



# **PHASE 1 ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENT SPECIALIST STUDY REPORT FOR PROPOSED CONSTRUCTION OF LOW COST HOUSING AND ASSOCIATED INFRASTRUCTURE IN KWANOBUHLE AREA 11, NELSON MANDELA BAY METROPOLITAN MUNICIPALITY, PORT ELIZABETH IN THE EASTERN CAPE PROVINCE**

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## CAVEAT

### PHASE 1 ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENT SPECIALIST STUDY REPORT FOR PROPOSED CONSTRUCTION OF LOW COST HOUSING AND ASSOCIATED INFRASTRUCTURE IN KWANOBUHLE AREA 11 OF NELSON MANDELA BAY METROPOLITAN MUNICIPALITY, PORT ELIZABETH IN THE EASTERN CAPE PROVINCE.

**Authorship:** This Report has been prepared for Dekra Industrial (Pty) Ltd by Nzumbululo Heritage Solutions as part of Environmental Impact Assessment Exercise. The report is for the review of the Provincial Heritage Authority.

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**Geographic Co-ordinate Information:** Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

**Maps:** Maps included in this report use data extracted from the NTS Map and Google Earth Pro.

**Disclaimer:** Nzumbululo Heritage Solutions is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the SAHRA Regulations and Guidelines as to the EIA of the proposed extension of the KwaNobuhle Township, Eastern Cape Province.

Signed by Principle Investigator:



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McEdward Murimbika (Ph.D.)

2010

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## **AUTHOR IDENTIFICATION**

Dr. Murimbika assisted by Mr M. Mabuda and Mr T Mlilo of Nzumbululo Heritage Solutions prepared this Report.

## **ACKNOWLEDGEMENTS**

The authors acknowledges the assistance of Dekra Industrial Pty Ltd staff for their assistance and cooperation during the field investigations and for their assistance with information, guidelines and logistical support.

## MANAGEMENT SUMMARY

Nzumbululo Heritage Solutions (HeSSA) has been commissioned by Dekra Industrial (Pty.) Ltd. to conduct an Archaeological and Heritage Assessment Study on a Site of Interest for the proposed construction of low cost housing and associated infrastructure in KwaNobuhle Area 11 of Nelson Mandela Bay Metropolitan Municipality of Port Elizabeth within the Eastern Cape Province. The proposed development will comprise the construction of low cost houses and associated infrastructure in KwaNobuhle. The proposed site for development approximately 101.6ha in extent and is situated on Land GP/189/1988 & GP 193/1988 located south of the existing KwaNobuhle residential area. Field studies were conducted in August 2010 under the direction of Principal Investigator, Dr. M. Murimbika. The study focuses on potential impacts on archaeological, and cultural heritage resources associated with the proposed construction's receiving environment. This report includes an evaluation archaeological and heritage scoping of the significance of the affected housing development project area. The findings of this report have been informed by desktop and field survey and assessment studies.

Analysis of the archaeological, cultural heritage, environmental and historic context of the study area predicted that archaeological sites, burial grounds or artefacts were likely to be present in the geographical region where the project area is located. The field survey did not verify this prediction. The level of disturbance on large section of the affected project site is such that it is unlikely that any physical heritage sites remain in tact. The evidence of previous road works, deep open cast gravel mining and associated earth movement, and existence of farm boundary fence line development, fire breaks, Powerline servitudes, Telkom telecommunication line servitude, and previous cultivation activities on site highlight the observation that considerable land portions associated with proposed KwaNobuhle Township low cost housing development had previously undergone extensive earth movement and subsurface ground disturbance activities. There are sections that were covered with dense veld bush vegetation, typical of the Eastern Cape coastlands, that were not accessible for this survey.

The report makes the following observations:

- The study did not find conclusive discernable or tangible evidence of the existence of archaeological or burial ground within the project area. This is especially clear from the observation that the project site is severely degraded from generational changing land use patterns in the area.
- The possibility of encountering *in situ* archaeological or historical sites associated with project area, should the proposed development be approved, is limited. However, there are sections of the project site that were not penetrable during the survey. As such, this study can not rule out the possibility of encountering chance finds in the course of the proposed development.
- Although no archaeological, physical cultural properties or burial sites were recorded on the project site, the affected area does retain local historical cultural landscape significance.

The Report makes the following recommendations:

- The affected section of the Land Portions GP/189/1988 and GP 193/1988 located south of the existing KwaNobuhle residential area is situated within a contemporary degraded cultural landscape with and surrounded by existing densely built up settlements, and associated infrastructures. As such the area should be treated as of low significance from cultural landscape perspective.



- The study did not identify any archaeological or heritage resources barrier to the proposed housing and associated infrastructure developments.
- The proposed township housing development will not affected any known archaeological or historical physical cultural properties in the area. As such the housing construction work may be approved subject to cautionary heritage monitoring measures being incorporated into the development Environmental Management Plan (EMP).
- The proposed developments may be approved by the heritage authority to proceed as planned subject to:
  - A heritage monitoring measures being incorporated into the project construction EMP.
- Should construction work commence for this project:
  - The construction teams should be inducted on the significance of the possible archaeological resources that may be encountered during subsurface construction work before they work on the area in order to ensure appropriate treatment and course of action is afforded to any chance finds.
  - If archaeological materials are uncovered during subsurface construction, work should cease immediately and the heritage authority be notified and activity should not resume until appropriate management provisions are in place.
- The findings of this report, with approval of the heritage authority, may be classified as accessible to any interested and affected parties within the limits of the laws.
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## ABBREVIATIONS

|              |   |
|--------------|---|
| <b>AIA</b>   | Archaeological Impact Assessment                |
| <b>C</b>     | Contractor                                      |
| <b>CECO</b>  | Construction Environmental Conservation Officer |
| <b>EAP</b>   | Environmental Assessment Practitioner           |
| <b>ECO</b>   | Environmental Conservation Officer              |
| <b>EIA</b>   | Environmental Impact Assessment                 |
| <b>ESA</b>   | Early Stone Age                                 |
| <b>EM</b>    | Environmental Manager                           |
| <b>EMP</b>   | Environmental Management Plan                   |
| <b>HIA</b>   | Heritage Impact Assessment                      |
| <b>LIA</b>   | Late Iron Age                                   |
| <b>LSA</b>   | Late Stone Age                                  |
| <b>MSA</b>   | Middle Stone Age                                |
| <b>NHRA</b>  | Nation Heritage Resources Act, Act 25 of 1999   |
| <b>PM</b>    | Project Manager                                 |
| <b>SA</b>    | Stone Age                                       |
| <b>SM</b>    | Site Manager                                    |
| <b>SAHRA</b> | South African Heritage Resources Agency         |

## DEFINITIONS

The following terms used in this A/HIA are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, PHRA and South African Heritage Resources Agency [SAHRA] Policies as well as the Australia ICOMOS Charter (Burra Charter):

**Archaeological** Material remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures.

**Chance Finds** Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

**Cultural Heritage Resources** Same as Heritage Resources as defined and used in the National Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and

palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or *graves* and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

**Cultural Significance** The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

**Grave** A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

**Historic** Material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

**In Situ material** *Material culture* and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

**Late Iron Age** this period is associated with the development of complex societies and state systems in southern Africa.

**Material culture** Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

**Site** A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity

**Place** means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

**Cultural** significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

**Fabric** means all the physical material of the place including components, fixtures, contents and objects.

**Conservation** means all the processes of looking after a place so as to retain its cultural significance.

**Use** means the functions of a place, as well as the activities and practices that may occur at the place.

**Compatible** use means a use which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

**Setting** means the area around a place, which may include the visual catchment.

**Interpretation** means all the ways of presenting the cultural significance of a place.

## 1. INTRODUCTION

### 1.1 BACKGROUND

This Archaeological and Heritage Impact Assessment (A/HIA) Report has been prepared for the KwaNobuhle low cost housing and associated infrastructure development project. It was conducted as part of the Environmental Impact Assessment (EIA) for the proposed construction of low cost housing and associated infrastructure in KwaNobuhle Area 11 of Nelson Mandela Bay Metropolitan Municipality in Port Elizabeth within the Eastern Cape Province (see Fig. 1). Dekra Industrial Pty. Ltd. commissioned the study. This report details the field study, results of the study as well as discussion on the anticipated impacts of the proposed development. It focuses on identifying and assessing potential impacts on archaeological resources as well as on other physical cultural properties including historical heritage resources in relation to the proposed powerline development.

The study was designed to ensure that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the powerline and associated substation installations and associated infrastructure development. The assessment includes recommendations to manage the expected impact of the substation and powerline development route. The report includes recommendations to guide heritage authorities in make appropriate decision with regards to approval process for the proposed development. The report concludes with detailed recommendations on heritage management associated with the road upgrade work.

In line with SAHRA guidelines, this report, not necessarily in that order, provides:

- 1) Management summary
- 2) Methodology
- 3) Information with reference to the desktop study
- 4) Map and relevant geodetic images and data
- 5) GPS co-ordinates
- 6) Directions to the site
- 7) Site description and interpretation of the cultural area where the project will take place
- 8) Management details, description of affected cultural environment, photographic records of the project area
- 9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site
- 10) Conclusion.

### 1.2 LOCATION OF ACTIVITY AREA

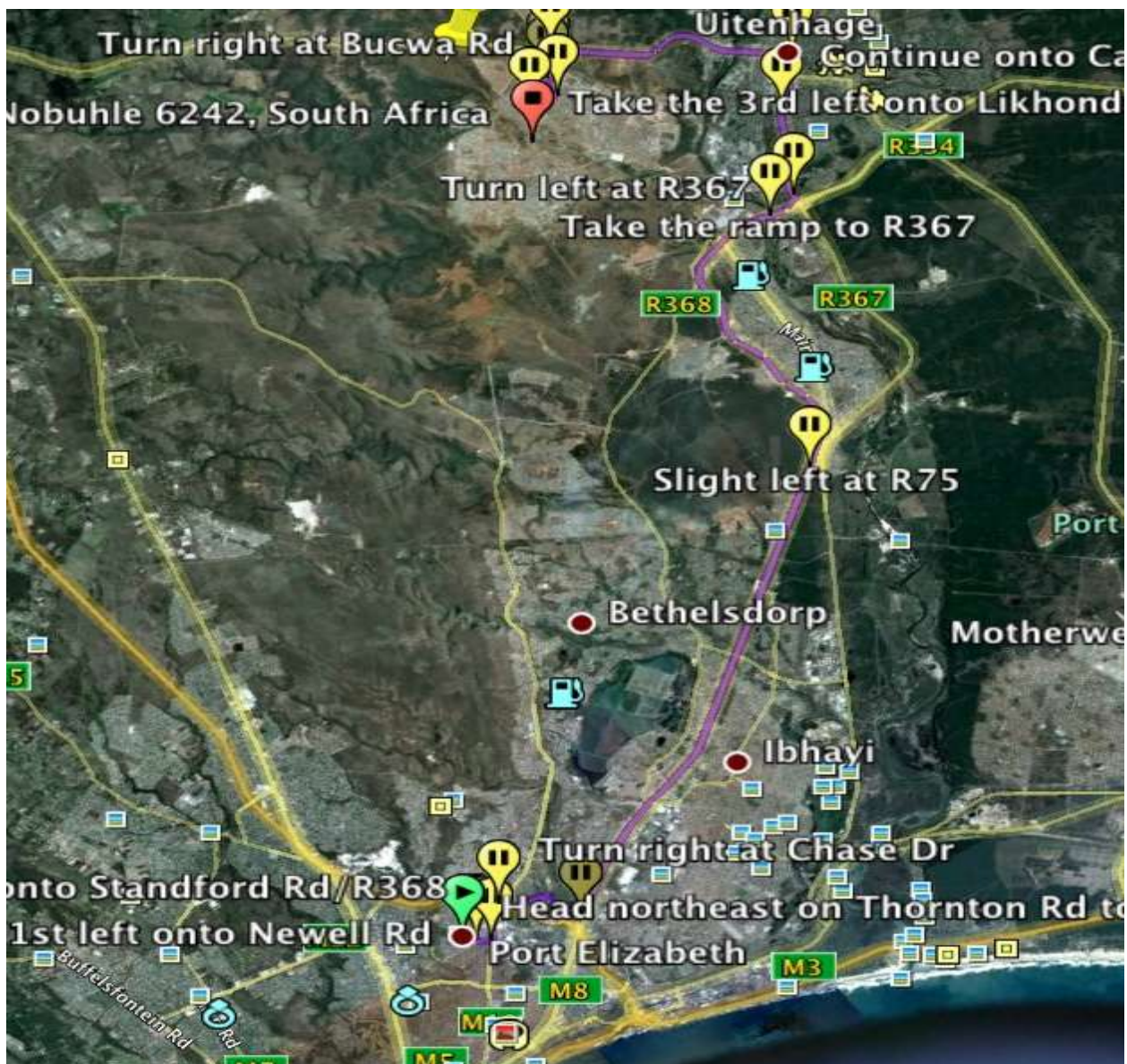
This study focuses on a *specific area of interest*, covering about 102 ha, located on the periphery of the existing KwaNobuhle Township (Fig. 1). The proposed development will be on section of the Land Portions

GP/189/1988 and GP 193/1988 located south of the KwaNobuhle in the Nelson Mandela Bay Metropolitan Municipality, Eastern Cape Province.

The activity area forms part of the vacant land previously used for farming (see Figs. 1 – 3). The project area is bound by the R334 Road to the west and built up high-density residential KwaNobuhle Township to the north (see Fig 1). There are farm boundary fence lines, access gravel roads, tracks criss-crossing the affected land as well as cleared land strips on sections with dense bush vegetation. To the south is an active borrow pit used for grave mining (Fig 1). Portions of the affected area were under cultivation during the field survey.

The project area is accessed through the R334 and is situated about 37 km from Port Elizabeth City of the Indian Ocean Coast (see Figure 1).

Figure 1: Aerial map of route leading to the project area from Port Elizabeth CBD (After Google Earth Pro. 2010)

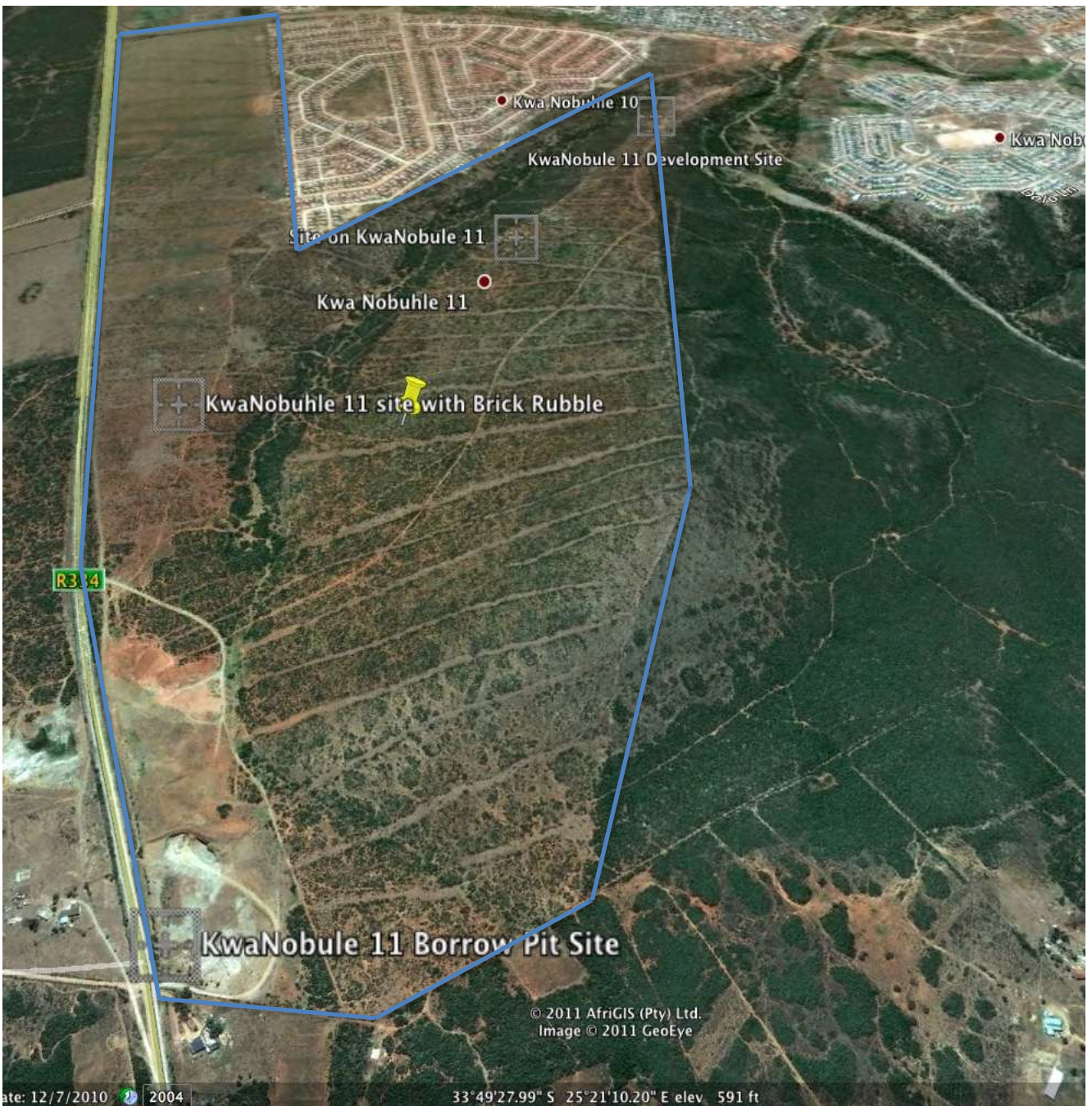




**1.2 ACTIVITY DESCRIPTION**

The local government authority has proposed to extend the residential area of KwaNobuhle by building more low cost housing and associated infrastructure on to a new area called KwaNobuhle 11. The development would include construction of hundreds of low cost high density housing on site. The housing development is associated with infrastructure development such as access roads, bulk and distribution water and sewage waste pipelines. Additional infrastructure would include installation of powerlines and other relevant facilities. The development will affect about 102 hectares (Fig. 2).

**Figure 2:** Areal View of the KwaNobuhle 11 Project area covered in this study (After Google Earth, 2010).



## 2. STATUTORY REQUIREMENTS

The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of archaeological and cultural heritage sites, in accordance with the provisions of the National Heritage Resources Act, Act 25 of 1999 and the supporting provincial regulations. Therefore, in pre-development context, heritage impact assessment study is conducted to fulfil the requirements of Section 38 (1) of the National Heritage Resources Act (No 25 of 1999). The Act requires that when constructing a linear development exceeding 300m in length or developing an area exceeding 5000 m<sup>2</sup> in extent, the developer must notify the responsible heritage authority of the proposed development and they in turn must indicate within 14 days whether an impact assessment is required. The NHR Act notes that “any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent”, the heritage authority here being Provincial Authority.

Both the national legislations and provincial provisions provide protection for the following categories of heritage resources:

- Landscapes, cultural or natural;
- Buildings or structures older than 60 years;
- Archaeological Sites, palaeontological material and meteorites;
- Burial grounds and graves;
- Public monuments and memorials;
- Living heritage (defined as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships).

## 3. STUDY TERMS OF REFERENCE

The author was asked to conduct an AIA/HIA study addressing the following issues:

- Archaeological and heritage potential of site associated with the proposed KwaNobuhle low cost housing development proposal, including any known data on sites in the affected areas;
- Provide details on methods of study, identify potential impacts and provide recommendations to guide the provincial/national heritage authority to make an informed decision with regards to authorisation of the proposed housing development.

## 4. METHODOLOGY

The proposed KwaNobuhle Low Cost Housing Development requires clearance and authorisation from government compliance agencies including the heritage authority of the Eastern Cape Province. Key A/HIA objectives for this project are to:

- Fulfil the statutory requirements of the National Heritage Resources Act, Act 25 of 1999, section 38 and the auxiliary provincial regulations.
- To identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed housing project. This study should include where appropriate, identifying sites and features of traditional historical, social, scientific, cultural and aesthetic significance within the affected study area as well as the identification of gravesites.
- Assess the significance of the archaeological and other heritage resources where they are identified.
- Evaluate the impact thereon with respect to the socio-economic opportunities and benefits that would be derived from the proposed development.
- Provide guidelines for protection and management of identified heritage sites and places (including associated intangible heritage resources management that may apply).
- Consult with the affected and other interested parties, where applicable, in regard to the impact on the heritage resources in the project's receiving environment.
- Make recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the heritage resources.
- Take responsibility for communicating with the heritage authorities in order to obtain the relevant permits and authorization with reference to heritage aspects.

In order to meet the objectives of the A/HIA Phase 1 study, the following tasks were conducted: 1) site file search, 2) limited literature review, 3) completion of a field survey and assessment and 4) analysis of the acquired data and report production. The following activities were undertaken:

- Preparation of a predictive model for archaeological heritage resources in the study area.
- A review and gap analysis of archaeological, historical and cultural background information, including possible previous heritage consultant reports specific to the affected project area, the context of the study area and previous land use history as well as a site search;
- Field survey of sampled sections of the project site and, in order to test the predictive model regarding that heritage sites in the area;
- Physical cultural property recording of any identified sites or cultural heritage places;
- Identification of heritage significance; and
- Preparation of A/HIA report with recommendation, planning constraints and opportunities associated with the proposed development.



The background information on the existing environment in the project area was recorded during a reconnaissance survey and was complimented by information provided by the project environmentalists. The reconnaissance study was conducted in August 2010 during which we gathered geographical and topographical background information along the proposed construction site (Fig 2). We subsequently conducted a detailed field survey of the affected landscape. The survey was aimed at identifying archaeological sites and physical cultural resources signatures as well as other cultural heritage sites such as graves, burial and religious or sacred sites that may be affected by the proposed construction of low cost housing and associated infrastructure project. A team of two archaeologists systematically transacted the proposed construction site on foot.

Distribution of archaeological sites across the landscape depends on a number of related factors, such as preservation conditions over time, the degree to which sites are exposed through erosion or lack of vegetation and the actual decisions of the people who created the sites and deposited the materials originally. Using the preliminary findings from the reconnaissance study we applied a judgement surveying strategy (stratified sampling). We divided the affected landscape into geographical zones (built up sections, land under crops, open grass lands, hills, gully, ridge, and stream, cleared land strips or stream valley section). Naturally, we placed more emphasis on areas we believed had potential of archaeological, historical or other physical cultural resources.

Large urban high-density settlements (existing KwaNobuhle 1 to 10 Townships), old agricultural fields, grazing lands, vegetated stream valleys; access and main road infrastructures, existing operational open cast gravel mining site and other auxiliary infrastructures dominate the affected project area. The project area is highly accessible. However, some sections are covered with dense bushes. In general it was difficult to locate archaeological sites/materials because most of the areas covered by dense bushes were impenetrable. This made detailed surficial inspection of such portions of the proposed the development site limited. Although the survey covered most of the project site by transect foot survey, the survey applied judicial systematic stratified sampling across the affected landscape focusing on the cleared land strips and open field sections (also see Plates 1 and Figure 1). Although limited sections of ground surface were covered with grass and thick bushes, this did not impede adequate surficial feature identification of possible archaeological sites in sampled areas particularly those earmarked for the development (Plate 1).

Geographic coordinates were obtained with a handheld Garmin GPS global positioning unit. Photographs were taken as part of the documentation process during field study.



**Plate 1:** Most of the affected project are consists of historic commercial agricultural landscape. The area still has cultivated sections and cleared portions used for cattle grazing. Note the gravel open cast-mining site in the foreground.

#### 4.1. ASSUMPTIONS AND LIMITATIONS

A limited literature review was completed to provide the general archaeological and historical context to determine the sensitivity of the cultural landscape. Literature does highlight that the inland Nelson Mandela Bay Metropolitan Municipality area of the Eastern Cape Province cultural landscape has a significant density of archaeological and historical sites potential (also Murimbika, 2007; Binneman, 2007, 2010; Webley, 2007).

The field survey did not include any form of subsurface inspection beyond the inspection of burrows, road cut sections, and the sections exposed by erosion or field ploughing. Some assumptions were made as part of the study and therefore some limitations, uncertainties and gaps in information would apply. It should however, be noted that these do not invalidates the findings of this study in any way:

- The proposed low cost housing and associated infrastructure development will be limited to the 102ha area highlighted in the project brief. (Figure 2 & 3).
- Given the heavily degraded nature on most affected project area and the level of high existing developments within the affected landscape, it is assumed most sections of the project area have low potential to yield significant *in situ* archaeological or physical cultural properties.
- No excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on surficially observed indicators. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.
- No palaeontological survey was conducted.
- This study did not include any ethnographic and oral historical studies nor did it investigate the settlement history of the area.

## 4.2. CONSULTATION

No community consultation was conducted during this phase of the A/HIA study. However, the EIA Public Participation Process (PPP) invited public comments on any matter related to the proposed development. No heritage matter was raised or arose from the EIA PPP exercise.

## 5. CULTURE HISTORY BACKGROUND OF THE PROJECT AREA

### 5.1. BIOPHYSICAL DESCRIPTION OF THE PROJECT AREA

Eastern Cape has seven (7) Biomes classified as Veld Type 29 (Acocks, 1988). These biomes are considered unique and significant natural heritage of the country. The Veld Type Biome contains faunal heritage consisting of 6164 plant types, 156 mammals, 51 amphibian and 57 reptile animal types (Bredenkamp, Granger and van Rooyen, 1996). From a climatic perspective, the Eastern Cape coastal area lies directly between the subtropical conditions of KwaZulu Natal and the Mediterranean conditions of the Western Cape. The inland area is bisected by the great escarpment resulting in the southern reaches marked by a series of rivers and corresponding wetland fauna and flora, while the northern areas are those of the altitudinous plains of the Plateau and great Karoo. These topographical differences are what cause the climatic differences and conditions experienced by the towns and cities within these areas. The project area is within the city of Port Elizabeth environs, which enjoys a daily average of +/- 7-8 hours of sunshine annually. In winter (April to August) the temperatures range from 7° to 20° C. In summer the temperatures range from 16° to 26° C (<http://www.savenues.com/weather/easterncape.htm>, Accessed August 2010).



Plate 2: Project area bound to the south (Left) by the R334 Provincial Road.

### 5.2. STONE AGE

The project area, like most of Eastern and Western Cape coastal and inland, has a culture history that goes back to Stone Age periods (also see Deacon and Deacon, 1997). The San hunter-gather people have lived in the coastal to inland southern and northern grasslands and hills of the modern day Eastern Cape Province for

millenniums long before the Bantu-speaking farmers began arriving in southern Africa 1500 year ago. The San hunter-gatherer left behind a large amount of archaeological evidence including hunting camps marked with shell ash midden, stone tools, rock art (usually on rock shelter and cave walls and as well as cliff faces that today are some of the most unique prehistoric paintings on the continent) (Deacon and Deacon 1999).

From the records accessed, no systematic specific archaeological research and local archaeological surveys/recordings have been conducted on the KwaNobuhle area.

In general, the oldest evidence of the early inhabitants in the eastern Cape comprise of large stone tools, called hand axes and cleavers found amongst river gravels and in old spring deposits in the region. These date to the Earlier Stone Age (ESA) and may date between 1,5 million and 250 000 years old. A good case example of ESA sites in the region come from spring deposits at Amanzi Spring near Addo Elephant National Park, about 130km north of the KwaNobuhle Project area. The sites yielded a large collection of stone tools, wood and seed material preserved in the spring deposits, dating to between 250 000 to 800 000 years old (Deacon, 1970). ESA hand axes were recorded from Coega Kop and from the banks and gravels of the Coega and between the N2 national road and the salt works on the periphery of the Port Elizabeth City (also see Binneman J, 2010).

In line with culture history chronology, the large hand axes and cleavers were replaced by smaller stone tools of the Middle Stone Age (MSA) which consists of flake and blade industries. Evidence of MSA sites occur throughout the Eastern Cape region and date between 250 000 and 30 000 years old. These stone artefacts, like the Earlier Stone Age tools are also found in the gravels along the banks of the main Rivers. The Klasies River Cave site is classic example of sites representative of the MSA in the region (see Deacon and Wurz, 1996).

The highest density of archaeological sites found in the Eastern Cape area Later Stone Age (LSA) dating from the past 10 000 years. The LSA is characterised campsites of San hunter-gatherers and Khoi pastoralists. Despite their estimated ubiquitous, LSA sites pose a bigger challenge to identify *in situ* because they are spread on open lands most of which today are covered by this coastal veld vegetation and buried under thick sand dunes. The preservation of these sites is poor and it is not always possible to date them. At most LSA sites are only represented by a few stone tools and fragments of bone (Deacon & Deacon 1999). However, the LSA sites that yielded most evidence are those that survived in caves and rock shelters associated with mountain ranges. Zuurberg mountains in the Addo Elephant National Park further inland from the project area have yield a large collection of LSA sites (also see Murimbika, 2007). The caves and rock shelters exhibit occupational deposits left behind by generations of LSA San hunter-gatherers. The deposits are usually well-preserved consisting of living deposits and rock art paintings along the walls (Deacon and Deacon 1999).

About 2 000 years ago, evidence of pastoralism began emerging on prehistoric settlement sites. These LSA sites associated with the Khoi pastoralists. The Khoi pastoralists predates the Bantu farmers by centuries. They

introduced food production in coastal South Africa. They are credited for introducing the first domesticated animals (sheep, goat and cattle) and the use of ceramic vessels to southern Africa (Deacon and Deacon, 1999). Often archaeological sites are found close to the banks of large streams and rivers. Large piles of freshwater mussel shell middens mark the LSA pastoral campsites. It is common on such sites that human remains are recovered buried in the middens (also see Webley, 2007; Binneman, 2007; 2010).

Most shell middens, LSA Khoi pastoralist ceramic pot sherds and other associated archaeological material, mainly of the Holocene Later Stone Age (last 8 000 years) are located in the shifting sand dunes along the Indian Ocean coast belt in the Eastern Cape (Ibid). This observation makes KwaNobuhle area for the proposed development which is situated more than 30km from the coast, in the bush veld area, fall outside the hypothetical maximum-5 km coastal range associated with LSA shell midden sites (Rudner, 1968, cited in Binneman 2010).

### **5.3. IRON AGE**

Some 1600 years ago, southern Africa region witnessed the arrival of Bantu farmers. The Iron Age of the Indian Ocean coastlands in South Africa dates back to the 5<sup>th</sup> Century AD when the Early Iron Age (EIA) proto-Bantu-speaking farming communities began arriving in this region which was then occupied by San hunter-gatherers and the Khoi pastoralists. These EIA communities are archaeologically referred to as the Mzonjani facies of the Urewe EIA Tradition (Huffman, 2007: 127-9). They occupied the foot-hills and valley lands along the general Indian Ocean coastland introducing settled life, domesticated livestock, crop production and the use of iron (also see Maggs 1984a; 1984b; Huffman 2007). These settled farming communities were concentrated to the eastern regions (Huffman, 2007).

The Eastern Cape region did not experience Bantu-farming migration in the EIA until the LIA period. The period from AD 1300 to 1750 saw multiple Nguni (Bantu-speaking cluster) dispersal from the east coastland into the hinterland, westward migrations along the coast and eventually across the Drakensberg Escapement into central and western South Africa (ibid). The later groups that moved westwards came to be known as the Cape Nguni consisting of Xhosa speaking groups. The Xhosa had extensive intra and inter cultural contacts with the coasts San and Khoi communities.

From the LIA perspective, the project area cape region was occupied by the Gcaleka section of the Xhosa to the south, the Thembu, and the Bomvana tribes in the middle and the Cele and Xesibe people in the northern areas (Hammond-Tooke 1993). Iron Age sites associated with the ancestors of the modern Nguni-Xhosa speaking communities are recoverable in the region.



#### 5.4. HISTORICAL BACKGROUND

The Late Iron Age Nguni communities engaged in the Indian Ocean Trade exporting ivory and importing consumables such as cloth and glass beads. This brought the Nguni speaking community in touch with the IndoAsian and first Europeans (Portuguese). It was the arrival of the Dutch and the English traders that opened up Delagoa Bay to more trade did the Nguni engaged in extensive trade with the international traders (Huffman 2007). Furthermore, The arrival of the first European settlers on the coast in Cape Town in the mid-1600s added a new mix that will shape the history of the region to what became South Africa.

From the late 1700s, trade in supply of meat to passing ship had increased substantially to an extent that by 1800 meat trade is estimated to have surpassed ivory trade. At the same time population was booming following the increased food production that came with the introduction of maize that became the staple food. These changes promoted further westward movement by the Xhosa farming communities.

Naturally, there were signs that population groups had to compete for resources and at time move out of region, which may have been under stress. KwaZulu Natal, east of the Eastern Cape has a special place in the history of the region and country at large. This relates to the most referenced *mfecane* (wandering hordes) period of tremendous insecurity and military stress. Around the 1805, the region was witnessing the massive movements, which later came to be associated with the *mfecane*. The causes and consequences of the *mfecane* are well documented elsewhere (e.g. Hamilton 1995; Cobbing 1988). By 1805, for example, the Xhosa were recorded crossing the Orange River o raid for cattle (Huffman, 1007:453). From 1800s, the Voortrekker with horses and wagons were arriving in the foothills of the uKhahlamba-Drakensberg Mountains to the west from the Western and Eastern Cape regions. They spread establishing settlements all the way through the modern day Eastern Cape to the northern cost lands still striving today.

In recent colonial history, the area played host to different competing local settler communities. The area was a scene of series of colonial wars, the most notable ones being the Xhosa Wars of the mid 1800s. By the end of the 19<sup>th</sup> century, the region was placed under British rule and the local people displaced. During the colonial era of the Union of South Africa and the subsequent apartheid regimes on the Republic of South Africa, some areas were reserved for African settlements often referred to as Bantu homelands in Transkei and Ciskei homelands.

#### 5.5. CONTEMPORARY HISTORY

Through out the 1900s, Eastern Cape came to be the sources of some of the most consistent resistance to colonial rule and struggle for democracy. The region produced the majority of the oldest African modern political organisation, the African National Congress (founded in 1912). Majority of this political organisation leadership originated from the Eastern Cape, including the first and second post-apartheid presidents of South Africa).

From a culture geography and history perspective, Port Elizabeth area, within which the project falls, is the fifth largest city in South Africa. Today most of the land is used for commercial, residential, agricultural activities and industrial activities. The project area is in a built up coastal area marked by high-density township settlements of KwaNobuhle and the associated infrastructure. The proposed development is an extension of the existing developments in the area. The proposed project, low coast housing is a government sponsored initiative that seek to address historical imbalances in the provision of services to historically black settlements. Such developments are connected to the history and culture-geography of the region. It is within this culture history and cultural landscape that the proposed low cost housing project area of KwaNobuhle is located.

## 6. RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT STUDY

### 6.1. LOCATION DETAILS

**Province:** Eastern Cape

**Municipalities:** Nelson Mandela Bay Metropolitan Municipality

**Proposed development:** spatial development covering 102 hectares. The development will consist of construction of high-density low cost housing, access and local roads, powerlines, water and sewage reticulation systems. The development will be an extension of the existing KwaNobuhle Township (see Fig 1 and 2).

**1:50 000 map name:** 3325 CD and 3425 AB Uitenhage (Fig. 2).

**Name Properties affected:** KwaNobuhle Township, Land GP/189/1988 & GP 193/1988

**GPS Co-ordinates:**

- S33° 49' 06.8" E025° 21' 50.4" (Point at the edge of the site).
- S33° 49' 33.3" E025° 21' 32.3" (Point along the proposed project area).
- S33° 49' 08.3" E025° 21' 28.0" (Point at the edge of the site).
- S33° 49' 07.9" E025° 21' 28.8" (Point along the proposed project area).
- S33° 49' 07.7" E025° 21' 10.5" (.Point on the affected area).
- S33° 49' 08.3" E025° 21' 28.0" (One of the cleared strips on the affected area).
- S33° 49' 23.5" E025° 21' 23.7" (Point along the proposed project area).
- S33° 49' 21.6" E025° 21' 26.5" (Point along the affected area).
- S33° 49' 28.3" E025° 20' 35.4" (Edge of borrow pit adjacent to R334 Road).
- S33° 49' 30.9" E025° 20' 36.3" (Point at the edge of borrow pit).
- S33° 49' 26.1" E025° 20' 42.3" (Point along the boundary of the borrow pit).
- S33° 49' 21.2" E025° 20' 45.9" (Point along the boundary of the borrow pit bordering the site)
- S33° 49' 09.3" E025° 20' 47.5" (Entrance to the borrow pit)
- S33° 49' 23.9" E 025° 20' 54.8" (Fence across the project area)
- S33° 49' 05.2" E025° 20' 54.7" (Cleared field)

- S33° 49' 03.5" E 025° 20' 59.4" (Brick rubble on the affected site)
- S33° 49' 00.0" E 025° 20' 35.4" (Point on a ploughed field)
- S33° 48' 42.3" E 025° 21' 12.4" (Point on a recently ploughed field)
- S33° 48' 24.4" E 025° 21' 32.3" (Northern edge of ploughed field).



Plate 3: The project site has portions that are heavily degraded by erosion and subsurface pipeline constructions. Such section offered an opportunity to inspect the site for possible archaeological materials.



Plate 4: Large sections of the land earmarked for the proposed development, which were under dense bush cover, were accessed through strips that were clear of vegetation. Other land portions were under cultivation.



Figure 3: Location of the proposed KwaNobuhle 11 development site (Topographic map 3325 CD and 3425 AB).

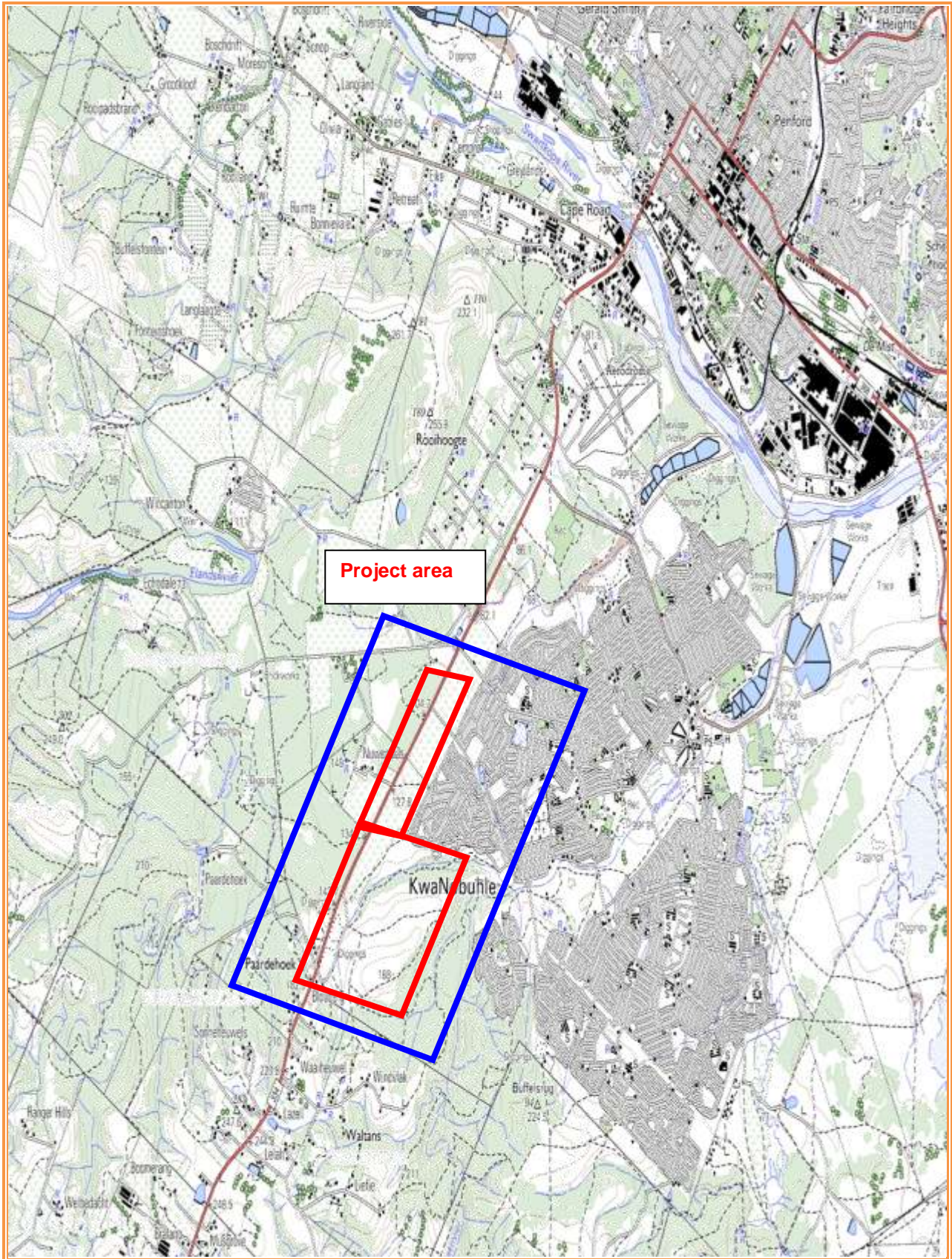






Plate 5: The strip of land next to the existing KwaNobuhle Township has been used for cultivation for generations. The land is also used as cattle grazing land during the dry season. Cultivated sections were inspected for possible archaeological sites, particularly stone tool scatters.



Plate 6: Land sections with dense vegetation cover had strips of land that were cleared. Such strips are used as access roads and some are servitudes for water and sewage pipeline.



Plate 7: The southern section of the development is bound by an active open cast grave borrow pit. the immediate surrounding area is heavily degraded and no archaeological sites were likely to have survived the level of disturbance recorded on site.

## 6.2. ARCHAEOLOGICAL AND HERITAGE SITE

The site of interest for the proposed KwaNobuhle low cost housing development did not yield any archaeological sites or material. The considerable sections of the site are heavily degraded from previous agricultural and contemporary land uses. The detailed inspection of road sections, eroded pipeline servitudes and clear land strips did not yield any archaeological materials. As such the chances of recovering significant archaeological materials *in situ*, particularly open sites, were seriously compromised and limited. If such sites existed on this particular project area, they may have been destroyed over the land use history of development and other destructive land use patterns such as deep ploughing, road works, borrow pit excavations, residential and associated infrastructure constructions that already exist on the project area.

Based on the field study results and field observations, it is the considered opinion of the author that the affected landscape has medium to low potential to yield previously unidentified archaeological sites during subsurface excavations and construction work associated with the proposed housing development.

## 6.3. HISTORICAL AND RECENT SITES

Generically speaking, historic sites are associated with white settlers, colonial wars, industrialization; recent and contemporary African population settlements, contemporary ritual sites dating to the last hundred years. However, recent historic period sites and features associated with the, African communities, settler and commercial farming communities are on record in the general Port Elizabeth coastal environs. Although the affected general landscape is associated with historical events such as white settler migration, colonial wars and the recent African peopling of the region, no listed specific historical sites are on the proposed development sites.

The more common functions of places of cultural historical significance may include:

- Domestic
- Recreation & culture
- Commerce & trade
- Agriculture & subsistence
- Social
- Health care
- Religion
- Designed landscape
- Funeral (cemeteries, graves and burial grounds)
- Civil and Structural Engineering
- Education
- Defence /Military

However, the bushy and treed sections of the cultural landscape affected by the development proposal retain high tangible and intangible ethnobotanical relevance. Local traditional healers and medicine people depend on these vegetation resources for herbs and traditional medicines. As such, the natural ethnobotanical resources should be treated as significant ethnobiological resources.

#### **6.4. BURIAL GROUNDS AND GRAVES**

The field survey did not yield graves or burial sites that are on the direct path of the proposed development (see Fig. 1 and 2). However, from a heritage perspective, burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 3). They have both historical and social significance and are considered sacred. Wherever they exist, or when they are accidentally discovered during development, they may not be tempered with or interfered with during any proposed development.

The possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present. It is common that accidental burial finds are made on construction sites from time to time across the country particularly on historical cultural landscapes similar to the development project area.

#### *Significance valuation for Burial Ground, Historic Cemeteries and Individual Graves*

The significance of burial grounds and gravesites is closely tied to their age and historical, cultural and social context. Nonetheless, every burial should be considered as of high socio-cultural significance protected by practices, a series of legislations, and ordinances.

#### **6.5. HISTORICAL MONUMENTS**

There is no listed monuments are on record in the vicinity of the Sites of Interest for the proposed KwaNobuhle 11 developments.

### **7. DISCUSSION**

The KwaNobuhle Site 11 survey did not locate any archaeological or historical sites on Site of Interest for the proposed housing development. The lack of clearly distinguishable archaeological sites recorded during the current survey is thought to be a result of two primary interrelated factors:

1. That the project site is situated within a heavily degraded area, and have reduced sensitivity for the presence of high significance physical cultural site remains, be they archaeological, historical or burial sites, due to previous earth moving disturbances resulting from developments and other land uses in the project area.
2. That the survey focused on sample sections that had high potential to yield possible archaeological sites. Due to the systematic stripping on the densely vegetated sections, it was impractical to cover every inch of the project area. As such, there is the possibility that archaeological sites exist in the project area whereas the sampled sections fell outside sections with potential distinct archaeological sites.
3. Limited ground surface visibility of the sections of the project site that were not cleared at the time of the study may have impeded the detection of other physical cultural heritage site remains immediately associated with the Site of Interest.

Nonetheless, the project area falls within a general cultural landscape that have potential to yield the following class of archaeological heritage:

- **Shell middens** – Although the affected KwaNobuhle site has low potential to yield shell midden sites, such middens are defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. As such, they are associated with the coastline. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery, bone and occasionally also human remains. Shell middens may be of various sizes and depths, but an accumulation, which exceeds 1 m<sup>2</sup> in extent, should be reported to an archaeologist.
- **Human Skeletal material** - The possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present. It is common that accidental burial finds are made on construction sites from time to time across the country particularly on historical cultural landscapes similar to the development project area. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this. Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported.
- **Fossil bones** – the Eastern Cape has several sites associated with fossil deposits in calcrete (also see Murimbika, 2007). Fossil bones may be found embedded in calcrete deposits at the site. Any concentrations of bones, whether fossilized or not, should be reported.
- **Stone artefacts** - These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally, should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.
- **Stone features and platforms** - They come in different forms and sizes, but are easy to identify. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually two meters in diameter and may represent cooking platform for shellfish. Others may resemble circular single row cobble stone markers. These are different sizes and may be the remains of windbreaks or cooking shelters.
- **Historical artefacts or features** - These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activity

The absence of confirmable and significant archaeological cultural heritage sites on KwaNobuhle 11 development site is not evidence in itself that archaeological or historical heritage sites did not exist in the project area. It may be that, given the dense vegetation, previous deep ploughing and developments in most sections of the development site, if such sites existed before, changing earth-moving activities may have destroyed their surficial evidence. Furthermore, some sections were not accessible due to thick vegetation cover. Furthermore, the significance of the Sites of Interest is not limited to presence or absence of physical archaeological sites. The project area is a notable contemporary cultural landscape, which has discernable links

to local oral history and folk stories, environmental and ethnobotanical aesthetics, popular memories etc. associated with significance emanating from intangible heritage of the Eastern Cape region.

## 8. CULTURAL HERITAGE SITE ASSESSMENT OF SIGNIFICANCE

The appropriate management of cultural heritage resources is usually determined on the basis of their assessed significance as well as the likely impacts of any proposed developments. Cultural significance is defined in the Burra Charter as meaning *aesthetic, historic, scientific or social value for past, present or future generations* (Article 1.2). Social, religious, cultural and public significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of the Site of Interest, associated place or area are resolved.

Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed for all time, and what is considered of significance at the time of assessment may change as similar items are located, more research is undertaken and community values change. This does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, also changes over time. This assessment of the Indigenous cultural heritage significance of the Site of Interest as its environments of the study area is based on the views expressed by the Claimant and his community representatives consulted, documentary review and physical integrity.

African indigenous cultural heritage significance is not limited to items, places or landscapes associated with pre-European contact. Indigenous cultural heritage significance is understood to encompass more than ancient archaeological sites and deposits, broad landscapes and environments. It also refers to sacred places and story sites, as well as historic sites, including mission sites, memorials, and contact sites. This can also refer to modern sites with particular resonance to the indigenous community. The Site of Interest earmarked for the KwaNobuhle 11 housing development considered in this project falls within this realm of broad generic significance.

### 8.1. ASSESSMENT CRITERIA

The Guidelines to the SAHRA Guidelines and the Burra Charter define the following criterion for the assessment of cultural significance:

#### *Aesthetic Value*

*Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; sense of place, the smells and sounds associated with the place and its use.*



### *Historic Value*

*Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.*

### *Scientific value*

*The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. Scientific value is also enshrined in natural resources that have significant social value. For example, pockets of forests and bushvelds have high ethnobotany value.*

### *Social Value*

*Social value embraces the qualities for which a place has become a focus of spiritual, religious, political, local, national or other cultural sentiment to a majority or minority group. Social value also extend to natural resources such as bushes, trees and herbs that are collected and harvested from nature for herbal and medicinal purposes.*

## **8.2. STATEMENT OF SIGNIFICANCE**

No physical cultural properties, including archaeological or historical sites, were recorded on the project area. Apart from the potential of the bushy vegetation to be sources of ethnobotanical resources for the local herbs and medicine people from the township, to significance was accorded to the affected cultural landscape. The area is heavily degraded and is not unique in any sense from a cultural resources perspective. Furthermore, the proposed developments will not alter the aesthetic value of the area in any radical way since it will add value to the constantly changing and developing settlements which already exists in the area. No specific claims to historical attachments to the area were recorded. All these factors put together confirms the low cultural significance of the project area.

## **9. CONCLUSIONS & RECOMMENDATIONS**

The study did not find any permanent barrier to the proposed KwaNobuhle development. As such, it is recommended to the Heritage authority that the development be cleared to proceed subject to specified recommendations made in the following sections. The following recommendations are based on the results of the A/HIA research, cultural heritage background review, site inspection and assessment of significance.

### **9.1. MANAGEMENT & POLICY RECOMMENDATIONS**

#### *Community Advisory*

Should community consultations being held through the project EIA PPP refer to any cultural issues associated with the project area, such matters should be addressed adequately. The proposed KwaNobuhle housing development sites are associated with existing urban communities and any heritage or cultural aspirations they may be affected by the development should be acknowledged. To date, the PPP consultation process has not identified cultural heritage contestation to the project.

#### **Recommendation 1**

*The Project Public Participation Process should ensure that any cultural heritage related matter that may arise is given due attention whenever it arises and is communicated to the heritage authority throughout the proposed project development. This form of extended community involvement would pre-empt any potential disruptions that may arise from previously unknown cultural heritage matters that may have escaped the attention of this study.*

### **9.2. INDIGENOUS AFRICAN CULTURAL PLACES**

The proposed development is situated in the context of existing township residential areas. There are sections that are covered by dense vegetation. Such areas retain high social significance associated with ethno-botany, which makes such area potential sources of traditional herbs and medicines. However, there are several adjacent pieces of land with the same vegetation typology that would remain accessible for potential traditional herbalist and medicine people.

#### **Recommendation 2**

- *Location of development activities should be restricted to minimum footprint impact covered during this survey. Some bushy sections have local ethno-botany significance as sources of traditional herbs and medicines. As such disruption and vegetation clearance should be minimal.*
- *Preserved bushveld areas should be protected for ethnobotany and natural biome heritage significance. As such this development should avoid excessive or vegetation clearance beyond what is specifically necessary during the development.*

### **9.3. ARCHAEOLOGICAL GRAVES AND BURIAL & CULTURAL HERITAGE SITES**

No intact surface archaeological heritage deposits were recorded within the study area. However, the general project area's extensive history of indigenous activity is such that it is possible that remnant or isolated chance archaeological and historical artefacts sites may be present in areas that have minor disturbance. No gravesites or burial grounds were identified as directly under threat from the proposed development. Therefore no conflicts between archaeological and physical cultural heritage properties including burial grounds and the proposed development are anticipated when construction begins.

#### **Recommendation 3**

*The proposed powerline development should be approved to proceed as planned under strict observation that construction work over does not extend beyond the surveyed project site. The foot*



*print impact of the proposed development and associated infrastructure should be kept to minimal to limit the possibility of encountering chance finds archaeological site within affected area.*

#### **Recommendation 4**

- *In situations where unpredicted impacts occur (such as accidentally disturbing a previously unknown grave), construction activities should be stopped and the heritage authority notified immediately. In the unlikely event of chance archaeological material or previously unknown human remains being disturbed during subsurface construction, the finds should be left in situ subject to further instruction from the project archaeologist or heritage authorities (refer to Appendixes 1 - 4 for additional details). The overriding objective, where remedial action is warranted, is to minimize disruption in construction scheduling while recovering archaeological and any affected cultural heritage data as stipulated by the PHRA and NHRA regulations.*
- *A professional archaeologist should be retained to monitor all significant earth moving activities that may be implemented as part of the proposed housing infrastructure developments. The monitoring process would ensure that should any archaeological or human remains be disturbed during subsurface construction work at the Sites of Interest, immediate remedial rescue and salvage work would be actioned without delay.*

The recommended heritage monitoring operations will not stop the works but will form part of the proposed project's construction EMP in line with best-practice heritage procedures.

#### **9.4. INTERPRETATION & ACTIVE MANAGEMENT RECOMMENDATIONS**

The coastal and inland historic and contemporary communities have a long and significant connection with project area. Like any other generational society, there are several other cultural activities that take place within the affected settlement areas associated with the proposed KwaNobuhle development.

#### **Recommendation 7**

*Although the possibility of conflict between the community and the proposed development related to culture heritage is unlikely, the heritage authority should acknowledge on behalf of the community, that the project area is situated in a cultural landscape associated with local history and cultural activities. The heritage authority may also acknowledge that such significance is not tied to physical sites or archaeological sites only, but to intangible heritage such as popular memories, oral history, ancestral remembrance, religious rituals, aesthetic appreciations, living experiences and folklores. As such, the community retain the right to have their constitutionally guaranteed cultural heritage rights respected and protected without being limited to existence of physical evidence such as archaeological sites. Should such issues arise in association with this proposed development, the proponent, the heritage authority and community should seek amicable way forward to address them.*

### **Recommendation 8**

*Subject to the recommendations herein made, there are no significant cultural heritage resources barriers to the proposed KwaNobuhle 11 housing and associate infrastructure development in the Nelson Mandela Bay Metropolitan Municipality of the Eastern Cape Natal Province. The The heritage authority may approve the proposed development to proceed as planned with special commendations to implement the recommendations here in made.*

- *The proposed KwaNobuhle Area 11 low cost housing site should be approved as the most suitable from a heritage perspective.*
- *We recommend that, in the unlikely event of chance archaeological sites being encountered in the subsurface, the management of unavoidable and unanticipated adverse impacts thereon will be achieved through the implementation of mitigation, compensation, surveillance, monitoring and emergency impact management measures. These measures will only be implemented in situations where unavoidable conflicts are identified between archaeological resources and a proposed development.*
- *We recommend that a heritage monitoring plan be put in place as part of the project's Environmental Management Plan (EMP) to ensure that the proposed construction of houses and associated infrastructure will not interfere with chance archaeological sites that may potentially be encountered in the subsurface during the development; especially during foundation construction activities (see Appendix 2).*
- *In situations where unpredicted impacts occur (such as accidentally disturbing a previously unknown graves), construction activities must be stopped and the heritage authority should be notified immediately. The overriding objective, where remedial action is warranted, is to minimize disruption in construction scheduling while recovering archaeological data. It may be necessary to implement emergency measures to mitigate unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites (also see Appendix 1 & 2).*
- *Furthermore, the construction team should be informed about the value of the cultural heritage resources in general so as to ensure that they do not destroy the chance archaeological sites they may encounter during working on the development site.*

## **10. CONCLUDING REMARKS**

The literature review and field research confirmed that the project area is situated within a contemporary cultural landscape dotted with urban township settlements with long history. Field survey was conducted during which it was established that the affected project area is degraded by existing and historic land uses and developments. Although the area is degraded, there is a possibility that the Site of Interest is part of a wider archaeological and historical landscape. This report conclude that the proposed housing developments may be approved by heritage authority to proceed as planned subject to recommendations herein made which include a conditional heritage monitoring plan being incorporated into the construction EMP (also see Appendices).

## 11. BIBLIOGRAPHY

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## **APPENDIX 1: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT**

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Developers, land use planners and professional specialist service providers often encounter difficult situations with regards to burial grounds, cemeteries and graves that may be encountered in development contexts. This may be before or during a development project. There are different procedures that need to be followed when a development is considered on an area that will impact upon or destroy existing burial grounds, cemeteries or individual graves. In contexts where human remains are accidentally found during development work such as road construction or building construction, there are different sets of intervention regulations that should be instigated. This brief is an attempt to highlight the relevant regulations with emphasis on procedures to be followed when burial grounds, cemeteries and graves are found in development planning and development work contexts. The applicable regulations operate within the national heritage and local government legislations and ordinances passed in this regard. These guidelines assist you to follow the legal pathway.

### **1. First, establish the context of the burial:**

A. Are the remains less than 60 years old? If so, they may be subject to provisions of the Human Tissue Act, Cemeteries Ordinance(s) and to local, regional, or municipal regulations, which vary from place to place. The finding of such remains must be reported to the police but are not automatically protected by the National Heritage Resources Act (Act 25 of 1999).

B. Is this the grave of a victim of conflict? If so, it is protected by the National Heritage Resources Act (Section 36(3a)). (Relevant extracts from the Act and Regulations are included below).

C. Is it a grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority? If so, it is protected by the National Heritage Resources Act (Section 36(3b)).

D. Are the human or hominid remains older than 100 years? If so, they are protected by the National Heritage Resources Act (Section 35(4), see also definition of "archaeological" in Section 2).

### **2. Second, refer to the terms of the National Heritage Resources Act most appropriate to the situation, or to other Acts and Ordinances:**

A. Human remains that are NOT protected in terms of the National Heritage Resources Act (i.e. less than 60 years old and not a grave of a victim of conflict or of cultural significance) are subject to provisions of the Human Tissue Act and to local and regional regulations, for example Cemeteries Ordinances applicable in different Provincial and local Authorities.

B). All finds of human remains must be reported to the nearest police station to ascertain whether or not a crime has been committed.

C). If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains may be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities given their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

**3. In the event that a graveyard is to be moved or developed for another purpose, it is incumbent on the local authority to publish a list of the names of all the persons buried in the graveyard if there are gravestones or simply a notification that graves in the relevant graveyard are to be disturbed. Such a list would have to be compiled from the names on the gravestones or from parish or other records. The published list would call on the relatives of the deceased to react within a certain period to claim the remains for re-interment. If the relatives do not react to the advertisement, the remains may be re-interred at the discretion of the local authority.**

A. However, it is the responsibility of the developer to ensure that none of the affected graves within the cemetery are burials of victims of conflict. The applicant is also required in line with the heritage legislation to verify that the graves have no social significance to the local communities.

B. It is illegal in terms of the Human Tissue Act for individuals to keep human remains, even if they have a permit, and even if the material was found on their own land.

**4. The Exhumations Ordinance (Ordinance No. 12 of 1980 and as amended) is also relevant. Its purpose is “To prohibit the desecration, destruction and damaging of graves in cemeteries and receptacles containing bodies; to regulate the exhumation, disturbance, removal and re-interment of bodies, and to provide for matters incidental thereto”. This ordinance is supplemented and support by local authorities regulations, municipality by-laws and ordinances.**

#### **DEFINITIONS AND APPLICABLE REGULATIONS**

- 1). A “Cemetery” is defined as any land, whether public or private, containing one or more graves.
- 2). A “grave” includes (a) any place, whether wholly or partly above or below the level of ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and (b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure of whatsoever nature forming part of or appurtenant to a grave.
- 3). No person shall desecrate, destroy or damage any grave in a cemetery, or any coffin or urn without written approval of the Administrator.
- 4). No person shall exhume, disturb, remove or re-inter anybody in a cemetery, or any coffin or urn without written approval of the Administrator.

5). Application must be made for such approval in writing, together with:

- a). A statement of where the body is to be re-interred.
  - b). Why it is to be exhumed.
  - c). The methods proposed for exhumation.
  - d). Written permission from local authorities, nearest available relatives and their religious body owning or managing the cemetery, and where all such permission cannot be obtained, the application must give reasons why not.
- 6). The Administrator has the power to vary any conditions and to impose additional conditions.
- 7). Anyone found guilty and convicted is liable for a maximum fine of R200 and maximum prison sentence of six months.

5. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the National Heritage Resources Agency. They are administered by the Graves of Conflict Division at the SAHRA offices in Johannesburg.

“Victims of Conflict” are:

- a). Those who died in this country as a result of any war or conflict but excluding those covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992).
  - b). Members of the forces of Great Britain and the former British Empire who died in active service before 4 August 1914.
  - c). Those who, during the Anglo Boer War (1899-1902) were removed from South Africa as prisoners and died outside South Africa, and,
  - d). Those people, as defined in the regulations, who died in the “liberation struggle” both within and outside South Africa.
6. Any burial that is older than 60 years, which is outside a formal cemetery administered by a local authority, is protected in terms of Section 36(3b) of the National



Heritage Resources Act. No person shall destroy damage, alter, exhume or remove from its original position, remove from its original site or export from the Republic any such grave without a permit from the SAHRA.

There are some important new considerations applicable to B & C (above).

SAHRA may, for various reasons, issue a permit to disturb a burial that is known to be a grave of conflict or older than 65 years, or to use, at a burial ground, equipment for excavation or the detection or the recovery of metals.

(Permit applications must be made on the official form Application for Permit: Burial Grounds and Graves available from SAHRA or provincial heritage resources authorities.) Before doing so, however, SAHRA must be satisfied that the applicant:

- a). Has made satisfactory arrangements for the exhumation and re- interment of the contents of such a grave at the cost of the applicant.
- b). Has made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such a grave and,
- c). Has reached an agreement with these communities and individuals regarding the future of such a grave or burial ground.

#### **PROCEDURE FOR CONSULTATION**

The regulations in the schedule describe the procedure of consultation regarding the burial grounds and graves. These apply to anyone who intends to apply for a permit to destroy damage, alter, remove from its original position or otherwise disturb any grave or burial ground older than 60 years that is situated outside a formal cemetery administered by a local authority. The applicant must make a concerted effort to identify the descendants and family members of the persons buried in and/or any other person or community by tradition concerned with such grave or burial ground by:

- 1). Archival and documentary research regarding the origin of the grave or burial ground;
- 2). Direct consultation with local community organizations and/or members;
- 3). The erection for at least 60 days of a notice at the grave or burial ground, displaying in all the official languages of the province concerned, information about the proposals affecting the site, the telephone number and address at which the applicant can be contacted by any interested person and the date by which contact must be made, which must be at least 7 days after the end of the period of erection of the notice; and
- 4). Advertising in the local press.

The applicant must keep records of the actions undertaken, including the names and contact details of all persons and organizations contacted and their response, and a copy of such records must be submitted to the provincial heritage resources authority with the application.

Unless otherwise agreed by the interested parties, the applicant is responsible for the cost of any remedial action required.

If the consultation fails to research in agreement, the applicant must submit records of the consultation and the comments of all interested parties as part of the application to the provincial heritage resources authority. In the case of a burial discovered by accident, the regulations state that when a grave is discovered accidentally in the course of development or other activity:

- a). SAHRA or the provincial heritage resources authority (or delegated representative) must, in co-operation with the Police, inspect the grave and decide whether it is likely to be older than 60 years or otherwise protected in terms of the Act; and whether any further graves exist in the vicinity.
- b). If the grave is likely to be so protected, no activity may be resumed in the immediate vicinity of the grave, without due investigation approved by SAHRA or the provincial heritage resources authority; and

c). SAHRA or the provincial heritage resources authority may at its discretion modify these provisions in order to expedite the satisfactory resolution of the matter.

d. Archaeological material, which includes human and hominid remains that are older than 100 years (see definition in section 2 of the Act), is protected by the National Heritage Resources Act (Section 35(4)), which states that no person may, without a permit issued by the responsible heritage resources authority - destroy, damage, excavate, alter or remove from its original site any archaeological or palaeontological material.

The implications are that anyone who has removed human remains of this description from the original site must have a permit to do so. If they do not have a permit, and if they are convicted of an offence in terms of the National Heritage Resources Act as a result, they must be liable to a maximum fine of R100 000 or five years imprisonment, or both.

#### **TREAT HUMAN REMAINS WITH RESPECT**

a). Every attempt should be made to conserve graves in situ. Graves should not be moved unless this is the only means of ensuring their conservation.

b). The removal of any grave or graveyard or the exhumation of any remains should be preceded by an historical and archaeological report and a complete recording of original location, layout, appearance and inscriptions by means of measured drawings and photographs. The report and recording should be placed in a permanent archive.

c). Where the site is to be re-used, it is essential that all human and other remains be properly exhumed and the site left completely clear.

d). Exhumations should be done under the supervision of an archaeologist, who would assist with the identification, classification, recording and preservation of the remains.

e). No buried artifacts should be removed from any protected grave or graveyard without the prior approval of SAHRA. All artifacts should be re-buried with the remains with which they are associated. If this is not

possible, proper arrangements should be made for the storage of such relics with the approval of SAHRA.

f). The remains from each grave should be placed in individual caskets or other suitable containers, permanently marked for identification.

g). The site, layout and design of the area for re-interment should take into account the history and culture associated with, and the design of, the original grave or graveyard.

h). Re-burials in mass graves and the use of common vaults are not recommended.

i). Remains from each grave should be re-buried individually and marked with the original grave markers and surrounds.

j). Grouping of graves, e.g. in families, should be retained in the new layout.

k). Material from the original grave or graveyard such as chains, kerbstones, railing and should be re-used at the new site wherever possible.

l). A plaque recording the origin of the graves should be erected at the site of re-burial.

m). Individuals or groups related to the deceased who claim the return of human remains in museums and other institutions should be assisted to obtain documentary proof of their ancestral linkages.





## APPENDIX 2: HERITAGE MANAGEMENT PLAN INPUT INTO THE KWANOBUHLE HOUSING PROJECT EMP

| Objective                     | <ul style="list-style-type: none"> <li>Protection of archaeological sites and land considered to be of cultural value;</li> <li>Protection of known physical cultural property sites against vandalism, destruction and theft; and</li> <li>The preservation and appropriate management of new archaeological finds should these be discovered during construction.</li> </ul> |  |                    |                   |                        |             |           |                |
|-------------------------------|--|--|--------------------|-------------------|------------------------|-------------|-----------|----------------|
| No.                           | Activity   | Mitigation Measures  | Duration           | Frequency         | Responsibility         | Accountable | Contacted | Informed       |
| <b>Pre-Construction Phase</b> |  |  |                    |                   |                        |             |           |                |
| 1                             | Planning   | Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan, and marked as no-go areas.   | Throughout Project | Weekly Inspection | Contractor [C]<br>CECO | SM          | ECO       | EA<br>EM<br>PM |
| <b>Construction Phase</b>     |  |  |                    |                   |                        |             |           |                |
| 1                             | Emergency Response   | Should any archaeological or physical cultural property heritage resources be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped until heritage authority has cleared the development to continue. | N/A                | Throughout        | C<br>CECO              | SM          | ECO       | EA<br>EM<br>PM |
|                               |  | Should any archaeological, cultural property heritage resources be exposed during excavation or be found on development site, a registered heritage specialist or PHRA official must be called to site for inspection.   |                    | Throughout        | C<br>CECO              | SM          | ECO       | EA<br>EM<br>PM |
|                               |  | Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed from site;   |                    | Throughout        | C<br>CECO              | SM          | ECO       | EA<br>EM<br>PM |
|                               |  | Should remains and/or artefacts be discovered on the development site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager who in turn will inform PHRA.                                    |                    | When necessary    | C<br>CECO              | SM          | ECO       | EA<br>EM<br>PM |
|                               |  | Should any remains be found on site that is potentially human remains, the PHRA and South African Police Service should be contacted.  |                    | When necessary    | C<br>CECO              | SM          | ECO       | EA<br>EM<br>PM |
| <b>Rehabilitation Phase</b>   |  |  |                    |                   |                        |             |           |                |
|                               |  | Same as construction phase.  |                    |                   |                        |             |           |                |
| <b>Operational Phase</b>      |  |  |                    |                   |                        |             |           |                |
|                               |  | Same as construction phase.  |                    |                   |                        |             |           |                |

**APPENDIX 3: HERITAGE MITIGATION MEASURE TABLE**

| SITE REF   | HERITAGE ASPECT   | POTENTIAL IMPACT   | MITIGATION MEASURES   | RESPONSIBLE PARTY  | PENALTY   | METHOD STATEMENT REQUIRED  |
|--|---|--|---|--|---|--|
| <p><b>Chance Archaeological and Burial Sites</b></p> | <p>General area where the proposed project is situated is a historic landscape, which may yield archaeological, cultural property, remains. There are possibilities of encountering unknown archaeological sites during subsurface construction work, which may disturb previously unidentified chance finds.</p> | <p>Possible damage to previously unidentified archaeological and burial sites during construction phase.</p> <ul style="list-style-type: none"> <li>• Unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites.</li> <li>• Loss of historic cultural landscape;</li> <li>• Destruction of burial sites and associated graves</li> <li>• Loss of aesthetic value due to construction work</li> <li>• Loss of sense of place</li> </ul> <p>Loss of intangible heritage value due to change in land use</p> | <p>In situations where unpredicted impacts occur construction activities must be stopped and the heritage authority should be notified immediately.</p> <p>Where remedial action is warranted, minimize disruption in construction scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate.</p> <ul style="list-style-type: none"> <li>• Where burial sites are accidentally disturbed during construction, the affected area should be demarcated as no-go zone by use of fencing during construction, and access thereto by the construction team must be denied.</li> <li>• Accidentally discovered burials in development context should be salvaged and rescued to safe sites as may be directed by relevant heritage authority. The heritage officer responsible should secure relevant heritage and health authorities permits for possible relocation of affected graves accidentally encountered during construction work.</li> </ul> | <ul style="list-style-type: none"> <li>• Contractor /</li> <li>• Project Manager</li> <li>• Archaeologist</li> <li>• Project EO</li> </ul> | <p>Fine and or imprisonment under the PHRA Act &amp; NHRA</p> | <p>Monitoring measures should be issued as instruction within the project EMP.</p> <p>PM/EO/Archaeologists Monitor construction work on sites where such development projects commences within the farm.</p> |



## **APPENDIX 4: LEGAL BACK GROUND AND PRINCIPLES OF HERITAGE RESOURCES MANAGEMENT IN SOUTH AFRICA**

**Extracts relevant to this report from the National Heritage Resources Act No. 25 of 1999, (Sections 5, 36 and 47):**

### **General principles for heritage resources management**

**5.** (1) All authorities, bodies and persons performing functions and exercising powers in terms of this Act for the management of heritage resources must recognise the following principles:

(a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival;

(b) every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interests of all South Africans;

(c) heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and

(d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain.

(2) To ensure that heritage resources are effectively managed—

(a) the skills and capacities of persons and communities involved in heritage resources management must be developed; and

(b) provision must be made for the ongoing education and training of existing and new heritage resources management workers.

(3) Laws, procedures and administrative practices must—

(a) be clear and generally available to those affected thereby;

(b) in addition to serving as regulatory measures, also provide guidance and information to those affected thereby; and

(c) give further content to the fundamental rights set out in the Constitution.

(4) Heritage resources form an important part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management.

(5) Heritage resources contribute significantly to research, education and tourism and they must be developed and presented for these purposes in a way that ensures dignity and respect for cultural values.

(6) Policy, administrative practice and legislation must promote the integration of heritage resources conservation in urban and rural planning and social and economic development.

(7) The identification, assessment and management of the heritage resources of South Africa must—



- (a) take account of all relevant cultural values and indigenous knowledge systems;
- (b) take account of material or cultural heritage value and involve the least possible alteration or loss of it;
- (c) promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs;
- (d) contribute to social and economic development;
- (e) safeguard the options of present and future generations; and
- (f) be fully researched, documented and recorded.

### **Burial grounds and graves**

36. (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(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.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or *agents provocateur* and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the *Gazette*.

(8) Subject to section 56(2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

### **General policy**

**47.** (1) SAHRA and a provincial heritage resources authority—

(a) must, within three years after the commencement of this Act, adopt statements of general policy for the management of all heritage resources owned or controlled by it or vested in it; and

(b) may from time to time amend such statements so that they are adapted to changing circumstances or in accordance with increased knowledge; and

(c) must review any such statement within 10 years after its adoption.

(2) Each heritage resources authority must adopt for any place which is protected in terms of this Act and is owned or controlled by it or vested in it, a plan for the management of such place in accordance with the best environmental, heritage conservation, scientific and educational principles that can reasonably be applied taking into account the location, size and nature of the place and the resources of the authority concerned, and may from time to time review any such plan.

(3) A conservation management plan may at the discretion of the heritage resources authority concerned and for a period not exceeding 10 years, be operated either solely by the heritage resources authority or in conjunction with an environmental or tourism authority or under contractual arrangements, on such terms and conditions as the heritage resources authority may determine.

(4) Regulations by the heritage resources authority concerned must provide for a process whereby, prior to the

adoption or amendment of any statement of general policy or any conservation management plan, the public and interested organisations are notified of the availability of a draft statement or plan for inspection, and comment is invited and considered by the heritage resources authority concerned.

(5) A heritage resources authority may not act in any manner inconsistent with any statement of general policy or conservation management plan.

(6) All current statements of general policy and conservation management plans adopted by a heritage resources authority must be available for public inspection on request.