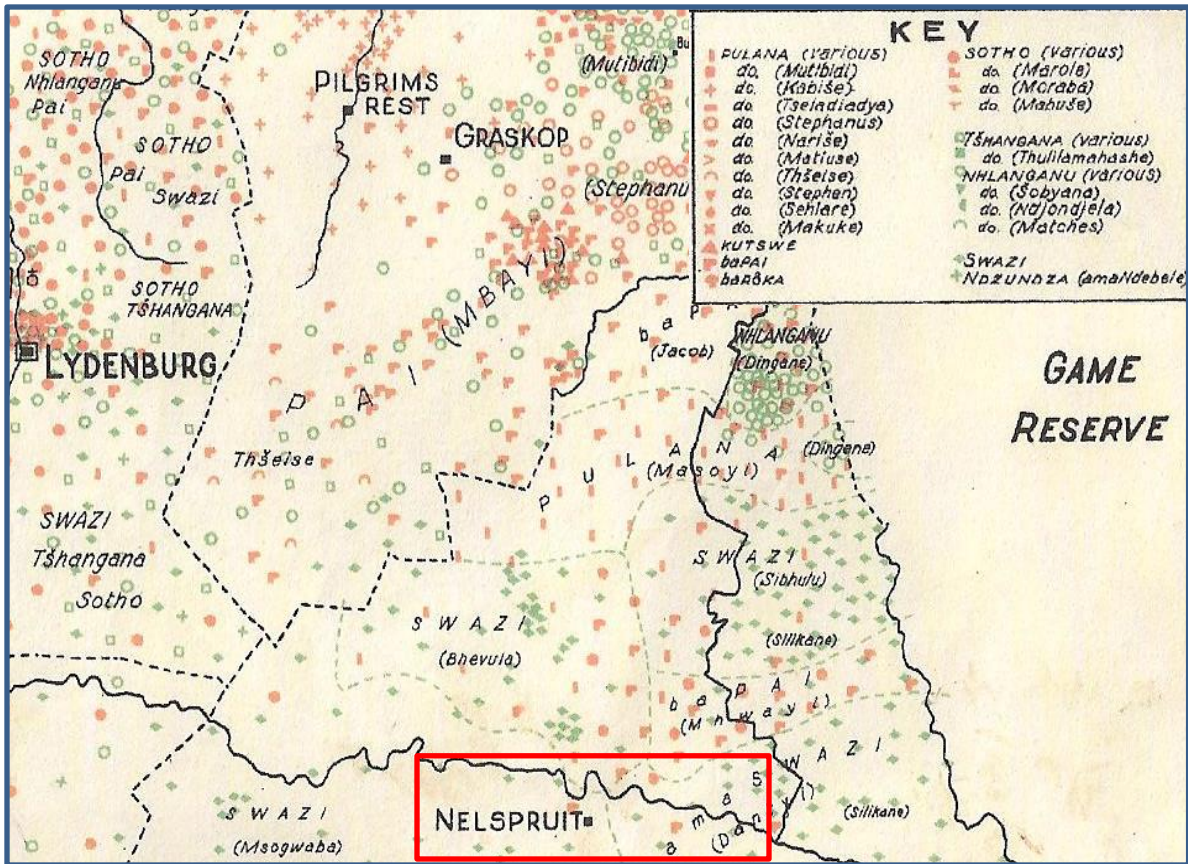
<sup>53</sup> *Ibid.*, p. 110.

<sup>54</sup> T. Makhura, Early Inhabitants, in *Delius, P. (ed)., Mpumalanga: History and heritage*. p.105.

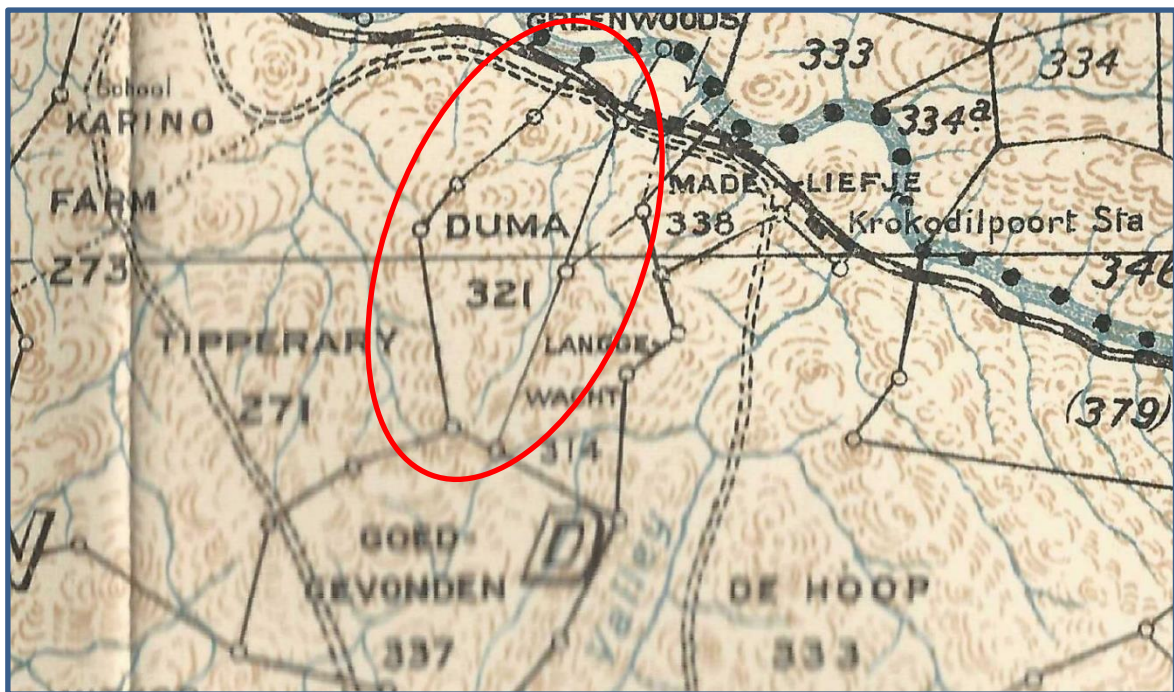
<sup>55</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 110.

<sup>56</sup> *Ibid.*, pp. 4-10.

<sup>57</sup> M. De Jongh (ed)., *Swatini*, p. 40.



MAP 1: Van Warmelo: 1935: The study area is indicated by the red square.



MAP 2: 1920 Topographical map (Degree Sheet: Komatipoort No 22 / B1). No features of interest were indicated on this map.

- **History of NELSPRUIT / KARINO, INCLUDING DUMA FARM & AREA**

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*. The fruit and nut industry have expanded extensively over the Lowveld, and forms a central part of the economy of the country.

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. <sup>58</sup>

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

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<sup>58</sup> History of Nelspruit: [mpumalanga-happenings.co.za/nelspruit\\_homepage.htm](http://mpumalanga-happenings.co.za/nelspruit_homepage.htm), Access: 2020-02-29.

*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 *Nyamazaan*. They accepted payment for their stands in Mbombela. Their relocation was completed in 1979.<sup>59</sup> Kanyamazane (*Nyamazaan*), is located 19km from Nelspruit and opposite from the farm **DUMA**, north of the Crocodile Rver. 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,”<sup>60</sup> which obviously referred to the abundance of wildlife associated with the area during the previous centuries.

### **C. DESCRIPTION OF THE AREA TO BE AFFECTED BY THE PROPOSED DEVELOPMENT**

*AEONIK FARMS SEQUOIA (Pty) Ltd.*, in co-operation with *MP Stream Environmental and Safety Planners (Pty)*, are proposing the clearing of indigenous vegetation (less than 20ha), for agricultural purposes (citrus plantation) on *portion 5 of the farm DUMA 201JU*, City of Mbombela.

The topography of the project site is mountainous and rugged with small to large granite outcrops present. Several prominent drainage lines transect the property, flowing towards the Crocodile River. The biodiversity investigation indicated areas which were suitable for the proposed agricultural development, as most of the property consists of natural vegetation (woodland and thickets). A small 2ha section in the north, was previously disturbed agricultural land (see map 4).<sup>61</sup> (See Appendix 2, figs. 1 & 2).

The study area is mountainous bushveld typical of the eastern Lowveld Escarpment foothills, specifically to the west of the Crocodile Gorge Mountains. The most serious transformation of the natural environment consists of cultivation of crops and formal and informal settlements which have transformed significant areas of natural land in the past few years.<sup>62</sup>

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<sup>59</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 145-146.

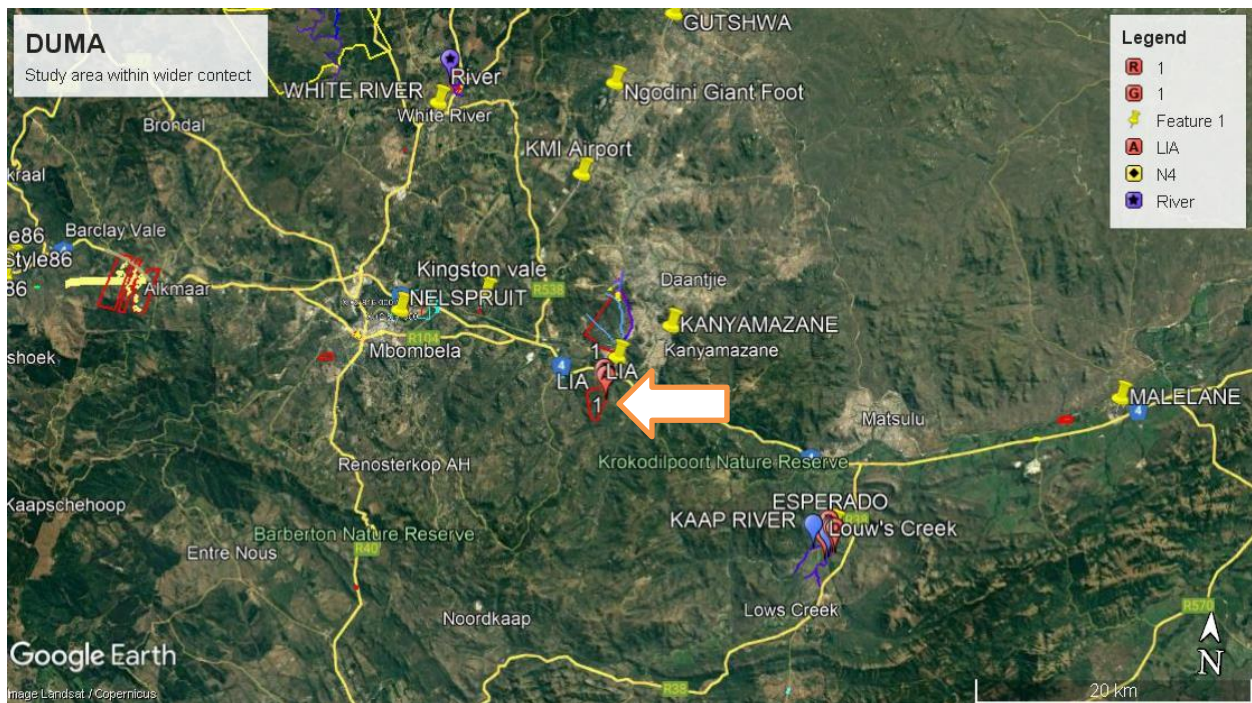
<sup>60</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 145.

<sup>61</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, p. 1. Access: 2021-11-18

<sup>62</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, pp. 2 - 6. Access: 2021-11-18

Nationally the site is situated within the Lowveld Sour bushveld veld type (Acocks 1988), or Sour Lowveld Bushveld (Low & Rebelo 1998 & Schmidt et al, 2002). The topography consists of plains and gentle slopes with intermitten drainage lines. The vegetation structure is open savannah with few low shrubs and a well-developed grass component. Malelane Mountain Bushveld is found on the mountain and hills to the east of Nelspruit in the area known as the Krokodilpoort Mountains (Crocodile Gorge Mountains). A few small rocky outcrops, as well as wetlands are present but will not be affected by the proposed development. The project will involve a road network, although existing roads will also be used.<sup>63</sup>

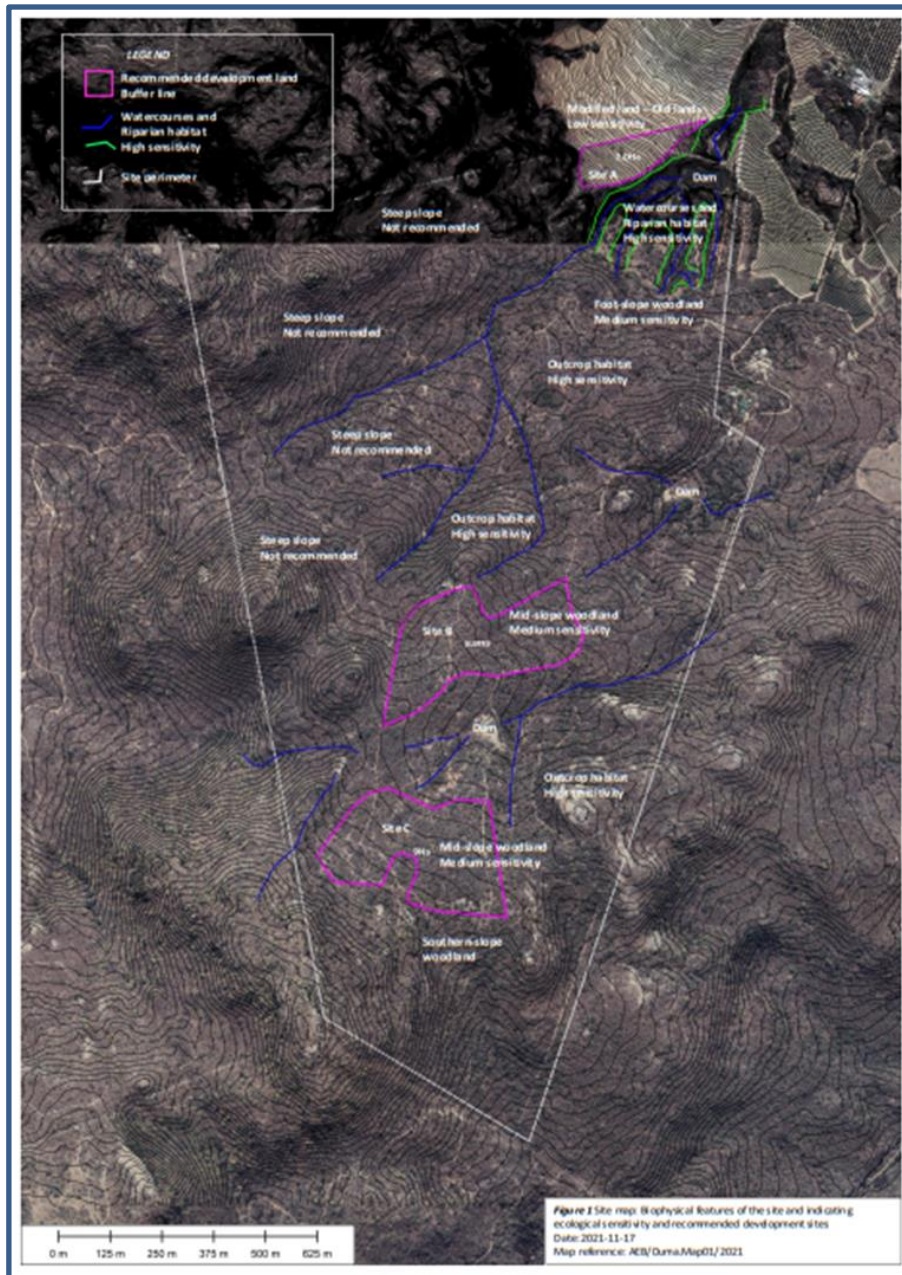
The general geology of the area consists of granite and gneiss, mostly of the Nelspruit suite, forming hills with large boulders. Soils are shallow, coarse lithosols, comprised of Glenrosa or Mispah soil types.<sup>64</sup>



**MAP 3:** The proposed project site within the wider context, between Nelspruit and Malelane.

<sup>63</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, pp. 2 - 6. Access: 2021-11-18.

<sup>64</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, pp. 2 - 6. Access: 2021-11-18.

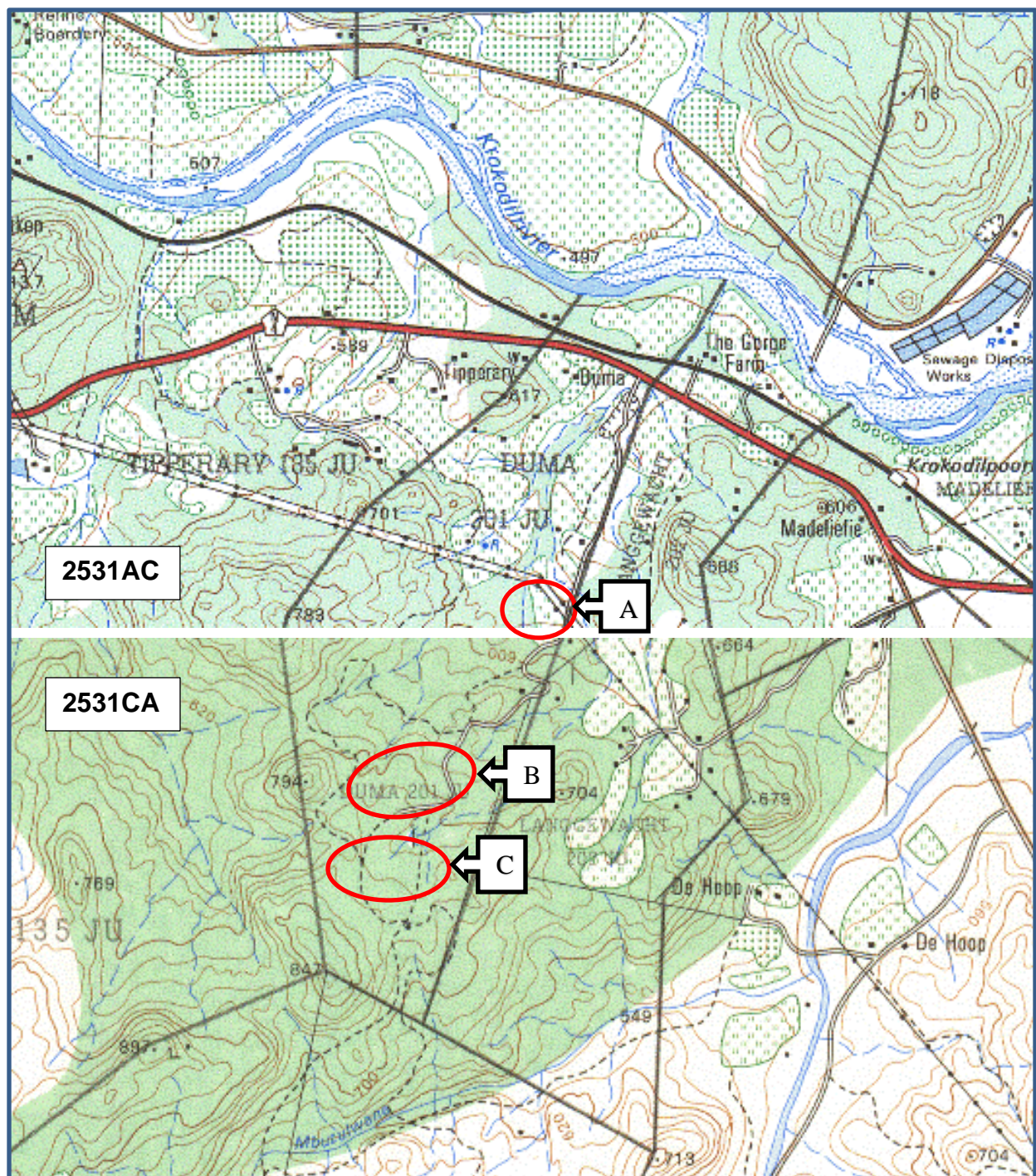


**MAP 4:** DUMA farm with the perimeters of the study areas indicated in purple. (Map provided by CORE Environmental Services).

Three sections have been identified for the development, and for the purposes of this study they are named **Site A** (extreme northern section and previously transformed land), **Sites B & C**, mid-slope woodland sections which are suitable for cultivation (consisting of natural woodland vegetation) (see map above).

#### D. LOCALITY

The proposed site for the DUMA agricultural development on *portion 5 of the farm DUMA 201JU* is located approximately 20km to the east of the town of Nelspruit.



**MAP 5:** Topographical Maps 1:50 000, 2531AC & 2531CA. The study areas are roughly indicated by the red ovals.

DUMA is accessed from the N4 national road. The residential area of Kanyamazane is located to the north, along the Crocodile River (see maps 3 - 5: for the proposed development). The study area consists mainly of natural vegetation with a small transformed section in the extreme



north (cultivated land).<sup>65</sup>

**Site A** is indicated on the 1984 topographical map 2531AC, and **Sites B & C** on topographical map 2531CA. The 1920 topographical map (Komatipoort, Degree Sheet 22/B1) was studied for possible locations of historical features and footpaths (see maps 2 & 5), but none were found. The site falls within the Ehlanzeni District Municipality, and the City of Mbombela Local Municipality in the Mpumalanga Province (maps 1 - 6 & Appendix 2 figs. 1 – 21, for the study area).

### **Description of methodology:**

In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used: (maps 2 - 6).

- The desktop study consisted mainly of archival sources studied on distribution patterns of early African groups who settled in the area since the 17<sup>th</sup> century, and which have been observed in past and present ethnographical research and studies.
- Literary sources, books and government publications, which were available on the subject, have been consulted, in order to establish relevant information.
- Specialists currently working in the field of anthropology and archaeology have also been consulted on the subject.

-Literary sources: A list of books and government publications about prehistory and history of the area were cited, and revealed some information;

-The archaeological database of SAHRA as well as the National Cultural History Museum were consulted. Heritage Impact Assessment reports of specialists who worked in the area were studied and are quoted in section B.

- The fieldwork and survey were conducted extensively by five people on foot and per vehicle. Existing tracks and paths were used to access sections (see Appendix 1).
- Most of the study area was natural woodland vegetation as well as a small transformed section in the extreme north. Visibility in these areas varied from open and accessible, to restricted in the denser woodland sections. In general visibility was fair. Footpaths and tracks were visible, and could be followed to access areas (see Appendices 1 & 2).
- The relevant data was located with a GPS instrument (GPSMAP 64X series) datum WGS 84, and plotted. Co-ordinates were within 3 meters of identified sites.

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<sup>65</sup> AEB: Ecological investigation for clearing of indigenous vegetation for cultivation on portion 5 of the farm DUMA 201JU, pp. 2 - 6. Access: 2021-11-18.

- Evaluation of the resources which might be impacted upon by the footprint, was done within the framework provided by the National Heritage Resources Act, no. 25 (1999);
- Personal communication with environmental practitioners Sibosiso Langa and Anne-Marie White,<sup>66 67</sup> was held, as well as the farm manager, Mr. Paul Ngobane.<sup>68</sup>

GPS co-ordinates were used to locate the perimeters and any heritage features within the study area. General co-ordinates of the study area are as follows: see map 4:

<b>GPS CO-ORDINATES</b>			
<b>Location</b>	<b>South</b>	<b>East</b>	<b>Elevation</b>
<b>Site A</b>	S 25° 29' 53.16"	E 31° 08' 27.65"	579m
<b>Site B</b>	S 25° 30' 30.28"	E 31° 08' 16.67"	719m
<b>Site C</b>	S 25° 30' 48.61"	E 31° 08' 13.62"	751m

#### **E. DESCRIPTION OF IDENTIFIED SITES**

The applicant, *AEONIK FARMS SEQUOIA (Pty) Ltd.*, in co-operation with *MP Stream Environmental and Safety Planners (Pty)*, are proposing the clearing of less than 20ha of indigenous vegetation for an agricultural development (citrus),<sup>69</sup> (see Appendix 2). The terrain was accessible with many tracks and paths although some sections of woodland vegetation were dense. In general, the visibility during the site visit, was fair.

All comments should be studied in conjunction with the maps, figures and appendices, which indicate the study area, and which correspond with the summary below. Photographs in Appendix 2 show the general view of the study area, as well as the features which were identified (figs. 1 - 21).

A 1920 topographical map (map 2: Komatipoort, degree sheet 22/B1) does not indicate any historic or pre-historic settlements directly in, or close to the study area. The 1984 topographical maps, do not indicate any features of interest.

<sup>66</sup> Personal communication: Env. Practitioner, Mr. S. Langa, 2021-11-04.

<sup>67</sup> Personal communication: Env. Practitioner, Ms. A-M. White, 2021-11-04.

<sup>68</sup> Personal communication: Farm Manager, Mr. Paul Ngobane, 2021-11-04.

<sup>69</sup> MP Stream: BID for BA for proposed citrus plantation on portion 5 of the farm DUMA, pp. 1-2.

### **SITE A:**

Site A is a 2ha section situated in the extreme north of the project site. This section was historically disturbed by cultivation since at least 2004, as indicated by Google Earth images. No archaeological or historical features were observed within or in the direct vicinity of Site A (figs. 1 -2). A small burial site (figs 18 – 21), a few undecorated clay potsherds (figs. 16 – 17), as well as a recent retaining wall (fig. 14), were observed to the south-east of this section near the access entrance of the property (figs. 13). These fall outside of the study area and will not be affected by the proposed development.

The clay potsherds are of no significance as they were observed next to the eastern border fence, within a disturbed (cleared) section next to the fence line (fig. 15). The burial site, although not within the study area, is regarded as of high significance by SAHRA,<sup>70</sup> and mitigation measures are proposed (see further in text).

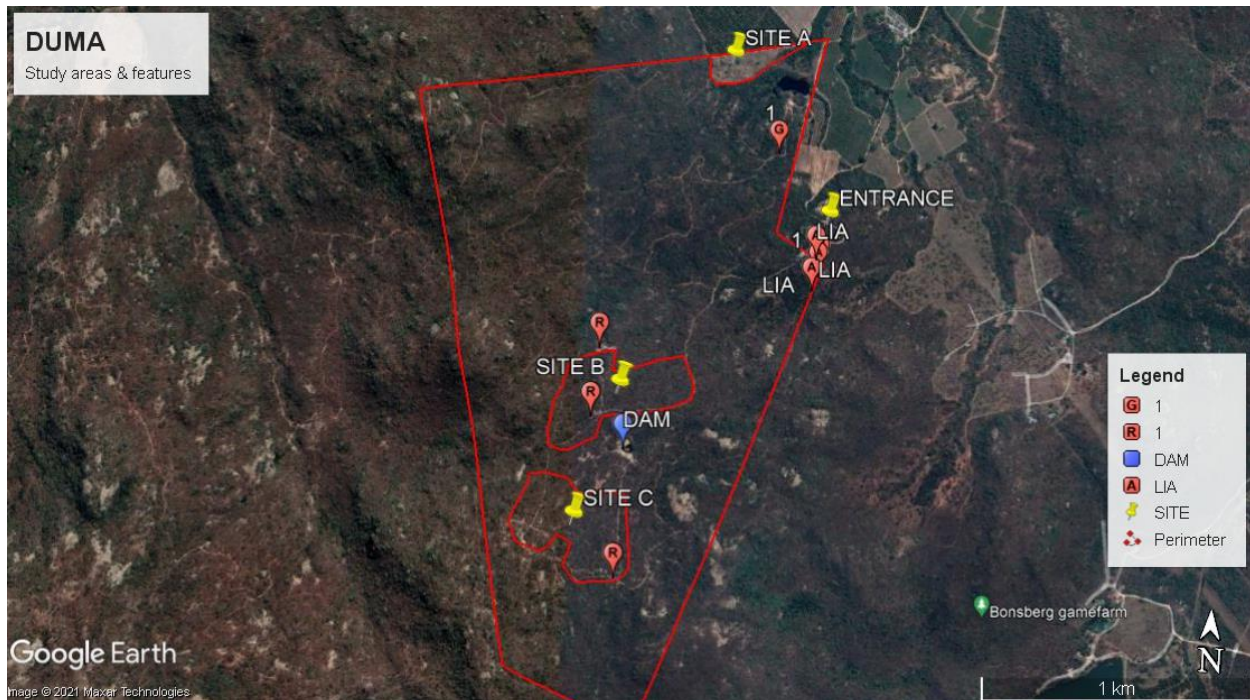
### **SITES B & C:**

Sites B & C consisted of natural mid-slope woodland vegetation, with a shrub and tree cover. A few recent buildings were observed, but these are not older than 60 years (figs. 6 & 12). The visibility in these sections was fair as the vegetation cover was fairly sparse and open. Sections where the soil was disturbed (at the recent houses) were investigated for any signs of an archaeological or historical nature, but nothing was observed. A modern house (fig. 8), falls outside of the study area.

No archaeological or historical features, material or structures of significance were observed in the study area of the proposed DUMA agricultural project.

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<sup>70</sup> SAHRA, Burial sites, [Http://www.sahra.org.za/burial.htm](http://www.sahra.org.za/burial.htm), Access, 2008-10-16.



**MAP 6:** Study areas Sites A, B & C are indicated by the yellow markers, and the distribution of features in the study area are indicated to the east of the study areas (red bullets).

**Features which were observed during the survey (see map 6): Take note that none of the features falls within the proposed project sites (A, B & C):**

Feature / Site	Description / Comments	Site Location
<b>Burial site</b>	A small neglected burial site was observed in the northern section of the property. This falls outside of the proposed development, but mitigation measures are recommended. <b>Fig. 18 – 21.</b>	25°30'02.74"S 31°08'33.85"E Elev. 593m
<b>Clay potsherds</b>	Undecorated clay potsherds were observed in the disturbed fence line section on the eastern border of the property. These are outside of the study area. <b>Fig. 15 - 17.</b>	25°30'16.69"S 31°08'39.58"E Elev. 633m
<b>Recent retaining wall</b>	A recent, rough concrete and stone retaining wall was observed within the drainage line area (outside of proposed study area).	25°30'15.76"S 31°08'39.76"E Elev. 633m

	<b>Fig. 14.</b>	
<b>Recent pump house</b>	<p>SITE B: Pump house:</p> <p>A recent pump house with infrastructure was observed within the proposed Site B. The recent pump house is of no significance from a heritage point of view.</p> <p><b>Fig. 6.</b></p>	<p>25°30'34.15"S</p> <p>31°08'11.89"E</p> <p>Elev. 729m</p>
<b>Recent modern house</b>	<p>Modern house (outside of study area)</p> <p><b>Figs. 8.</b></p>	<p>25°30'26.38"S</p> <p>31°08'12.41"E</p> <p>Elev. 711m</p>
<b>Recent store room</b>	<p>SITE C: Storeroom:</p> <p>A recent store room was observed within the proposed Site C. This storeroom is of so significance from a heritage point of view.</p> <p><b>Fig. 12.</b></p>	<p>25°30'52.00"S</p> <p>31°08'15.80"E</p> <p>Elev. 753m</p>

#### F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT

<b>ACT</b>	<b>COMPO-NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S 34	Impact on buildings and structures older than 60 years	Only recent structures were observed	None
NHRA	S35	Impacts on archaeological heritage resources	None present – clay potsherds are outside of study area	None
NHRA	S36	Impact on graves	Burial site not within the study area	None
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	HIA done

<b>ACT</b>	<b>COMPO- NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NEMA	EIA regulation	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

- **Summarised identification and cultural significance assessment of affected heritage resources: General issues of site and context:**

<b>Context</b>		
Urban environmental context	No	NA
Rural environmental context	No	NA
Natural environmental context	No	NA
<b>Formal protection (NHRA)</b>		
(S. 28) Is the property part of a protected area?	No	NA
(S. 31) Is the property part of a heritage area?	No	NA
<b>Other</b>		
Is the property near to or visible from any protected heritage sites	No	NA
Is the property part of a conservation area of special areas in terms of the Zoning scheme?	No	NA
Does the site form part of a historical settlement or townscape?	No	NA
Does the site form part of a rural cultural landscape?	No	NA
Does the site form part of a natural landscape of cultural significance?	No	NA

<b>Context</b>		
Is the site adjacent to a scenic route?	No	NA
Is the property within or adjacent to any other area which has special environmental or heritage protection?	No	NA
Does the general context or any adjoining properties have cultural significance?	No	NA

<b>Property features and characteristics</b>		
Have there been any previous development impacts on the property?	Yes	Small section in the north of the property (2ha) was transformed by agricultural development
Are there any significant landscape features on the property?	No	NA
Are there any sites or features of geological significance on the property?	No	NA
Does the property have any rocky outcrops on it?	Yes	Small rocky outcrops occur
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	Yes	Drainage lines which lead to the Crocodile River (outside of the study area).

<b>Heritage resources on the property</b>		
<b>Formal protection (NHRA)</b>		
National heritage sites (S. 27)	No	NA

<b><i>Heritage resources on the property</i></b>		
Provincial heritage sites (S. 27)	No	NA
Provincial protection (S. 29)	No	NA
Place listed in heritage register (S. 30)	No	NA
<b><i>General protection (NHRA)</i></b>		
Structures older than 60 years (S. 34)	No	NA
Archaeological site or material (S. 35)	No	NA (outside of study area)
Palaeontological site or material (S. 35)	No	NA
Graves or burial grounds (S. 36)	No	NA (outside of study area)
Public monuments or memorials (S. 37)	No	NA
<b><i>Other</i></b>		
Any heritage resource identified in a heritage survey (author / date / grading)	No	NA
Any other heritage resources (describe)	No	NA



<b>NHRA S (3)2 Heritage resource category</b>	<b>ELE- MENT S</b>	<b>INDICATORS OF HERITAGE SIGNIFICANCE</b>										<b>RISK</b>	
		Historical	Rare	Scientific	Typical	Technological	Aesthetic	Person / community	Landmark	Material condition	Sustainability		
Buildings / structures of cultural significance	No	No	No	No	No	No	No	No	No	No	No	No	Recent structures not older than 60 years - No risk
Areas attached to oral traditions / intangible heritage	No	No	No	No	No	No	No	No	No	No	No	No	-
Historical settlement / townscapes	No	-	-	-	-	-	-	-	-	-	-	-	-
Landscape of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	-
Geological site of scientific/cultural importance	No	-	-	-	-	-	-	-	-	-	-	-	-

<b>NHRA S (3)2 Heritage resource category</b>	<b>ELEMENTS</b>	<b>INDICATORS OF HERITAGE SIGNIFICANCE</b>										<b>RISK</b>	
		Historical	Rare	Scientific	Typical	Technological	Aesthetic	Person / community	Landmark	Material condition	Sustainability		
Archaeological / palaeontological sites	No	-	-	-	-	-	-	-	-	-	-	-	-
Grave / burial grounds	No	-	-	-	-	-	-	-	-	-	-	-	Burial site outside of study area (no risk)
Areas of significance related to labour history	No	-	-	-	-	-	-	-	-	-	-	-	-
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-	-

- **Summarised recommended impact management interventions**

<b>NHRA S (3)2 Heritage resource category</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE Cultural significance rating</b>		<b>Impact management</b>	<b>Motivation</b>
		<b>Cultural significance</b>	<b>Impact significance</b>		
Buildings / structures of cultural significance	No	No	None	None	-

<b>NHRA S (3)2 Heritage resource category</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE Cultural significance rating</b>		<b>Impact management</b>	<b>Motivation</b>
		<b>Cultural significance</b>	<b>Impact significance</b>		
Areas attached to oral traditions / intangible heritage	No	None	None	-	-
Historical settlement/ townscape	No	None	None	-	-
Landscape of cultural significance	No	None	None	-	-
Geological site of scientific/ cultural importance	No	None	None	-	-
Archaeological / palaeontological sites	No	None	None	-	-
Grave / burial grounds	No	No	None	-	-
Areas of significance related to labour history	No	None	None	-	-
Movable objects	No	None	None	-	-

<b>ACT</b>	<b>COMPO- NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S 34	Impact on buildings and structures older than 60 years	NA	None

<b>ACT</b>	<b>COMPO- NENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	NA	None
NHRA	S36	Impact on graves	NA	None
NHRA	S37	Impact on public monuments	None	None
NHRA	S38	Development requiring an HIA	Development is a listed activity	Full HIA
NEMA	EIA regulation	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

## **G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES**

Section 38 of the NHRA, rates all heritage resources into National, Provincial or Local significance, and proposals in terms of the above is made for all identified heritage features.

### **• Evaluation methods**

Site significance is important to establish the measure of mitigation and / or management of the resources. Sites are evaluated as *HIGH (National importance)*, *MEDIUM (Provincial importance)* or *LOW, (local importance)*, as specified in the NHRA. It is explained as follows:

### **• National Heritage Resources Act**

The National Heritage Resources Act no. 25, 1999 (NHRA) aims to promote good management of the national estate, and to enable and encourage communities to conserve their legacy so that it may be bequeathed to future generations. Heritage is unique and it cannot be renewed, and contributes to redressing past inequities.<sup>71</sup> It promotes previously neglected research areas.

All archaeological and other cultural heritage resources are evaluated according to the NHRA, section 3(3). A place or object is considered to be part of the national estate if it has cultural significance or other special value in terms of:

- (a) its importance in the community, or pattern of South Africa's history;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (g) its strong or special association with a particular community or cultural group for social,

<sup>71</sup> National Heritage Resources Act, no. 25 of 1999. p. 2.

cultural or spiritual reasons;

(h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.<sup>72</sup>

- **Graves**

### **SAHRA Policy on burial grounds**

NHRA Sections 27 & 36: The policy is that graves and cemeteries should be left undisturbed, no matter how inaccessible and difficult they are to maintain. It is our obligation to empower civil society to nurture and conserve our heritage. It is only when essential developments threaten a place of burial, that human remains should be disinterred to another cemetery or burial ground. <sup>73</sup>

From a historical point of view and for research purposes, it is vital that burial sites are not disturbed. The location and marking of an individual's grave tell a life story, possibly where he / she died defending (or attacking) a particular place or situation and makes it easier to understand the circumstances of his / her death.<sup>74</sup>

- **The significance and evaluation of heritage features as well as graves on the DUMA:** SAHRA regards all graves and burial sites as of high significance, and therefore mitigation measures are recommended for all graves / burial sites on the **DUMA** farm. The significance and evaluation can be summarized as follows (Please note that mitigation measures are recommended for only the burial site, as all other features are regarded as of no significance):

### **BURIAL SITE on DUMA:**

<b>Site no</b>	<b>Graves</b>	<b>Significance</b>	<b>Measures of mitigation</b>
<b>Burial site</b>	A small but extremely neglected burial site was identified in the northern section of the farm, <b>DUMA</b> . This site falls outside of the	<b>HIGH</b>	The burial site must be fenced off and a perimeter of 20m must be kept clear around the site.

<sup>72</sup> National Heritage Resources Act, no. 25 of 1999. pp. 12-14

<sup>73</sup> SAHRA, Burial sites, [Http://www.sahra.org.za/burial.htm](http://www.sahra.org.za/burial.htm), Access, 2008-10-16.

<sup>74</sup> SAHRA, Burial sites, [Http://www.sahra.org.za/burial.htm](http://www.sahra.org.za/burial.htm), Access, 2008-10-16.

	<p>proposed development area. Approximately 6 graves were identified, although there may be more.</p>		
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- **Field rating:**

**Recommendation & discussion:**

*Portion 5 of the farm DUMA 201JU* is currently vacant and no farming is taking place on the property. The farm is largely still in a natural state (apart from 2ha in the northern section, which was previously cultivated).

It is not believed that any of the recent features on the farm **DUMA**, which were identified within the proposed development sections, sites B & C, have any significance in terms of historic or cultural value which might prevent the proposed development to continue. All the recent features are younger than 60 years and has no cultural significance or other special value in terms of its importance in the community (NHRA 3.3a); or its potential to yield social, cultural or spiritual information or to link it to a particular community which may contribute to an understanding of South Africa’s cultural heritage (NHRA 3.3c & g).<sup>75</sup> The undecorated clay potsherds which were observed within disturbed sections of the eastern border fence, are outside of the proposed development area. It is not believed that any other archaeological or historical features will be impacted upon by the proposed agricultural development.

The burial site is of high significance and mitigation measures are proposed:

**Burial Sites:**

SAHRA’s policy on burial grounds is strict and sections 27 & 36 rate all such sites as of **High** significance (NHRA, no. 25 of 1999, section 36).<sup>76</sup> The burial site on the farm **DUMA**, is situated outside of the proposed development, but mitigation measures are recommended to protect the burial site from any possible future impacts. It is recommended that the burial site be left intact and undisturbed. It should be fenced, and a buffer zone of 20m should be kept clear around the site where no future impacts (for example roads or pipelines) may take place.

Although the site is neglected and clearly long forgotten, the developer should also be made aware that family members of the deceased have the right to visit the site.

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<sup>75</sup> National Heritage Resources Act, no. 25 of 1999.

<sup>76</sup> SAHRA, Burial sites, <http://www.sahra.org.za/burial.htm>, Access, 2018-08-09.

## H. RECOMMENDATIONS & CONCLUSION

Archaeological material or graves are not always visible during a field survey and therefore some significant material may only be revealed during construction activities of the proposed development. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that apart from the mitigation measures proposed for the burial site (see above), there are no other compelling reasons which may prevent the proposed agricultural development to continue. It is recommended that earthmoving activities be monitored by a qualified archaeologist and that an assessment be done should any archaeological material be found.

**Adansonia Heritage Consultants cannot be held responsible for any archaeological material or graves which were not located during the survey.**

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#### **PERSONAL INFORMATION**

- Personal communication: Ms. Anne-Mari White, Cell: 0608781591, 2021-11-04.
- Personal communication: Mr. Paul Ngobane, Farm Manager: Cell: 064758810.
- Personal communication: Mr. Sibosiso Langa, Cell: 0731733894, 2021-11-04.

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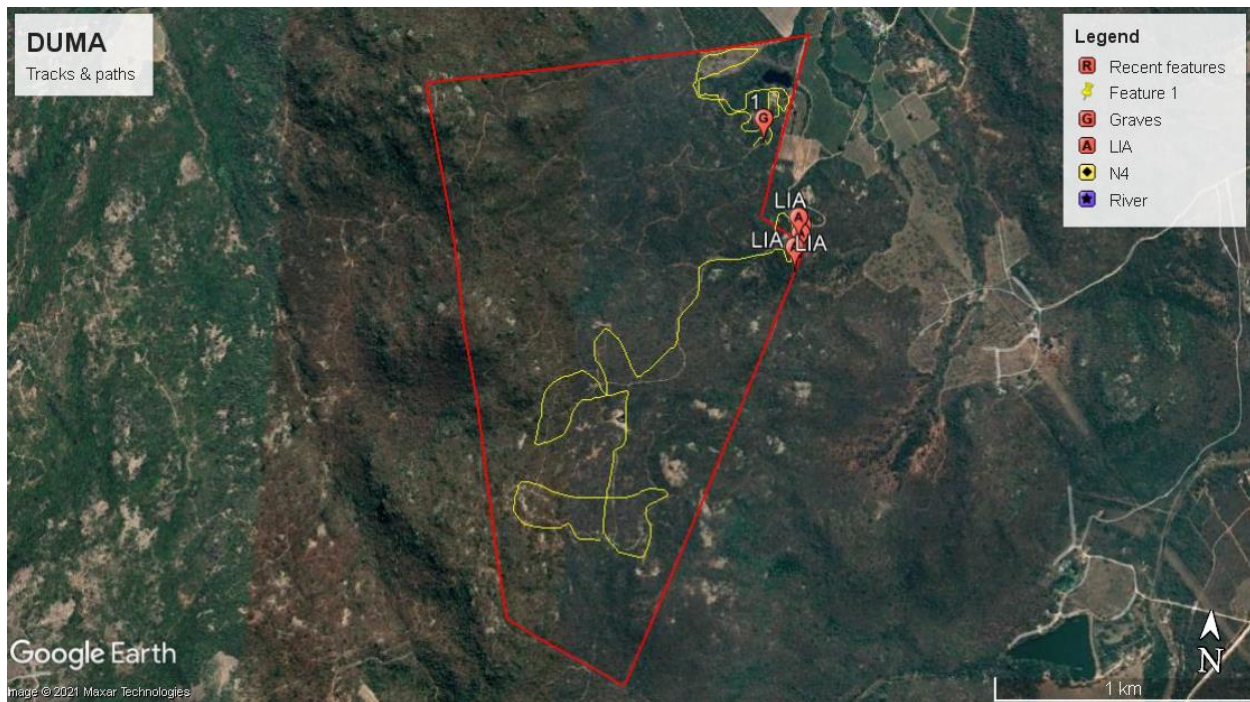
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## APPENDIX 1

### Tracks and Paths used to access the study area



Tracks and paths which were used during the survey.