#### SPECIALIST REPORT

## PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF KRUGER VIEW LODGE & ASSOCIATED INFRASTRUCTURE ON PORTIONS 4 & 5 OF THE FARM BELFAST 296KU, BUSHBUCKRIDGE AREA, MPUMALANGA PROVINCE

#### REPORT PREPARED FOR

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#### **MAY 2020**

## ADANSONIA HERITAGE CONSULTANTS ASSOCIATION OF SOUTHERN AFRICAN PROFESSIONAL ARCHAEOLOGISTS REGISTERED WITH SAHRA C. VAN WYK ROWE

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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 for the proposed *KRUGER VIEW LODGE* and associated infrastructure on *portions 4 & 5 of the farm BELFAST 296KU*, Belfast, Bushbuckridge.

The 6.21ha study area is situated on topographical map 1:50 000, 2431CD, which is in the Mpumalanga Province. This area falls under the jurisdiction of the Ehlanzeni District Municipality, and Bushbuckridge Local Municipality.

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.

UMHLABA WESIVE TRADING (Pty) Ltd., was appointed by the Client (applicant), *KRUGER VIEW LODGE*, to conduct the Basic Assessment process in terms of the National Environmental Management Act.

The proposed site for the development is situated in the Belfast area of Bushbuckridge, east of Hazyview. It is located on the banks of the Sabie River, bordering the Kruger National Park. The property is currently vacant land, which was historically disturbed by cultivation (orchards). Pioneer vegetation is establishing itself on the fallow lands, which is also used by the local community for livestock grazing, and dumping of waste. This section is zoned as agriculture and will be rezoned as a commercial concern. The area was flat and open and visibility was excellent. No archaeological or historical material, structures, features or graves were observed during the survey.

It is recommended that the applicant be made aware that distinct archaeological material or human remains may only be revealed during the development of the proposed construction operations. In such instance, a qualified archaeologist must be contacted to monitor the activities and make a recommendation. 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 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.

MAY 2020

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Christine (Van Wyk) Rowe

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# PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF KRUGER VIEW LODGE & ASSOCIATED INFRASTRUCTURE ON PORTIONS 4 & 5 OF THE FARM BELFAST 296KU, BUSHBUCKRIDGE AREA, MPUMALANGA PROVINCE

#### A. BACKGROUND INFORMATION TO THE PROJECT

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on the footprint for the proposed KRUGER VIEW Lodge development on *portions 4 & 5 of the farm BELFAST 296KU*, near Belfast, in Bushbuckridge. The study area is situated on topographical map 1:50 000, 2431CD, which is in the Mpumalanga Province. This area falls under the jurisdiction of the Ehlanzeni District Municipality, and Bushbuckridge Local Municipality.<sup>1</sup>

UMHLABA Wesive trading (Pty) Ltd., was appointed by the Client and developer *KRUGER VIEW LODGE*. The project entails the construction of a Lodge and associated infrastructure with the following facilities, Chalets, Reception block, Conference centre, storage, Restaurant, and parking, to cater for guests.<sup>2</sup>

Adansonia Heritage Consultants were appointed to conduct a phase 1 heritage impact assessment (HIA) on archaeological and other heritage resources on the study area. 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 (see maps 3 - 8, Topographical Map 5 & Appendix 1, Tracks and Paths).

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 - 8, & Appendix 1 & 2.

<sup>&</sup>lt;sup>1</sup> BID Document, UMHLABA Wesive Trading (Pty) Ltd, 2020-05-22, p. 1.

<sup>&</sup>lt;sup>2</sup> BID Document, UMHLABA Wesive Trading (Pty) Ltd, 2020-05-22, p. 1.

- This study forms part of an EIA, Consultant: UMHLABA Wesive Trading (Pty) Ltd, Mr. Themba Silinda, Stand no. 10357, Msogwaba, 1215. Tel: 083 969 2126 / e-mail: umhlabawesive@gmail.com. A draft basic assessment report is being compiled for public review.
- Type of development: Development of a Lodge on the banks of the Sabie River, opposite the Kruger National Park, on portions 4 & 5 of the farm BELFAST 296KU, near Belfast in Bushbuckridge, Mpumalanga Province.
- The study area was historically disturbed agricultural land and is flat, and situated on the banks of the Sabie River. The area is currently zoned as agriculture and will be rezoned as a commercial area.
- 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 Bushbuckridge Local Municipality. Land owner: KRUGER VIEW HOTELS. 3

**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 in the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management 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 a HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA).

<sup>&</sup>lt;sup>3</sup> Personal communication: Mduduzi Mamba, Nelspruit, 2020-05-25.

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.<sup>4</sup>

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 archaeological and cultural (heritage) issues.

The end purpose of this report is to alert UMHLABA Wesive Trading (Pty) Ltd, the Client and 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 resource require formal protection such as a Grade I, II or III, with relevant parties having to comply with all aspects pertaining to such a grading.

<sup>&</sup>lt;sup>4</sup> National Heritage Resources Act, no. 25 of 1999.

#### 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. No archaeological material was observed during the survey.

#### 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 the road infrastructure or agricultural activities. This section does not apply since no graves were identified.

#### 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. This section does not apply since no structure older than 60 years were identified during the survey.

#### 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, as amended), provides for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard.

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

Literature review, museum databases & previous relevant impact assessments

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 (Makhura and Webb). 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 actually indicate how many people were living in one area.<sup>5</sup> (See Map 1: Van Warmelo 1935).

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>6</sup>, Bushbuckridge, Graskop and Sabie. Clay potsherds and upper as well as lower grinders, are scattered at most of the sites.<sup>7</sup> Many of these occur in caves as a result of the Swazi attacks during the 1900's on smaller groups.

Very little contemporary research has been done on prehistoric African settlements in the direct 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>8</sup> The only professionally excavated Early Iron Age site in the immediate area, besides those in the Kruger National Park, is the Plaston site towards the south-west, dating ca 900 AD.<sup>9</sup> No other archaeological excavations have been conducted to date within the study area, which have been confirmed by academic institutions and specialists in the field.<sup>10</sup> <sup>11</sup>

<sup>7</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 3.

<sup>&</sup>lt;sup>5</sup> N.J. van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa, p.9.

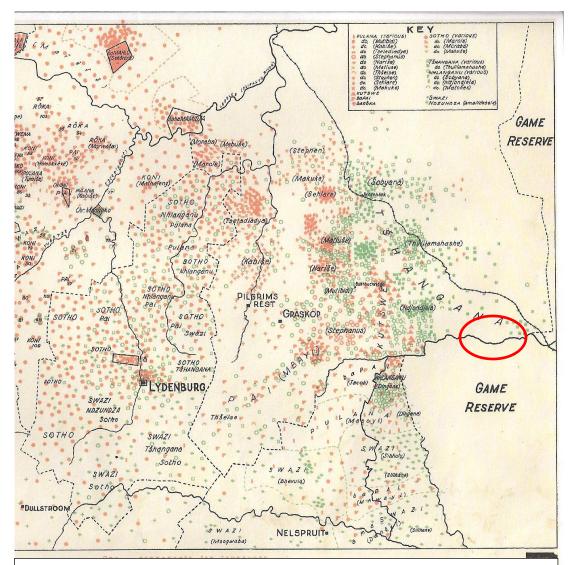
<sup>&</sup>lt;sup>6</sup> PRMA: Information file 9/2.

<sup>&</sup>lt;sup>8</sup> J.S. Bergh (red), Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies, p. 95.

<sup>&</sup>lt;sup>9</sup> M.M. Van der Ryst., Die Ystertydperk, *in J.S. Bergh (red)., Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies.* p. 97.

<sup>&</sup>lt;sup>10</sup> Personal information: Dr. J. Pistorius, Pretoria, 2008-04-17.

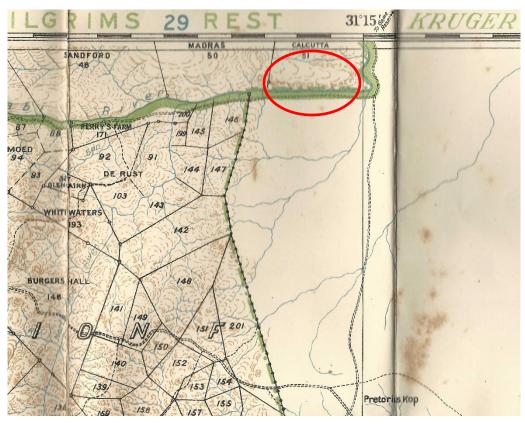
<sup>&</sup>lt;sup>11</sup> Personal information: Dr. MS. Schoeman, University of Pretoria, 2008-03-27.



MAP 1: VAN WARMELO 1935

According to the map by Van Warmelo, the study area (indicated by the oval) was not populated or sparsely populated during the early 20<sup>th</sup> century. The surrounding communities were mainly of Tsonga / Tshangana decent.





**MAP 2:** 1926 Degree Sheet: KOMATIPOORT No 22: The oval indicates the study area. No features of interest were indicated on this map.

The wider area is quite 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 south-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. Research has been done by the Pilgrim's Rest Museum on San rock art as well as rock art made by Bantu speakers in the Escarpment area, but none have been recorded to date in the direct study area. He 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. Languages such as Zulu, Xhosa, Swazi, Nhlanganu, Nkuna, sePedi, hiPau and seRôka, are commonly spoken throughout this area.

<sup>&</sup>lt;sup>12</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 1.

<sup>&</sup>lt;sup>13</sup> PRMA: Information file 9/2.

<sup>&</sup>lt;sup>14</sup> N.J. van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa, p. 51.

<sup>&</sup>lt;sup>15</sup> M. De Jongh (ed)., *Swatini*, p. 21.

When the Swazi began to expand northwards, they forced the local inhabitants out of Swaziland, or absorbed them.<sup>16</sup> There is evidence of resistance, but the Eastern Sotho groups who lived in the northern parts of Swaziland, moved mainly northwards.<sup>17</sup> This appears to have taken place towards the end of the 18<sup>th</sup> century,<sup>18</sup> when these groups fled from Swaziland to areas such as Nelspruit, Hazyview, Bushbuckridge, Klaserie, Blyde River and Komatipoort.<sup>19</sup> The only early trade route mentioned, which crossed this section, was a footpath used by the African groups from Delagoa Bay towards Bushbuckridge (Magashulaskraal as it was previously named), along the Sabie river, up the Escarpment, and further north to the Soutpansberg.<sup>20</sup> There is however, no physical evidence left of this early route.

### Groups which are found in this area are Eastern Sotho as well as Tsonga groups: 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>21</sup> The Kutswe settled north-east of the present Nelspruit at a river called Kutswe (Gutshwa)<sup>22</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>23</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 to Bushbuckridge.<sup>24</sup> They had chief jurisdiction over the following farms near Bushbuckridge: Oakley 262, Calcutta 51, Madras 50, Alexandria 251, Cork 60 and Ronoldsey 273. They intermarried with Nhlanganu (Shangaan), Swazi and Pai.<sup>25</sup> <sup>26</sup>

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<sup>&</sup>lt;sup>16</sup> A.C. Myburgh, *The Tribes of Barberton District*, p. 10.

<sup>&</sup>lt;sup>17</sup> N.J. Van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa. p. 111.

<sup>&</sup>lt;sup>18</sup> H. S. Webb, The Native Inhabitants of the Southern Lowveld, *in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld.* p. 14

<sup>&</sup>lt;sup>19</sup> *Ibid.*, p. 16.

<sup>&</sup>lt;sup>20</sup> L. Changuion & J.S. Bergh, Swart gemeenskappe voor die koms van die blankes, *in J.S. Bergh (red)., Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies.* p. 104.

<sup>&</sup>lt;sup>21</sup> *Ibid.*, p. 110.

<sup>&</sup>lt;sup>22</sup> T. Makhura, Early Inhabitants, in Delius, P. (ed)., Mpumalanga: History and heritage, p.105.

<sup>&</sup>lt;sup>23</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 110.

<sup>&</sup>lt;sup>24</sup> *Ibid.*, pp. 4-10.

<sup>&</sup>lt;sup>25</sup> *Ibid.*, p. 110.

<sup>&</sup>lt;sup>26</sup> *Ibid.*, p. 110.

These early settlements all developed into larger settlements by the descendants of the groups, which are mentioned above, and the entire area to date, consists of villages, settlements or farms of which some are only a few kilometers apart.

The ruins of the kraals of Kutswe chiefs are still known on the following farms,<sup>27</sup> where they were most probably buried as well: Mogogong - near Pretoriuskop (KNP); Senwapitsi between Pretoriuskop & Skukuza (KNP); Phabêng, Phabeni gate in KNP (close to BELFAST); Phandane, Farm Welgevonden; Makgate, Farm Lothian gaMoépé; Farm Boschhoek; Lesaba la Mbanyêlé - Farm Sandford; Khubuthamaga - Farm Calcutta Matsabane - Farm Lothian; Selôkôtšô - Farm Oakley (close to BELFAST). 28

#### Tsonga groups: The Nhlanganu and Tšhangana

The Nhlanganu and Tšhangana (also generally known as the Shangaan-Tsonga)<sup>29</sup> form part of the larger Tsonga group of which the original group occupied the whole of Mosambique (Portuguese East Africa), and it has been recorded that by 1554, they were already living around the Delagoa Bay area (Maputo).<sup>30</sup> They fled from the onslaughts of the Zulu (Nguni) nation from the Natal area and great numbers of emigrants sought safety in the "Transvaal" as recently as the 19th century, especially in the greater Pilgrim's Rest district (including the study area that we are concerned with). The Tsonga also moved west from Mozambique into the "Transvaal". They have never formed large powerful tribes but were mostly always subdivided into loosely-knit units which were absorbed under the protection of whichever chief would give them land.<sup>31</sup> They were originally of Nguni origin.<sup>32</sup> The term "Shangaan" is commonly employed to refer to all members of the Tsonga division.<sup>33</sup>

The **Nhlanganu** occupied the Low Veld area in their efforts to escape the Zulu raids during 1835-1840. They lived side by side with the Tšhangana, and the differences between the two are inconsiderable. They have mixed extensively with other tribes.<sup>34</sup>

<sup>34</sup> *Ibid.*,.pp. 91-92.

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<sup>&</sup>lt;sup>27</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 110.

<sup>&</sup>lt;sup>28</sup> Rowe, C., Phase 1 AIA, HIA for proposed traffic training academy, Calcutta 294KU, 2013.

<sup>&</sup>lt;sup>29</sup> M. De Jongh (ed)., Swatini, p. 24.

<sup>&</sup>lt;sup>30</sup> N.J. Van Warmelo, Grouping and Ethnic History, in Schapera I., The Bantu-Speaking Tribes of South Africa. An Ethnographical survey, p. 55.

<sup>&</sup>lt;sup>31</sup> N.J. Van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa, pp. 90-91.

<sup>32</sup> N.J. Van Warmelo, Grouping and Ethnic History, in Schapera I., The Bantu-Speaking Tribes of South Africa. An Ethnographical survey, p. 55.

<sup>33</sup> N.J. Van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa, p. 92

The **Tšhangana** are also of Nguni origin who fled in the same way as the Nhlanganu, settled in the "Transvaal" a little later than the former. Most of the Tsonga were subjects to *Soshangane*, who came from Zululand.<sup>35</sup> The downfall of *Ngungunyana* (son of *Soshangane*) saw his son seeking sanctuary in the "Transvaal", and the latter became known as *Thulamahashi*,<sup>36</sup> the name that is still used for the area east of Busbuckridge.

The historical background of the study area confirms that it was occupied since the 17<sup>th</sup> century by the Eastern Sotho (Pai, Kutswe and Pulana) as well as Tsonga groups (Nhlanganu and Tšhangana). These groups have intermarried extensively or were absorbed by other groups in time, and today groups such as Eastern Sotho, South-Ndebele, Swazi, Tsonga and Northern-Sotho occupy this area.<sup>37</sup>

#### HISTORY OF the immediate area:

The Head Office of the Bushbuckridge Municipality is located in Mkhuhlu, just to the west of Belfast. Bushbuckridge covers an area of 25586.76ha, with a population of 500 000 people.<sup>38</sup> Belfast forms part of the greater Gazankulu, from Makhado in the north to Skukuza in the south a total of 317km long. Gazankulu had ten formal townships which were all created by the Apartheid Government from the late 1960's until the 1980's, of which Mkhuhlu in Hazyview was one. All the townships were land owned by local traditional leaders or tribal chiefs. <sup>39</sup>

The author was also involved in desktop studies and surveys in the 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*

<sup>&</sup>lt;sup>35</sup> N.J. Van Warmelo, Grouping and Ethnic History, *in Schapera I., The Bantu-Speaking Tribes of South Africa. An Ethnographical survey*, p. 57.

<sup>&</sup>lt;sup>36</sup> N.J. Van Warmelo, A Preliminary Survey of the Bantu Tribes of South Africa, p. 92.

<sup>&</sup>lt;sup>37</sup> M. De Jongh (ed)., Swatini, p. 40.

<sup>&</sup>lt;sup>38</sup> Ehlanzeni District Municipality, <a href="http://www.mpumalanga.gov.za/municipality\_ehlanzeni.htm#bush">http://www.mpumalanga.gov.za/municipality\_ehlanzeni.htm#bush</a> Access: 16-01-13, p. 1.

<sup>&</sup>lt;sup>39</sup> Internet Access: https://en.wikipedia.org/wiki/Gazankulu Access: 2018-05-14.

- cemetery in Numbi, Hazyview (2013);
- 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 the proposed residential township, Tekwane extension 2, portion 7
  of the farm Tekwane 537 JU. No archaeological material of significance was identified.
- 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, Tekwane extension 2, portion 7 of the farm – no significant archaeological sites were observed;
- 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 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).
- Phase 1 AIA / HIA for a proposed agricultural development on the farm Krokodilspruit 248JT, White River, Mpumalanga Province (2018) – some archaeological features as well as graves were observed.
- Phase 1 AIA / HIA for a proposed establishment of macadamia plantation on portion 1 of the farm Peebles 31-JU, White River, Mpumalanga Province (2019) - no significant archaeological sites were observed.
- Phase 1 AIA / HIA for a proposed development of a lodge on a portion of the farm CORK 295KU, Mkhuhlu, Bushbuckridge area, Mpumalanga Province (2019) - no archaeological or historical features were observed.
- 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).

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, 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.

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

The proposed project will involve the construction of the KRUGER VIEW Lodge on the banks of the Sabie River opposite the Kruger National Park (fig. 2). The property consists of portions 4 and 5 of the farm BELFAST 296KU (see map 3). The proposed lodge will cover an area of 6.21ha, and will consist of chalets, a Reception block, Conference centre, storage areas, a Restaurant and parking facilities, to cater for guests 40 (see layout plan 4). The proposed area for the construction of the Lodge will be situated on previously disturbed agricultural lands (figs. 4, 7 & 9). A small section to the south-east consists of small rocky patches which could not be cultivated (fig. 7 & 8). A powerline cuts roughly through the middle of the study area (see map 6). The topographical map (map 5), show that the entire area was previously disturbed by agricultural activities. The area was flat and open and visibility was excellent (figs. 2, 4, 6, 7, 9 & 10). A concrete brick wall marks the south-eastern border (fig. 6). A small drainage line is present in the northern section (see map 6 & fig. 11). The property is situated next to the Sabie River and Kruger National Park which forms the south-western border (figs. 2 & 3). The northern part of the study area borders the main road R536 (map 5, 6 & 7), (see site development plan map 4).

The remains of a water reticulation system are still seen on the property, although it is not used any more (fig. 10). This water system used to supply water to the agricultural lands and orchards which are still present to the north-east (outside of the study area) (maps 6 & 8).

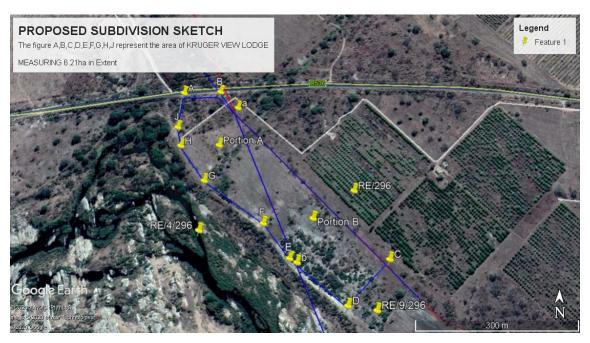
Technically the ecozone representing this area is referred to as *Mixed bushwillow woodland* on granite and *Sabie Crocodile thorn thickets* on granite or the *Sabie River Thicket ecozone*. The natural vegetation is characterized by *mixed Lowveld Bushveld* with woodlands made up of trees such as several *Acacia* species, Red Bushwillow (Combretum apiculatum), Sickle bush (Dichrostachys cinerea), Weeping wattle (Peltophorum africanum), Rosette Cluster leaf (Terminalia stenostachya), silver cluster-leaf (*Terminalia sericea*), and Jackal Berry (*Diospyros mespiliformis*), along the river.<sup>41</sup> The typical granite and dolerite plains have sandy soils and clayey soils in the lower areas. <sup>42</sup> <sup>43</sup>

<sup>&</sup>lt;sup>40</sup> BID Document, UMHLABA Wesive Trading (Pty) Ltd, 2020-05-22, p. 1.

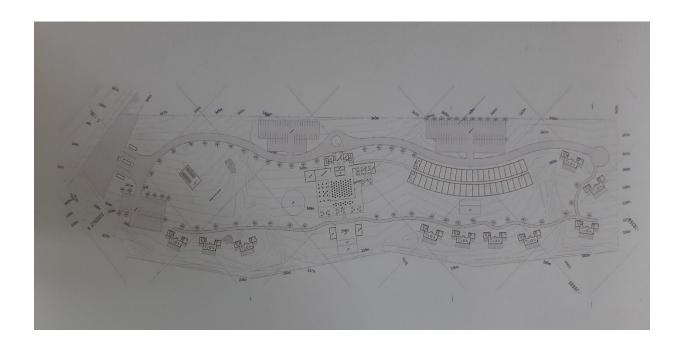
<sup>&</sup>lt;sup>41</sup> Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997

<sup>&</sup>lt;sup>42</sup> SANPARKS, Visitors Guide to the Kruger National Park, p. 2.

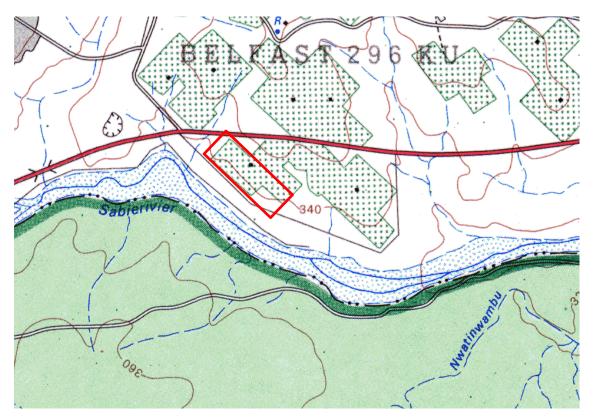
<sup>&</sup>lt;sup>43</sup> Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 500.



**MAP 3:** Subdivision sketch: Portion 4(A), and Portion 5(B) are indicated on the subdivision sketch. The area for the proposed development is marked as A, B, C, D, E, F, G, H & J, which measures 6.21ha in extent.



MAP 4: Site layout plan of the proposed KRUGER VIEW LODGE development.



MAP 5: Topographical Map: 2431CD (1986): The study area was cultivated with agricultural lands (red square), except for a small section in the south-east which could not be cultivated due to rocky patches.



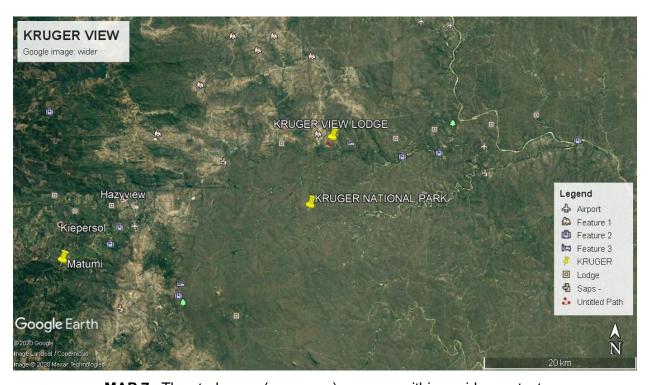
**MAP 6:** A powerline cuts roughly through the middle of the study area (yellow line) and the rocky patch which could not be cultivated, is indicated in green. The previously cultivated area is indicated by the light-yellow shaded area. The drainage line is indicated by the blue line.

#### D. LOCALITY

The proposed Lodge Development is south of the road R536 between Hazyview and the Kruger Gate (of the Kruger National Park). It is located on the banks of the Sabie River, next to the Kruger National Park (see co-ordinates below), in the rural residential area of BELFAST. 44

The topographical map of 1986 (2431CD), and the 1920 topographical map (map 5), were studied and revealed no archaeological or historic features in the area. It did indicate the previously disturbed agricultural lands on the property. The lands have been lying fallow for some time, and pioneer vegetation is currently slowly establishing itself on the study area (see section C).

The site falls under the Bushbuckridge Local Municipal jurisdiction, which in turn falls within the Ehlanzeni District Municipality, in Mpumalanga (maps 1 - 8 & Appendix 2: figs. 1 – 12 for the study area). The study area is zoned as agricultural and will be rezoned as a commercial concern.



**MAP 7**: The study area (see arrow), as seen within a wider context.

<sup>&</sup>lt;sup>44</sup> BID Document, UMHLABA Wesive Trading (Pty) Ltd, 2020-05-22, p. 1.

#### **Description of methodology:**

The topographical maps, (2431CD: map 5), and Google images of the site (maps 3, 6 & 8), indicate the study area of the proposed development. These were intensively studied to assess the current and historically disturbed areas and infrastructure. In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used:

- 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, to establish relevant information.
- Specialists currently working in the fields 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 was 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 two people on foot. (see Appendix 1 & 2).
- The 6.21ha terrain was even, flat and open and visibility was excellent.
- 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.
- 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 practitioner Mduduzi Mamba was held.<sup>45</sup>

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<sup>&</sup>lt;sup>45</sup> Personal information: Mduduzi Mamba, Nelspruit, 2020-05-08.

GPS co-ordinates were used to locate the perimeters and any heritage features within the study area, see Map 7 (Co-ordinates provided by Mduduzi Mamba - Environmental Consultant (Pty) Ltd):

Location	South	East	Elevation
Α	S 24° 57' 48.13"	E 31° 22' 55.70"	335m
В	S 24° 57' 45.27"	E 31° 22' 55.85"	335m
С	S 24° 57' 44.79"	E 31° 22' 58.47"	335m
D	S 24° 57' 55.87"	E 31° 23' 10.84"	335m
Е	S 24° 57' 58.76"	E 31° 23' 08.14"	335m



**MAP 8:** Perimeter of the study area (A - E), site for the proposed KRUGER VIEW Lodge Development.

#### E. DESCRIPTION OF IDENTIFIED SITES

The proposed 6.21ha Lodge development on *portions 4 & 5 of the farm BELFAST 296KU*, in the rural area of BELFAST was requested by the environmental consultants, *UMHLABA Wesive Trading (Pty) Ltd*, in association with the client and applicant *KRUGER VIEW LODGE* (as well as Mduduzi Mamba), (see figs. 1 – 12).

A site visit was arranged on 18 May 2020 and the study area was investigated by two people on foot. Existing tracks and paths were used to access the study area, although the site was flat and open and visibility was excellent. The 6.21ha terrain was even and accessible (see Appendix 1 & 2: figs. 1 - 12).

The property is currently vacant fallow agricultural lands on the banks of the Sabie River opposite the Kruger National Park, to the south-west (see figs. 1 -12). It borders cultivated lands (orchards) to the north-east (see maps 6 & 8). One small drainage line in the northern section drains towards the Sabie River to the south-west (see map 6, and fig. 11). The study area is currently used by the local community for livestock grazing, and dumping of waste also occurs (fig. 12).

All comments should be studied in conjunction with the maps, figures and appendices, which indicate the study area, and which correspond with the summaries below. Photographs in Appendix 2 show the general view of the study area.

No archaeological sites or features, stone walls, historical structures, features or graves were identified in the study area during the survey.

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

ACT	COMPO- NENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S 34	Impact on buildings andstructures older than 60 years	None present	None
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	None present	None
NHRA	S37	Impact on public monuments	None present	None

ACT	СОМРО-	IMPLICATION	RELEVANCE	COMPLIANCE		
	NENT					
NHRA	S38	Developments requiring	Development is a listed	HIA done		
		an HIA	activity			
NEMA	EIA	Activities requiring an	Development is subject	HIA is part of		
	regulation	EIA	to an EIA	EIA		
	s					

### • Summarised identification and cultural significance assessment of affected heritage resources: General issues of site and context:

Context									
Urban environmental context	No	NA							
Rural environmental context	Yes	Near the rural residential area of BELFAST							
Natural environmental context	No	Mostly cultivated sections surrounding the study area which was partially disturbed in the past							
Formal prote	ectio	n (NHRA)							
(S. 28) Is the property part of a protected area?	No	NA							
(S. 31) Is the property part of a heritage area?	No	NA							
0	ther								
Is the property near to or visible from any protected heritage sites	Yes	Opposite the Kruger National Park							
Is the property part of a conservation area of special areas in terms of the Zoning scheme?	No	NA							

Context									
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							
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?	Yes	Opposite the Kruger National Park							
Does the general context or any adjoining properties have cultural significance?	No	NA							

Property features and characteristics									
Have there been any previous development impacts on the property?	Yes	The study area was disturbed by cultivated lands (orchards) (see topographical map)							
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							

Property features and characteristics									
Does the property have any rocky outcrops on it?	No	Flat rocky patches occur in the south-eastern section which could not be cultivated							
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	Yes	One small drainage line drains towards the Sabie River							

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

Heritage resources on the property									
Any other heritage resources No NA									
(describe)									

NHRA	ELE-		INDICATORS OF HERITAGE SIGNIFICANCE									RISK
S (3)2	MENT	Hist	Rar	Sci	Турі	Tech	Aest	Pers	Land	Mate	Sustain	
Heritage	S	oric	е	ent	cal	-	hetic	on	mark	rial	а	
resource		al		ific		nolo		/com		cond	bility	
category						gical		muni		ition		
								ty				
Buildings /	No											-
structures												
of cultural												
significan												
се		No	No	No	No	No	No	No	No	No	No	
Areas	No											-
attached												
to oral												
traditions /												
intangible												
heritage		No	No	No	No	No	No	No	No	No	No	
Historical	No											-
settlement												
/												
townscap												
es		-	-	-	-	-	-	-	-	-	-	
Landscap	No	-	-	-	-	-	-	-	-	-	-	-
e of												
cultural												
significan												
ce												

NHRA	ELE-		INDICATORS OF HERITAGE SIGNIFICANCE									RISK
S (3)2 Heritage	MENT S	Hist oric	Rar e	Sci ent	Typi cal	Tech	Aest hetic	Pers on	Land mark	Mate rial	Sustain a	
resource category		al		ific		nolo gical		/com muni ty		cond	bility	
Geologica I site of scientific/ cultural importanc e	No	-	-	-	-	-	-	-	-	-	-	-
Archaeolo gical / palaeontol ogical sites	No	-	-	-	-	-	-	-	-	-	-	-
Grave / burial grounds	No	-	-	-	-	-	-	-	-	-	-	-
Areas of significan ce related to labour history	No	-	-	-	-	-	-	-	-	-	-	-
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-

### • Summarised recommended impact management interventions

NHRA S (3)2 Heritage	SITE	IMPACT SIGNIFICANCE Cultural significance		Impact management	Motivation
resource category		Cultural significan ce	Impact significan ce		
Buildings / structures of cultural significance	No	No	None	-	NA
Areas attached to oral traditions / intangible heritage	No	None	None	-	NA
Historical settlement/ townscape	No	None	None	-	NA
Landscape of cultural significance	No	None	None	-	NA
Geological site of scientific/cultural importance	No	None	None	-	NA

NHRA S (3)2 Heritage resource category	SITE	SIGNIF	PACT ICANCE ignificance Impact significan ce	Impact management	Motivation
Archaeologi cal / palaeontolo gical sites	No	None	None	-	Nothing was observed
Grave / burial grounds	No	No	None	-	Nothing was observed
Areas of significance related to labour history	No	None	None	-	NA
Movable objects	No	None	None	-	NA

ACT	COMPO- NENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S 34	Impact on buildings and structures older than 60 years	None present	None
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	None present	None

ACT	COMPO- NENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	Full HIA in done
NEMA	EIA regulation s	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>46</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

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<sup>&</sup>lt;sup>46</sup> National Heritage Resources Act, no. 25 of 1999. p. 2.

cultural group for social, 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>47</sup>

No archaeological sites or features, stone walls, historical structures, features or graves were identified in the study area during the survey.

#### H. RECOMMENDATIONS & CONCLUSION

No archaeological or historical material, structures, features or graves were observed during the survey for the proposed KRUGER VIEW LODGE development. 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. It is recommended that the applicant should be made aware that distinct archaeological material or human remains may only be revealed during the construction phase of the proposed Lodge.

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 Lodge Development to continue. It is recommended that any earthmoving activities be monitored by a qualified archaeologist and that an assessment and recommendation be done should any archaeological material or graves be found.

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

<sup>&</sup>lt;sup>47</sup> National Heritage Resources Act, no. 25 of 1999. pp. 12-14

#### REFERENCES

#### NATIONAL LEGISLATION

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

#### LITERARY SOURCES

- BERGH J.S., Swart gemeenskappe voor die koms van die blankes, in J.S. Bergh (red).,
   Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies. J.L. van Schaik, 1999.
- BORNMAN, H., Pioneers of the Lowveld, 1994.
- DE JONGH, M. (ed)., Swatini, 1978.
- DELIUS P, & M. HAY, Mpumalanga, an illustrated history, Highveld Press, 2009.
- ELOFF, J.F., Verslag oor Argeologiese Navorsing in die Krugerwildtuin, June /July, 1982
- ENGLISH, M., Die rotskuns van die Boesmans in die NKW, *in De Vos Pienaar, Neem uit die Verlede*, 1990.
- HAMPSON, et al., The rock art of Bongani Mountain Lodge, SA Archaeological Bullitin 57.
- KüSEL, U.S., Survey of Heritage sites in the Olifants Catchment area, 2009.
- MAKHURA, T., Early Inhabitants, in Delius, P. (ed)., Mpumalanga: History and Heritage.
   Natal University Press, 2007.
- MASSON, J. 2008. Views from a Swaziland Cave. The Digging Stick, Vol. 25 no 1: 1-3.
- MYBURGH, A.C., The Tribes of Barberton District, 1949.
- VAN WARMELO, N.J., A Preliminary Survey of the Bantu Tribes of South Africa, Pretoria, 1935.
- VAN WYK, B., & VAN WYK, P., Field Guide to Trees of Southern Africa, 1997.
- VAN WYK (ROWE), C, Inspection of Umbhaba Stone-walled settlement, Hazyview, 2002.
- VOIGHT, E., Guide to the Archaeological sites in the Northern and Eastern Transvaal. Transvaal Museum, 1981.
- VON FINTEL, E (Red.), Die Nachkommen van Johann Heinrich Jakob Filter 1858-2008: Die Geschichte einer Pionierfamilie in Nordnatal.
- WEBB, H. S., The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld. Cape Times Limited. 1954.
- ZIERVOGEL, D. The Eastern Sotho: A Tribal, Historical and Linguistic Survey with Ethnographical notes on the Pai, Kutswe and Pulana Bantu Tribes. Pretoria, 1953.

#### **ELECTRONIC INFORMATION SOURCES**

- Ehlanzeni District Municipality,
   <a href="http://www.mpumalanga.gov.za/municipality\_ehlanzeni.htm#bush">http://www.mpumalanga.gov.za/municipality\_ehlanzeni.htm#bush</a> Access: 2013-01-13.
- Gazankulu & Mkhuhlu, https://en.wikipedia.org/wiki/Gazankulu Access: 2018-05-14.

#### PERSONAL INFORMATION

- Personal information: Mduduzi Mamba, Nelspruit, 2020-05-08 2020-05-25.
- Personal information: Dr. J. Pistorius, Pretoria, 2008-04-17.
- Personal information: Dr. MS. Schoeman, University of Pretoria, 2008-03-27.

#### **MISCELLANEOUS**

- BID Document, UMHLABA Wesive Trading (Pty) Ltd, 2020-05-22.
- PILGRIMS REST MUSEUM ARCHIVES: Information file 9/2.
- Rowe, C., Phase 1 AIA, HIA for proposed traffic training academy, Remainder of the farm Calcutta 294KU, Mkhuhlu, Bushbuckridge, Mpumalanga, 2013.
- Rowe, C., Heritage Management of Archaeological, Historical and Industrial resources on the Blyde River Canyon Nature Reserve, MA dissertation. Pretoria: UP. 2009.
- SANPARKS, Visitors Guide Kruger National Park, 2006.

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

**APPENDIX 1** 



The area was flat and accessible and visibility was excellent.