

HERITAGE IMPACT ASSESSMENT OF  
LUDEKE DAM BORROW PIT AND ANCESTRAL GRAVES,  
BIZANA, EASTERN CAPE PROVINCE, SOUTH AFRICA

Prepared for

**MBB Consulting Engineers**

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## Management summary

eThembeni Cultural Heritage was appointed by MBB Consulting Engineers to undertake a heritage impact assessment of a proposed borrow pit and ancestral grave locations associated with the Ludeke Dam, in terms of the National Heritage Resources Act No 25 of 1999. eThembeni staff members inspected the area on 21 February 2011 and completed a controlled-exclusive surface survey.

### Heritage resources description and assessment of significance

#### – Places, buildings, structures and equipment

Two places with structures are associated with abandoned homestead sites, one of which includes an ancestral grave. Both of these sites are probably less than sixty years old. However, they constitute heritage resources of at least low significance at the local level due to their social value and their association with known ancestral graves.

#### – Graves and burial grounds

Ten locations of ancestral graves will be affected directly or indirectly by the proposed Ludeke Dam and/or the borrow pit. All human remains have high significance at all levels for their spiritual, social and cultural values.

### Assessment of impact

The significance of the impact of the proposed development is HIGH for all heritage resources described above, assuming construction activities in their vicinity and that no mitigation measures are implemented (refer to Appendix C). It also takes into account the fact that new infrastructure, such as the pipeline, which has so far avoided direct impacts on heritage resources, will have future maintenance and use requirements that could affect resources. This pertains particularly to Graves 3, 4 and 5.

### Recommended mitigation measures

The following mitigation measures will reduce the impact of the proposed development on all heritage resources, including potential cumulative impacts, to low significance (Appendix C).

#### – Places, buildings, structures and equipment

- A distance of 20 metres should be maintained between the edge of any construction activities and all structures. This distance should be demarcated with barrier netting and metal stanchions for the duration of construction or borrow pit activities.
- If construction activities are required closer to the structures, the minimum distance must be negotiated with the next-of-kin, with permanent fencing erected before the start of construction as described for graves, below.
- The developer must obtain a permit from SAHRA to undertake permanent fencing prior to the start of any construction activities.

**– Graves and burial grounds**

- No human remains may be altered in any way without the permission of the next-of-kin and a permit from SAHRA.
- Graves 1, 2, 6, 7 and 10 require negotiated exhumation and reinterment according to the procedures detailed in Appendix A. A specialist heritage practitioner and/or Social Impact Assessor should be appointed by the developer to undertake and implement such negotiations prior to the start of any construction activities.
- A minimum distance of 20 metres should be maintained between the edge of any construction activities and all ancestral graves.
- Graves 3, 4, 5, 8 and 9 require fencing as described below, at the cost of the developer, prior to the start of any further construction activities.
  - a. Preferred fencing materials are metal corner and straining posts and fencing wire, to a minimum height of 1.2 metres.
  - b. The fence must be located at a minimum distance of 2 metres from the nearest grave and have an access gate.
  - c. No construction may occur within a minimum distance of 10 metres from the edge of the fence.
  - d. The developer must obtain a permit from SAHRA to undertake fencing prior to the start of any construction activities.
- All of these buffer distances are minimum requirements and next-of-kin should be consulted to ascertain whether greater distances are required.

**Recommended monitoring**

A heritage practitioner should be appointed to ensure that all recommendations for mitigation are implemented prior to the start of any construction activities. This person will also be able to ensure appropriate fencing placements if the buffer distances recommended in Section 7 are unfeasible.

**Conclusion**

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to the South African Heritage Resources Agency (SAHRA) in fulfilment of the requirements of the National Heritage Resources Act.

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 9 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 MBB Consulting Engineers to undertake a heritage impact assessment of a proposed borrow pit and ancestral grave locations, in terms of the National Heritage Resources Act No 25 of 1999 (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 Heritage Impact Assessment (excluding a specialist palaeontological study) for the proposed development.

## **2. Terms of reference**

A Heritage Impact Assessment 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.

### **3. Project description**

The Ludeke Dam, currently under construction, is situated roughly in the centre of the Ludeke River basin and captures two of the largest rivers in that quaternary catchment. Application is being sought from the Department of Minerals and Energy Affairs for a borrow pit to source clay for construction of the dam and ancillary works.

Two graves, identified during the Environmental Impact Assessment process, that fall within the proposed dam basin have been satisfactorily exhumed and reinterred after appropriate negotiations and the conducting of traditional rites by the relevant next-of-kin. These negotiations were undertaken by Geldart, Mokoatsi & Associates, the appointed Social Impact Assessors for the project.

During further public participation with regard to the extent of the proposed clay borrow area, local community members have asserted the presence of further graves within and adjacent to the borrow area. eThembeni was appointed to verify any visible evidence of these graves. Ten locales had been secured by the contractors through the erection of orange barrier netting hung on steel Y-bar standards.

### **4. Project location**

The proposed development is located north-west of the town of Bizana in the Eastern Cape Province (Figure 1). The terrain in the region is hilly and ranges in altitude from about 700m up to an incised plateau at between 850 and 890m. For the most part the valley slopes are moderate but there are low cliffs at a few sites including one just downstream of the dam wall site and one within the basin of the dam. The full supply water level will be at, or close to, the edge of the plateau, and consequently the shorelines of the dam will be quite steep in most places.

The geology in the dam basin is dominated by Karroo dolerites in the lower areas and Dwyka tillites, and shales and sandstones, above them. The hard materials lead to conditions being generally very rocky and contribute to the character of the two rivers which is that of numerous rapids and riffles with some large bedrock pools. Soils in the basin are generally shallow.

The area immediately around the dam basin is sparsely populated and there are no people living within the basin itself. The residential pattern is typical of the area with homesteads clustered, to varying degrees of density, on hill tops or other high lying ground, and extensive crop lands extending outwards from them. Services provided to the people in the area vary but there are schools, a clinic, and a network of roads. There is water reticulation in some areas near the dam but no Eskom power. It is noteworthy that there are people living near the site of the wall as they have been affected by construction activities.

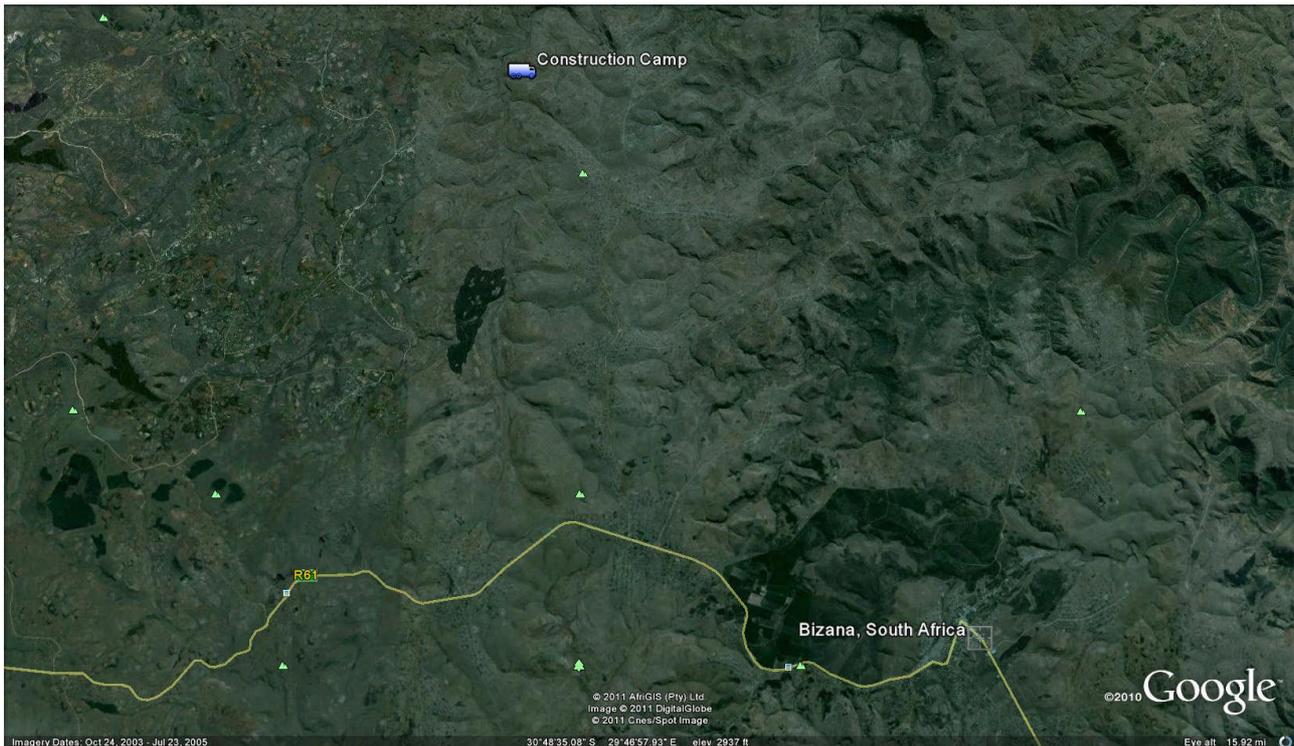


Figure 1. Location of Ludeke Dam borrow pit in the Eastern Cape Province.

## 5. Cultural context of the study area

The archaeological and historical context of the study area is summarised in Appendix B and readers are referred to the bibliography section for primary sources.

Heritage resources in such areas of the Eastern Cape that could require the modification and/or relocation of a proposed development project and/or significant mitigation procedures are summarised in Table 1. The client is advised that subsurface remains of such heritage resources might be uncovered during the construction phase of the proposed project, and is referred to the protocol contained in Section 9 below.

Heritage resource	Typical mitigation measures
Open air scatters of Stone Age stone artefacts and Iron Age archaeological sites with ceramic sherds, probably with low heritage significance, could occur in areas with minimal environmental disturbance.	Test excavations to determine site extent and significance. If necessary, full systematic archaeological excavations requiring permit from heritage authority and significant financial expenditure.
Ancestral graves, typically located within homestead precincts. Often associated with abandoned homesteads; may be difficult to identify if unmarked.	All human remains have high heritage significance and conservation in situ is always preferred. Exhumation and reburial require procedures described in Appendix A and are costly and time-consuming.

Table 1. Typical heritage resources and mitigation measures associated with the project area.

## 6. Observations

The following table summarises the heritage resources assessed, and our observations.

Heritage resource type	Observation
Living heritage	None were identified within the proposed development area.
Ecofacts	None were identified within the proposed development area.
Places, buildings, structures and equipment	See below.
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	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.
Graves and burial grounds	See below.
Movable objects excluding any object made by a living person	None were identified within the proposed development area.
Battlefields	None were identified within the proposed development area.
Traditional building techniques	None were identified within the proposed development area.

Table 2. Heritage resources and observations: Ludeke Dam borrow pit and graves.

### 6.1 Description and assessment of significance

#### – Places, buildings, structures and equipment

- A A square stone-walled small stock byre located at S30 44.729; E29 44.963 indicates the possible presence of an abandoned homestead site.
- B Structures associated with an abandoned homestead are located at Grave 5 around a Syringa tree at S30 44.685; E29 44.914 (see Table 3).

Both of these sites are probably less than sixty years old. However, they constitute heritage resources of at least low significance at the local level due to their social value and their association with known ancestral graves.

## – Graves and burial grounds

The following ancestral graves will be affected directly or indirectly by the proposed Ludeke Dam and/or the borrow pit. All human remains have high significance at all levels for their spiritual, social and cultural values.

No	Description	Location
1	Gqwahu family. Topsoil appears to have been shallowly excavated. Possible exhumation or soil disturbance during test pitting? No other surface indications of a grave are evident. Within full supply level of dam.	S30 44.751; E29 44.942
2	Bhengu Mbanjwa. Grave indicated by a deflated stone cluster. Forms cluster of three graves with #7 and #10. Within full supply level of dam.	S30 44.736; E29 44.978
3	Pillowcase Ncambelo. No surface evidence of grave site. Falls between pipeline and proposed clay borrow pit. Pipeline just missed the grave and borrow pit should not affect it.	S30 44.732; E29 45.053
4	Noxolo Mbewana. No surface evidence of grave site. Falls between pipeline and proposed clay borrow pit. Pipeline just missed the grave and borrow pit should not affect it.	S30 44.732; E29 45.054
5	Pillowcase Ncambelo. No surface evidence of grave site. Lone Syringa upslope of grave site in open grassland indicates old homestead site, visible on Google Earth. Located outside of full supply level, has been bypassed by road to pump station. End of grave just touches V drain of road, for which next-of-kin have given consent.	S30 44.685; E29 44.914
6	3 graves (next to each other). 2 x graves with cement capping; 1 x grave indicated by deflated stone pile. <i>Cynodon dactylon</i> (couch grass) patches indicates disturbance of grassland. Falls within Exclusion Zone between full supply level and expropriation boundary.	S30 44.733; E29 44.972
7	Unknown grave in group with #2 and #10. Within full supply level of dam.	S30 44.735; E29 44.980
8	Unknown grave indicated by deflated stone pile. Rocks do not appear to be derived from field clearance for ploughing. Located outside dam area but within borrow pit area.	S30 44.705; E29 45.100
9	Unknown grave with cement capping. Located outside dam area but within borrow pit area.	S30 44.698; E29 45.113
10	Unknown grave in group with #2 and #7. Within full supply level of dam.	S30 44.711; E29 44.932

Table 3. Ancestral grave descriptions and locations: Ludeke Dam and borrow pit.

## 6.2 Assessment of impact

The significance of the impact of the proposed development is HIGH for all the heritage resources described above, assuming construction activities in their vicinity and that no mitigation measures are implemented (refer to Appendix C). It also takes into account the fact that new infrastructure, such as the pipeline, which has so far avoided direct impacts on heritage resources, will have future maintenance and use requirements that could affect resources. This pertains particularly to Graves 3, 4 and 5.

## **7. Recommended mitigation measures**

The following mitigation measures will reduce the impact of the proposed development on all heritage resources, including potential cumulative impacts, to low significance (Appendix C).

### **– Places, buildings, structures and equipment**

- A distance of 20 metres should be maintained between the edge of any construction activities and all structures. This distance should be demarcated with barrier netting and metal stanchions for the duration of construction or borrow pit activities.
- If construction activities are required closer to the structures, the minimum distance must be negotiated with the next-of-kin, with permanent fencing erected before the start of construction as described for graves, below.
- The developer must obtain a permit from SAHRA to undertake permanent fencing prior to the start of any construction activities.

### **– Graves and burial grounds**

- No human remains may be altered in any way without the permission of the next-of-kin and a permit from SAHRA.
- Graves 1, 2, 6, 7 and 10 require negotiated exhumation and reinterment according to the procedures detailed in Appendix A. A specialist heritage practitioner and/or Social Impact Assessor should be appointed by the developer to undertake and implement such negotiations prior to the start of any construction activities.
- A minimum distance of 20 metres should be maintained between the edge of any construction activities and all ancestral graves.
- Graves 3, 4, 5, 8 and 9 require fencing as described below, at the cost of the developer, prior to the start of any further construction activities.
  - a. Preferred fencing materials are metal corner and straining posts and fencing wire, to a minimum height of 1.2 metres.
  - b. The fence must be located at a minimum distance of 2 metres from the nearest grave and have an access gate.
  - c. No construction may occur within a minimum distance of 10 metres from the edge of the fence.
  - d. The developer must obtain a permit from SAHRA to undertake fencing prior to the start of any construction activities.
- All of these buffer distances are minimum requirements and next-of-kin should be consulted to ascertain whether greater distances are required.

## **8. Recommended monitoring**

A heritage practitioner should be appointed to ensure that all recommendations for mitigation are implemented prior to the start of any construction activities. This person will also be able to ensure appropriate fencing placements if the buffer distances recommended in Section 7 are unfeasible.

## **9. 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; and
- Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial).

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. The heritage practitioner should notify SAHRA (see below).
- If no heritage practitioner has been appointed to monitor the project, Dr Mariagrazia Galimberti at SAHRA's Cape Town head office should be contacted (telephone 021 462 4502).
- The South African Police Services should be notified by a SAHRA 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, taking into account all information gathered during this initial heritage impact assessment.

## **10. Summary of findings in terms of the National Heritage Resources Act 1999 Section 38(3)**

- The identification and mapping of all heritage resources in the area affected  
Two locales of structures and ten locales of ancestral graves.
  
- An assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations  
The structures have at least low significance at the local level due to their social value and their association with known ancestral graves.  
All human remains have high significance at all levels for their spiritual, social and cultural values.
  
- An assessment of the impact of development on such heritage resources  
Impacts on the structures and on two grave locales will be low, while impacts on seven grave locales will be high, assuming that construction activities proceed without mitigation.
  
- 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 development cannot be considered sustainable unless the proposed mitigation measures are implemented.
  
- The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources  
The client has undertaken such consultation in terms of statutory requirements and retains the relevant documentation.
  
- If heritage resources will be adversely affected by the proposed development, the consideration of alternatives  
See Section 7.
  
- Plans for mitigation of any adverse effects during and after completion of the proposed development  
A heritage practitioner should be appointed to ensure that all recommendations for mitigation are implemented prior to the start of any construction activities. This person will also be able to ensure appropriate fencing placements if the buffer distances recommended in Section 7 are unfeasible.

## 11. Conclusion

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to SAHRA in fulfilment of the requirements of the National Heritage Resources Act. According to Section 38(4) of the Act the report shall be considered timeously by the Council which shall, after consultation with the person proposing the development, decide –

- whether or not the development may proceed;
- any limitations or conditions are to be applied to the development;
- what general protections in terms of this Act 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.

Relevant staff members may be contacted at the SAHRA Cape Town head office (Dr Mariagrazia Galimberti telephone 021 462 4502; MGALIMBERTI@sahra.org.za).

If permission is granted for 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 9 of this report should any heritage resources, as defined in the Act, be discovered during the course of development activities.

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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 (NEMA) Act No 107 of 1998
  - a. Basic Environmental Assessment – Section (23)(2)(d)
  - b. Environmental Scoping Report – Section (29)(1)(d)
  - c. Environmental Impacts Assessment – Section (32)(2)(d)
  - d. Environmental Management Plan – Section (34)(b)
- KwaZulu-Natal Heritage Act No 4 of 2008
  - a. Protection of heritage resources – Chapters 8 and 9
  - b. Heritage Resources Management – Chapter 10
- National Heritage Resources Act (NHRA) Act No 25 of 1999
  - a. Definition and management of the national estate – Chapter I
  - b. Protection and management of heritage resources – Chapter II
  - c. Heritage Resources Management – Section 38
- Minerals and Petroleum Resources Development Act (MPRDA) Act No 28 of 2002
  - a. Section 39(3)
- Development Facilitation Act (DFA) Act No 67 of 1995.
  - a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995 Section 31.

#### KWAZULU-NATAL HERITAGE ACT NO 4 OF 2008

This Act is implemented by Amafa aKwaZulu-Natali / Heritage KwaZulu-Natal, a statutory organization 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 NO 25 OF 1999

##### Heritage Impact Assessments

Section 38(1) of the National Heritage Resources Act of 1999 requires 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 50 m in length;
- any development or other activity which will change the character of a site—
  - (i) exceeding 5 000 m<sup>2</sup> 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 10 000 m<sup>2</sup> in extent; or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

Reports in fulfilment of Section 38(3) of the Act 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.

### **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 No 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;
- sites of significance relating to the history of slavery in South Africa;
- movable objects, but excluding any object made by a living person;
- battlefields; and
- traditional building techniques.

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.

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.

**‘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.

**‘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 10 m 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, 1994 (Act No. 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.

## **MANAGEMENT OF GRAVES AND BURIAL GROUNDS**

### **– Definitions**

#### **Grave**

The National Heritage Resources Act No 25 of 1999 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 Eastern Cape Graves Exhumations Act No 4 of 2004 defines a grave as

(a) any place, whether wholly or partly above or below the level of the ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and

(b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure or whatsoever nature forming part of or appurtenant to a grave.

#### **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 Eastern Cape Graves Exhumations Act No 4 of 2004 defines a cemetery as any place any land, whether public or private, containing one or more graves.

## – 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
<b>Graves located within a formal cemetery administered by a local authority</b>	Eastern Cape Graves Exhumations Act No 4 of 2004	National and / or Provincial Departments of Health	If relocated to formal cemetery – relevant local authority.
	Human Tissues Act No 65 of 1983		
<b>Graves younger than 60 years located outside a formal cemetery administered by a local authority and the graves of victims of conflict</b>	Eastern Cape Graves Exhumations Act No 4 of 2004	South African Heritage Resources Agency (SAHRA), the national heritage management organisation	If relocated to private or communal property – SAHRA.
	Human Tissues Act No 65 of 1983		If relocated to formal cemetery – SAHRA and relevant local authority. If relocated to private or communal property – SAHRA.
<b>Graves older than 60 years located outside a formal cemetery administered by a local authority</b>	National Heritage Resources Act No 25 of 1999	South African Heritage Resources Agency (SAHRA), the national heritage management organisation	If relocated to formal cemetery – SAHRA and relevant local authority.
	Human Tissues Act of 1983		If relocated to formal cemetery – SAHRA 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 National Heritage Resources Act of 1999) is applicable to all graves located outside a formal cemetery administered by a local authority. The following extract from this legislation is applicable to this policy document:

SAHRA 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.

## APPENDIX B

### ARCHAEOLOGICAL AND HISTORICAL CONTEXT OF THE STUDY AREA

#### The Stone Age<sup>1</sup>

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.

##### o 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.

##### o 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. This technological stage, now known as the Middle Stone Age, is represented by numerous sites in South Africa.

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.

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<sup>1</sup> <http://www.britannica.com>; article authored by Colin J. Bundy, Julian R. D. Cobbing, Martin Hall and Leonard Monteath Thompson

- o 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 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<sup>2</sup>**

Archaeological evidence shows that Bantu-speaking agriculturists first settled in southern Africa around AD 300. Bantu-speakers originated in the vicinity of modern Cameroon from where they began to move eastwards and southwards, some time 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

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<sup>2</sup> Whitelaw (1997). See also Prins and Granger (1993), Whitelaw (1991, 2009).

direct evidence for these plants is lacking from the earlier periods. Faunal remains indicate that 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 bridewealth 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.

### **Colonial rule<sup>3</sup>**

By the closing decades of the 18th century, South Africa had fallen into two broad regions: west and east. Colonial settlement dominated the west, including the winter rainfall region around the Cape of Good Hope, the coastal hinterland northward toward the present-day border with Namibia, and the dry lands of the interior. Trekboers took increasingly more land from the Khoekhoe and from remnant hunter-gatherer communities, who were killed, were forced into marginal areas, or became labourers tied to the farms of their new overlords. Indigenous farmers controlled both the coastal and valley lowlands and the Highveld of the interior in the east, where summer rainfall and good grazing made mixed farming economies possible.

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<sup>3</sup> <http://www.britannica.com>; article authored by Colin J. Bundy, Julian R. D. Cobbing, Martin Hall and Leonard Monteath Thompson

A large group of British settlers arrived in the eastern Cape in 1820; this, together with a high European birth rate and wasteful land usage, produced an acute land shortage, which was alleviated only when the British acquired more land through massive military intervention against Africans on the eastern frontier. Until the 1840s the British vision of the colony did not include African citizens (referred to pejoratively by the British as "Kaffirs"), so, as Africans lost their land, they were expelled across the Great Fish River, the unilaterally proclaimed eastern border of the colony.

The first step in this process included attacks in 1811–12 by the British army on the Xhosa groups, the Gqunukhwebe and Ndlambe. An attack by the Rharhabe-Xhosa on Graham's Town in 1819 provided the pretext for the annexation of more African territory, to the Keiskamma River. Various Rharhabe-Xhosa groups were driven from their lands throughout the early 1830s. They counterattacked in December 1834, and Governor Benjamin D'Urban ordered a major invasion the following year, during which thousands of Rharhabe-Xhosa died. The British crossed the Great Kei River and ravaged territory of the Gcaleka-Xhosa as well; the Gcaleka chief, Hintsá, invited to hold discussions with British military officials, was held hostage and died trying to escape. The British colonial secretary, Lord Glenelg, who disapproved of D'Urban's policy, halted the seizure of all African land east of the Great Kei. D'Urban's initial attempt to rule conquered Africans with European magistrates and soldiers was overturned by Glenelg; instead, for a time, Africans east of the Keiskamma retained their autonomy and dealt with the colony through diplomatic agents.

However, after further fighting with the Rharhabe-Xhosa on the eastern frontier in 1846, Governor Colonel Harry Smith finally annexed, over the next two years, not only the region between the Great Fish and the Great Kei rivers (establishing British Kaffraria) but also a large area between the Orange and Vaal rivers, thus establishing the Orange River Sovereignty. These moves provoked further warfare in 1851–53 with the Xhosa (joined once more by many Khoé), with a few British politicians ineffectively trying to influence events.

Between 1811 and 1858 colonial aggression deprived Africans of most of their land between the Sundays and Great Kei rivers and produced poverty and despair. From the mid-1850s British magistrates held political power in British Kaffraria, destroying the power of the Xhosa chiefs. Following a severe lung sickness epidemic among their cattle in 1854–56, the Xhosa killed many of their remaining cattle and in 1857–58 grew few crops in response to a millenarian prophecy that this would cause their ancestors to rise from the dead and destroy the whites. Many thousands of Xhosa starved to death, and large numbers of survivors were driven into the Cape Colony to work. British Kaffraria fused with the Cape Colony in 1865, and thousands of Africans newly defined as Fingo resettled east of the Great Kei, thereby creating Fingoland. The Transkei, as this region came to be known, consisted of the hilly country between the Cape and Natal. It became a large African reserve and grew in size when those parts that were still independent were annexed in the 1880s and '90s (Pondoland lost its independence in 1894).

Under apartheid blacks were treated like "tribal" people and were required to live on reserves under hereditary chiefs except when they worked temporarily in white towns or on white farms. The government began to consolidate the scattered reserves into 8 (eventually 10) distinct territories, designating each of them as the "homeland," or Bantustan, of a specific black ethnic community. The government manipulated homeland politics so that compliant chiefs controlled the administrations of most of those territories. Arguing that Bantustans

matched the decolonization process then taking place in tropical Africa, the government devolved powers onto those administrations and eventually encouraged them to become "independent." Between 1976 and 1981 four accepted independence—Transkei, Bophuthatswana, Venda, and Ciskei—though none was ever recognized by a foreign government. Like the other homelands, however, they were economic backwaters, dependent on subsidies from Pretoria.

Conditions in the homelands continued to deteriorate, partly because they had to accommodate vast numbers of people with minimal resources. Many people found their way to the towns; but the government, attempting to reverse this flood, strengthened the pass laws by making it illegal for blacks to be in a town for more than 72 hours at a time without a job in a white home or business. A particularly brutal series of forced removals were conducted from the 1960s to the early '80s, in which more than 3.5 million blacks were taken from towns and white rural areas (including lands they had occupied for generations) and dumped into the reserves, sometimes in the middle of winter and without any facilities.

## APPENDIX C

### METHODOLOGY

#### Site survey

eThembeni staff members inspected the area on 21 February 2011. We 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 a non-systematic or random walk around known ancestral graves and the proposed borrow pit area. Photographs were taken with a Nikon Coolpix camera and a representative selection is included in Appendix D. Geographic coordinates were obtained using a handheld Garmin global positioning unit.

#### Database and literature review

A concise account of the pre and postcolonial history of the broader study area was compiled from sources including those listed in the bibliography. The current socio-economic context is based on field observations and experience.

#### Assessment of heritage resource value and significance

Heritage resources are significant only to the extent that they have public value, as implicitly demonstrated by the following guidelines for determining site significance developed by the South African Heritage Resources Agency and utilised during this assessment.

##### Type of Significance

1. Historical Value: It is important in the community, or pattern of history
  - Importance in the evolution of cultural landscapes and settlement patterns.
  - Importance in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, Province, region or locality.
  - Importance for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, Province, region or community.
  - Importance as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period
  - It has strong or special association with the life or work of a person, group or organisation of importance in history
  - Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, Province, region or community.
  - Importance for a direct link to the history of slavery in South Africa.

2. Aesthetic Value: It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group

- Importance to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

3. Scientific Value: It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.
- It is important in demonstrating a high degree of creative or technical achievement at a particular period.
- Importance for its technical innovation or achievement.

4. Social Value: It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

#### Degrees of Significance

Rarity: It possesses uncommon, rare or endangered aspects of natural or cultural heritage

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

Representivity: It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects

- Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.
- Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, Province, region or locality.

Sphere of Significance: High, Medium, Low

- International; National; Provincial; Regional; Local

## Assessment of 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 heritage impact assessment

- The description of the proposed project, provided by the client, is assumed to be accurate.
- The public consultation process undertaken as part of the Environmental Impact Assessment is sufficient and adequate and does not require repetition as part of the heritage impact assessment.
- Soil surface visibility was moderate to low. Heritage resources might be present below the surface or in areas of dense vegetation and we remind the client that the Act requires that a developer cease all work immediately and notify SAHRA should 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 SAHRA is required to disturb a heritage resource.
- eThembeni is not able to provide a specialist palaeontological assessment for this project and informed the client as much at the time of quotation.
- 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 E); and comply at all times with the Codes of Ethics and Conduct of the Association of Southern African Professional Archaeologists.

- eThembeni staff members take no personal or professional responsibility for the misuse of the information contained in this report but will take all reasonable precautions to prevent such misuse.

## APPENDIX D

### PHOTOGRAPHS



**Plate 1.** Livestock byre at location A.



**Plate 2.** Ancestral grave location 5.

**APPENDIX E****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 to undertake heritage impact assessments 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 20 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 cultural heritage authority, to start eThembeni. During the past ten years he has directed more than 800 heritage impact assessments throughout South Africa, as well as in Mozambique.

Beth Wahl has a BA Honours African Studies (first class) with archaeology and sociology majors at the University of Cape Town, and has completed various Masters courses in Heritage and Tourism at the University of KwaZulu-Natal. She is currently studying for an MPhil in the Conservation of the Built Environment at UCT. She is a member of the Association of Southern African Professional Archaeologists (ASAPA).

Ms Wahl has undertaken more than 800 heritage impact assessments and monitoring projects throughout South Africa. She was an excavator and logistical coordinator for Glasgow University Archaeological Research Division's heritage programme at Isandlwana Battlefield; has undertaken numerous rock painting surveys in the uKhahlamba / Drakensberg Mountains, northern KwaZulu-Natal, the Cederberg and the Koue Bokkeveld in the Cape Province; and was the principal excavator of Scorpion Shelter in the Cape Province, and Lenjane and Crystal Shelters in KwaZulu-Natal.

Ms Wahl compiled the first cultural landscape management plan for the Mnweni Valley, northern uKhahlamba / Drakensberg, and undertook an assessment of and made recommendations for cultural heritage databases and organisational capacity in parts of Lesotho and South Africa for the Global Environment Facility of the World Bank for the Maloti Drakensberg Transfrontier Conservation and Development Area. She developed the first cultural heritage management plan for the uKhahlamba Drakensberg Park World Heritage Site, following UNESCO recommendations for rock art management in southern Africa.

## **Declaration of independence**

We declare that Len van Schalkwyk, Beth Wahl and eThembeni Cultural Heritage have no financial or personal interest in the proposed development, nor its developers or any of its subsidiaries, apart from in the provision of heritage impact assessment and management consulting services.