PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT

PROPOSED PONGOLAPOORT TENTED SAFARI CAMP FOR PONGOLAPOORT SAFARI CAMP (PTY) LTD ON PORTION 5 OF THE FARM DOORNPLAATS 461-HU, UMKHANYAKUDE DISTRICT MUNICIPALITY, JOZINI LOCAL MUNICIPALITY, KWAZULU-NATAL.

Prepared for

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25 August 2023

MANAGEMENT SUMMARY

eThembeni Cultural Heritage was appointed by ECO8 Environmental Planners to undertake a Phase 1 Heritage Impact Assessment of the footprint of the proposed Pongolapoort Tented Camp, a 100-bed ecotourism facility located on the west bank of the Jozini Dam on Portion 5 of the Farm Doornplaats 461-HU; as required by the National Environmental Management Act 107 of 1998 as amended, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 as amended; and the KZN Amafa and Research Institute Act (5/2018).

Description and significance assessment of heritage resources

We identified:

i. 4 graves of unknown persons to the landowner located outside of the development footprint.
ii. The foundational ruins of an early 20th C farmhouse.
iii. Colluvially washed, miscellaneous and scattered Middle Stone Age (MSA) stone flaking debitage of low scientific significance.

Assessment of development impact

Low to None

Recommended mitigation measures

Graves to fenced off to ensure sanctity.

Recommended monitoring

None.

Conclusion

We recommend that the proposed development proceed with no further heritage mitigation, bar the fencing of the four identified graves. We will submit this report to Amafa on SAHRIS in fulfilment of the requirements of the National Heritage Resources Act. The client may contact the Amafa Heritage and Research Institute's Pietermaritzburg office (Tel. 033 3946543) or Ms. Khanyi Zondi, the Heritage Officers Committee Secretary, khanyi.zondi@amafainstitute.org.za should any queries arise.

If permission is granted for the development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and adhere to the protocol described in Section 10 of this report should any heritage resources, as defined in the Act, be discovered during the course of development activities.

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1 INTRODUCTION

eThembeni Cultural Heritage was appointed by ECO8 Environmental Planners to undertake a Phase 1 Heritage Impact Assessment of the footprint of the proposed Pongolapoort tented camp, a 100-bed ecotourism facility located on the west bank of the Jozini Dam on Portion 5 of the Farm Doornplaats 461-HU; as required by the National Environmental Management Act 107 of 1998 (NEMA) as amended, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 (NHRA) as amended; and the KZN Amafa and Research Institute Act (5/2018). [refer to Appendix A].

South Africa's heritage resources are both rich and widely diverse, encompassing sites from all periods of human history. Resources may be tangible, such as buildings and archaeological artefacts, or intangible, such as landscapes and living heritage. Their significance is based upon their aesthetic, architectural, historical, scientific, social, spiritual, linguistic, economic or technological values; their representivity of a particular time period; their rarity; and their sphere of influence.

The integrity and significance of heritage resources can be jeopardized by natural (e.g. erosion) and human (e.g. development) activities. In the case of human activities, a range of legislation exists to ensure the timeous identification and effective management of heritage resources for present and future generations.

This report represents compliance with a full Phase 1 HIA (including a desktop palaeontological statement) for the proposed development.

2 TERMS OF REFERENCE

A Phase 1 HIA must address the following key aspects:

- the identification and mapping of all heritage resources in the area affected.
- an assessment of the significance of such resources in terms of heritage assessment criteria set out in regulations;
- an assessment of the impact of the development on heritage resources;
- an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

In addition, the HIA should comply with the requirements of NEMA, including providing the assumptions and limitations associated with the study; the details, qualifications and expertise of the person who prepared the report; and a statement of independence.

3 PROJECT DESCRIPTION AND LOCALITY

ECO8 Environmental Planners has been appointed by Pongolapoort Safari Camp (Pty) Ltd (the landowner) to facilitate an application for environmental authorisation of regulated development activities associated with the proposed development of a tourism lodge on Portion 5 of the Farm Doornplaats 461-HU. The property is located between Pongola and Jozini, east of the N2 Road and opposite the turn-off onto the R69.

eThembeni Cultural Heritage was subsequently appointed by ECO8 to undertake a Phase 1 Heritage Impact Assessment of the footprint of the proposed Pongolapoort tented camp, a 100-bed ecotourism facility located on the west bank of the Jozini Dam on the aforementioned farm (Figure 1). This as required by the National Environmental Management Act 107 of 1998 as amended, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 as amended; and the KZN Amafa and Research Institute Act (5/2018).

Figure 1. Property locality and proposed tourism lodge development site
(Extract from 1:50 000 map sheet 2731 DB)

The development will comprise a safari themed tourism lodge consisting of a combination of conventional brick buildings and tents-on-deck to be situated near to the southern boundary of the property. (Figure 2).

The proposed lodge complex includes:

- An entrance gate, reception and office, main building, including a bar lounge, conference facility, health spa, kitchen and restaurant, ablution facilities, open and tent covered leisure and dining decks, game viewing decks, swimming pool, outside boma and associated facilities.
- The development of fifty (50) detached tent-on-deck guest accommodation units with en-suite facilities (100 beds).
- Key-personnel accommodation units.
- Back of house office, storerooms, technical and support services facilities, and storage yard.
- 6-meter-wide access road from the existing N2 intersection towards the lodge and a vehicle parking area.
- Pedestrian pathways between the main lodge and accommodation units.
- A storm water retention and water supply dam for animals as part of the rehabilitation an existing soil erosion site.
- The installation of services infrastructure in support of the above, including a borehole for provision of groundwater, a reservoir for storage of water, a waterborne sewer system connected to a wastewater treatment plant, a solid waste storage facility, roof-top photovoltaic panels for solar electricity provision, LP-gas water geysers and LP-gas stoves, and a stand-by electricity generator.[1]

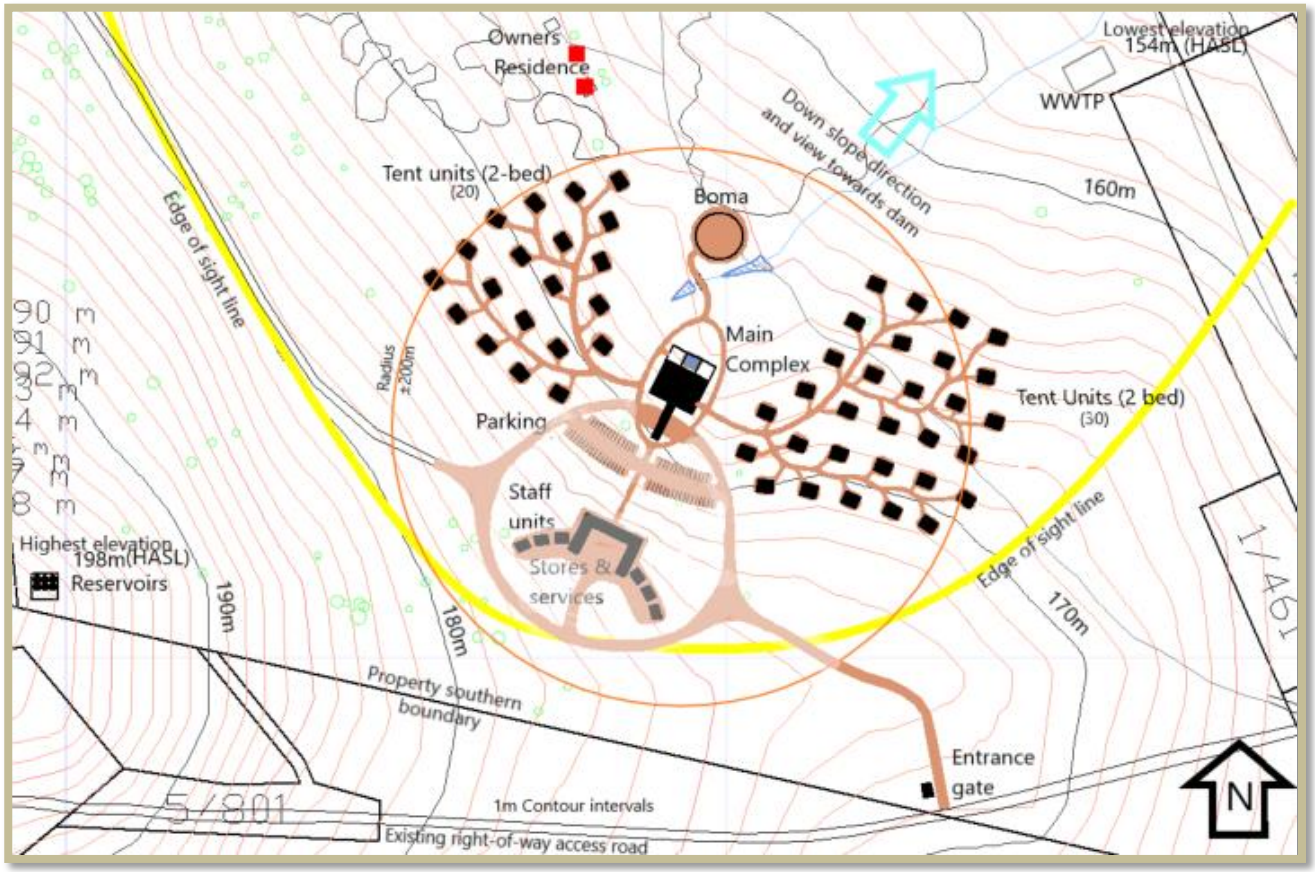

Figure 2. Conceptual tourism lodge layout plan indicating all components

[1] Information provided by client. See BID loaded to SAHRIS Case File.

Figure 3. Architectural representation of the proposed tent guest units

4 PROPERTY DESCRIPTION

The entrance to the proposed development site is located to the east of the N2/R69 intersection at 27.472596° S 31.931354° E. (See Figure 4 and kml. Loaded to the SAHRIS Case File)

The topography of the area is gently to moderately rolling eastwards to the edge of the Jozini Dam (See Figure 2 & 5). It is within a summer rainfall area with an annual average rainfall of 570mm, and an annual average temperature of 32°C**.** It is thus experiences hot and humid summers although winter temperatures may fall as low as 11°C.

The prevailing vegetation is modelled as Zululand Lowveld Savanna in the wider vicinity of the proposed development site (2014 KZN Biodiversity Sector Plan).[2] However, few if any pristine stands of this vegetation type were observed on the property. (See Section 5, below).

The property is underlain by the Letaba Formation of the Lebombo Group comprising basic volcanic rocks (tholeiites, picrite basalts and nephelinites) with some Karoo dolerite intrusions. The Letaba Formation is considered palaeontologically to be of low significance. (https://sahris.sahra.org.za/fossil-heritage-layer-browser).

Consequently, no further palaeontological mitigation is advocated.[3]

[2] http://bgisviewer.sanbi.org/

[3] Dr. G Groenewald (pers. comm) and Palaeontological Technical Report for KZN. Groenewald, G. 2012.

Figure 4 **Location of the proposed tented camp footprint [yellow line] on Portion 5 of the Farm Doornplaats 461-HU (source: Google Earth).**

Figure 5 **Current landscape view eastwards to the Jozini Dam**

5 CULTURAL CONTEXTS OF THE SURVEY AREA

Zulu, Boer and British

Dinuzulu kaCetshwayo (c. 1868 – 18 October 1913) was the King of the Zulu nation from 20 May 1884 until his death in 1913. He succeeded his father King Cetshwayo, who was the last king of the Zulus to be officially recognised as such by the British. Zululand had been broken up into thirteen smaller territories by the British government after the Anglo-Zulu War (1879) and King Cetshwayo, and subsequently King Dinuzulu, administered one of these as merely *iziNduna* to the Natal Colonial Administration. The British, realizing the futility of breaking up Zululand into separate territories, later restored Cetshwayo as paramount leader of the territories. However, they left one of Cetshwayo's relatives, Zibhebhu of the Mandlakazi, alone with his territory intact, the Mandlakazi Reserve to the east of present-day Nongoma. On 22 July 1883, Zibhebhu attacked the restored King Cetshwayo's new *ikhanda* , Ondini III in Ulundi, wounding the king and causing him to flee to Eshowe for protection under the British, where he subsequently died in the same year.

To contest his succession to the throne, Dinuzulu first appealed to the British, but received a muted response. He then offered rewards of land to the Boer and German farmers of the Vryheid, Luneburg, and Utrecht districts to come and fight on his side and restore the Zulu Kingdom. In 1884 a group of Boer farmers from these districts undertook to help restore order to the Kingdom, in return for land for the formation of an independent republic with access to the sea. The Dinuzulu's Volunteers, led by General Louis Botha, had several clashes with Zibhebhu finally defeating him at the Battle of Tshaneni (on the Ghost Mountain at Mkuze) on the 5th of June 1884.[4]

The Nieuwe Republiek, with its first and only President, Lucas Meyer, was established on lands awarded to the Boers by Dinuzulu. It stretched from the headwaters of the White Mfolozi at Utrecht to St Lucia at the coast, and eastwards to the Swaziland border incorporating the Pongola River as far southeast as Pongolapoort (the gorge bound by the present day Jozini Dam wall). The Mkuze River formed the somewhat fluid northeastern boundary with a linkage again to the Lake St Lucia system.

The Republiek was recognised by Germany and Portugal but was incorporated in 1888, at its request, into the Zuid Afrikaanse Republiek (ZAR) because of financial problems. The British subsequently annexed the coastal plains from the Thukela river northwards in order to prevent the Boers from building a harbour. After considerable dispute in a Natal arbitration court attended by German and Portuguese representatives, Britain eventually recognized the Nieuwe Republiek, but reduced it in size after annexing the coastal plains to the borders of the Cape Colony, along with the Republiek's claims to St Lucia for a harbour.

Within the Zulu Kingdom King Dinuzulu strove to regain an intact kingdom against much resistance from the "kinglet" *izinduna* put in place by the British between 1879 and 1883. This fomenting tension, aided and abetted by the British Colonial authorities in a strategy of divide and rule, effectively resulted in a protracted guerilla-type civil war against the Zulu Royal House of Usuthu by the antagonistic "kinglets" and further provocation by Zibhebhu of the Mandlakazi.

[4] Gillings. K. The Zulu Civil War, 1883-1888. Address to South African Military History Society (SAMHS) JHB Branch on 7 October 2010. http://samilitaryhistory.org/lectures/zuluwar.html

The Civil War culminated in the defeat of the Mandlakazi in Nongoma by the Usuthu at the Battle of Ivuna (Ndunu Hill) on the 23 of June 1888 [5,6]. The final action was fought on the 2nd of July 1888 at Hlopekhulu, near present day Ceza. King Dinuzulu kaCetshwayo was arrested by the Colonial Administration and tried for High Treason. He was sent to St Helena but returned to South Africa on the 5th of January 1898 after 10 years in exile. He was then relegated to the position of Paramount Chief (*Indunankulu*) of the Usuthu clan. He became unwillingly and unwittingly implicated in the 1906 Poll Tax ('Bhambatha') Rebellion.[7] Although he steadfastly protested his innocence, he was found guilty and sentenced to four years imprisonment in March 1908.

Two years later his old friend, General Louis Botha, became Prime Minister of the Union of South Africa. Botha ordered that Dinuzulu be released and transported to the farm *Uitkyk* in the Transvaal, where he died on 18 October 1913 at the age of 45. After a state funeral, he was buried 'with his fathers' - the ancient kings of Zululand – at Nobamba in the eMakhosini Valley, along the middle reaches of the White Mfolozi River.

Zibhebhu was probably the most able Zulu military strategist since King Shaka kaSenzangakhona and was described as Zululand's 'Master of the Ambush'. He died in 1905 and lies buried near his homestead at Bhangonomo, some 30km to the southwest of the Pongolapoort Tented Camp.

A history of conservation endeavour

"The 1880's were tumultuous years for the ZAR. The Republiek verged on bankruptcy, internal division, and the external pressures of British colonialism. However, the discovery of gold in Barberton in 1886 soon had the state solvent again – counting gold. However, the 1890's were to prove no kinder and the years were marked by uncertainty, fear, the Transvaal goldrush, the rinderpest, drought, and a pending war with the English".

"It is extraordinary that in such an atmosphere anyone could have given thought to wildlife conservation. More extraordinary was that the lead came from the beleaguered President, Paul Kruger. Kruger first announced his concept of a wildlife sanctuary in 1884; a year after he was elected as President of the ZAR, president of an almost bankrupt state. If the Republiek was bankrupt, so were its citizens. Wildlife protection? There were more serious matters to worry about".

"To fulfil his intentions the President invited Lucas Meyer, the erstwhile president of the defunct Nieuwe Republiek, to advise him on the boundaries of a proposed reserve on the Pongola River. On the 13th of June 1894 the *Staats Courant der Zuid-Afrikaansche Republiek* published Proclamation R8009/89, which read: ***'I, Stephanus Johannes Paul Kruger, State President of the South African republic, acting on the advice and with the consent of the Executive Council and authorised thereto by the Honourable Volksraad by resolution***

[5] Laband. J.P.C. 1980. The Battle of Ivuna (or Ndunu Hill). Natalia 10 (1980) Copyright © Natal Society Foundation. http://natalia.org.za/Files/10/Natalia%20v10%20article%20p16-22%20C.pdf

[6] van Schalkwyk. L.O. and Walker. J. 1993. Fort Ivuna and the Battle of Ndunu Hill. Journal of the Natal Institute of Architects (18): 8-9. NIA. Durban.

[7] Thomson. P.S. 2013. Dinizulu and Bhambatha, 1906: An invasion of Natal and an uprising in Zululand that almost took place. *Historia* 58 (2): pp 40-69.

of 2 of August 1889 Article 1244, herewith make known and proclaim the following farms in the bushveld of the District Piet Retief between the Pongola, Swaziland and Lebombo as a GOVERNMENT GAME RESERVE'.

"So, Pongola became the first Game Reserve in Africa with a total of 17400 ha. The Reserve of 1894 was not just a paper plan. Five days before publication of the proclamation Herman Frederick van Oordt was appointed as the first ranger. Van Oordt had been the government agent and administrator to *Inkosi* Zambaan of the Nyawo people, residing on the summit of the Lebombo Range, since 1889. He now fulfilled a dual post as the eastern boundary of the reserve adjoined *Inkosi* Zambaan's land".

"With the outbreak of the Anglo-Boer War in 1889 van Oordt joined the Piet Retief Commando under General Jan Smuts. With no law enforcement, furthered by the need for subsistence whilst on commando, game numbers were decimated by Boer and Zulu alike. After Union in 1901 the Pongola Game Reserve was reproclaimed in 1903. Two African constables were left in charge of the reserve and were supervised by the magistrate in Ingwavuma, a village atop the Lebombo's, a good two-day ride away on horseback. In 1921 the reserve was deproclaimed. It is suggested that the presence of tsetse fly in Zululand was reason for the closure, farmers fearing its spread into cattle country across the Pongola River". [8]

"Tsetse fly as the vector for nagana ultimately spelt the death knoll for conservation. In 1884, Surgeon-Major (later Sir) David Bruce from his humble residence and basic laboratory situated at Ubombo discovered the role of the tsetse fly in the transmission of nagana from infected wild animals to domestic animals. In the following 50 years wholesale slaughter of game took place in Zululand as colonists settled in the extended Natal Colony. Post WW1 the slaughter continued as returning servicemen were granted land deeds to the north of the Thukela.

It was only in 1921 that RHTP Harris from the Natal Agricultural Department was deployed to Zululand to investigate the bionomics of the tsetse fly. In the following decade he devised the Harris Fly trap to capture tsetse fly and reduce their numbers in a given locality. Bush clearance too was discovered as the best means to eradicate the flies as they cannot live in open sunlight. Removing the canopy of the Zululand Lowveld Savanna eradicated the flies and nagana transmission was curtailed".[9]

Much of the area contained within the greater Pongola Conservation Area has in recent historical times been clear-felled or has been extensively bush cleared to deter tsetse fly and provide greater grass cover for livestock production. Thanks to the foresight and endeavours of some historically significant families in the region, viz. Colenbrander's, Senekal's, *et al* much of these lands have been allowed to revert to conservation areas. The lowveld savanna is reestablishing itself and the Pongola Biosphere Reserve is regaining its Big 5 status.

6 HERITAGE RESOURCE OBSERVATIONS AND ASSESSMENT OF SIGNIFICANCE (see also Appendix C)

No construction activities associated with the proposed project had begun at the time of our site visit on 26 July 2023.

[8] Pringle. J.A. 1982. The conservationists and the killers. The Story of Game Protection and the Wildlife Society of Southern Africa. T.V. Bulpin and Books of Africa (Pty) Ltd. Cape Town.
[9] *Ibid* Chapter 9. The tsetse fly story in Zululand.

Table 1 summarises the heritage resources assessed.

Apart from the four graves four graves of unknown persons , we observed no heritage resources of significance within or immediately adjacent to the proposed project footprint area.

On the southwestern boundary of Portion 5 of the farm Doornplaats 461-HU the ruins of an early 20th C abandoned farmhouse were located at **-27.473695° 31.937979°**. Only the foundations, floors and a kitchen hob fireplace remain intact. The rest of the structure has been enveloped with *Ficus spp* and other deciduous trees. The ruins and a defunct water reservoir on the highest point beyond the homestead have been colonised by barn owls and nightjars. These observations suggest a very long period of abandonment. Remnant shattered encaustic veranda tiles suggest a date of 1930's/1940's. The sprung wooden floorboards, door and window fittings, roof trusses and roof materials have all been forcibly removed and walls bashed down. There is little to no heritage value to this structure.

Some 25m downslope to the northeast of the homestead, evidence of previously fenced vegetable gardens prevail in the form of bent fencing standards in a linear layout. Below these relict gardens evidence of labour quarters are present. These were probably beehive structures as no clay or brick walling was observed. Tyre shoe soles, discarded enamel mugs and basins, motor vehicle springs and transmission half shafts and shattered glass sherds were littered on the surface.

Four stone-packed graves of no known origin to the landowner were observed at **-27.473184° 31.935303°**. The graves appear to be of two adults and two neonates. These had previously been fenced off as evidenced by bent metal fencing H-bars and remnant barbed wire and are assumed to be contemporaneous with the labour quarters. Destruction of the fencing is probably due to cattle and larger game using the fence posts as rubbing posts.

This portion of the farm falls outside of the proposed development footprint and envisaged road network, and will only be visited on foot by trailists, if any, and ranger patrols.

However, it is recommended that the four graves be re-fenced with H-bar standards and 3x strands of high tensile fencing wire with reflective metal flashers to protect them from larger game. **Human remains have the highest level of heritage significance and their sanctity is paramount.** The landowner is not aware of any land claims on the property and is amenable to visitation for traditional rites by family members, should any come forward.

Table 1 Heritage resources and observations:

Heritage resource type	Observation
Ecofacts	**None were identified within the proposed development area.**
Places, buildings, structures, and equipment	**An abandoned and ruined remnant of an early 20th C farmhouse of low heritage significance.**
Places to which oral traditions are attached or which are associated with living heritage	**None were identified within the proposed development area.**
Historical settlements and townscapes	**None were identified within the proposed development area.**

Landscapes and natural features of significance	**None were identified within the proposed development area.**
Geological sites of scientific or cultural importance	**None were identified within the proposed development area.**
Archaeological sites	**None were identified within the proposed development area. Only a low density (<5/10m^2) of colluvially washed MSA flaking debitage was observed along some dongas. These are of low scientific significance. (See Fig.6).**
Graves and burial grounds	**Four graves of unknown persons were identified outside the proposed development area. Management protocols have been provided.**
Public monuments and memorials	**None were identified within the proposed development area.**
Battlefields	**None were identified within the proposed development area.**

Figure 6 Colluvially washed MSA flaking debitage

Figure 7 Stone packed graves of two adults and two neonates observed at -27.473184° 31.935303°.

Appendix B contains a summary of knowledge of the archaeological aspects of the broader project area.

7 ASSESSMENT OF DEVELOPMENT IMPACT

Low to negligible

8 RECOMMENDED MITIGATION MEASURES

None

9 RECOMMENDED MONITORING

None.

10 PROTOCOL FOR THE IDENTIFICATION, PROTECTION AND RECOVERY OF HERITAGE RESOURCES DURING CONSTRUCTION AND OPERATION

It is possible that sub-surface heritage resources could be encountered during the construction phase of this project. The Environmental Control Officer and all other persons responsible for site management and excavation should be aware that indicators of sub-surface sites could include:

- Ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate);
- Bone concentrations, either animal or human;
- Ceramic fragments, including potsherds;
- Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial, or represent building/structural remains); and
- Fossilised remains of fauna and flora, including trees.

In the event that such indicator(s) of heritage resources are identified, the following actions should be taken immediately:

- All construction within a radius of at least 20m of the indicator should cease. This distance should be increased at the discretion of supervisory staff if heavy machinery or explosives could cause further disturbance to the suspected heritage resource.
- This area must be marked using clearly visible means, such as barrier tape, and all personnel should be informed that it is a no-go area.
- A guard should be appointed to enforce this no-go area if there is any possibility that it could be violated, whether intentionally or inadvertently, by construction staff or members of the public.
- No measures should be taken to cover up the suspected heritage resource with soil, or to collect any remains such as bone or stone.
- If a heritage practitioner has been appointed to monitor the project, s/he should be contacted and a site inspection arranged as soon as possible.
- If no heritage practitioner has been appointed to monitor the project, the head of archaeology at Amafa's Pietermaritzburg office should be contacted; telephone 033 3946 543).
- The South African Police Services should be notified by an Amafa Heritage staff member or an independent heritage practitioner if human remains are identified. No SAPS official may disturb or exhume such remains, whether of recent origin or not.
- All parties concerned should respect the potentially sensitive and confidential nature of the heritage resources, particularly human remains, and refrain from making public statements until a mutually agreed time.
- Any extension of the project beyond its current footprint involving vegetation and/or earth clearance should be subject to prior assessment by a qualified heritage practitioner, considering all information gathered during this initial heritage impact assessment.

11 CONCLUSION

We recommend that the development proceed with no further heritage mitigation and will submit this report to the KZN Amafa and Research Institute on SAHRIS, in fulfilment of the requirements of the NHRA. Accordingly, the report shall be considered timeously by the Institute which shall, after consultation with the persons /agency proposing the development, decide –

- any limitations or conditions are to be applied to the development.
- what general protections in terms of the NHRA apply, and what formal protections may be applied to such heritage resources;
- whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- whether the appointment of specialists is required as a condition of approval of the proposal.

The client may contact the Amafa Heritage and Research Institute's Pietermaritzburg office (Tel. 033 3946543) or khanyi.zondi@amafainstitute.org.za, should any queries arise.

If permission is granted for development to proceed, the client is reminded that the NHRA requires that a developer cease all work immediately and adhere to the protocol described in Section 10 of this report should any heritage resources, as defined in the Act, be discovered during the course of development activities.

12 BIBLIOGRAPHY

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APPENDIX A

STATUTORY REQUIREMENTS

GENERAL

The identification, evaluation and management of heritage resources in South Africa is required and governed by the following legislation:

- National Environmental Management Act 107 of 1998 as amended (NEMA)
- KwaZulu-Natal Heritage Act 4 of 2008 as amended by the KZN Amafa and Research Institute Act (5/2018).
- National Heritage Resources Act 25 of 1999 as amended (NHRA)
- Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA)

KZN Amafa and Research Institute Act (5/2018).

This Act is implemented by the KZN Amafa and Research Institute (Act (5/2018), the provincial heritage resources authority (PHRA) charged to provide for the conservation, protection and administration of both the physical and the living or intangible heritage resources of the province; along with a statutory Council to administer heritage conservation in the Province.

NATIONAL HERITAGE RESOURCES ACT 25 OF 1999 (NHRA)

The NHRA established the South African Heritage Resources Agency (SAHRA) together with its Council to fulfill the following functions:

- co-ordinate and promote the management of heritage resources at national level;
- set norms and maintain essential national standards for the management of heritage resources in the Republic and to protect heritage resources of national significance;
- control the export of nationally significant heritage objects and the import into the Republic of cultural property illegally exported from foreign countries;
- enable the provinces to establish heritage authorities which must adopt powers to protect and manage certain categories of heritage resources; and
- provide for the protection and management of conservation-worthy places and areas by local authorities.

Heritage Impact Assessments

Section 38(1) of the NHRA may require a Heritage Impact Assessment in case of:

- the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- the construction of a bridge or similar structure exceeding 50m in length;
- any development or other activity which will change the character of a site—
  (i) exceeding 5 000m² in extent; or
  (ii) involving three or more existing erven or subdivisions thereof; or
  (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority.
- the re-zoning of a site exceeding 10 000m² in extent; or
- any other category of development provided for in regulations by SAHRA or a PHRA.

Reports in fulfilment of NHRA Section 38(3) must include the following information:

- the identification and mapping of all heritage resources in the area affected;
- an assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations;
- an assessment of the impact of the development on such heritage resources;
- an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

It is incumbent upon the developer or Environmental Practitioner to approach the South African Heritage Resources Agency (SAHRA) or Amafa to ascertain whether an HIA is required for a project; what categories of heritage resource must be assessed; and request a detailed motivation for such a study in terms of both the nature of the development and the nature of the environment. Section 38(2) of the NHRA states specifically that 'The responsible heritage resources authority must … if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report'. In other words, the heritage authority must be able to justify a request for an Archaeological, Palaeontological or Heritage Impact Assessment. The Environmental Practitioner may also submit information to the heritage authority in substantiation of exemption from a specific assessment due to existing environmental disturbance, for example.

Visual Impact Assessments

There are no legal requirements in NEMA that specifically regulate activities that may infringe on the visual attributes of a region. The NHRA provides legislative protection for listed or proclaimed sites, such as urban conservation areas, nature reserves and proclaimed scenic

routes. It requires that these areas be protected against physical and aesthetic change. Visual pollution is controlled, to a limited extent, by the Advertising on Roads and Ribbons Act 21 of 1940, which deals mainly with signage on public roads. The 'Guideline for involving visual & aesthetic specialists in EIA processes' by Oberholzer (2005) was developed to provide guidelines and general good practice for specialist visual input into the EIA process in South Africa.

Definitions of heritage resources

The Act defines a heritage resource as any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes, but is not limited to, the following wide range of places and objects:

- living heritage as defined in the National Heritage Council Act 11 of 1999 (cultural tradition; oral history; performance; ritual; popular memory; skills and techniques; indigenous knowledge systems; and the holistic approach to nature, society and social relationships);
- ecofacts (non-artefactual organic or environmental remains that may reveal aspects of past human activity; definition used in KwaZulu-Natal Heritage Act 2008);
- places, buildings, structures and equipment;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds;
- public monuments and memorials;
- sites of significance relating to the history of slavery in South Africa;
- movable objects, but excluding any object made by a living person; and
- battlefields.

Furthermore, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.

Archaeological means –

- material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
- rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10m of such representation;
- wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act 15 of 1994, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- features, structures, and artefacts associated with military history which are older than 75 years and the sites on which they are found.

Palaeontological means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

A **place** is defined as:

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place.

Public monuments and memorials mean all monuments and memorials:

- erected on land belonging to any branch of central, provincial, or local government, or on land belonging to any organization funded by or established in terms of the legislation of such a branch of government; or
- which were paid for by public subscription, government funds, or a public-spirited or military organization, and are on land belonging to any private individual.

Structures means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

MANAGEMENT OF GRAVES AND BURIAL GROUNDS

- **Definitions**

Grave
The NHRA defines a grave as a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such a place.
The KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996 defines a grave as an excavation in which human remains have been intentionally placed for the purposes of burial, but excludes any such excavation where all human remains have been removed.

Burial ground
The term 'burial ground' does not appear to have a legal definition. In common usage the term is used for management purposes to describe two or more graves that are grouped closely enough to be managed as a single entity.

Cemetery
The KwaZulu-Natal Cemeteries and Crematoria Act 1996 defines a cemetery as any place

(a) where human remains are buried in an orderly, systematic and pre-planned manner in identifiable burial plots;
(b) which is intended to be permanently set aside for and used only for the purposes of the burial of human remains.

- **Protection of graves and cemeteries**

No person may damage, alter, exhume, or remove from its original position any grave, as defined above, without permission from the relevant authority, as detailed in the following table.

Grave type	Relevant legislation	Administrative authority – disinterment	Administrative authority – reburial
Graves located within a formal cemetery administered by a local authority	KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996 Human Tissue Act 65 of 1983	National and / or Provincial Departments of Health	If relocated to formal cemetery – relevant local authority.
Graves older than 60 years located outside a formal cemetery administered by a local authority and the graves of victims of conflict	KZN Amafa and Research Institute Act (5/2018). Human Tissue Act 65 of 1983	KZN Amafa and Research Institute, the provincial heritage resources authority	If relocated to private or communal property – KZN Amafa. If relocated to formal cemetery – KZN Amafa and relevant local authority.

- **Procedures required for permission to disinter and rebury graves**

The procedure for consultation regarding burial grounds and graves (Section 36 of the NHRA) is applicable to all graves located outside a formal cemetery administrated by a local authority. The following extract from this legislation is applicable to this policy document:

SAHRA or Amafa may not issue a permit for any alteration to or disinterment or reburial of a grave unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority—

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

Any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Services and in accordance with regulations of the responsible heritage resources authority—

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

The Vermillion Accord on Human Remains[10]

Adopted in 1989 at WAC Inter-Congress, South Dakota, USA

1. Respect for the mortal remains of the dead shall be accorded to all, irrespective of origin, race, religion, nationality, custom and tradition.

2. Respect for the wishes of the dead concerning disposition shall be accorded whenever possible, reasonable and lawful, when they are known or can be reasonably inferred.

3. Respect for the wishes of the local community and of relatives or guardians of the dead shall be accorded whenever possible, reasonable and lawful.

4. Respect for the scientific research value of skeletal, mummified and other human remains (including fossil hominids) shall be accorded when such value is demonstrated to exist.

5. Agreement on the disposition of fossil, skeletal, mummified and other remains shall be reached by negotiation on the basis of mutual respect for the legitimate concerns of communities for the proper disposition of their ancestors, as well as the legitimate concerns of science and education.

6. The express recognition that the concerns of various ethnic groups, as well as those of science are legitimate and to be respected, will permit acceptable agreements to be reached and honoured.

[10] http://www.worldarchaeologicalcongress.org/

APPENDIX B

ARCHAEOLOGICAL CONTEXT OF THE STUDY AREA

The Stone Age[11]

No systematic Early and Middle Stone Age research has been undertaken in the proposed development area, hence the general nature of this section. Open air scatters of stone artefacts, probably with low heritage significance, could be expected in areas with minimal environmental disturbance.

South Africa's prehistory has been divided into a series of phases based on broad patterns of technology. The primary distinction is between a reliance on chipped and flaked stone implements (the Stone Age) and the ability to work iron (the Iron Age). Spanning a large proportion of human history, the Stone Age in Southern Africa is further divided into the Early Stone Age, or Paleolithic Period (about 2 500 000–150 000 years ago), the Middle Stone Age, or Mesolithic Period (about 150 000–30 000 years ago), and the Late Stone Age, or Neolithic Period (about 30 000–2 000 years ago). The simple stone tools found with australopithecine fossil bones fall into the earliest part of the Early Stone Age.

- The Early Stone Age

Most Early Stone Age sites in South Africa can probably be connected with the hominin species known as *Homo erectus*. Simply modified stones, hand axes, scraping tools, and other bifacial artifacts had a wide variety of purposes, including butchering animal carcasses, scraping hides, and digging for plant foods. Most South African archaeological sites from this period are the remains of open camps, often by the sides of rivers and lakes, although some are rock shelters, such as Montagu Cave in the Cape region.

- The Middle Stone Age

The long episode of cultural and physical evolution gave way to a period of more rapid change about 200 000 years ago. Hand axes and large bifacial stone tools were replaced by stone flakes and blades that were fashioned into scrapers, spear points, and parts for hafted, composite implements, including bow and arrow technology. This technological stage, now known as the Middle Stone Age, is represented by numerous sites in South Africa, including Border Cave in the Lebombo Mountains. The remains of plant foods and bedding materials have been well preserved at such sites as Border Cave and Sibudu Rock Shelter in KwaZulu Natal.

Open camps and rock overhangs were used for shelter. Day-to-day debris has survived to provide some evidence of early ways of life, although plant foods have rarely been preserved. Middle Stone Age bands hunted medium-sized and large prey, including antelope and zebra, although they tended to avoid the largest and most dangerous animals, such as the elephant and the rhinoceros. They also ate seabirds and marine mammals that could be found along the shore and sometimes collected tortoises and ostrich eggs in large quantities.

[11] http://www.britannica.com; article authored by Colin J. Bundy, Julian R. D. Cobbing, Martin Hall and Leonard Monteith Thompson

- The Late Stone Age

Basic toolmaking techniques began to undergo additional change about 40 000 years ago. Small finely worked stone implements known as microliths became more common, while the heavier scrapers and points of the Middle Stone Age appeared less frequently. Archaeologists refer to this technological stage as the Late Stone Age. The numerous collections of stone tools from South African archaeological sites show a great degree of variation through time and across the subcontinent.

The remains of plant foods have been well preserved at such sites as Melkhoutboom Cave, De Hangen, and Diepkloof in the Cape region. Animals were trapped and hunted with spears and bow and arrows on which were mounted well-crafted stone blades. Bands moved with the seasons as they followed game into higher lands in the spring and early summer months, when plant foods could also be found. When available, rock overhangs became shelters; otherwise, windbreaks were built. Shellfish, crayfish, seals, and seabirds were also important sources of food, as were fish caught on lines, with spears, in traps, and possibly with nets.

Dating from this period are numerous engravings on rock surfaces, mostly on the interior plateau, and paintings on the walls of rock shelters in the mountainous regions, such as the Drakensberg and Cederberg ranges. The images were made over a period of at least 25 000 years. Although scholars originally saw the South African rock art as the work of exotic foreigners such as Minoans or Phoenicians or as the product of primitive minds, they now believe that the paintings were closely associated with the work of medicine men, shamans who were involved in the well-being of the band and often worked in a state of trance. Specific representations include depictions of trance dances, metaphors for trance such as death and flight, rainmaking, and control of the movement of antelope herds.

Iron Age[12]

Archaeological evidence shows that Bantu-speaking agriculturists first settled in southern Africa around AD 300. Bantu-speakers originated in the vicinity of modem Cameroon from where they began to move eastwards and southwards, sometime after 400 BC, skirting around the equatorial forest. An extremely rapid spread throughout much of sub-equatorial Africa followed: dating shows that the earliest communities in Tanzania and South Africa are separated in time by only 200 years, despite the 3 000 km distance between the two regions. It seems likely that the speed of the spread was a consequence of agriculturists deliberately seeking iron ore sources and particular combinations of soil and climate suitable for the cultivation of their crops.

The earliest agricultural sites in KwaZulu-Natal date to between AD 400 and 550. All are situated close to sources of iron ore, and within 15 km of the coast. Current evidence suggests it may have been too dry further inland at this time for successful cultivation. From 650 onwards, however, climatic conditions improved and agriculturists expanded into the valleys of KwaZulu-Natal, where they settled close to rivers in savanna or bushveld environments. There is a considerable body of information available about these early agriculturists.

Seed remains show that they cultivated finger millet, bulrush millet, sorghum and probably the African melon. It seems likely that they also planted African groundnuts and cowpeas, though direct evidence for these plants is lacking from the earlier periods. Faunal remains indicate that

[12] Whitelaw (1997). See also Whitelaw (1991, 2009).

they kept sheep, cattle, goats, chickens and dogs, with cattle and sheep providing most of the meat. Men hunted, perhaps with dogs, but hunted animals made only a limited contribution to the diet in the region.

Metal production was a key activity since it provided the tools of cultivation and hunting. The evidence indicates that people who worked metal lived in almost every village, even those that were considerable distances from ore sources.

Large-scale excavations in recent years have provided data indicating that first-millennium agriculturist society was patrilineal and that men used cattle as bride wealth in exchange for wives. On a political level, society was organised into chiefdoms that, in our region, may have had up to three hierarchical levels. The villages of chiefs tended to be larger than others, with several livestock enclosures, and some were occupied continuously for lengthy periods. Social forces of the time resulted in the concentration of unusual items on these sites. These include artefacts that originated from great distances, ivory items (which as early as AD 700 appear to have been a symbol of chieftainship), and initiation paraphernalia.

This particular way of life came to an end around AD 1000, for reasons that we do not yet fully understand. There was a radical change in the decorative style of agriculturist ceramics at this time, while the preferred village locations of the last four centuries were abandoned in favour of sites along the coastal littoral. In general, sites dating to between 1050 and 1250 are smaller than most earlier agriculturist settlements. It is tempting to see in this change the origin of the Nguni settlement pattern. Indeed, some archaeologists have suggested that the changes were a result of the movement into the region of people who were directly ancestral to the Nguni-speakers of today. Others prefer to see the change as the product of social and cultural restructuring within resident agriculturist communities.

Whatever the case, it seems likely that this new pattern of settlement was in some way influenced by a changing climate, for there is evidence of increasing aridity from about AD 900. A new pattern of economic inter-dependence evolved that is substantially different from that of earlier centuries, and is one that continued into the colonial period nearly 500 years later.

APPENDIX C

METHODOLOGY

Site survey

An eThembeni staff member inspected the current activity area on 26 July 2023 and completed a controlled-exclusive surface survey, where 'sufficient information exists on an area to make solid and defensible assumptions and judgements about where [heritage resource] sites may and may not be' and 'an inspection of the surface of the ground, wherever this surface is visible, is made, with no substantial attempt to clear brush, turf, deadfall, leaves or other material that may cover the surface and with no attempt to look beneath the surface beyond the inspection of rodent burrows, cut banks and other exposures that are observed by accident' (King 1978; see bibliography for other references informing methodological approach).

The site survey comprised unsystematic walks across the proposed activity areas, including wetland seepages and erosion dongas. Geographic coordinates were obtained using a handheld Garmin global positioning unit (WGS 84).

Database and literature review

No archaeological site data was available for the project area from the Natal Museum database. A concise account of the archaeology and history of the broader study area was compiled from sources including those listed in the bibliography.

Assessment of heritage resource value and significance

Heritage resources are significant only to the extent that they have public value, as demonstrated by the following guidelines for determining site significance developed by Heritage Western Cape in 2007 and utilised during this assessment.

Grade I Sites (National Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that:

Grade I heritage resources are heritage resources with qualities so exceptional that they are of special national significance should be applied to any heritage resource which is

a) Of outstanding significance in terms of one or more of the criteria set out in section 3(3) of the NHRA;
b) Authentic in terms of design, materials, workmanship or setting; and is of such universal value and symbolic importance that it can promote human understanding and contribute to nation building, and its loss would significantly diminish the national heritage.

1. Is the site of outstanding national significance?
2. Is the site the best possible representative of a national issue, event or group or person of national historical importance?
3. Does it fall within the proposed themes that are to be represented by National Heritage Sites?
4. Does the site contribute to nation building and reconciliation?
5. Does the site illustrate an issue or theme, or the side of an issue already represented by an existing National Heritage Site – or would the issue be better represented by another site?
6. Is the site authentic and intact?

7. Should the declaration be part of a serial declaration?
8. Is it appropriate that this site be managed at a national level?
9. What are the implications of not managing the site at national level?

Grade II Sites (Provincial Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that:

Grade II heritage resources are those with special qualities which make them significant in the context of a province or region and should be applied to any heritage resource which -

a) is of great significance in terms of one or more of the criteria set out in section 3(3) of the NHRA; and
(b) enriches the understanding of cultural, historical, social, and scientific development in the province or region in which it is situated, but that does not fulfil the criteria for Grade 1 status.

Grade II sites may include, but are not limited to –

(a) places, buildings, structures and immovable equipment of cultural significance;
(b) places to which oral traditions are attached or which are associated with living heritage;
(c) historical settlements and townscapes;
(d) landscapes and natural features of cultural significance;
(e) geological sites of scientific or cultural importance;
(f) archaeological and palaeontological sites; and
(g) graves and burial grounds.

The cultural significance or other special value that Grade II sites may have, could include, but are not limited to –

(a) its importance in the community or pattern of the history of the province;
(b) the uncommon, rare, or endangered aspects that it possess reflecting the province's natural or cultural heritage
(c) the potential that the site may yield information that will contribute to an understanding of the province's natural or cultural heritage;
(d) its importance in demonstrating the principal characteristics of a particular class of the province's natural or cultural places or objects;
(e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group in the province;
(f) its importance in demonstrating a high degree of creative or technical achievement at a particular period in the development or history of the province;
(g) its strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons; and
(h) its strong or special association with the life or work of a person, group or organization of importance in the history of the province.

Grade III (Local Heritage Resources)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that:

Grade III heritage status should be applied to any heritage resource which

(a) fulfils one or more of the criteria set out in section 3(3) of the NHRA; or

(b) in the case of a site contributes to the environmental quality or cultural significance of a larger area which fulfils one of the above criteria, but that does not fulfill the criteria for Grade 2 status.

Grade IIIA

This grading is applied to buildings and sites that have sufficient intrinsic significance to be regarded as local heritage resources; and are significant enough to warrant *any* alteration being regulated. The significances of these buildings and/or sites should include at least some of the following characteristics:

- Highly significant association with a
  - historic person
  - social grouping
  - historic events
  - historical activities or roles
  - public memory
- Historical and/or visual-spatial landmark within a place
- High architectural quality, well-constructed and of fine materials
- Historical fabric is mostly intact (this fabric may be layered historically and/or past damage should be easily reversible)
- Fabric dates to the early origins of a place
- Fabric clearly illustrates an historical period in the evolution of a place
- Fabric clearly illustrates the key uses and roles of a place over time
- Contributes significantly to the environmental quality of a Grade I or Grade II heritage resource or a conservation/heritage area

Such buildings and sites may be representative, being excellent examples of their kind, or may be rare: as such they should receive maximum protection at local level.

Grade IIIB

This grading is applied to buildings and/or sites of a marginally lesser significance than grade IIIA; and such marginally lesser significance argues against the regulation of internal alterations. Such buildings and sites may have similar significances to those of a grade IIIA building or site, but to a lesser degree. Like grade IIIA buildings and sites, such buildings and sites may be representative, being excellent examples of their kind, or may be rare, but less so than grade IIIA examples: as such they should receive less stringent protection than grade IIIA buildings and sites at local level and internal alterations should not be regulated (in this context).

Grade IIIC

This grading is applied to buildings and/or sites whose significance is, in large part, a significance that contributes to the character or significance of the environs. These buildings and sites should, as a consequence, only be protected and regulated *if the significance of the environs is sufficient to warrant protective measures*. In other words, these buildings and/or sites will only be protected if they are within declared conservation or heritage areas.

Assessment of development impacts

A heritage resource impact may be defined broadly as the net change, either beneficial or adverse, between the integrity of a heritage site with and without the proposed development. Beneficial impacts occur wherever a proposed development actively protects, preserves or enhances a heritage resource, by minimising natural site erosion or facilitating non-destructive public use, for example. More commonly, development impacts are of an adverse nature and can include:

- destruction or alteration of all or part of a heritage site;
- isolation of a site from its natural setting; and / or
- introduction of physical, chemical, or visual elements that are out of character with the heritage resource and its setting.

Beneficial and adverse impacts can be direct or indirect, as well as cumulative, as implied by the aforementioned examples. Although indirect impacts may be more difficult to foresee, assess and quantify, they must form part of the assessment process. The following assessment criteria have been used to assess the impacts of the proposed development on identified heritage resources:

Criteria	Rating Scales	Notes
Nature	Positive	An evaluation of the type of effect the construction, operation and management of the proposed development would have on the heritage resource.
	Negative	
	Neutral	
Extent	Low	Site-specific, affects only the development footprint.
	Medium	Local (limited to the site and its immediate surroundings, including the surrounding towns and settlements within a 10 km radius);
	High	Regional (beyond a 10 km radius) to national.
Duration	Low	0-4 years (i.e. duration of construction phase).
	Medium	5-10 years.
	High	More than 10 years to permanent.
Intensity	Low	Where the impact affects the heritage resource in such a way that its significance and value are minimally affected.
	Medium	Where the heritage resource is altered and its significance and value are measurably reduced.
	High	Where the heritage resource is altered or destroyed to the extent that its significance and value cease to exist.
Potential for impact on irreplaceable resources	Low	No irreplaceable resources will be impacted.
	Medium	Resources that will be impacted can be replaced, with effort.
	High	There is no potential for replacing a particular vulnerable resource that will be impacted.
Consequence a combination of extent, duration, intensity and the potential for impact on irreplaceable resources).	Low	A combination of any of the following: - Intensity, duration, extent and impact on irreplaceable resources are all rated low. - Intensity is low and up to two of the other criteria are rated medium. - Intensity is medium and all three other criteria are rated low.
	Medium	Intensity is medium and at least two of the other criteria are rated medium.
	High	Intensity and impact on irreplaceable resources are rated high, with any combination of extent and duration. Intensity is rated high, with all of the other criteria being rated medium or higher.
Probability (the likelihood of the impact occurring)	Low	It is highly unlikely or less than 50 % likely that an impact will occur.
	Medium	It is between 50 and 70 % certain that the impact will occur.
	High	It is more than 75 % certain that the impact will occur or it is definite that the impact will occur.

Significance (all impacts including potential cumulative impacts)	Low	Low consequence and low probability. Low consequence and medium probability. Low consequence and high probability.
	Medium	Medium consequence and low probability. Medium consequence and medium probability. Medium consequence and high probability. High consequence and low probability.
	High	High consequence and medium probability. High consequence and high probability.

Assumptions and limitations of this HIA

- The description of the proposed project, provided by the client, is assumed to be accurate.
- The public consultation process being undertaken as part of the Environmental Impact Assessment is sufficient and adequate and does not require repetition as part of the heritage impact assessment. It will be loaded to the SAHRIS Case File.
- Soil surface visibility was reasonable in places where game aggregated, but a thick grass sward and woody thicket hindered manoeuvrability. Buffalo were also an added impediment.
- Heritage resources might be present below the surface, and we remind the client that the NHRA requires that a developer cease all work immediately and observe the protocol in Section 10 any heritage resources, as defined in the Act, be discovered during the course of development activities.
- No subsurface investigation (including excavations or sampling) were undertaken, since a permit from Amafa is required to disturb a heritage resource.
- A key concept in the management of heritage resources is that of non-renewability: damage to or destruction of most resources, including that caused by bona fide research endeavours, cannot be reversed or undone. Accordingly, management recommendations for heritage resources in the context of development are as conservative as possible.
- Human sciences are necessarily both subjective and objective in nature. eThembeni staff members strive to manage heritage resources to the highest standards in accordance with national and international best practice but recognise that their opinions might differ from those of other heritage practitioners.
- Staff members involved in this project have no vested interest in it; are qualified to undertake the tasks as described in the terms of reference (refer to Appendix F); and comply at all times with the Codes of Ethics and Conduct of the Association of Southern African Professional Archaeologists and the Association of Professional Heritage Practitioners.
- eThembeni staff members take no personal or professional responsibility for the misuse of the information contained in this report, although they will take all reasonable precautions against such misuse.

APPENDIX D

SPECIALIST COMPETENCY AND DECLARATION OF INDEPENDENCE

Specialist competency

Len van Schalkwyk is accredited by the Cultural Resources Management section of the Association of South African Professional Archaeologists (ASAPA) and the Association of Professional Heritage Practitioners (APHP)to undertake HIAs in South Africa. Mr van Schalkwyk has a master's degree in archaeology (specialising in the history of early farmers in southern Africa) from the University of Cape Town and 35 years' experience in heritage management. He has worked on projects as diverse as the establishment of the Ondini Cultural Museum in Ulundi, the cultural management of Chobe National Park in Botswana and various archaeological excavations and oral history recording projects. He was part of the writing team that produced the KwaZulu-Natal Heritage Act 1997. He has worked with many rural communities to establish integrated heritage and land use plans and speaks good Zulu.

Mr van Schalkwyk left his position as assistant director of Amafa aKwaZulu-Natali, the provincial heritage management authority, to start eThembeni. Over the past 22 years he has undertaken more than 1000 HIAs throughout South Africa, as well as in Mozambique, Lesotho, and Botswana.

Declaration of independence

I, Len van Schalkwyk, declare that eThembeni Cultural Heritage has no financial or personal interest in the proposed development, nor its developers or any of its subsidiaries, apart from in the provision of HIA and management consulting services.

14 September 2023.