

Nsovo Environmental Consulting

**Archaeological and Heritage Impact Assessment Report for Proposed expansion Project of
Bushveld Vametco mine operation in Brits within ward 35 of Madibeng Local Municipality in the
North-West Province, SA.**

October 2020

PREPARED FOR

NSOVO ENVIRONMENTAL CONSULTANT

40 LYNCON ROAD, CARLSWALD

MIDRAND, 1684

Tel: +27 (0) 11 041 3689

Fax: +27 (0) 86 602 8821



REPORT DETAILS

PROJECT NAME: Proposed production expansion for Bushveld Vametco Alloys Pty Ltd

REPORT TITLE: Archaeological and Heritage Impact Assessment Report for Proposed Production Expansion by Bushveld Vametco Alloys Pty Ltd in ward 35 of Madibeng Local Municipality of North West Province, South Africa.

AUTHOR: Mr. Mabuda MM.

REFERENCE NO.: 2019.GP.HIA.PRO.0002

STATUS OF REPORT: Final Report

FINAL ISSUE: Date: 10 October 2020

STUDY LEADER M. Mabuda
Qualifications: (Honours. [Archaeology]. 2003, University of Venda, **Masters of development studies**, 2016, Univ. Of Limpopo, **Post graduate Certificate in Senior Executive Management**, 2017, Univ. of Limpopo (Turfloop Graduate School of Leadership)
Contacts: Mobile Phone: +2783 414 1130

FIELD STUDY TEAM : **Archaeologist:** Mr. M. Mabuda (BA & BA Hons. Univen. 2002 & 2003)
: **Assistant Archaeologist:** Mr. Munyai R.R (BA & BA Hons. Univen. 2018)

PROFESSIONAL SERVICE PROVIDER (PSP) MULAIFA DEVELOPMENT PROJECTS CC

Report

Archaeological and Heritage Impact Assessment (A/HIA) for proposed production expansion of Bushveld Vemetco mine in Brits at ward 35 of Madibeng Local Municipality of North-West Province, SA.

Caveat

Mr M Mabuda of Mulaifa Development Projects has prepared this HIA Report, for Nsovo Environmental Consulting for the expressed purpose of fulfilling the requirements of the National Heritage Resources Act, Act 25 of 1999 and SAHRA regulations in terms of Section. 38 of the Act.

Copyright: This report and the information it contains is subject to copyright and may not be copied in whole or part without written consent of the author except that the Report may be reproduced by Nsovo Environmental Consulting and the South African Heritage Resources Agency (SAHRA) and Northwest Provincial Heritage Resources Authority (NWPHERA) to the extent that this is required for the purposes of the Archaeological and Heritage Management purposes in accordance with National Heritage Resources Act, Act 25 of 1999.

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: Nsovo Environmental Consulting provided Maps included in this report.

Disclaimer: The Author 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 authorization for proposed production expansion for Bushveld Vametco Alloys Project.

Signed by:

M Mabuda, October 2020.

TABLE OF CONTENTS

| | |
|---|----|
| Report details..... | 2 |
| Table of Content..... | 5 |
| Executive summary..... | 6 |
| Abbreviation..... | 10 |
| Definition..... | 12 |
| 1. Introduction..... | 15 |
| 2. Project Location..... | 16 |
| 3. Statutory requirements..... | 16 |
| 4. HIA study terms of reference..... | 18 |
| 5. Location of activity area and impact area..... | 19 |
| 6. Methodology..... | 21 |
| 7. Assumptions and Limitations..... | 22 |
| 8. Consultation..... | 23 |
| 9. FINDINGS..... | 26 |
| 9.1. Archaeological Finds..... | 26 |
| 9.2. Historical and Built Environment..... | 26 |
| 9.3. Burial Ground and Graves..... | 27 |
| 9.4. Historical Monuments..... | 27 |
| 9.5. Cultural Landscape..... | 27 |
| 10. DISCUSSION..... | 27 |
| 10.1. Evaluation of Heritage Resources..... | 28 |
| 11. STATEMENT OF SIGNIFICANCE..... | 28 |
| 11.1 Aesthetic Value..... | 28 |
| 11.2. Historic Value..... | 29 |
| 11.3. Scientific Value..... | 29 |
| 11.4. Social Value..... | 30 |
| 11.5. Evaluation Criteria..... | 31 |
| 12. RECOMMENDATIONS..... | 31 |
| 13. Management and Policy Recommendations..... | 33 |
| 13.1. Community Advisory..... | 33 |
| 13.2. Public Participation..... | 33 |
| 13.3. Interpretation and Active Management Recommendations..... | 33 |
| 14. CONCLUDING REMARKS..... | 33 |

EXECUTIVE SUMMARY

Background

Mulaifa Development Projects was commissioned by Nsovo Environmental Consulting (Nsovo) to conduct a Phase 1 Archaeological and Heritage Impact Assessment (AIA/HIA) Study for the proposed production expansion development for Bushveld Vametco Alloys Pty Ltd “*the company*” in ward 35 of Madibeng Local Municipality of North-West Province. The purpose of the study was to provide AIA/HIA professional opinion to Bushveld Vametco in relation to possible impacts associated to the proposed development in the study area.

Method Statement

The findings of this report have been informed by desktop data review, field survey and impact assessment reporting which include recommendations to guide heritage authorities in making decisions with regards to the proposed development. This study was conducted as part of the specialist input to the Environmental Impact Assessment conducted by Nsovo. The study and this report, follow the South African Heritage Resources Agency (SAHRA) and North-West Provincial Heritage Resources Authority (NWPHRA) Guidelines for Phase one (1) AIA/HIA.

Nature of Proposed Development

This study is part of an EIA triggered by proposed production expansion development of Bushveld Vametco Alloys at Uitvalgrond 431 IQ and Krokodilkraal 426 JQ farms. The proposed project site is located within a heavily degraded and heavily damaged area by previous deep excavations caused by mining activities, Eskom power-lines and bulk water pipe-lines.

Project Area

The proposed development is situated within the existing mining precinct at ward 35 of Madibeng local municipality, North-west province. The proposed development will take effect at two adjacent farms, namely Uitvalgrond 431 IQ on the eastern side where mining and dumping is effective and Krokodilkraal 426 JQ in the Western side of the existing mine where processing is taking place.

The Heritage Impact Assessment Process

This HIA study report is segmented into sections as follows:

1. Executive Summary,
2. Project Background,
3. HIA on the Project Receiving Cultural Landscape project area in line with the NHRA (*Act 25 Section 38*), and
4. Heritage Management Recommendations for immediate project receiving area covering the development, operation, to closure phases of the project.

The impact assessment study also includes detailed recommendations on how to mitigate and manage potential negative impacts of the proposed development while enhancing positive effects on the project area.

The Legal Framework and Guidelines

This HIA study is a specialist study to the EIA process and it is guided by the:

- National Heritage Resources Act, (*Section 38 of Act 25 of 1999*).
- SAHRA AMP HIA Guideline.
- Terms of Reference provided.

All South African heritage assets are protected by the National Heritage Resources Act (NHRA 25 of 1999), which makes it an offence to destroy heritage resources without permission from the relevant authority. In terms of the provisions of the NHRA Act of 1999, individual sites within the project area enjoy the varying levels of protection.

Results of the Study

Analysis of the archaeological, cultural heritage, environmental and historic contexts of the study area predicted that archaeological sites (Stone Age and Historic Archaeological), cultural heritage sites, or isolated artifacts are likely to be present on the affected landscape. The field survey was conducted to test this hypothesis and verify this prediction within the proposed mining production expansion site and its associated infrastructure development site. The project receiving area is situated on previously disturbed land parcels by heavy mining excavations, power-line distribution and internal road networks. Although there are estimated 1200 contemporary graves situated at Krokodilkraal Farm, such graves will not be removed since they are not directly impacted upon by the proposed development. However, an estimated 30 historical graves identified along Uitvalgrond 431 IQ Farm will have to be relocated to a safer place since they are located on the direct path of the proposed development. The historical building/ruins located adjacent to the historical graves, must be well documented, mapped and photographed properly for archiving purpose. A demolition permit of property older than 60 years must be applied with the relevant department at SAHRA.

Krokodilkraal farm site is going to be used for processing plant only and not production expansion. As such, the proposed development will be an insitu development that will be contained within an already disturbed or heavily degraded landscape, hence contemporary graves will not be removed.

Recommendations

The project footprint area was assessed and rated as having medium to high cultural heritage significance. The following recommendations are made in this report:

- The project area has considerable existing built-up areas and as such low significant impacts are anticipated on the built environment given the existence of contemporary built-infrastructure or structures already in the project area.
- Low visibility emanating from the proposed project development is anticipated, particularly during the post-construction phase. Furthermore, the project area is characterized by grazing land with contemporary infrastructures in place, which will absorb the proposed developments in situ once the project becomes operational. Therefore, the visual impacts of the proposed development are considered to be very low across the receiving contemporary cultural landscape.
- That an estimated 30 historical graves be exhumed and relocated to another formal graveyard.
- That the identified historical building be conserved by form of documentation before it is destroyed.
- That a historical building destruction permit be acquired from SAHRA before a building/ruins is destroyed.
- Overall, impacts to heritage resources are not considered to be adverse to warrant abandonment of the proposed project provided the proposed mitigation are adhered to. It is thus concluded that the project may be cleared to proceed as planned subject to the Heritage Authority ensuring that a detailed heritage monitoring procedure are included in the project EMP, for the construction phase. These should include chance archaeological finds mitigation procedure in the project EMP, specifically to cover subsurface construction activities.
 - The chance finds process will be implemented when necessary, especially when archaeological materials and burials are encountered during subsurface construction activities.
 - If archaeological materials are uncovered, work should cease immediately and the North-West Provincial Heritage Resource Authority (NWPHRA) or SAHRA be notified and activity should not resume until appropriate management provisions are in place.
- In the event that previously unknown human remains are accidentally uncovered during development, then work on affected section and the immediate vicinity should be halted and the finds protected and reported to SAHRA.
- Identified contemporary graves will not be impacted upon since the farm in which they are located, is earmarked for processing plant and not production, and on that note, the identified

graves should be protected and constant inspection must be adhered especially after rock blasting.

- The findings of this report, with approval of the NWPHERA, may be classified as acceptable to any Interested and Affected Parties within the limits of the laws.

ABBREVIATIONS

| | |
|-------------------|---|
| AIA | Archaeological Impact Assessment |
| APPA | Atmospheric Pollution Prevention Act 45 of 1965 |
| BID | Background Information Document |
| C | Contractor |
| CARA | Conservation of Agricultural Resources Act, 1983 (Act No 43 |
| CECO | Construction Environmental Conservation Officer |
| DAFF | Department of Agriculture, Forestry and Fisheries |
| DEA | Department of Environmental Affairs |
| DSR | Draft Scoping Report |
| DWA | Department of Water Affairs |
| EAP | Environmental Assessment Practitioner |
| ECA | Environmental Conservation Act |
| ECO | Environmental Conservation Officer |
| EIA | Environmental Impact Assessment |
| EIAR | Environmental Impact Assessment Report |
| EM | Environmental Manager |
| EMP | Environmental Management Plan |
| EMPr | Environmental Management Programme |
| EMPR | Environmental Management Programme Report |
| EMS | Environmental Management System |
| FC | Farming Community |
| GN | General Notice |
| GNR | General Notice Regulation |
| Ha | Hectares |
| HIA | Heritage Impact Assessment |
| HMP | Heritage Management Plan |
| I&AP's | Interested and Affected Parties |
| IDP | Integrated Development Plan |
| IRR | Issues and Responses Report |
| IWULA | Integrated Water Use Licence Application |
| LIA | Late Iron Age |
| LFC | Late Farming Community |
| LSA | Late Stone Age |
| MIA | Middle Iron Age |
| MSA | Middle Stone Age |
| NEMA | National Environmental Management Act 107 of 1998 |
| NEMAQA | National Environmental Management: Air Quality Act 39 of 2004 |
| NEMPAA | National Environmental Management Protected Areas Act |
| NEMWA | National Environmental Management: Waste Act 59 of 2008 |
| NGO | Non-Government Organisation |
| NHRA | Nation Heritage Resources Act, Act 25 of 1999 |
| PM | Project Manager |

SAHRA South African Heritage Resources Agency

SM Site Manager

ToR Terms of Reference

DEFINITIONS

The following terms used in this Archaeological /Heritage Impact Assessment are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, 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 artifacts, human and hominid remains, and artificial features and structures.

Chance Finds means 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.

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

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

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

Cultural Significance also encompasses 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.

Environment The surroundings within which humans exist and that are made up of: i. the land, water and atmosphere of the earth;

ii. micro-organisms, plant and animal life;

iii. any part or combination of (i) and (ii) and the interrelationships among and between them; and,

iv. the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being. This includes the economic, social, cultural, historical and political circumstances, conditions and objects that affect the existence and development of an individual, organism or group.

Environmental impact assessment An Environmental Impact Assessment (EIA) refers to the process of identifying, predicting and assessing the potential positive and negative social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the environment. The EIA includes an evaluation of alternatives. As well as recommendations for appropriate mitigation measures for minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and environmental management and monitoring measures.

Expansion means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased;

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

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 (*contemporary*) or **Burial Ground** (*historic*).

Heritage impact assessment (HIA) refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. The HIA includes recommendations for appropriate mitigation measures for minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

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.

Impact The positive or negative effects on human well-being and / or on the environment.

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

Interested and affected parties Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a proposal or activity and its consequences.

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

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

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

Mitigate The implementation of practical measures to reduce adverse impacts or enhance beneficial impacts of an action.

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

Protected area means those protected areas contemplated in section 9 of the NEMPAA and the core area of a biosphere reserve and shall include their buffers;

Public participation process A process of involving the public in order to identify issues and concerns, and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to: a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters

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

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (*i.e. intensity, duration and likelihood*). Impact significance is the value placed on the change by different affected parties (*i.e. level of significance and acceptability*). It is an anthropocentric concept, which makes use of value judgments and science-based criteria (*i.e. biophysical, physical cultural, social and economic*).

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

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

1. INTRODUCTION

Nsovo Environmental Consulting (Nsovo) commissioned Mulaifa Development Projects led by Mr. M. Mabuda and Mr. R. Munyai to conduct an Archaeological and Heritage Impact Assessment (AIA/HIA) study of the area that will be affected by the proposed production expansion development by Bushveld Vametco Alloy. This report focuses on the proposed production expansion and processing plant area within ward 35 of Madibeng Local Municipality in the North-West Province, South Africa. This report outlines the desktop study, review of previous heritage assessment studies in the general area, field study and present results of the study as well as discussion on the anticipated impacts of the proposed development as is required by the National Heritage Resources Act, (Act 25 of 1999). The study focuses on identifying and assessing potential impacts on archaeological, as well as on other physical cultural properties including historical heritage and intangible resources in relation to the proposed development.

An accredited archaeologist and heritage management specialists, undertook the assessments, research and consultations required for the preparation of the report for the purpose of ensuring that the cultural values are taken into consideration and reported into the EIA authorisations and EMP' processes spanning the proposed life span of the proposed production and processing plant development.

The study was designed to ensure that any significant cultural, physical property or sites and related intangible heritage resources are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the proposed development. The assessment includes recommendations to manage the expected impact of the development site. The report includes recommendations to guide heritage authorities in making appropriate decision with regards to Heritage Management Planning.

The specialist conducted the assessment; research and consultations required for the preparation of this HIA report in a manner consistent with its obligations set in the NHRA as well as the environmental management legislations. In line with NWPHRA/SAHRA guidelines, this section of the 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.

2. NATURE OF PROPOSED DEVELOPMENT AND PROJECT LOCATION

The study concerns the proposed production expansion and processing plant within Krokodilkraal 426 JQ and Uitvalgrond 431 IQ Farms in the Bushveld Vametco mining area. The mine is situated at ward 35 of Madibeng local municipality of Northwest Province. The proposed development includes:

- (a) The expansion of an existing Slimes dam towards the east of the mine to cater for additional slime waste
- (b) Expansion of magnetite dump disposal facilities north (16.6 ha) and south (4.46 ha) expansion
- (c) Construction of two Pollution Control Dam (PCD) for the proposed magnetite dump expansion and existing plant to accommodate the return or polluted water
- (d) Construction of a new Return Water Dam (RDW') to accommodate return/polluted water from the proposed and existing slimes dams and storm-water within the mine.
- (e) Construction of a Barren Dam (BD) to store barren and mother liquor solution and,
- (f) Construction of a new Waste Rock Dump (WRD) to reduce load and haul distance and facilitate easy backfill.

The distribution of site is as follows:

| Proposed activity | Size (hectares) |
|-------------------------|-----------------|
| Pollution Control Dam 1 | : ± 3Ha |
| Pollution Control Dam 1 | : ± 1Ha |
| Return Water Dam | : ± 5Ha |
| Barren Dam | : ± 3Ha |
| Waste Rock Dump | : ± 24Ha |
| Slimes dam extension | : ± 108Ha |
| Magnetite Dump North | : ± 17Ha |
| Magnetite Dump South | : ± 20Ha |

3. STATUTORY REQUIREMENTS

This HIA report addresses the requirements as is stipulated in the NHRA Act 25 of 1999 Section 38 as well as EIA Terms of Reference in relation to the assessment of impacts of the proposed mining expansion development on the cultural and heritage resources associated with the receiving environment. 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 auxiliary 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 legislations require that when constructing a linear development exceeding 300m in length or developing with an area exceeding 5000 m² 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, "Any comments and recommendations of the relevant heritage resources authority with regard to such development have been considered prior to the granting of the consent.

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).

Furthermore, the proposed development is guided and governed by legislative acts and regulations including environmental, spatial planning, land use and heritage management laws and regulations. The following acts have particular relevance to the management of heritage sites wherever they are found in the Republic:

- Environmental Conservation Act, No.73 of 1989.
- National Environment Management Act (NEMA), No.107 of 1998.

4. HIA STUDY TERMS OF REFERENCE

This HIA study was commissioned under the guidance of the requirements of Section 38(3) of the NHRA. As outlined in the introduction section, the activities would include:

1. Hypothesising and Conducting a detailed desk-top level investigation to identify all archaeological, cultural and historic sites in the proposed mining development project receiving areas;
2. Conduct appropriate physical cultural properties field work and survey to verify results of desktop investigation;
3. During the field survey, document (*GPS coordinates and map*) all archaeological and heritage sites, objects and structures and physical cultural properties identified within the project's receiving environment;
4. Compile a Heritage Impact Assessment report which would include:
 - a. Identification of archaeological, cultural and historic sites within the affected development areas;
 - b. Assess the sensitivity and significance of archaeological remains within the affected development areas;
 - c. Estimation and evaluation of the potential impacts of the proposed construction, operation and maintenance of the proposed development on archaeological, cultural and historic sites in the proposed project receiving areas;
 - d. Measure the impacts in terms of the scale of impact
 - e. Provide appropriate recommendation of mitigation measures that may add positive impacts while reducing the identified negative impacts on archaeological, cultural and historic sites in the proposed project receiving areas;
 - f. The recommendations should be applicable enough to effectively guide the compliance authorities in issuing a decision regarding the authorisation of the proposed development.
 - g. Consideration of relevant NWPHRA and SAHRA as well and international best practices guidelines; and,
 - h. Development Heritage Management Planning guideline: "Guideline for involving heritage stakeholders in the processes".

In essence, both the national heritage and environmental legislations 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).

5. LOCATION OF ACTIVITY AREA AND IMPACT AREA

The project area is located approximately 90km North-West of Tshwane, and North of Rustenburg, North-West Province. The study area falls within the Marikana Thornveld grassland and is characterized by pasture grass or grazing land, and is thus extensively disturbed. These activities would also have impacted negatively on any visible evidence of heritage resources. Refer to the EIA report for geographical, environmental and demographic issues. However, the site is located within the jurisdiction of Brits town, under ward 35 of Madibeng Local Municipality of Northwest Province, SA.

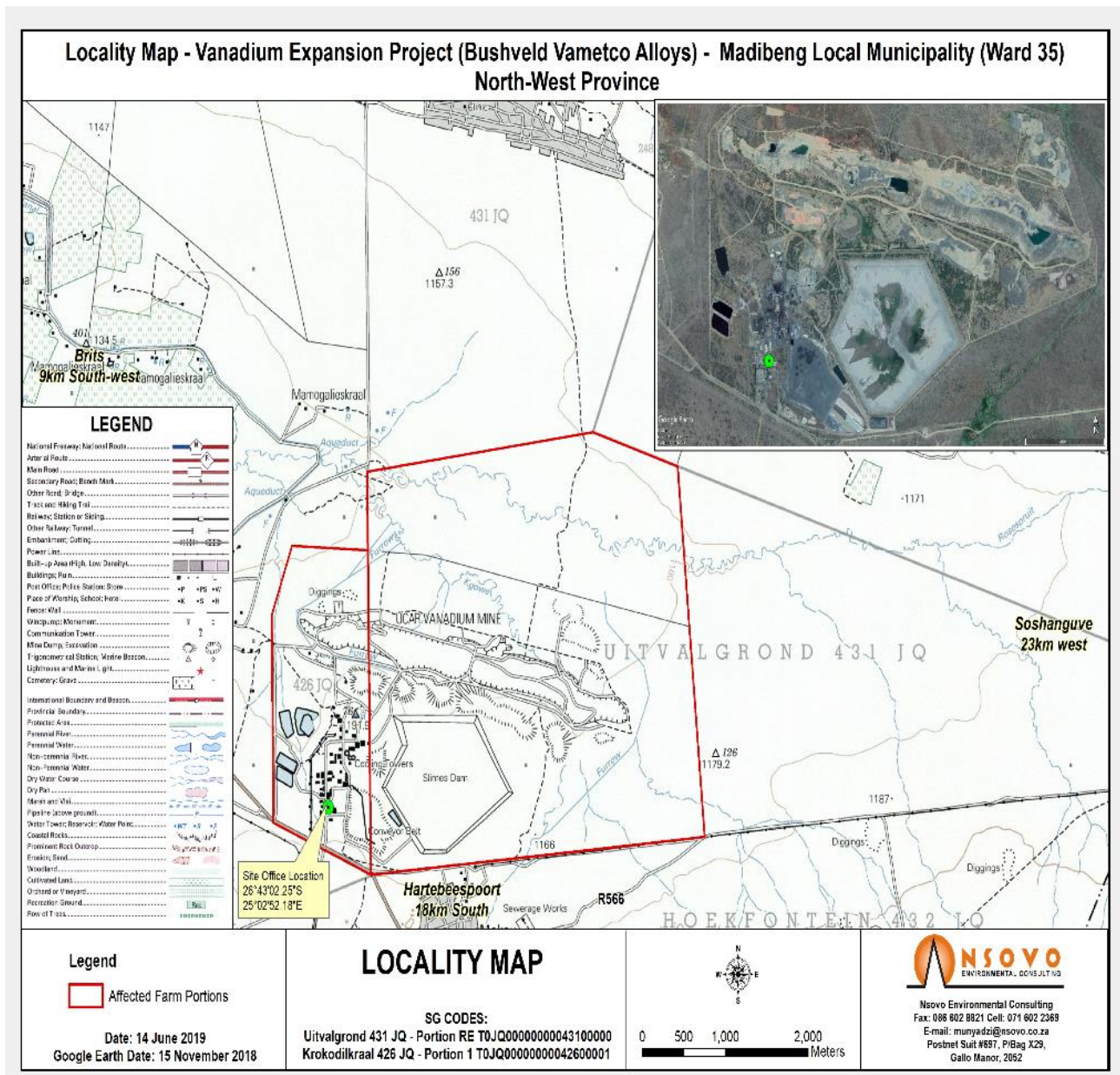


Plate 1. Project locality Map, courtesy of Nsovo Environmental Consulting, 2020

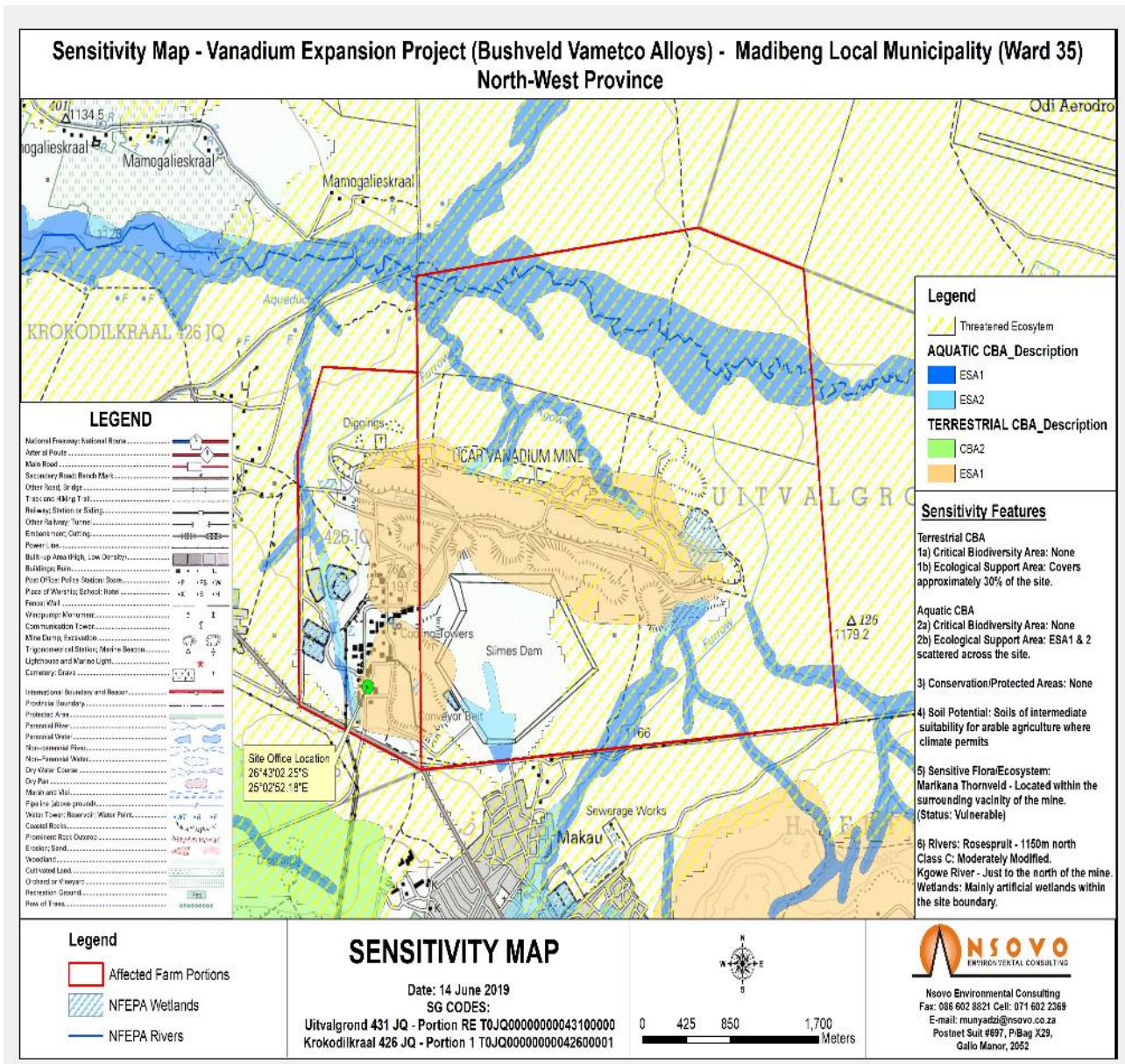


Plate 2. Project Sensitivity Map, courtesy of Nsovo Environmental Consulting, 2020

6. METHODOLOGY

The proposed project development requires clearance and authorisation from government compliance agencies including the heritage authority of NWPHRA and or SAHRA. Key HIA objectives for this section of the study are to fulfil the statutory requirements of the National Heritage Resources Act, Act 25 of 1999. In order to meet the objectives of the HIA Phase 1 study, the following tasks were conducted: 1) site file search, 2) literature review, 3) consultations with key stakeholders, 4) completion of a field survey and assessment and 5) analysis of the acquired data and report production.

The following tasks 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.
- Physical cultural property recording of any identified sites or cultural heritage places;
- Identification of heritage significance; and
- Preparation of HIA report with recommendation, planning constraints and opportunities associated with the proposed development.

The project area is part of an existing and previously developed and disturbed landscape with access roads servitudes, both transmission and distribution powerlines and other auxiliary infrastructures which dominate the affected project area. The surrounding area is heavily degraded by open cast mining activities taking place. Geographic coordinates were obtained with a handheld Garmin GPS global positioning unit. Photographs were taken as part of the documentation process during field study.

7. Assumptions and Limitations

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 earth moving disturbances. 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 invalidate the findings of this study in any significant way:

1. The proposed Vanadium production and processing expansion development will be limited to specific sites and areas as detailed in development layout.
2. The construction teams at the development and service sites will use the existing access roads and there will be no major deviations into undisturbed sections.
3. Given the extensive degraded nature on most affected project area, the area has medium to high potential to yield highly significant in situ archaeological or physical cultural properties.
4. No excavations or sampling was undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on surface indicators. However, these surface observations concentrated on areas accessible.
5. No Palaeontological study was conducted as part of this HIA.
6. This study includes ethnographic and oral interviews although the existing studies from current and historic researches are accepted as adequate for the purposes of this HIA.

8. Consultation

Limited oral consultation was done as part of this study. Mr. Aubrey Makgatle (072 268 5182) having being employed by the mine for more than 20 years did inform us that the mining area was occupied

by two communities which was relocated on or around 1974. Rankotea Village was located west of the mine in the Krokodilkraal 426 JQ Farm and Makau village was moved to the eastern side of the mine. They were located at Uitvalgrond 431 IQ Farm. Both these community was relocated around 1974 to make way for the mining development. However, the EIA Public Participation Process will invite comments from affected communities and other interested parties on any matter related to the proposed development including heritage concerns that may arise as a result of the proposed development.



Plate 1. Contemporary graves identified adjacent to the proposed area for processing. These graves should not be disturbed nor tampered with at all and are not the subject of relocation. This graveyard is still used by Rankotea community.



Plate 2: shows the general landscape of the area earmarked for processing (Author 2019).



Plate 3: shows an existing landscape for the site earmarked for production expansion (Author 2019).



Plate 4: shows the existing production within the mine area (Author 2019).



Plate 5. Set of historical graves that must be relocated to safer place in order to make way for the proposed development.



Plate 6: view of historical building that require mapping before demolition. A demolition permit will be required before this structure is destroyed.



Plate 7. View of same structure which will require permit to be demolished.

9. FINDINGS

9.1 Archaeological finds

Sections of the site earmarked for the proposed development are degraded from previous and current land uses such as access road, boreholes and Eskom distribution power line. There is evidence suggesting possibilities of recovering archaeological remains during earth moving activities. There is an established associated infrastructure development, grazing land and roads and other associated infrastructures across the entire project receiving area. The proposed development will be additional to in situ developments already on the project area. The field survey did not identify any cultural heritage resources or archaeological resources within the proposed area earmarked for the proposed mining expansion development.

9.2 Historical and Built Environment

In general, historic sites are associated with colonial era white settlers, colonial wars, industrialization, recent and contemporary African population settlements, and 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 project area environment. The affected general landscape is not associated with historical events such as white settler migration, colonial wars, no listed specific historical sites are on the proposed development sites. However, an historical building/ruins was identified on site. It is our view that there could be other structure like stone walls, which could not be identified due to dense vegetation on site. These structures are equally

significance like graves and are protected by the act. A destruction permit from SAHRA must be obtained before this building/ruins is put down.

9.3 Burial grounds and graves

Whether burial sites are known or not on record, from a heritage perspective, burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 1). They have both historical and social significance and are considered sacred. Wherever they exist they may not be tampered with or interfered with during any proposed development. It is important to note that the possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present. Although the possibility of encountering previously unidentified burial sites is low along the proposed mining expansion area, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected. There are contemporary graves recorded and are currently in use by Rankotea community, these graves are estimated to be 1200 in numbers and are not directly affected by the proposed mining expansion project. These graves are clearly marked and well maintained by both the community and the mine. On the other side of the proposed development at Uitvalgrond 431 IQ Farms, an estimated 30 historical graves have been identified, and these graves are located on the direct path of the proposed development. It is for the best interest of the project, that these graves be relocated to another site.

9.4 Historical Monuments

There is no listed monument on the National Heritage List.

9.5 Cultural landscapes

The project area is part of an established rural mining activities with associated infrastructure.

10. DISCUSSION

Literature review revealed that some archaeological sites may occur within the general project area. As such the construction teams must be inducted on the potential of encountering subsurface cultural heritage resources during construction. The following observations are worthy emphasizing in this discussion prior to making final recommendations:

- Limited ground surface visibility on sections of the project area that had thick/dense vegetation cover at the time of the study may have impeded the detection of archaeological sites. This factor is exacerbated by the fact that the study was limited to general survey without necessarily conducting any detailed inspection of specific localities that will be affected by the propose development. The absence of confirmable and significant archaeological cultural heritage sites is not evidence in itself that such in situ sites did not exist in the project area.

10.1 Evaluation of Heritage Resource

Based on the information from the SAHRA standards of best practice and minimum standards, data capture forms were used to collect information from the field through site condition surveys and observations. After data was gathered from the field, it was combined with information from other sources deemed essential to establish the value and significance of individual sites as well as to identify any threats to the heritage. The NHRA (Act 25 of 1999) grading scale was used to assess significance.

Table 1: Significance assessment of heritage resources based on ICOMOS and NHRA criteria.

| ICOMOS Ranking | South African Legislation (National Heritage Resources Act Ranking) |
|--|---|
| • Very high (World Heritage Sites) | National Heritage Sites (Grade 1) |
| • High (Nationally significant sites) | National Heritage Sites (Grade 1), Grade 2 (Provincial Heritage Sites), burials |
| • Medium (regionally significant sites) | Grade 3a |
| • Low (locally significant sites) | Grade 3b |
| • Negligible | Grade 3c |
| • Unknown | Grade 3a |

11. STATEMENT OF SIGNIFICANCE

11.1 Aesthetic Value

The visual and physical relationship between HIA study area and the surrounding cultural Landscape demonstrates the connection of place to the local and oral historical stories of the African communities who populated this region going back into prehistory.

Table 2: Assessment of impacts to Aesthetic Values related to the scenic routes and sense of place

| | Before Mitigation | After Mitigation |
|-----------------------------|-------------------|------------------|
| Magnitude | Low | NA |
| Extent Local - | Local | NA |
| Duration Long term - | Long term | NA |
| Significance | Low - | NA |
| Probability | Definite - | NA |
| Status | Negative - | NA |

11.2 Historic Value

Although the entire project area is comprised of various infrastructure development, there is an historical aspect of cultural significance recorded on the direct path of the proposed development footprint.

Table 3: Assessment of impacts to Historic Values related to the project area.

| | Before Mitigation | After Mitigation |
|---------------------------|--|------------------|
| Magnitude | High | Low |
| Extent Local - | Specific Site | Specific Site |
| Duration Long term | Long term | Long term |
| Significance | Medium - | Low - |
| Probability | Definite - | Probable |
| Status | Negative - | Negative - |
| Cumulative | There is an historic site that will be affected by this development. | |

11.3 Scientific value

Previous construction activities and associated roads, and other auxiliary infrastructure developments and disturbance within the HIA study area associated with the proposed development have resulted in limited intact significant cultural landscapes with the potential to retain intact large scale or highly significant open archaeological site deposits. However, should intact archaeological sites be recorded within the proposed development and immediate surrounding areas, they may retain scientific evidence that may add value to the local and regional history.

Table 4: Assessment of impacts to Archaeological Scientific Values related to the project area.

| | Before Mitigation | After Mitigation |
|-----------------------------|-------------------|------------------|
| Magnitude | Low | NA |
| Extent Local - | Specific Site | NA |
| Duration Long term - | Long term | NA |
| Significance | Low - | NA |
| Probability | Definite - | NA |
| Status | Negative - | NA |

Reversible

Yes (with rehabilitation after plant is decommissioned)

NA

Cumulative

There are no archaeological resources falling within the project area. Given the destructive nature of the proposed project area, there is no cumulative impacts that are of concern on this site. Monitoring may not be necessary during construction phase of the development.

11.4 Social Value

Under normal circumstances, any site possesses some certain status of social significance at a particular time in a society. The overall area has social value for the local community, as is the case with any populated landscape. The land provides the canvas upon which daily socio-cultural activities are created. All these factors put together confirm the social significance of the project area. However, this social significance is not going to be adversely impacted by the proposed development especially given the fact that the development will add value to economy and gross domestic product.

11.5 Evaluation Criteria

| alternatives | Corrective measures | Impact rating criteria | | | | | Significance |
|---|---------------------|------------------------|--------|----------|-----------|-------------|---------------|
| | | Nature | Extent | Duration | Magnitude | Probability | |
| Heritage | | | | | | | |
| Burial Ground | | | | | | | |
| | Yes | Positive | 2 | 5 | 8 | 2 | High |
| Historical | yes | Positive | 2 | 2 | 6 | 2 | Medium |
| | | | | | | | |
| Aesthetic | | | | | | | |
| | No | Positive | 1 | 1 | 2 | 0 | Low |
| Scientific | No | Positive | 1 | 1 | 0 | 0 | Low |
| | | | | | | | |
| Mitigation Measures | | | | | | | |
| <p>It is expected that during sub-surface earth moving activities, there are possibilities of discovering archaeological chance finds and unidentified or unknown human remains. Should this be the case, construction activities in the affected areas must stop and SAHRA Officials or an independent archaeologist must be informed.</p> <p>In the absence of any archaeological hindrance to the proposed development, the project must be cleared for development as planned following the recommendations made therein.</p> | | | | | | | |

12. RECOMMENDATIONS

- From a heritage perspective supported by the findings of this study, the proposed mining development is feasible. However, the proposed development should be approved to proceed as planned under observation that proposed production extension dimension do not extend beyond the study area. The foot print impact of the proposed mining development and associated infrastructure should be kept to minimal to limit the possibility of encountering chance finds.
- There are burial site (graves) identified during the field investigation and are located at Krokodilkraal where processing will take place and Uitvalgrond 431 IQ Farms. An estimated 1200 graves at Krokodilkraal will not be negatively impacted upon, and should be left untouched. An estimated 30 graves located at Uitvalgrond 431 IQ Farms must be exhumed and relocated to a safer place since there are directly impacted upon.
- Both set of graves in question are well maintained and properly fenced off. Strict supervision during the mining activities including blasting should be implemented to avoid damaging the headstones particularly with graves situated at Krokodilkraal Farm.. However, should unidentified graves and burial sites be discovered during the course of construction activities, all construction activities should cease and site must be barricaded and SAHRA/NWPHRA or the professional archaeologist must be informed.
- Should any unmarked burials be exposed during construction, affected families must be trekked and consulted, relevant rescue/relocation permits must be obtained from SAHRA and the North-West Department of Health before any grave relocation can take place. Furthermore, a professional archaeologist must be retained to oversee the relocation process in accordance with the National Heritage Resources Act 25 of 1999.
- When the removal of topsoil and subsoil on the site earmarked for development commences, caution must be exercised.
- Should chance archaeological materials or human burials remains be exposed subsurface, construction work on any section of the development laydown sites, work should cease on the affected area and the discovery must be reported to the heritage authorities immediately so that an investigation and evaluation of the finds can be made. 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.
- Subject to the recommendations herein made and the implementation of the mitigation measures and adoption of the project EMP, there will be no significant cultural heritage resources barriers to the proposed development. The Heritage authority may approve the proposed development to proceed as planned with special commendations to implement.

13. Management & Policy Recommendations

13.1 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 developmental project is associated with existing communities in the landscape and their heritage or cultural aspirations that may potentially be affected by the development should be acknowledged in the event that they are identified during the course of the implementation of the proposed development. To date, the PPP consultation process has not identified cultural heritage contestation to the project.

13.2 Public Participation

The Project Public Participation Process should ensure that any cultural heritage related matter for this project is given due attention whenever it arises and is communicated to PHRA 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 matter that may have escaped the attention of this study.

13.3 Interpretation & Active Management Recommendations

In most cases, the local 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 particular site.

14. CONCLUDING REMARKS

Although the possibility of conflict between the community and the proposed development related to cultural heritage is unlikely, NWPHRA should acknowledge on behalf of the community, that the project area is situated in a culturally significant landscape associated with local history and cultural activities. PHRA 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 retains 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 have to be adequately addressed by PHRA and community.

The literature review, field research and subsequent impact assessment confirmed that the project area is situated within a historical and contemporary cultural landscape dotted with settlements that have long local history. Field survey was conducted during which it was established that the entire project

site is degraded by existing and previous land use activities and developments. This report concludes that the proposed development be approved by Heritage Authority to proceed as planned subject conditional inclusion of heritage monitoring measures in the project EMP (also see Appendices) and chance finds procedures for the construction phase.

BIBLIOGRAPHY

- Australia ICOMOS. 1999.** The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter). Sydney: ICOMOS.
- BAUMANN, N. & WINTER, S. 2005.** Guideline for involving heritage specialists in EIA process. Edition 1. CSIR report No ENV-S-C 2005 053E. Provincial Government of the Western Cape: Department of Environmental Affairs and Developmental Planning.
- BICKFORD, A AND SULLIVAN, S. 1977.** "Assessing the research significance of historic sites" in S Sullivan and S Bowdler (eds) Site Surveys and Significance assessment in Australian Archaeology. Canberra: ANU.
- BURKE, H. And SMITH, C. 2004.** The archaeologist's field handbook. Australia. Allen and Unwin.
- CARTER, B. AND GRIMWADE, G. 2007.** Balancing use and preservation in cultural heritage. International Journal of Heritage Studies.
- CHIRIKURE, S AND PWITI, G. 2008** "Community involvement in archaeology and heritage management: case studies from southern Africa and elsewhere" Current Anthropology 49, 3. 467-485.
- COOPER, M. A., FIRTH, A., CARMAN, J. & WHEATLEY, D. (eds.) 1995:** Managing Archaeology. London: Routledge.
- DEACON H.J. AND DEACON J. 1999.** Human beginnings in South Africa. Cape Town: David Philips Publishers.
- Deacon, H. J. and J. Deacon, 1999.** Human Beginnings in South Africa. Cape Town.
- GLAZEWSKI, J., 2000:** Environmental Law in South Africa. Durban: Butterworths.
- HALL, M. 2006.** Implementing the World Heritage convention: what happens after listing. In A Leask and A Fyall, (eds) Managing world Heritage sites. London: Butterworth. 20-34.
- HALL, S AND B. SMITH. 2000.** Empowering places: rock shelters and ritual control in farmer-forager interactions in the Northern Province. The South African Archaeological Society. (Goodwin Series, Vol. 8.). Pp. 30–46.
- HARGRAVE, M. L. 2009** Best Practices for Archaeological Site Monitoring. Public Works Technical Bulletin 200-1-60. U.S. Army Corps of Engineers, Washington, D.C.
- [HTTP://WWW.WBDG.ORG/CCB/ARMYCOE/PWTB/PWTB 200 1 60.PDF.](http://www.wbdg.org/ccb/armycoe/pwtb/pwtb_200_1_60.pdf)
- [HTTP://WWW.SA.GOV.AU/TOPIC](http://www.sa.gov.au/topic)
- HUFFMAN, T.N. 2007.** A handbook of Iron Age Archaeology. University of Kwazulu –Natal Press. Pietermaritzburg.
- ICOMOS 2006.** The World Heritage Convention and the Buffer zone. ICOMOS SYMPOSIUM, JAPAN
- LEASK, A AND FYALL, A. 2006.** Managing World Heritage Sites. London: Butterworth-Heimann. Management. International Journal of Heritage Studies 3, 1. 45-53.
- MASON, R. 1962.** Prehistory of the Transvaal. Wits University Press.

Mazel, A. 1989. The Stone Age peoples of Natal. In: Duminy, A. and Guest, B. 1989. Natal and Zululand: from Earliest Times to 1910. A New History. Pietermaritzburg: University of Natal Press, pp 1-22

MILLAR, S. 2006. Stakeholders and community participation. In A Leask and A Fyall, (eds) Managing world Heritage sites. London: Butter-worth. 37-54.

Maggs, T. 1989. The Iron Age Farming Communities. In: Duminy, A. and Guest, B. 1989. Natal and Zululand: from Earliest Times to 1910. A New History. Pietermaritzburg: University of Natal Press, pp 28-45

NATIONAL HERITAGE RESOURCES ACT 25 OF 1999

NEUMANN, R. P. 1997. Primitive Ideas: Protected Area Buffer Zones and the Politics of Land in Africa. Development and Change Vol. 28, 559-582.

Nienabar, W. C and Steyn, M 2011. South Africa. In Marques-Grant, N and Fibiger, L. (eds) The Routledge Handbook of Human remains and legislation. London: Routledge.

Orton, C. 2000. Sampling in Archaeology. Cambridge: Cambridge University Press.

Pearson, M and Sullivan, S (1995) Looking After heritage Places: The Basics of heritage Planning for Managers, Landowners and Administrators, Melbourne University Press, Carlton, Victoria, Australia.

Ranger, T. (1983) 'The Invention of Tradition in Colonial Africa', in E. Hobsbawm and T. Ranger (eds) The Invention of Tradition, pp. 211±62. Cambridge: Cambridge University Press.

RIO TINTO 2011. Why cultural heritage matters. www.riotinto.com/whyculturalheritagematter/pdf.

Rightmire, G.P. & Deacon, H.J. 1991. Comparative studies of Late Pleistocene human remains from Klasies River Mouth, South Africa. Journal of Human Evolution 20:131-156.

SAHRA Minimum Standards for Archaeology and Palaeontological Impact Assessment.

Society for American Archaeology 2004. Professional Standards for the Determination of Archaeological Value. <http://www.saa.org/Portals/0/SAA/GovernmentAffairs/ARPAstandards.pdf>

Walton, T. 2003. Methods for monitoring the condition of historic places. Department of Conservation technical series 27. New Zealand.

Young, C, Chadburn, A and Bedu, I. 2009. Stone Henge world Heritage Site Management Plan. English Heritage.

APPENDIX 1: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

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 substation 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 development site 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 supported by local authorities regulations, municipality by-laws and ordinances.

DEFINITIONS AND APPLICABLE REGULATIONS

1). A "Municipality" 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 reach 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 POWERLINES AND SUBSTATION DEVELOPMENT.

| | |
|------------------|---|
| Objective | <p>Protection of archaeological sites and land considered to be of cultural value;</p> <p>Protection of known physical cultural property sites against vandalism, destruction and theft; and</p> <p>The preservation and appropriate management of new archaeological finds should these be discovered during construction.</p> |
|------------------|---|

| No. | Activity | Mitigation Measures | Duration | Frequency | Responsibility | Accountable | Contacted | Informed |
|-------------------------------|--------------------|--|--------------------|-------------------|------------------------|-------------|-----------|----------------|
| Pre-Construction Phase | | | | | | | | |
| 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] CECO | SM | ECO | EA EM PM |
| Construction Phase | | | | | | | | |
| 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 CECO | SM | ECO | EA EM 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 CECO | SM | ECO | EA EM PM |
| | | Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed from site; 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 Heritage Authority/SAHRA. | | When necessary | C CECO | SM | ECO | EA EM 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 CECO | SM | ECO | EA EM PM |

| No. | Activity | Mitigation Measures | Duration | Frequency | Responsibility | Accountable | Contacted | Informed |
|-----|-----------------------------|------------------------------------|----------|-----------|----------------|-------------|-----------|----------|
| | Rehabilitation Phase | Same as construction phase. | | | | | | |
| | Operational Phase | Same as construction phase. | | | | | | |

Appendix 3: heritage mitigation measure table

| Site Ref | HERITAGE Aspect | POTENTIAL IMPACT | Mitigation measures | Responsible PARTY | Penalty | Method Statement required |
|---|---|---|--|--|--|--|
| Chance Archaeological and Burial Sites | 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>Possible damage to previously unidentified archaeological and burial sites during construction phase.</p> <p>Unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites.</p> <p>Loss of historic cultural landscape;</p> <p>Destruction of burial sites and associated graves</p> <p>Loss of aesthetic value due to construction work</p> <p>Loss of sense of place</p> <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> <p>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.</p> <p>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.</p> | Contractor / Project Manager Archaeologist Project EO | Fine and or imprisonment under the PHRA Act & NHRA | <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 BACKGROUND 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 recognize 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.