

Phase 1 Heritage Impact Assessment Report:

Proposed Alterations to the Sodwana Beach Node,
iSimangaliso Wetland Park World Heritage Site,
The Big 5 False Bay Local Municipality,
Umkhanyakude District,
KwaZulu-Natal

Prepared for

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MANAGEMENT SUMMARY

eThembeni Cultural Heritage was appointed by ACER (Africa) to undertake a Phase 1 Heritage Impact Assessment of proposed alterations to the Sodwana Beach Node, as required by the National Environmental Management Act 107 of 1998 as amended, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 as amended.

HERITAGE RESOURCE DESCRIPTIONS AND SIGNIFICANCE

We identified no discrete heritage resources within the proposed development area. Scientists who have spent much time over decades in the area report that they have never observed shellfish remains or any other indications of middens or other archaeological sites.

— Landscapes and natural features

iSimangaliso Wetland Park is situated on the east coast of KwaZulu-Natal, about 275 km north of Durban. It is South Africa's third-largest protected area, spanning 280 km of coastline from the Mozambican border in the north to Mapelane south of the Lake St. Lucia estuary, and made up of around 3 280 km² of natural ecosystems. The park was listed as South Africa's first UNESCO World Heritage Site in December 1999 in recognition of its unique global values.

ASSESSMENT OF DEVELOPMENT IMPACT

— Landscapes and natural features

The proposed interventions will enhance and conserve the protected landscape of this World Heritage Site.

RECOMMENDED MITIGATION

We recommend that information about the wreck of the *Sao Thome* (see Appendix B) is included in any interpretive facilities provided as part of the Sodwana Beach Node upgrade.

RECOMMENDED MONITORING

None.

CONCLUSION

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to Amafa in fulfilment of the requirements of the National Heritage Resources Act. The client may contact Ms Bernadet Pawandiwa at Amafa's Pietermaritzburg office in due course to enquire about the Council's decision.

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 ACER (Africa) to undertake a Phase 1 Heritage Impact Assessment of proposed alterations to the Sodwana Beach Node, as required by the National Environmental Management Act 107 of 1998 as amended (NEMA), in compliance with Section 38 of the National Heritage Resources Act 25 of 1999 (NHRA) (refer to Appendix A).

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

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

This report represents compliance with a full Phase 1 HIA (excluding a specialist palaeontological study) for the proposed development, for review by Amafa aKwaZulu-Natali, the Provincial Heritage Resources Authority.

2 TERMS OF REFERENCE

A Phase 1 HIA must address the following key aspects:

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

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

3 PROJECT DESCRIPTION¹

In an attempt to reduce impacts on the sensitive and dynamic dune system within the public recreation node at Sodwana Bay, from Jesser Point in the east to the existing Sodwana Bay entrance gate in the west, iSimangaliso is planning a redevelopment of the Sodwana Beach Node. The redevelopment of the Beach Node will include the demolition of existing infrastructure in certain areas and the placement of new infrastructure in more suitable areas away from the primary dune belt (Figure 1). A second component of the project will be the phased removal of casuarinas from the primary dune at Jesser Point, planted in the 1960s to aid dune stabilisation, with re-establishment of indigenous dune vegetation.

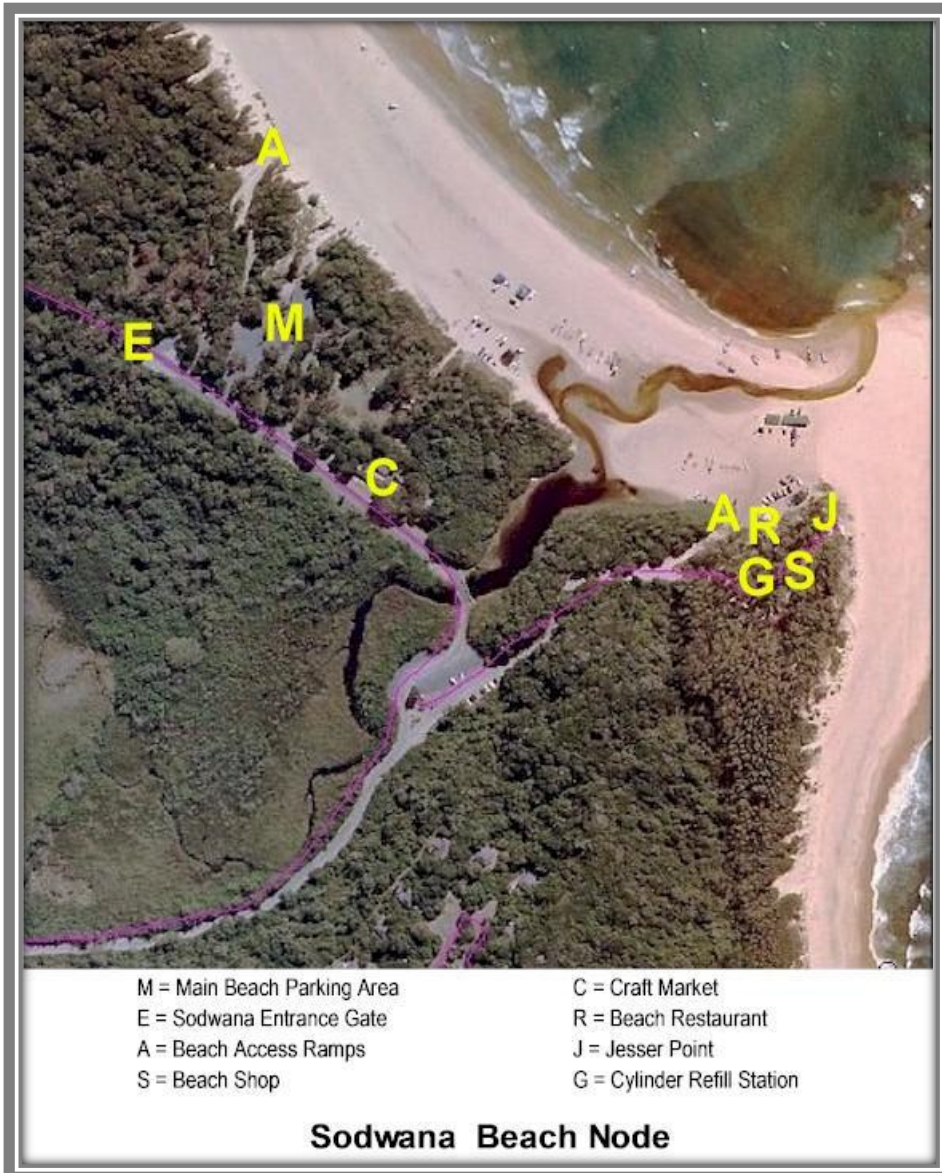


FIGURE 1 COMPONENTS OF THE SODWANA BEACH NODE (SOURCE: ACER (AFRICA)).

¹ Information obtained from the client.

The proposed redevelopment will comprise the following project components:

Infrastructure Development

- Relocation of the beach restaurant from Jesser Point to the Sodwana Bay Main Beach parking area. This includes the relocation of the surf shop on Jesser Point to the Sodwana Bay Main Beach parking area and the provision of a restaurant on the existing beach shop footprint.
- Relocation of the cylinder refill stations at Jesser Point to a facility outside the Sodwana Bay Beach Node and the provision of a gas cylinder transfer station near the Sodwana Bay main road.
- Relocation of the craft market to align with the proposed new parking areas.
- Upgrading of the existing ablution facilities near the car park.
- Placement of interpretive signage (signboards) and park furniture at the car park.
- Provision of a concessionaires' marketing point.
- Provision of a satellite police station at the main beach parking area.

Dune rehabilitation at Jesser Point

- Phased removal of casuarinas from the primary dune at Jesser Point.
- Planting of the primary dunes with locally indigenous species to promote dune stabilisation.

The proposed redevelopment of the Sodwana Beach Node is anticipated to include the following construction related activities:

- Demolition of structures.
- Clearance of vegetation.
- Movement of people, vehicles and machinery over the development sites.
- Excavation of soils, trenching, cut and fill.
- Stockpiling of materials.
- Importation of material (for example, sand, stone and gravel).
- Compaction of soils.
- Shaping of slopes.

With:

- Possible hydrocarbon spillages (fuels and oils).
- Generation of solid waste during construction.
- Spoiling of material.

4 PROJECT LOCATION AND ENVIRONMENTAL DESCRIPTION

The proposed project is situated in the Big 5 False Bay (KZN273) Local Municipality, Umkhanyakude District (DC27; Figure 2). The relevant Surveyor General 1:50 000 map sheet is 2732DA Sodwana Bay (Figure 3). The coordinates of the project are 27° 32' 25" S 32° 40' 41" E.

The Sodwana Beach Node comprises the Sodwana Main Beach, including the back of dune parking areas and craft markets, and Jesser Point which includes the main beach access ramp, beach shop, restaurant and dive concession holders' infrastructure (Figure 1). The total size of the area under investigation is approximately 7.5 ha of which approximately 2 ha is made up of areas currently disturbed through existing infrastructure, parking areas and access routes.

Access to the site is from the town of Mbazwana along the Sodwana Main Road (Main Road 446-2) which links Sodwana Bay to Mbazwana. The area under investigation at the Sodwana Beach Node is located directly in front of the current Sodwana Access Gate to the iSimangaliso Wetland Park when entering the Park (Figure 1).

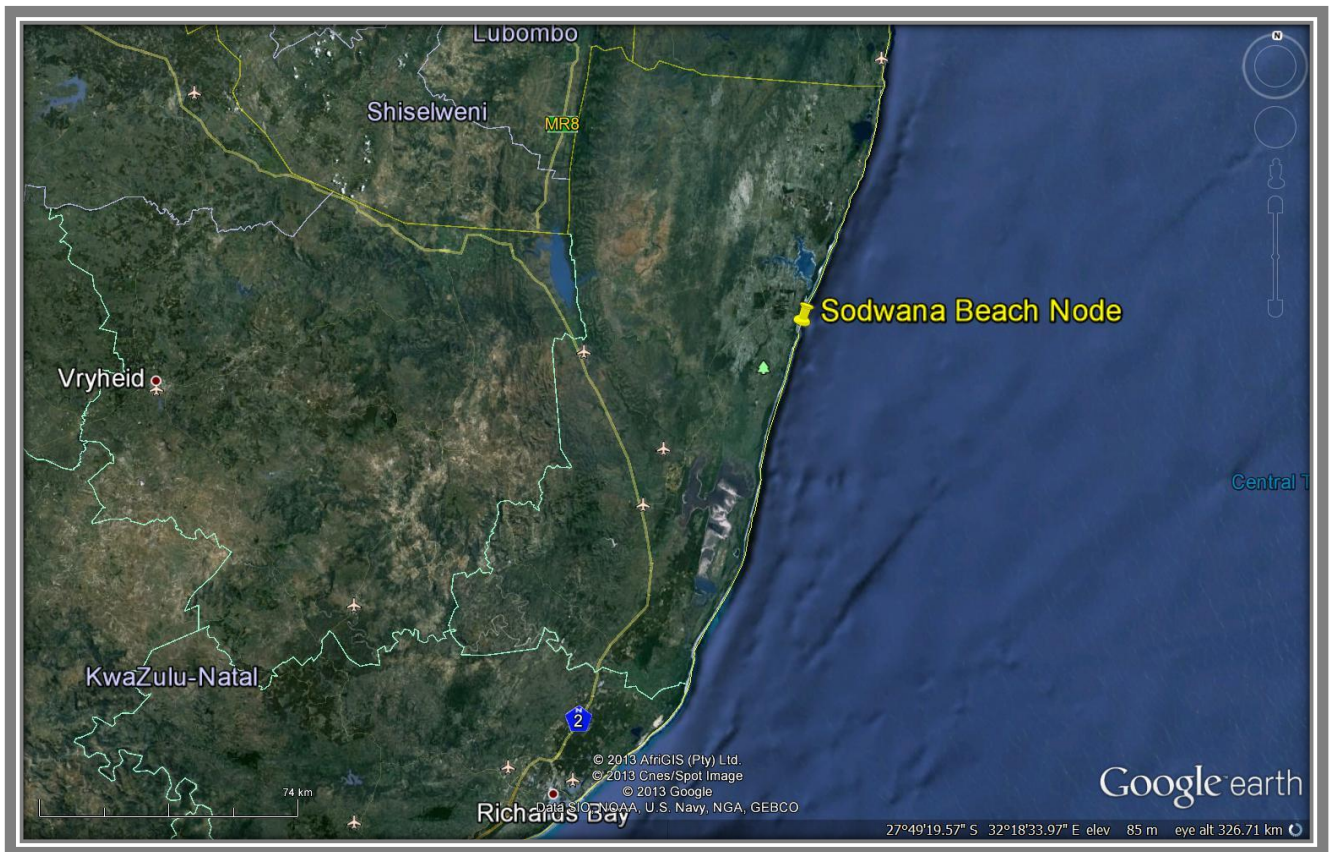


FIGURE 2 LOCATION OF PROPOSED DEVELOPMENT SITE IN REGIONAL CONTEXT (SOURCE: GOOGLE EARTH).

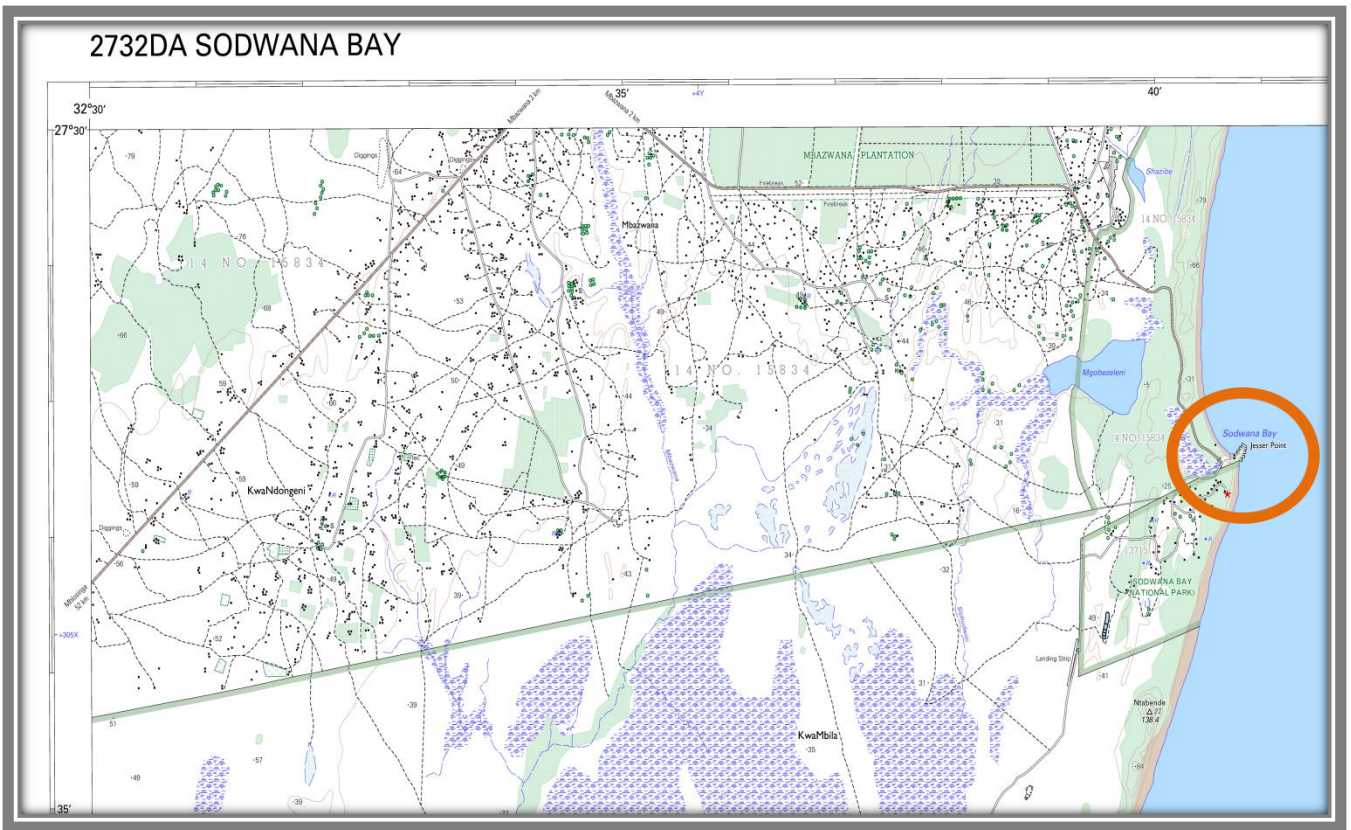


FIGURE 3 EXTRACT FROM RELEVANT 1:50 000 MAP SHEET, INDICATING REGIONAL LOCATION OF DEVELOPMENT.

5 HERITAGE RESOURCES AND SIGNIFICANCE

No development activities associated with the proposed project had begun at the time of our visit. Table 1 summarises the heritage resource types assessed, and our observations.

TABLE 1 HERITAGE RESOURCES TYPES ASSESSED.

Heritage resource type	Observation
Places, buildings, structures and equipment	None were identified within the proposed development area.
Places associated with oral traditions or living heritage	None were identified within the proposed development area.
Landscapes and natural features	See below.
Traditional burial places	None were identified within the proposed development area.
Ecofacts	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.
Historical settlements and townscapes	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.

We identified no discrete heritage resources within the proposed development area. Scientists who have spent much time over decades in the area report that they have never observed shellfish remains or any other indications of middens or other archaeological sites².

— LANDSCAPES AND NATURAL FEATURES

iSimangaliso Wetland Park³ (previously known as the Greater St. Lucia Wetland Park; renamed effective from 1 November 2007) is situated on the east coast of KwaZulu-Natal, about 275 km north of Durban. It is South Africa's third-largest protected area, spanning 280 km of coastline from the Mozambican border in the north to Mapelane south of the Lake St. Lucia estuary, and made up of around 3 280 km² of natural ecosystems. The word *isimangaliso* means "miracle" in Zulu. The Park is due to be integrated into a transfrontier park, the Ponta do Ouro-Kosi Bay Transfrontier Conservation Area, straddling South Africa, Mozambique, and Swaziland. This is in turn planned to become a part of the greater Greater Lubombo Transfrontier Conservation Area.

St. Lucia was first named in 1554 as "Rio de la Medaos do Oura" ("River of the Dows of Gold") by the survivors of the Portuguese ship *Saint Benedict*. At this stage, only the Tugela (uThukela) River mouth was known as St. Lucia. Later, in 1575, the Tugela River was named Tugela. On 13 December 1575, the day of the feast of Saint Lucy, Manuel Perestrello renamed the mouth area to Santa Lucia. In 1822, St. Lucia was proclaimed by the British as a township. In 1895, St. Lucia Game Reserve, 30 km north of the town was proclaimed. In 1971, St. Lucia Lake and the turtle beaches and coral reefs of Maputaland were listed by the Convention on Wetlands of International Importance (Ramsar Convention).

The park was listed as South Africa's first UNESCO World Heritage Site in December 1999 in recognition of its unique global values (see Appendix B). The 332 000 ha Park contains three major lake systems, eight interlinking ecosystems, 700 year old fishing traditions, most of South Africa's remaining swamp forests, Africa's largest estuarine system, 526 bird species and 25 000 year-old coastal dunes that are among the highest in the world. The iSimangaliso Authority manages the Park and has established alien plant, wetland and dune rehabilitation programs, introduced game, and upgraded and built infrastructure.

² Geoff Gaisford and Roger Gaisford, pers. comm.

³ http://en.wikipedia.org/wiki/ISimangaliso_Wetland_Park; <http://www.isimangaliso.com/>

6 ASSESSMENT OF DEVELOPMENT IMPACT

— LANDSCAPES AND NATURAL FEATURES

The landscape of the iSimangaliso Wetland Park World Heritage Site will be enhanced by the proposed development.

TABLE 2 POTENTIAL IMPACT ON LANDSCAPES AND NATURAL FEATURES.

Nature	Extent	Duration	Intensity	Impact on irreplaceable resources	Consequence	Probability	Significance
Positive	Low-Local	High	Low	Low	Low	Low	Low

7 RECOMMENDED MITIGATION MEASURES

We recommend that information about the wreck of the *Sao Thome* (see Appendix B) is included in any interpretive facilities provided as part of the Sodwana Beach Node upgrade.

8 RECOMMENDED MONITORING

None.

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;
- Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial, or represent building/structural remains); and
- Fossilised remains of fauna and flora, including trees.

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

- All construction within a radius of at least 20m of the indicator should cease. This distance should be increased at the discretion of supervisory staff if heavy machinery or explosives could cause further disturbance to the suspected heritage resource.
- This area must be marked using clearly visible means, such as barrier tape, and all personnel should be informed that it is a no-go area.
- A guard should be appointed to enforce this no-go area if there is any possibility that it could be violated, whether intentionally or inadvertently, by construction staff or members of the public.
- No measures should be taken to cover up the suspected heritage resource with soil, or to collect any remains such as bone or stone.

- If a heritage practitioner has been appointed to monitor the project, s/he should be contacted and a site inspection arranged as soon as possible.
- If no heritage practitioner has been appointed to monitor the project, the head of archaeology at Amafa's Pietermaritzburg office should be contacted; telephone 033 3946 543).
- The South African Police Services should be notified by an Amafa 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 HIA.

10 CONCLUSION

We recommend that the development proceed with the proposed heritage mitigation and have submitted this report to Amafa in fulfilment of the requirements of the NHRA. 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 the NHRA apply, and what formal protections may be applied to such heritage resources;
- whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- whether the appointment of specialists is required as a condition of approval of the proposal.

The client may contact Ms Bernadet Pawandiwa at Amafa's Pietermaritzburg office (telephone 033 3946 543) in due course to enquire about the Council's decision.

If permission is granted for development to proceed, the client is reminded that the NHRA requires that a developer cease all work immediately and adhere to the protocol described in Section 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 Constitution of the Republic of South Africa Act 108 of 1996 is the source of all legislation. Within the Constitution the Bill of Rights is fundamental, with the principle that the environment should be protected for present and future generations by preventing pollution, promoting conservation and practising ecologically sustainable development. With regard to spatial planning and related legislation at national and provincial levels the following legislation may be relevant:

- Physical Planning Act 125 of 1991
- Municipal Structures Act 117 of 1998
- Municipal Systems Act 32 of 2000
- Development Facilitation Act 67 of 1995 (DFA)
- KwaZulu-Natal Planning and Development Act 6 of 2008.

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

- National Environmental Management Act 107 of 1998 (NEMA)
- KwaZulu-Natal Heritage Act 4 of 2008 (KZNHA)
- National Heritage Resources Act 25 of 1999 (NHRA)
- Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA)

United Nations Educational, Scientific and Cultural Organisation Convention Concerning The Protection of the World Cultural and Natural Heritage 1972

Natural and cultural heritage resources of global significance may be formally protected as World Heritage Sites. Article 5 of World Heritage Convention states the following:

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavor, in so far as possible, and as appropriate for each country:

- (a) to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;
- (b) to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;
- (c) to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;
- (d) to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and
- (e) to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

World Heritage Convention Act 49 of 1999

This Act was established to provide for, inter alia, the incorporation of the World Heritage Convention into South African law; the enforcement and implementation of the World Heritage Convention in South Africa; and the recognition and establishment of World Heritage Sites. The objectives of the Act are to provide for the cultural and environmental protection and sustainable development of, and related activities within, World Heritage Sites; and giving effect to the values of the Convention.

KwaZulu-Natal Heritage Act 4 of 2008 (KZNHA)

This Act is implemented by Amafa aKwaZulu-Natali/Heritage KwaZulu-Natal, the provincial heritage resources authority charged to provide for the conservation, protection and administration of both the physical and the living or intangible heritage resources of the province; along with a statutory Council to administer heritage conservation in the Province.

National Heritage Resources Act 25 of 1999 (NHRA)

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

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

Heritage Impact Assessments

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

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

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

- the identification and mapping of all heritage resources in the area affected;
- an assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations;
- an assessment of the impact of the development on such heritage resources;

- an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

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

Definitions of heritage resources

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

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

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

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;

- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.

Archaeological means –

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

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

A **place** is defined as:

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

Public monuments and memorials 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

— Definitions

Grave

The NHRA defines a grave as a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such a place.

The KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996 defines a grave as an excavation in which human remains have been intentionally placed for the purposes of burial, but excludes any such excavation where all human remains have been removed.

Burial ground

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

Cemetery

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

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

— Protection of graves and cemeteries

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

Grave type	Relevant legislation	Administrative authority – disinterment	Administrative authority – reburial
Graves located within a formal cemetery administered by a local authority	KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996	National and / or Provincial Departments of Health	If relocated to formal cemetery – relevant local authority.
Graves younger than 100 years located outside a formal cemetery administered by a local authority and the graves of victims of conflict	KwaZulu-Natal Heritage Act 4 of 2008 KwaZulu-Natal Cemeteries and Crematoria Amendment Act 2 of 2005	Amafa aKwaZulu-Natali, the provincial heritage resources authority	If relocated to private or communal property – Amafa. If relocated to formal cemetery – Amafa and relevant local authority.

— Procedures required for permission to disinter and rebury graves

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

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

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

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

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

The Vermillion Accord on Human Remains⁴

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

1. Respect for the mortal remains of the dead shall be accorded to all, irrespective of origin, race, religion, nationality, custom and tradition.
2. Respect for the wishes of the dead concerning disposition shall be accorded whenever possible, reasonable and lawful, when they are known or can be reasonably inferred.
3. Respect for the wishes of the local community and of relatives or guardians of the dead shall be accorded whenever possible, reasonable and lawful.
4. Respect for the scientific research value of skeletal, mummified and other human remains (including fossil hominids) shall be accorded when such value is demonstrated to exist.
5. Agreement on the disposition of fossil, skeletal, mummified and other remains shall be reached by negotiation on the basis of mutual respect for the legitimate concerns of communities for the proper disposition of their ancestors, as well as the legitimate concerns of science and education.
6. The express recognition that the concerns of various ethnic groups, as well as those of science are legitimate and to be respected, will permit acceptable agreements to be reached and honoured.

⁴ <http://www.worldarchaeologicalcongress.org/>

APPENDIX B ARCHAEOLOGICAL AND HISTORICAL CONTEXT OF THE STUDY AREA

In archaeological terms 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), the ability to work iron (the Iron Age) and the Colonial Period, characterised by the advent of writing and in southern Africa primarily associated with the first European travellers (Mitchell 2002). 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 500 000–30 000 years ago), and the Late Stone Age, or Neolithic Period (about 30 000–2 000 years ago). The simple stone tools found with australopithecine fossil bones fall into the earliest part of the Early Stone Age.

The Stone Age⁵

o 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 Middle Stone Age

The long episode of cultural and physical evolution gave way to a period of more rapid change about 120 000 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.

The Middle Stone Age is perhaps most significant as the time period during which the first modern humans, *Homo sapiens sapiens*, emerged between 120 000 and 30 000 years ago. The Klasies River cave complex, located on the southern Cape coast contains the oldest remains of anatomically modern humans in the world, dating to around 110 000 years ago (Singer & Wymer 1982; Rightmire & Deacon 1991). Humans were anatomically modern by 110 000 years ago but only developed into culturally modern behaving humans between 80 000 and 70 000 years ago, during cultural phases known as the Still Bay and Howieson's Poort time periods or stone tool traditions.

⁵ <http://www.britannica.com>; article authored by Colin J. Bundy, Julian R. D. Cobbing, Martin Hall and Leonard Monteath Thompson.

○ The Late Stone Age

Basic toolmaking techniques began to undergo additional change about 40 000 years ago. Small finely worked stone implements known as microliths became more common, while the heavier scrapers and points of the Middle Stone Age appeared less frequently. Archaeologists refer to this technological stage as the Later Stone Age or LSA, which can be divided into four broad temporal units directly associated with climatic, technological and subsistence changes (Deacon 1984):

1. Late Pleistocene microlithic assemblages (40-12 000 years ago);
2. Terminal Pleistocene / early Holocene non-microlithic (macrolithic) assemblages (12-8 000 years ago);
3. Holocene microlithic assemblages (8 000 years ago to the Colonial Period); and
4. Holocene assemblages with pottery (2 000 years ago to the Historic Period) closely associated with the arrival of pastoralist communities into South Africa (Mitchell 1997; 2002).

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.

Elements of material culture characteristic of the LSA that reflect cultural modernity have been summarised as follows (Deacon 1984):

- Symbolic and representational art (paintings and engravings);
- Items of personal adornment such as decorated ostrich eggshell, decorated bone tools and beads, pendants and amulets of ostrich eggshell, marine and freshwater shells;
- Specialized hunting and fishing equipment in the form of bows and arrows, fish hooks and sinkers;
- A greater variety of specialized tools including bone needles and awls and bone skin-working tools;
- Specialized food gathering tools and containers such as bored stone digging stick weights, carrying bags of leather and netting, ostrich eggshell water containers, tortoiseshell bowls and scoops and later pottery and stone bowls;
- Formal burial of the dead in graves, sometimes covered with painted stones or grindstones and accompanied by grave goods;
- The miniaturization of selected stone tools linked to the practice of hafting for composite tools production; and
- A characteristic range of specialized tools designed for making some of the items listed above.

Iron Age⁶

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

⁶ Whitelaw (1997). See also Whitelaw (1991, 2009).

further inland at this time for successful cultivation. From 650 onwards, however, climatic conditions improved and agriculturists expanded into the valleys of KwaZulu-Natal, where they settled close to rivers in savanna or bushveld environments. There is a considerable body of information available about these early agriculturists.

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

iSimangaliso Wetland Park World Heritage Site⁷

The iSimangaliso Wetland Park is one of the outstanding natural wetland and coastal sites of Africa. Covering an area of 239 566 ha, it includes a wide range of pristine marine, coastal, wetland, estuarine, and terrestrial environments which are scenically beautiful and basically unmodified by people. These include coral reefs, long sandy beaches, coastal dunes, lake systems, swamps, and extensive reed and papyrus wetlands, providing critical habitat for a wide range of species from Africa's seas, wetlands and savannahs. The interaction of these environments with major floods and coastal storms in the Park's transitional location has resulted in continuing speciation and exceptional species diversity. Its vivid natural spectacles include nesting turtles and large aggregations of flamingos and other waterfowl.

Criterion (vii): iSimangaliso is geographically diverse with superlative scenic vistas along its 220 km coast. From the clear waters of the Indian Ocean, wide undeveloped sandy beaches, a forested dune cordon

⁷ <http://whc.unesco.org/en/list/914>

and a mosaic of wetlands, grasslands, forests, lakes and savannah, the park contains exceptional aesthetic qualities. Three natural phenomena are judged outstanding. One is the shifting salinity states within Lake St. Lucia which are linked to wet and dry climatic cycles, with the lake responding accordingly with shifts from low to hyper-saline states. A second is the spectacle of large numbers of nesting turtles on the beaches and the abundance of dolphins and migration of whales and whale sharks off-shore. Finally, the huge numbers of waterfowl and large breeding colonies of pelicans, storks, herons and terns are impressive and add life to the wild natural landscape of the area.

Criterion (ix): The combination of fluvial, marine and aeolian processes initiated in the early Pleistocene in iSimangaliso has resulted in a variety of landforms and continues to the present day. The Park's transitional geographic location between sub-tropical and tropical Africa as well as the coastal setting have resulted in exceptional species diversity. Past speciation events in the Maputaland Centre of Endemism are also ongoing and contribute another element to the diversity and interplay of evolutionary processes at work in iSimangaliso. In the marine component of the site, the sediments being transported by the Agulhas current are trapped by submarine canyons on the continental shelf allowing for remarkably clear waters for the development of coral reefs. The interplay of this environmental heterogeneity is further complicated by major floods and coastal storms, events which are regularly experienced in iSimangaliso. The site is also of sufficient size and retains most of the key elements that are essential for long-term functioning of the ecosystems.

Criterion (x): The five interlinked ecosystems found in iSimangaliso provide habitat for a significant diversity of African biota, including a large number of threatened and/or endemic species. The species lists for iSimangaliso are the lengthiest in the region and population sizes for most of them are viable. Of the over 6,500 plant and animal (including 521 bird) species recorded from the Park[1], populations of species of conservation importance include 11 species endemic to the park, 108 species endemic to South Africa, while 467 species are listed as threatened in South Africa. The outstanding diversity of habitats (terrestrial, wetland, coastal and aquatic) supports a wide variety of animal species, some at the northern and many at the southern limit of their range.

Integrity

The property consists of 13 separate but contiguous conservation units totalling 239 566 ha including some 85 000 ha of marine reserves. Its history of conservation management dates back to 1895 when the first reserves were created by the Zululand Government, and later proposals for titanium sand mining were rejected. Ongoing integrity issues include the protection of catchment area and regional development (upstream water abstraction, agricultural practices and road construction); land claims (which may result in further boundary issues); resource harvesting and local community issues; and restoration of degraded habitats. A unified management system for all 13 components was also requested.

The park is not inhabited by people apart from six small townships in the Kosi Bay Coastal Forest Reserve (insert current number of inhabitants). There are also two villages (Makakatana and St Lucia Estuary) which are enclaves within the Park but not part of it. About 100,000 people from 48 tribal groups live in villages surrounding the Park and community conservation programmes are key to minimising conflicts and maximising benefits. A progressive neighbour-relations policy fosters good relations with communities who live near the Park to ensure that they derive direct benefits from the protected area such as free access, business and employment.

Protection and management requirements

Management of the Park at the provincial level is by Ezemvelo KwaZulu-Natal Wildlife working with the provincial administration in accordance with national and provincial legislation. South Africa has solid legislation that affords iSimangaliso the necessary legal protection, such as the World Heritage Convention Act, 1999. iSimangaliso contains four Ramsar sites [St. Lucia Lake System (Ramsar Site # 345) (ii) Turtle Beaches/Coral Reefs of Tongaland (Ramsar Site # 344) (iii) Kosi Bay Lake System (Ramsar Site #527), and

(iv) Lake Sibaya (Ramsar Site # 528)] that recognise the ecological functions of wetlands as well as their importance as resources of economic, cultural, scientific and recreational value. All human uses of iSimangaliso are subject to intensive management, research and monitoring. They are also confined to about a third of the total area while the remainder is free from extractive uses. Some funds to assist in community conservation have come from WWF, but the main funding to ensure that iSimangaliso management is adequately supported comes from the Province.

A major threat to the Park is damage to the hydrology and salinity of the wetland system including reduction in the water supply by the transformation of the upper Mfolozi Swamps by agriculture. Serious droughts have raised salinity and killed off shoreline vegetation, causing bank erosion and silting of the lake. The Umfolozi River has also threatened to break into the lake, again raising the likelihood of sedimentation and invasion by sand and sea-water following breaching of the sand bar. Catastrophic events such as the grounding of an oil tanker near the park in 2002 also threaten the site. Other threats include damage by over-use (tourism and over-exploitation of resources such as unsustainable fishing).

The park has high visitation rates and has been zoned into three ecotourism use-zones: a zone of low intensity use in the wilderness core of the Park where access is by foot except for staff; a moderate use zone where visitors can view wildlife from vehicles and from scattered camps and hides; and high intensity use zones where, at seven development nodes, there are roads, interpretative and educational displays, guided walks, accommodation and other facilities.

Infestation by alien invasive plants is a problem, although limited in area at present. The worst invaders are *Chromolaena odorata*, *Psidium guajava*, *Pereckia acuelata* and *Melia azedarach*. Programmes by the Plant Protection Research Institute have used biological control, especially to remove plant infestations from important water-producing catchment areas. In addition pine and eucalyptus plantations around the lake have been removed to improve water seepage.

In the past several land claims by impoverished communities have been lodged before the Land Claims Court. These areas include the Eastern Shores State Forest, Cape Vidal State Forest and Sodwana State Forest. One solution has been reached with the Mbuyazi whose rights near Cape Vidal have been recognised, not to settle, but to develop ancestral lands for tourism. More recently, there has been conflict over other large hotel developments launched in environmentally sensitive areas without contact with local stakeholders, environmental impact assessments or adequate infrastructure. However by 2004 it was stated that the land claimants and local communities were accepted as partners in the development of the Park.

Species

The species listed below represent a small sample of iconic and/or IUCN Red Listed animals and plants found in the property. These species are identified in an effort to better communicate the biological diversity contained within World Heritage properties inscribed under criteria ix and/or x.

- *Loxodonta africana* / African Elephant
- *Megaptera novaeangliae* / Humpback Whale

Sodwana

The name Sodwana is derived from two Zulu words - "siso dwana", which means "us alone"⁸. The legend goes that some Xulu women were harvesting mussels off the rocks at what is now called Jesser Point and were approached by English speakers who wanted to know who they were and what they were doing. Confused about what had been asked, they answered "Siso dwana".

In 1822 the Royal Navy sent the ships *Leven*, *Barracouta*, and *Cockburn* to survey the coastline. The captain of the *Barracouta* was Lieutenant A Vidal, after whom Cape Vidal was named, and *Leven Point* was named after the sloop HMS *Leven*. Various points along the coastine of Sodwana, namely Jesser, Liefeldt's, Gobey and Hully were named after officers on the ships who died of malaria. Because of Sodwana's inaccessibility, the area was relatively unexploited by Europeans for decades and prior to 1945, virtually unknown. In December 1950, the Natal Parks Board proclaimed Sodwana Bay as a Nature Reserve.

Wreck of the *Sao Thome*⁹

The *Sao Thome* was a richly-laden carrack, a three masted cargo ship, "ill furnished for the voyage", under the command of Estavao de Veiga, "a man of little ability". She sailed from Cochin on India's south-west coast in early January 1589 homeward bound for Portugal. The officers were keen to get ahead of other ships leaving from India at the same time so as to get the pick of the stores at St Helena Island, so the *Sao Thome* was driven hard in its voyage south. This strained the badly maintained vessel to such an extent that she began to leak. This became so serious that there were fears for the ship's safety and in mid-March, off present East London, it was decided to abort the voyage to effect repairs at Mozambique Island, and the ship was headed about to head north up the coast.

This was to no avail, since in a storm off this coast on the morning of 20 March 1589, with passengers and crew pumping for all they were worth, with a damaged rudder and rigging, the ship sank in sight of land near Sodwana Bay. 109 sailors, officers and wealthy passengers managed to take to the ship's longboat. The rest of those left on board, crew, passengers, servants and slaves disappeared to the depths.

In the wild seas of the storm the longboat was found to be overloaded and so a dozen overweight passengers were heaved overboard to feed the kraken and whatever sharks had not already had their fill of the unfortunate hundreds of the *Sao Thome*. The ship's boat then set sail for land, the captain intending to sail north up the coast hoping to find the annual trading vessel from Mozambique Island which used Portuguese Island close to Inhaca as a base for the trading season. The next morning the survivors found themselves close to land and sailed into a bay at 27 1/2 degrees latitude south, where a little river flowed into the sea, a place where the Portuguese were known to have traded and fetched fresh water. 27 1/2 degrees south put them at the bay used by Simao D'Ota and other Portuguese to hunt and collect water, Sodwana Bay.

There they anchored among breakers in water so clear they could see the bottom and two sailors swam ashore to be welcomed by locals, who by that time, were used to Portuguese who hunted and traded in the area. With the wind rising, the Captain decided to sail on to Delagoa Bay. Sail was made and the little vessel headed north, leaving the two seamen flabbergasted on the beach. These two hot footed it and managed to catch up with the vessel which was temporarily caught in adverse winds, and swam out to her before she was able to continue north. However, a while later, with the wind now blowing a gale it was feared the overloaded boat might be swamped in the violent seas and it was decided to land and walk on to Delagoa Bay.

The longboat sailed into a bay at latitude 27 1/3 degrees south, and capsized in the violent surf, drowning three passengers. Camp was made among the dunes and an uneasy night passed, with survivors peering

⁸ http://www.kznorthhappenings.co.za/sodwana_homepage.htm

⁹ Boxer (1959/2001); Roger Gaisford pers. comm.

into the shadows cast by the flickering flames of the watch fires. The longboat was burned to recover its metal fittings to use in bartering foodstuffs from local Africans.

The *Sao Thome's* survivors left their camp on the beach at Mabibi on the morning of 23 March 1859, and headed on foot up the coast. They reached Inhaca Island two weeks later to find the trading vessel had departed a week before. Some of the survivors spent three months on Portuguese Island and after many adventures a handful that survived the incessant malaria returned to India.

APPENDIX C METHODOLOGY

Site survey

eThembeni staff members inspected the proposed activity area on 14 March 2013 and completed a controlled-exclusive surface survey, where 'sufficient information exists on an area to make solid and defensible assumptions and judgements about where [heritage resource] sites may and may not be' and 'an inspection of the surface of the ground, wherever this surface is visible, is made, with no substantial attempt to clear brush, turf, deadfall, leaves or other material that may cover the surface and with no attempt to look beneath the surface beyond the inspection of rodent burrows, cut banks and other exposures that are observed by accident' (King 1978; see bibliography for other references informing methodological approach).

The site survey comprised a visual survey of the proposed activity area and an interview with the current owner. Geographic coordinates were obtained using a handheld Garmin global positioning unit (WGS 84).

Database and literature review

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

Heritage Impact Assessment reports relevant to the study area

The following HIAs have been undertaken within 5 km of the study area:

- Wahl, E. and Van Schalkwyk, L. 2007. Heritage Impact Assessment of Sodwana Bay Entrance Gates, iSimangaliso Wetland Park, KwaZulu-Natal, South Africa. Unpublished report prepared for ACER (Africa).
- Wahl, E. and Van Schalkwyk, L. 2009. Heritage Impact Assessment of Park Boundary Fence and Management Track, Sodwana Bay, iSimangaliso Wetland Park, KwaZulu-Natal, South Africa. Unpublished report prepared for ACER (Africa).

Assessment of heritage resource value and significance

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

Grade I Sites (National Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade I heritage resources are heritage resources with qualities so exceptional that they are of special national significance should be applied to any heritage resource which is

- a) Of outstanding significance in terms of one or more of the criteria set out in section 3(3) of the NHRA;
 - b) Authentic in terms of design, materials, workmanship or setting; and is of such universal value and symbolic importance that it can promote human understanding and contribute to nation building, and its loss would significantly diminish the national heritage.
-
1. Is the site of outstanding national significance?
 2. Is the site the best possible representative of a national issue, event or group or person of national historical importance?
 3. Does it fall within the proposed themes that are to be represented by National Heritage Sites?
 4. Does the site contribute to nation building and reconciliation?
 5. Does the site illustrate an issue or theme, or the side of an issue already represented by an existing National Heritage Site – or would the issue be better represented by another site?
 6. Is the site authentic and intact?

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

Grade II Sites (Provincial Heritage Sites)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade II heritage resources are those with special qualities which make them significant in the context of a province or region and should be applied to any heritage resource which -

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

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

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

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

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

Grade III (Local Heritage Resources)

Regulation 43 Government Gazette no 6820. 8 No. 24893 30 May 2003, Notice No. 694 states that: Grade III heritage status should be applied to any heritage resource which

- (a) fulfils one or more of the criteria set out in section 3(3) of the NHRA; or
- (b) in the case of a site contributes to the environmental quality or cultural significance of a larger area which fulfils one of the above criteria, but that does not fulfill the criteria for Grade 2 status.

Grade IIIA

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

- Highly significant association with a
 - historic person

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

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

Grade IIIB

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

Grade IIIC

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

Assessment of development impacts

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

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

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

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

Assumptions and limitations of this HIA

- The description of the proposed project, provided by the client, is assumed to be accurate.
- The public consultation process 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 varied from good to non-existent. Heritage resources might be present below the surface or in areas of dense vegetation and we remind the client that the NHRA requires that a developer cease all work immediately and observe the protocol 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 Amafa 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 D); 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 will take all reasonable precautions against such misuse.

APPENDIX D SPECIALIST COMPETENCY AND DECLARATION OF INDEPENDENCE

Specialist competency

Len van Schalkwyk is accredited by the Cultural Resources Management section of the Association of South African Professional Archaeologists (ASAPA) to undertake HIAs in South Africa. Mr van Schalkwyk has a master's degree in archaeology (specialising in the history of early farmers in southern Africa) from the University of Cape Town and 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 Elizabeth Wahl, who was head of archaeology at Amafa at the time. Over the past decade they have undertaken almost 1000 HIAs throughout South Africa, as well as in Mozambique.

Elizabeth Wahl has a BA Honours in African Studies from the University of Cape Town, majoring in archaeology, 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 the University of Cape Town. She is also a member of ASAPA.

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, Elizabeth 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 HIA and management consulting services.

