

HERITAGE IMPACT ASSESSMENT OF
BORROW PITS IN ALFRED NZO DISTRICT MUNICIPALITY,
EASTERN CAPE PROVINCE, SOUTH AFRICA

Prepared for

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Management summary

eThembeni Cultural Heritage was appointed by Terratest (Pty) Ltd to undertake a heritage impact assessment of various borrow pits in the Eastern Cape Province, in terms of the National Environmental Management Act 107 of 1998 as amended, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999. eThembeni staff members inspected the area from 23 to 26 May 2011 and completed controlled-exclusive surface surveys.

Description of heritage resources and significance assessment

– Landscapes and natural features

Borrow pit DR8646/BP03 is located within a few hundred metres of the formally proclaimed and protected landscape of Ongeluksnek Nature Reserve. The borrow pit is clearly visible from the reserve entrance and from certain accommodation facilities. The reserve has high heritage significance at local, regional and provincial levels for its aesthetic, scientific and social (including economic) values.

– Graves and burial grounds

Ancestral graves occur immediately adjacent to the following borrow pits:

- | | |
|-------------|--|
| DR8015/BP05 | A group of more than 16 stone-packed graves and one grave with a granite headstone is located within 30 metres of the existing southern borrow pit face. |
| DR8015/BP06 | Various family graves are located within a fenced homestead precinct within 5 metres of the existing southern/south-western borrow pit face. |
| DR8015/BP18 | At least three stone-packed graves are located across the road from and directly opposite the borrow pit. |

All human remains have high heritage significance at all levels for their spiritual, social and cultural values.

Assessment of impacts

– Landscapes and natural features

The impact of the exploitation of DR8646/BP03 on the protected landscape of Ongeluksnek Nature Reserve can be considered of medium consequence and high probability, with MEDIUM significance overall.

– Graves and burial grounds

None of the graves near DR8015/BP05 and DR8015/BP06 will be affected directly by borrow pit extensions or rehabilitation. Accordingly, the impact on these graves is LOW. However, it is very likely that the graves near DR8015/BP018 will be altered or destroyed inadvertently by construction activities, since they are not easily noticeable and no next-of-kin reside nearby. Accordingly, the impact on these graves could be HIGH.

Recommended mitigation measures

– Landscapes and natural features

Borrow pit DR8646/BP03 should be decommissioned permanently and rehabilitated as soon as possible according to approved environmental standards.

– Graves and burial grounds

DR8015/BP05 The existing borrow pit face may extend no further southwards in the direction of the homestead and graves.

DR8015/BP06 The existing borrow pit face adjacent to the homestead may not be extended further and must be stabilized urgently to prevent further erosion and undermining of the graves located within the homestead precinct.

DR8015/BP18 The area between the coordinates
S30 30 58.3; E28 40 35.3
S30 30 57.4; E28 40 35.4
S30 30 57.1; E28 40 35.1
S30 30 58.1; E28 40 34.8

should be fenced permanently in the following manner:

- Preferred fencing materials are metal corner and straining posts and fencing wire, to a minimum height of 1.2 metres.
- The fence must have an access gate.
- No construction may occur within a minimum distance of 10-15 metres from the edge of the fence.
- The developer must obtain a permit from SAHRA to undertake fencing prior to the start of any construction activities. The permit application should include clear photographs of the grave location relative to the proposed development, as well as a letter from the next-of-kin endorsing the fencing.
- The developer must submit a report to SAHRA upon the completion of the fencing, including clear descriptions and photographs of the work undertaken.
- If these management measures are not attainable due to development constraints or due to dissatisfaction on the part of the next-of-kin, a SAHRA staff member or appropriately qualified heritage practitioner should be appointed to negotiate alternatives.

Recommended monitoring

A SAHRA staff member or appropriately qualified heritage practitioner should be appointed to ensure that all mitigation measures are implemented appropriately.

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. Relevant staff members may be contacted at the SAHRA Cape Town head office (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 follow the protocol contained 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 Terratest (Pty) Ltd to undertake a heritage impact assessment of various borrow pits in the Eastern Cape Province, in terms of the National Environmental Management Act 107 of 1998 as amended, in compliance with Section 38 of the National Heritage Resources Act 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 Eastern Cape Department of Roads and Public Works wishes to assess and utilise and/or rehabilitate various existing borrow pits in the Alfred Nzo District Municipality in the vicinity of the towns of Matatiele, Mt Ayliff and Mt Fletcher.

4. Receiving environment

4.1 Project location

The borrow pit locations are summarized in Table 1. Available maps are too large to reproduce in this report and SAHRA is referred to the digitized information submitted by the client.

Table 1 Locations of borrow pits in Alfred Nzo Municipality, Eastern Cape Province.

Road No	BP No	Coordinates	
D611/D629	BP01A	S30° 26' 53.0" E29° 10' 43.5"	
	BP01B	S30° 26' 56.3" E29° 10' 47.3"	
	BP03	S30° 30' 10.6" E29° 10' 39.0"	
D660	BP01	S30° 23' 38.3" E29° 07' 27.6"	
	BP02	S30° 23' 26.4" E29° 07' 31.2"	
	BP03	S30° 18' 32.5" E29° 10' 30.9"	
D639	BP03	S30° 23' 37.4" E28° 52' 19.6"	
DR08015	BP01	S30° 53' 43.1" E28° 59' 00.5"	
	BP03	S30° 44' 31.9" E28° 51' 09.4"	
	BP04	S30° 43' 49.5" E28° 51' 12.0"	
	BP05	S30° 42' 34.3" E28° 51' 11.3"	
	BP06	S30° 42' 04.1" E28° 51' 47.1"	
	BP07	S30° 41' 00.4" E28° 51' 59.8"	
	BP08	S30° 40' 50.4" E28° 51' 41.6"	
	BP09	S30° 38' 36.0" E28° 51' 19.4"	
	BP10	S30° 31' 51.1" E30° 50' 18.8"	
	BP11	S30° 36' 59.0" E28° 48' 56.9"	
	BP13	S30° 34' 07.1" E28° 44' 27.6"	
	BP14	S30° 34' 07.1" E28° 44' 27.6"	
	BP15	S30° 33' 29.9" E28° 43' 37.1"	
	BP16	S30° 33' 08.3" E28° 42' 51.8"	
	BP17	S30° 32' 12.2" E28° 42' 23.4"	
	BP18	S30° 30' 58.7" E28° 40' 35.5"	
	DR08016	BP01	S30° 39' 41.1" E28° 53' 38.9"
		BP03A	S30° 39' 10.8" E28° 54' 23.2"
BP03B		S30° 39' 10.2" E28° 54' 26.7"	
BP04		S30° 36' 52.9" E28° 55' 22.3"	
BP05		S30° 35' 25.1" E28° 53' 45.2"	
BP06		S30° 34' 31.2" E28° 52' 27.8"	
DR08017	BP02	S30° 47' 58.4" E28° 58' 58.9"	
	BP03	S30° 42' 06.8" E29° 02' 23.7"	
	BP04	S30° 38' 56.1" E29° 02' 23.0"	
	BP05	S30° 38' 03.2" E29° 03' 10.4"	
	BP06	S30° 32' 40.8" E29° 04' 16.9"	
	BP07	S30° 32' 00.3" E29° 04' 02.4"	
DR08077	BP01	S30° 23' 51.0" E28° 30' 55.9"	
	BP02	S30° 24' 50.1" E28° 35' 58.6"	
	BP03	S30° 25' 10.2" E28° 35' 41.6"	
DR08079	BP01	S30° 40' 19.2" E28° 46' 08.8"	

DR08084	BP01	S30° 37' 10.6" E28° 33' 24.2"
	BP02	S30° 39' 19.5" E28° 37' 52.6"
DR08086	BP01A	S30 °49' 39.7" E28 °51' 22.9"
	BP01B	S30 °49' 39.5" E28 °51' 19.6"
	BP02	S30 °50' 19.4" E28 °46' 58.8"
DR08094	BP01	S30° 49' 46.4" E29° 07' 35.7"
	BP03	S30° 48' 08.4" E29° 05' 52.3"
	BP04	S30° 48' 01.7" E29° 05' 06.4"
DR08102	BP01	S30° 48' 10.5" E29° 22' 40.1"
	BP02	S30° 48' 14.8" E29° 23' 09.4"
DR08125	BP01	S30° 59' 23.5" E28° 59' 02.1"
	BP02	S31° 00' 04.8" E28° 59' 28.6"
DR08129	BP01	S30° 55' 18.6" E28° 59' 46.0"
	BP02	S30° 55' 26.3" E29° 00' 48.8"
	BP03	S30° 55' 43.1" E29° 01' 15.9"
	BP04	S31° 00' 16.0" E29° 00' 48.6"
DR08412	BP01	S30° 52' 15.3" E28° 51' 04.3"
DR08415	BP01	S30° 22' 18.3" E28° 30' 31.4"
	BP02	S30° 21' 14.8" E28° 24' 54.3"
DR08646	BP01	S30° 18' 19.1" E28° 38' 23.2"
	BP02	S30° 17' 46.6" E28° 36' 01.7"
	BP03	S30° 19' 37.6" E28° 22' 15.5"
P604	BP01	S30° 20' 09.5" E28° 53' 11.9"
	BP03	S30° 18' 26.9" E28° 57' 43.5"
	BP04	S30° 16' 36.2" E29° 00' 21.0"
	BP05	S30° 16' 23.7" E29° 00' 06.2"
	BP06	S30° 15' 56.7" E29° 00' 30.7"
	BP07	S30° 15' 13.2" E29° 00' 52.4"
	BP08	S30° 15' 16.8" E29° 01' 03.7"

4.2 Environmental description

Most of the areas in which the borrow pits occur comprise communally owned land with human settlement in small villages surrounded by extensive rangelands. Services are basic and roads are generally poorly maintained gravel surfaces. Around the towns of Matatiele and Cedarville land use comprises extensive commercial agriculture.

5. Cultural context of the study area

Appendix B summarises the archaeological and historical context of the study area 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 listed in the following table. The client is advised that subsurface remains of heritage resources might be uncovered during the construction phase of the proposed project, and is referred to the protocol contained in Section 9 below.

Table 2 Typical heritage resources and mitigation measures associated with the project area.

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.

6. Observations

Various borrow pits are being utilised at present. The following table summarises the heritage resources assessed, and our observations.

Table 3 Heritage resources and observations: Alfred Nzo Municipality borrow pits, Eastern Cape Province.

Heritage resource type	Observation
Living heritage	Much of the project area is one of living heritage, but no specific places associated with living heritage were identified.
Ecofacts	None were identified within the proposed development area.
Places, buildings, structures and equipment	None were identified within the proposed development area.
Places to which oral traditions are attached or which are associated with living heritage	The entire proposed area is one of living heritage, but no specific places associated with living heritage were identified.
Historical settlements and townscapes	None were identified within the proposed development area.
Landscapes and natural features	See below.
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.
Public monuments and memorials	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.

6.1 Description and significance assessment

– Landscapes and natural features

Borrow pit DR8646/BP03 is located within a few hundred metres of the formally proclaimed and protected landscape of Ongeluksnek Nature Reserve. It is clearly visible from the reserve entrance and from certain accommodation facilities. The degree of government investment in this protected area and the nature of such investment (see Appendix C) suggests that Ongeluksnek Nature Reserve has high heritage significance at local, regional and provincial levels for its aesthetic, scientific and social (including economic) values.

– Graves and burial grounds

Ancestral graves occur immediately adjacent to the following borrow pits:

DR8015/BP05 A group of more than 16 stone-packed graves and one grave with a granite headstone is located within 30 metres of the existing southern borrow pit face, at S30 42 36.0; E28 51 08.5. An occupied homestead is nearby but the graves are not enclosed within the homestead precinct. No-one was home at the time of our visit therefore the family names and ages of most of the burials are unknown. The headstone is inscribed:

MGWATYU
In loving memory of
Our father and grandfather
MZOMKHULU
SKEYI
*26-01-1926
†21-01-2000
PHUMLA NGOXOLO
TSHEZI

DR8015/BP06 Various family graves are located within a fenced homestead precinct within 5 metres of the existing southern/south-western borrow pit face.

DR8015/BP18 At least three stone-packed graves are located across the road from and directly opposite the borrow pit, within the coordinates given in Section 7 below. The closest grave is situated 7 metres from the road edge. No homesteads are located nearby.

All human remains have high heritage significance at all levels for their spiritual, social and cultural values.

6.2 Assessment of impacts

– Landscapes and natural features

The impact of the exploitation of DR8646/BP03 on the protected landscape of Ongeluksnek Nature Reserve would be:

- Of a negative nature (the visual intrusion of a quarry in an otherwise tranquil, rural landscape, with concomitant dust, noise and increased traffic in the form of heavy plant and trucks);
- Local in extent (limited to the site and its immediate surroundings, including the surrounding towns and settlements within a 10 km radius);
- Of low duration (presumably exploitation for current road upgrades may be expected to cease after four years); and
- Of medium intensity, measurably reducing its significance and economic value (associated with tourism) in the short to medium term such that considerable marketing efforts will be required to re-establish its desirability as a tourist destination.

These impacts can therefore be considered of medium consequence and high probability, with MEDIUM significance overall.

– Graves and burial grounds

None of the graves near DR8015/BP05 and DR8015/BP06 will be affected directly by borrow pit extensions or rehabilitation. Accordingly, the impact on these graves is LOW.

However, it is very likely that the graves near DR8015/BP018 will be altered or destroyed inadvertently by construction activities, since they are not easily noticeable and no next-of-kin reside nearby. Accordingly, the impact on these graves could be HIGH.

7. Recommended mitigation measures

The purpose of mitigation measures is to reduce impacts on heritage resources to such an extent that their significance is retained at acceptable levels to the communities' concerned. All mitigation measures are for the cost of the developer in terms of extant heritage legislation.

– Landscapes and natural features

Borrow pit DR8646/BP03 should be decommissioned permanently and rehabilitated as soon as possible according to approved environmental standards.

– Graves and burial grounds

DR8015/BP05	The existing borrow pit face may extend no further southwards in the direction of the homestead and graves.
DR8015/BP06	The existing borrow pit face adjacent to the homestead may not be extended further and must be stabilized urgently to prevent further erosion and undermining of the graves located within the homestead precinct.
DR8015/BP18	The area between the coordinates S30 30 58.3; E28 40 35.3 S30 30 57.4; E28 40 35.4 S30 30 57.1; E28 40 35.1 S30 30 58.1; E28 40 34.8 should be fenced permanently in the following manner:

- Preferred fencing materials are metal corner and straining posts and fencing wire, to a minimum height of 1.2 metres.
- The fence must have an access gate.
- No construction may occur within a minimum distance of 10-15 metres from the edge of the fence.
- The developer must obtain a permit from SAHRA to undertake fencing prior to the start of any construction activities. The permit application should include clear photographs of the grave location relative to the proposed development, as well as a letter from the next-of-kin endorsing the fencing.
- The developer must submit a report to SAHRA upon the completion of the fencing, including clear descriptions and photographs of the work undertaken.
- If these management measures are not attainable due to development constraints or due to dissatisfaction on the part of the next-of-kin, a SAHRA staff member or appropriately qualified heritage practitioner should be appointed to negotiate alternatives.

8. Recommended monitoring

A SAHRA staff member or appropriately qualified heritage practitioner should be appointed to ensure that all mitigation measures are implemented appropriately.

9. Protocol for the identification, protection and recovery of heritage resources during construction and operation

It is possible that sub-surface heritage resources will be encountered during the construction phase of this project. The Project Engineer, 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); 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, 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
See Section 6.1.
- An assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations
See Section 6.1.
- An assessment of the impact of development on such heritage resources
See Section 6.2.
- 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 proposed development cannot be considered sustainable unless the mitigation measures proposed in Section 7 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
See Section 8.

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 (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 follow the protocol contained in Section 9 of this report should any heritage resources, as defined in the Act, be discovered during the course of development activities.

12. Bibliography

Appendix B

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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) 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 4 of 2008
 - a. Protection of heritage resources – Chapters 8 and 9
 - b. Heritage Resources Management – Chapter 10
- National Heritage Resources Act (NHRA) Act 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 28 of 2002
 - a. Section 39(3)
- Development Facilitation Act (DFA) Act 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 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 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 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 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;
- 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;
- 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.

‘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.

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' means all monuments and memorials—

- erected on land belonging to any branch of central, provincial or local government, or on land belonging to any organisation 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 organisation, 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

- **Graves younger than 60 years** are protected in terms of Section 2(1) of the Removal of Graves and Dead Bodies Ordinance 7 of 1925 as well as the Human Tissues Act 65 of 1983. Such graves are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial Member of the Executive Council for Local Government and Planning, or in some cases the MEC for Housing and Welfare.

Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of the Human Tissues Act 65 of 1983.

- **Graves older than 60 years situated outside a formal cemetery administered by a local authority** are protected in terms of Section 36 of the National Heritage Resources Act 25 of 1999 as well as the Human Tissues Act of 1983. Accordingly, such graves are the jurisdiction of SAHRA. The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of NHRA) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

The **protocol for the management of graves older than 60 years situated outside a formal cemetery administered by a local authority** is detailed in Section 36 of the NHRA:

(3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3)(b) 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.

(6) Subject to the provision of any other law, 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 Service 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 Age¹

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.

¹ <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 Age²

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

² 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 rule³

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.

³ <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 Khoe), 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 D**ONGELUKSNEK NATURE RESERVE, EASTERN CAPE PROVINCE**

**ONGELUKSNEK NATURE RESERVE
GENERAL TOURISM PRODUCT INFORMATION⁴
www.ongeluksnek.com**

The 13 000 ha reserve is located in the steep mountain grassland of the southern Drakensberg, on the Lesotho border. It was proclaimed as a protected area in 1976, and forms an important part of the upper catchment of the Kinira River, which feeds the greater Umzimvubu basin. The reserve is drained by the perennial Lebelles and Jordan Rivers. Rainfall is in the region of 750mm per annum, and the area has verdant green summers and snowy winters.

TOPOGRAPHY & CLIMATE

The area lies in rugged mountainous terrain, dropping-off steeply from the Maluti/Drakensberg Escarpment. It is mainly underlain by basaltic lavas of the Drakensberg Group of the Karoo Super group. In the eastern lowlands around 1600m, fingers of fine grained sandstones of the Clarens Formation are exposed, along with Quaternary alluvium, Molteno sandstones and mudstones, with Elliot mudstones extending westwards in to the basalt. (Lechmere-Oertel, 2006).

The steep gradients and shallow soils of the Drakensberg result in almost half of the rainfall leaving the area as run-off (MDTP, 2008). If the soils are bound by intact indigenous vegetation, the surface flow is rapidly absorbed, and controlled gradual water yield will be released throughout the year. Under these ideal conditions, high quality sediment-free water will reach streams. This situation is demonstrated by the presence of alpine wetlands in the upper reaches of the reserve, and the high water quality captured in the Lebelles stream weir which supplies the Thaba Chicha bulk regional water supply to villages adjacent to the reserve. Average minimum temperatures in summer range between 6 and 12°C. Daytime summer temperatures range between 20 and 28°C. Winters are cold with night temperatures frequently dropping below 0°C and a high frequency of frost nights, with occasional snow and ice creating a challenging climatic environment. Maximum winter temperature rarely goes above 18°C. Annual rainfall is in the region of 750mm, occurring mainly in the summer months, with February rainfall levels reaching 125 mm. Some parts of the escarpment have recorded 1800mm per annum (MDTP, 2006), resulting in extreme run-off events. This indicates high run-off capacity during concentrated periods, resulting in increased erosion and topsoil loss where groundcover is insufficient. Precipitation also occurs in the form of mist and snow.

VEGETATION & FAUNA

The topography reflects the area's position on the escarpment with Lesotho, and is mainly covered by grassland defined in Camp's newer veld classification as *Drakensberg foothills moist sourveld*. The Nature Reserve is mainly composed of impressive rolling valleys and spurs running up to the escarpment. The road corridor climbs from East Griqualand grassland (vegetation type Gs12) dominated by tropical and temperate bunch grasses such as *Themeda*, which have been degraded through livestock pressure to become dominated by wire grasses and scattered Karroid shrubs (MDTP, 2008). At higher altitudes, the grasslands shift to become more alpine in nature, underlain by basalts with less grass cover and greater percentage of shrubby fynbos and karroid species, which have been allowed to increase through decreased grass competition from overgrazing. This has reduced soil cover and allowed an increase in erodibility, resulting in increased run-off and erosivity of rainfall.

A good representation of grassland flowering species occurs in the area, and was documented by studies undertaken by the Maloti Drakensberg Transfrontier project (MDTP) in the early 2000s. Biodiversity is however threatened by the annual veld fires which sweep through the area, despite attempts by the Reserve to establish fire breaks and control wildfires.

⁴ <http://www.dedea.gov.za/Media%20Releases/Ongeluksnek%20Nature%20Reserve%20Fast%20Facts.pdf>

The Reserve has a range of raptors and large birds, including the Bearded and Cape Vulture. There is no available bird list for the reserve, but the area provides a habitat for a combination of grassland and alpine species, including Orange throated longclaw, pipits, larks, chats, etc. These seed and insect eaters assist with pollination.

The Reserve has never been stocked with wildlife, but has provided a fairly safe habitat for existing species in the upper catchment, although poaching has been problematic. There is a limited representation of wildlife, however some successful breeding populations include Mountain Reedbuck, Grey Rhebok, duiker, hyrax/dassie, jackals, caracal / rooikat, water and grey mongoose, hares, porcupines, aardvark and baboons have left evidence of their activities. Some good birding opportunities exist – see activities section below.

ACCESS

3 hours from Durban via N2 and R56 to Matatiele. The R56 leading west from Matatiele towards ONR is 12km tar (R56) plus 38km of challenging gravel (DR08646, with signboard to reserve), with fantastic views of the southern berg. Approx 1 hr (Matatiele is the closest town). Road from the Eastern Cape (western) side is via Maclear and Mt Fletcher along the R56, with no signboard for reserve at the gravel road turn-off marked "Farview/Xaxazana". Approx 1hr along gravel to reserve through scenic villages. Approx 5-6 hours from East London. Very scenic drive.

The reserve is bisected by the DR08646, a public gravel road, which leads up the impressive Ongeluksnek Pass between SA and Lesotho. An SA border post is located at the base of the pass (08h00 to 16h00).

The pass has a 1000m rise (equivalent to Table Mountain), and was first driven in an old Land Rover by Matatiele resident Lionel Whittle, via the stock trails in the early 1950s. A simple hand built road was developed as a trading route between Matatiele and Mt Moorosi in the late 1960s by a local trader. The old trading store ruins can still be seen alongside the road half way up the pass on the western side. The road was properly shaped and built in 1991 by the then Transkei Roads Department, and was under renovation in February 2009. The route leads through to Mphaki in southern Lesotho, via the spectacular Lake Letsie wetland area, which is a declared RAMSAR site.

ACCOMMODATION: GATEWAY LODGE

The sandstone lodge is an old renovated farmhouse, built in the early 1900s, located at the entrance to the reserve. It has 3 rooms, with two doubles, 6 singles, 2 sleeper couches, and can sleep a total of 12. It has solar lighting and plugs, plus gas fridge, stove and geyser. The kitchen is fitted for self-catering guests, and a cook can also be arranged.

The large covered porch with a great view of the mountains is an ideal spot to unwind.

Chopped firewood is supplied for the outside braai area, as well as the lounge's open fireplace.

Also has a conference/dining room for mini meetings of up to 20 people, which can be catered for.

Please note septic tank cannot take any foreign matter, so please respect this.

Gas appliances should be used with care, especially the stove.

Solar lighting and plugs – please follow directions on wall-mounted instructions in kitchen and lounge to prolong the life of the system.

Local village shops have basic supplies if required. Catering can be arranged.

BUSHCAMP

The **Tweespruit bushcamp** has 4 shady well grassed campsites located along the Jordan river. Has a covered open plan boma with potable running water, sink, tables, stone benches, overlooking campsite with great view of the mountains. Has gents and ladies ablutions with flush water and hot showers, with a bath for children. Hot water supplied by donkey boiler

The camp is a good base for hiking or mountain biking up into the catchment where high altitude wetlands are found, and for visiting the interesting and ancient volcanic basalt rock formations.

Has 4x4 or hiking, mountain bike or horseback access (from the main gateway lodge where vehicles can be safely left), with 4 vehicle sites next to the Jordan river, and a capacity of 24 (4 parties) people using own tents.

ACTIVITIES

From the lodge or bushcamp, visitors can explore the beautiful sandstone **Mariazell Mission**, built in 1904, either on a day walk or vehicle accessible, with its self-sufficient hydro electrical

system, high school (which Patrick Mosiua Lekota attended) and farm. Guided tours could be arranged via the reserve staff.

Hiking - lots, for beginners to experienced, guided or self-exploratory with a map. Great swimming pools in Jordan river, at waterfall near reserve HQ (short walk from lodge west along road towards pass), old grave sites, ruins, rock art, etc can be visited. Grassland has wonderful flowers in summer. Some indigenous forests in gorges north of HQ, and Lot's Wife pillar (basalt formation) accessed from bushcamp in the Jordan valley. Drive around to Tweespruit bushcamp site, leave a vehicle and hike along old track leading west towards picnic site at Charles Mills – old homestead ruins and fruit trees, graves sites, swimming upstream of site, etc.

Horse riding - horse can be hired, with a guide, from the local Mabenyeng Horse Association. Arrange via reserve manager. Visitors pay horse owners directly in cash.

Rock paintings - guided walks or on horse back.

Mountain biking - the surrounding villages have a myriad of footpaths which make for excellent single track riding. The reserve has good riding up the pass, with some loops and links for the adventurous and technically skilled rider, allowing exploration of the little known southern berg/Lesotho border area, such as Nene's pass.

Mehlodging Hiking Trail - based from a community-operated chalet adjacent to the reserve just beyond the mission. Can do day walks or a 4 day uni-directional trail leading east. Also provide traditional and conventional catering by prior arrangement.

4x4 trails up Ongeluksnek pass or along northern bushcamp track along Jordan river to picnic sites. Can drive through border up into Lesotho to the spectacular Lake Letsie wetland area (24km from lodge).

Birding - The reserve and Matatiele access route along the valley have great birdwatching (Blue and Crowned cranes, Southern ground hornbills, Denham's bustard, Cape vulture, Lammergeier, secretary birds - all of which are endangered) plus Lanner Falcons, Marsh Owls etc. Sighting of a European Roller as well - very rare here!

A trained THETA accredited local guide can also be arranged (via reserve manager), who is very knowledgeable of the area, has a driver's license, and is a birding enthusiast. R100 for half day, R200 for full day, payable directly to the guide.

Five trainee guides are also being supported to gain experience.

LESOTHO / TRANSFRONTIER ACCESS

The pass up into Lesotho has been upgraded (leads from lodge through reserve for 16km up to physical border), and is accessible by vehicles with clearance (4x4 pref but only necessary in wet weather).

Need a passport to go through SA border at base of pass. Lesotho border post still being renovated.

The road leads into Lesotho, through to Mphaki village (fuel, food, rustic lodging) or to Mt Moorosi (fuel, food, lodging, basic shops, historical sites, community chalets).

The A1, main road through Lesotho which passes through Mphaki and Mt Moorosi, is tarred, and leads on towards Maseru in a north westerly direction. The roads to these towns are very scenic, through rural landscape.

Could also make a circular route, via Qachas Nek pass to the east or Rhodes area to west. Check out the Maloti Route www.malotiroute.co.za on the web for more transfrontier travel planning info.

Please notify the reserve manager, duty staff or gate keeper regarding any problems or queries.

Please feel welcome to provide any feedback or comments in the visitors book and attached comment sheets, so that we can improve our service and your experience.

We trust you will enjoy your stay.

Reserve manager contact: Mr Harold Mdhuli 039 256 4888 / 082 345 3709

EC Parks Central Reservations: 043 701 9600 Friends of Ongeluksnek: Nicky McLeod 082 782 6067

DEDEA spends R2, 25M in Ongeluksnek Nature Reserve⁵

9/29/2010

DEDEA Media Release

The Department of Economic Development and Environmental Affairs (DEDEA) has been spent about R2, 25 million to renovate the Ongeluksnek Nature Reserve at Matatiele in Alfred Nzo District Municipality (ADM).

The success of this nature reserve, which is a catalyst for economic development, poverty alleviation and employment creation in the region, has been realised through involvement of the community in the management of parks. The community has been instrumental in the functionality of the reserve through providing horses for guiding, fresh produce supply, and infrastructure and trail maintenance.

The MEC for Finance, Economic Development and Environmental Affairs Mr Mcebisi Jonas visited the Ongeluksnek community as part of the Eastern Cape Executive Council Outreach Programme in the ADM. Addressing the community, MEC Jonas commended the way the community has been proactive in preserving the nature reserve through working with the department.

"The project is very exciting as it brings new perspective whilst setting an encouraging precedence in the overall environmental management of the parks. In most instances the functionality of the nature reserve relies heavily on the external parties rather than the community itself. So we are encouraged by these new and positive developments. This work vindicates the view we have had that key to bringing solutions to the problems facing the parks and the surrounding communities is in the integration of communities in the activities of the nature reserves. Linked to this is the need of identifying other areas of involvement other than the all important economic development, these include areas like the existing culture of surrounding villages, the indigenous knowledge which will contribute in improving lives overall beneficitation by the communities", says Jonas.

Among the key deliverables of the project include the:

- Fencing of 4km to enclose the reserve entrance;
- Renovation of unused sandstone homestead ruins, to provide offices, ablutions, parking, water supply, gatehouse and a controlled entrance to the protected area via a stock grid;
- Renovation of a 3 bedroom self catering guest lodge, with solar lighting, gas supply for geyser and kitchen (fridge and stove), bedding, fully equipped kitchen, fireplace and veranda;
- Construction of a bushcamp in the Jordan valley with covered boma, water supply, comfortable ablutions, hot showers and shaded campsites;
- New reserve entrance gate above Motseng village, providing access to the northern portion of the reserve and controlled access to the bushcamp;
- Trail development, mapping and clearing of over 8km, with signage and markers;
- A website and marketing collateral for marketing;
- Training of over 100 workers and local people in basic Occupational Health and Safety, HIV awareness, , hospitality, hands-on construction skills, horse care, financial literacy, fire fighting, environmental awareness, guiding and tourism basics;
- Rehabilitation of 5km of access road and rebuilding of an extensive stream crossing / bridge to allow access to the bushcamp area for tourists and reserve management.

The Nature Reserve is managed by the Eastern Cape Parks and Tourism Agency – a DEDEA public entity mandated to manage all provincial protected areas and destination marketing with the objective of promoting and developing the tourism industry.

⁵ <http://www.dedea.gov.za/News/Pages/DEDEAspendsOngeluksnek.aspx>

APPENDIX D

METHODOLOGY

Site survey

eThembeni staff members inspected the area from 23 to 26 May 2011. We completed controlled-exclusive surface surveys, 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 surveys comprised non-systematic or random walks around the existing borrow pits in an area extending approximately 100 metres from the points listed in Table 1. 67 of the 69 borrow pits were inspected; the exceptions were DR8015/BP10 and DR8017/BP02, which could not be accessed due to time constraints. Staff members examined these borrow pits using Google Earth imagery and are confident that the presence of heritage resources in their vicinity is very unlikely. Geographic coordinates were obtained using a handheld Garmin global positioning unit (WPG 84). Photographs were taken with a Nikon Coolpix camera and a representative selection is included in Appendix E.

Database and literature review

No databases were consulted due to the limited footprints of the proposed development areas, and the fact that physical examination of entire footprints was possible. A concise account of the pre and postcolonial history of the broader study area was compiled from sources including those listed in the bibliography and is included as Appendix B. Appendix C contains documents attesting to the significance of Ongeluksnek Nature Reserve.

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 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 good. 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 follow the protocol stipulated in Section 9 of this report 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 F); 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, although they take all reasonable precautions against such misuse.

APPENDIX E

PHOTOGRAPHS



Plate 1 Ancestral graves close to DR8015/BP05.



Plate 2 Ancestral grave close to DR8015/BP05.



Plate 3 Face of DR8015/BP06 requiring stabilisation to prevent undermining of ancestral graves.



Plate 4 Location of ancestral graves opposite DR8015/BP18 (beyond vehicle across the road).



Plate 5 View from DR8646/BP03 towards Ongeluksnek Nature Reserve.



Plate 6 Ongeluksnek Nature Reserve entrance indicated on left, with DR8646/BP03 on right.

APPENDIX F

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 25 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 in partnership with Beth Wahl, who was head of archaeology at Amafa at the time. Over the past decade they have undertaken almost 1000 heritage impact assessments throughout South Africa, as well as in Mozambique.

Beth Wahl has a BA Honours in African Studies from 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.

Ms Wahl 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.