

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED
MINING RIGHT APPLICATION ON THE FARMS BADEN 90LR AND PORTION OF PORTION
0 OF BRONKHORSFONTEIN 42LR WITHIN BLOUBERG LOCAL MUNICIPALITY,
CAPRICORN DISTRICT MUNICIPALITY OF LIMPOPO PROVINCE**

HIA PREPARED BY

MUDZUNGA CONSULTING (PTY) LTD

May 26, 2021

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Specialists; ASAPA members)

DOCUMENT SYNOPSIS (EXECUTIVE SUMMARY)

Item	Description
Proposed development and location	PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED MINING RIGHT APPLICATION ON THE FARMS BADEN 90LR AND PORTION OF PORTION 0 OF BRONKHORSFONTEIN 42LR WITHIN BLOUBERG LOCAL MUNICIPALITY, CAPRICORN DISTRICT MUNICIPALITY OF LIMPOPO PROVINCE.
Purpose of the study	Phase 1 Archaeological Impact Assessment to determine the presence of cultural heritage sites and the impact of the proposed mining development on these resources within the area demarcated for the proposed development
1:50 000 Topographic Map	2328 AB
Coordinates	See Figure 2
Municipalities	Blouberg Local Municipality, Capricorn District Municipality
Predominant land use of surrounding area	Residential, grazing, powerlines, road and transport
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Date of Report	26 May 2021

This Archaeology and Heritage Impact Assessment report serves to inform and guide the applicant and contractors about the possible impacts that the proposed mining development may have on heritage resources (if any) located in the study area. In the same light, the document must also inform SAHRA or LIHRA about the presence, absence and significance of heritage resources located in the study area. As stipulated by South African heritage legislation, infrastructure developments such as this require pre-development assessment by a competent heritage practitioner in order to identify record and if necessary, salvage the irreplaceable heritage resources that may be impacted upon by the proposed development. In compliance with these laws MNB Holdings (Pty) Ltd appointed to conduct a Phase 1 Heritage Impact Assessment (HIA) of the proposed mining right application within the jurisdiction of Blouberg Local Municipality in Limpopo Province. Desktop studies, drive-throughs and fieldwalking were conducted in order to identify heritage landmarks on and around the proposed mining site. The study area is not on pristine ground, having seen significant transformations owing to agriculture, powerlines and roads. Although the area is known for Late Iron Age and historical Age occurrences, no archaeological resources were identifiable on the surface, even though this may be due to the thick vegetation cover that inhibited ground surface visibility during the survey. In terms of the built environment of the area, no structures older than 60 years were recorded within the proposed mining site. In terms of the archaeology of the area under study, no mitigation will be required prior to proposed mining development. Nonetheless, sub-surface archaeological material and unmarked graves may still exist and when encountered during mining and construction, work must be stopped forth-with and the finds must be reported to LIHRA or SAHRA) or the project heritage specialist. This report must also be submitted to LIHRA for review.

The report makes the following observations:

- 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 project.
- Most sections of the project area are accessible, and the field survey was effective enough to cover all sections of the project receiving environs.
- The immediate project area is predominantly a game and livestock farming.
- The mining right area has previously been mined and abandoned in the late 60s, access roads, mine trenches, mine pits, rock dumpsites and other infrastructures are still visible.

- The buildings and structures within the mining right area are younger than 60 years and therefore the mining right application does not trigger Section 34 of the NHRA.
- The study did not record any graves or burial grounds within the proposed Mining Right Application site.

The report sets out the potential impacts of the proposed mining development on heritage matters and recommends appropriate safeguard and mitigation measures that are designed to reduce the impacts where appropriate. The Mining Right application may be approved subject to the following recommendations:

- Mine workers must be inducted on the possibility of encountering archaeological resources that may be accidentally exposed during subsurface construction prior to commencement of work on the site in order to ensure appropriate mitigation measures and that course of action is afforded to any chance finds.
- If archaeological materials are uncovered, work must cease immediately and the SAHRA be notified, and activity should not resume until appropriate management provisions are in place.
- The findings of this report, with approval of the SAHRA, may be classified as accessible to any interested and affected parties within the limits of the legislations.

This report concludes that the impacts of the proposed mining development on the cultural environmental values are not likely to be significant on the entire development site if the EMP includes recommended safeguard and mitigation measures identified in this report.

NATIONAL LEGISLATION AND REGULATIONS GOVERNING THIS REPORT

This is a specialist report' and is compiled in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014.

DECLARATION OF INDEPENDENCE

In terms of Chapter 5 of the National Environmental Management Act of 1998 specialists involved in Impact Assessment processes must declare their independence.

I, **Trust Mlilo**, do hereby declare that I am financially and otherwise independent of the client and their consultants, and that all opinions expressed in this document are substantially my own, notwithstanding the fact that I have received fair remuneration from the client for preparation of this report.

Expertise:

Trust Mlilo, MA. (Archaeology), BA Hons, PDGE and BA & (Univ. of Pretoria) ASAPA (affiliation member) and more than 15 years of experience in archaeological and heritage impact assessment and management. Mlilo is an accredited member of the Association for Southern African Professional Archaeologists (ASAPA), Amafa akwaZulu Natali and Eastern Cape Heritage Resources Agency (ECPHRA). He has conducted more than hundred AIA/HIA Studies, heritage mitigation work and heritage development projects over the past 15 years of service. The completed projects vary from Phase 1 and Phase 2 as well as heritage nomination work for government, parastatals (Eskom) and several private companies such as BHP Billiton and Rhino Minerals.

Independence

The views expressed in this document are the objective, independent views of Mr Trust Mlilo and the survey was carried out under MNB Holdings (Pty) Ltd. has no business, personal, financial or other interest in the proposed development apart from fair remuneration for the work performed.

Conditions relating to this report

The content of this report is based on the author's best scientific and professional knowledge as well as available information. reserves the right to modify the report in any way deemed fit should new, relevant or previously unavailable or undisclosed information become known to the author from on-going research or further work in this field or pertaining to this investigation.

This report must not be altered or added to without the prior written consent of the author and MNB Holdings (Pty) Ltd. This also refers to electronic copies of the report which are supplied for the purposes of inclusion as part of other reports, including main reports. Similarly, any recommendations, statements or conclusions drawn from or based on this report must make reference to this report. If these form part of a main report relating to this investigation or report, this report must be included in its entirety as an appendix or separate section to the main report.

Authorship: This AIA/HIA Report has been prepared by Mr Trust Mlilo (Professional Archaeologist). The report is for the review of the Heritage Resources Agency (LIHRA).

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: The Authors are 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 authorisation of proposed Mining Right Application being proposed by Nakedi Solutions (Pty) Ltd



26/ 06/ 2021

Acknowledgements

The author acknowledges MNB Holdings for their assistance with project information and the associated project BID as well as responding to technical queries related to the project.

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1. ABBRIVIATIONS

AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
BID	Background Information Document
EIA	Environmental Impact Assessment
EIA	Early Iron Age (<i>EIA refers to both Environmental Impact Assessment and the Early Iron Age but in both cases the acronym is internationally accepted. This means that it must be read and interpreted within the context in which it is used.</i>)
EIAR	Environmental Impact Assessment Report
ESA	Early Stone Age
GPS	Global Positioning System
HIA	Heritage Impact Assessment
ICOMOS	International Council of Monuments and Sites
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
NHRA	National Heritage Resources Act 25 of 1999
PHRA	Provincial Heritage Resource Agency
SAHRA	South African Heritage Resources Agency

ToR

Terms of Reference

2. KEY CONCEPTS AND TERMS

10.1 Periodization

Periodization Archaeologists divide the different cultural epochs according to the dominant material finds for the different time periods. This periodization is usually region-specific, such that the same label can have different dates for different areas. This makes it important to clarify and declare the periodization of the area one is studying. These periods are nothing a little more than convenient time brackets because their terminal and commencement are not absolute and there are several instances of overlap. In the present study, relevant archaeological periods are given below;

Early Stone Age (~ 2.6 million to 250 000 years ago)

Middle Stone Age (~ 250 000 to 40-25 000 years ago)

Later Stone Age (~ 40-25 000, to recently, 100 years ago)

Early Iron Age (~ AD 200 to 1000)

Late Iron Age (~ AD1100-1840)

Historic (~ AD 1840 to 1950, but a Historic building is classified as over 60 years old)

10.2 Definitions

Definitions Just like periodization, it is also critical to define key terms employed in this study. Most of these terms derive from South African heritage legislation and its ancillary laws, as well as international regulations and norms of best practice. The following aspects have a direct bearing on the investigation and the resulting report:

Cultural (heritage) resources are all non-physical and physical human-made occurrences, and natural features that are associated with human activity. These can be singular or in groups and include significant sites, structures, features, ecofacts and artefacts of importance associated with the history, architecture or archaeology of human development.

Cultural significance is determined by means of aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

Value is related to concepts such as worth, merit, attraction or appeal, concepts that are associated with the (current) usefulness and condition of a place or an object. Although significance and value are not mutually exclusive, in some cases the place may have a high level of significance but a lower level of value. Often, the evaluation of any feature is based on a combination or balance between the two.

Isolated finds are occurrences of artefacts or other remains that are not in-situ or are located apart from archaeological sites. Although these are noted and recorded, but do not usually constitute the core of an impact assessment, unless if they have intrinsic cultural significance and value.

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

Archaeological site/materials are remains or traces of human activity that 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. According to the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), no archaeological artefact, assemblage, or settlement (site) and no historical building or structure older than 60 years may be altered, moved or destroyed without the necessary authorisation from the South African Heritage Resources Agency (SAHRA) or a provincial heritage resources authority.

Historic material are 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.

Chance finds means archaeological artefacts, features, structures or historical remains accidentally found during development.

A grave is a place of interment (variably referred to as burial) and includes 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).

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

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

which requires authorisation of permission by law, and which may significantly affect the cultural and natural heritage resources. Accordingly, an HIA must include recommendations for appropriate mitigation measures for minimising or circumventing negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

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

Mitigation is the implementation of practical measures to reduce and circumvent adverse impacts or enhance beneficial impacts of an action.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the prehistorical, historical or the relatively recent past.

Study area or '**project area**' refers to the area where the developer wants to focus its development activities (refer to plan).

Phase I studies refer to surveys using various sources of data and limited field walking in order to establish the presence of all possible types of heritage resources in any given area.

10.3 Assumptions and disclaimer

The investigation has been influenced by the unpredictability of buried archaeological remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be remembered that archaeological deposits (including graves and traces of mining heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during clearance and construction, such activities should be halted immediately, and a competent heritage practitioner, SAHRA or PHRA must be notified in order for an investigation and evaluation of the find(s) to take place (see NHRA (Act No. 25 of 1999), Section 36 (6)). Recommendations contained in this document do not exempt the applicant from complying with any national, provincial, and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHRA. Mudzunga Consulting (Pty) Ltd assumes no responsibility for compliance with conditions that may be required by SAHRA in terms of this report.

3. TERMS OF REFERENCE (ToR)

The author was requested by MNB Holdings (Pty) Ltd to conduct an AIA/HIA study addressing the following issues:

- Assess archaeological and heritage potential of the proposed mining development site including any known data on affected areas;
- Provide details on methods of study; potential and recommendations to guide the LIHRA/ SAHRA to make an informed decision with regards to authorisation of the proposed Mining Right Application.
- Identify and map all heritage resources in the area affected;
- Assess the significance of such resources in terms of heritage assessment criteria set out in regulations;
- Assess the impact of the development on heritage resources;
- Evaluate the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- Consult with communities affected by the proposed mining right application and other interested parties regarding the impact of the development on heritage resources;
- Provide plans for mitigation of any adverse effects during and after completion of the proposed development.

4. INTRODUCTION

Mudzunga Consulting was tasked by MNB Holdings (Pty) Ltd on behalf of Nakedi to carry out a Phase 1 AIA/ HIA for the proposed Mining Right Application on the Farms Baden 90LR and Portion of portion 0 of Bronkhorsfontein 42 LR within Blouberg Local Municipality of Limpopo Province. The proposed mining development area is predominantly game and livestock farming. However, as prescribed by SAHRA and stipulated by legislation, an archaeological/ heritage study must be conducted for mining right application. The overall purpose of this heritage report is to identify, assess any heritage resources that may be located in the study area and evaluate the positive and negative impacts of the proposed mining development on these resources in order to make recommendations for their appropriate management. To achieve this, we conducted background research of published literature, maps, and databases (desktop studies) which was then followed by ground-truthing by means of drive-through surveys and field walking. Desktop studies had shown that Iron Age and historical sites were a possibility in the study area, but no such sites were recorded during ground-truthing. While heritage resources may have been located in the study area, subsequent developments such as infrastructure development have either obliterated these materials or reduced them to isolated finds that can only be identifiable as chance finds during mining/construction. If the recommendations of this report are adopted, there is no archaeological reason why mining right application cannot be approved, taking full cognizance of clear procedures to follow in the event of chance findings.

5. PROJECT LOCATION

The Mining Right application and activity applied for covers the Farm; Baden 90LR and Portion of Portion 0 of Bronkhorsfontein 42LR; which covers an area of approximately 2 662 Ha in extent. The properties are situated approximately 129 km North-West of Polokwane Town, in the Blouberg District Municipality of the Limpopo Province.

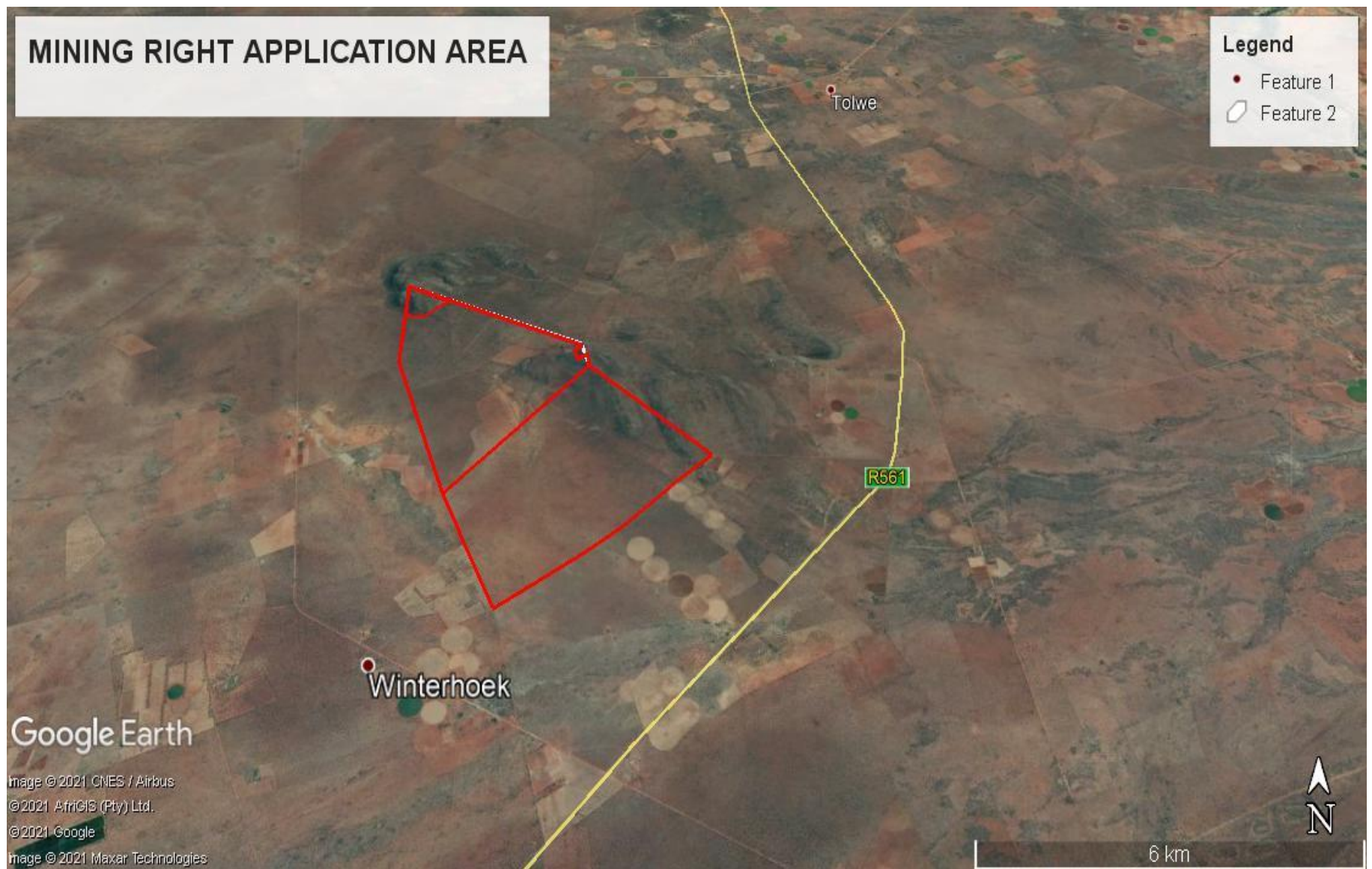


Figure 1: Location of the proposed mining right (MNB 2021)

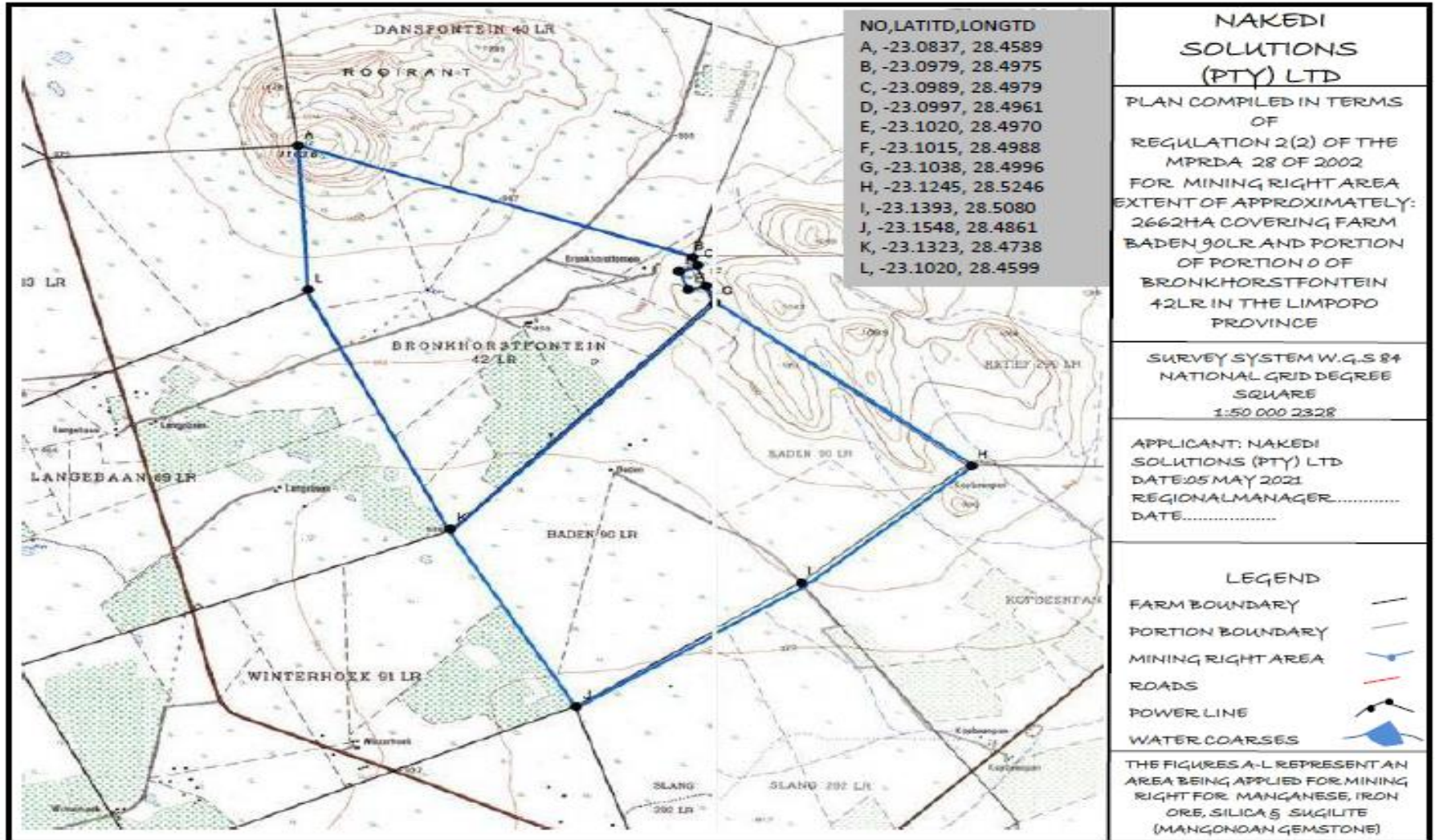


Figure 2: Location of the proposed Mining Right Application (MNB 2021)

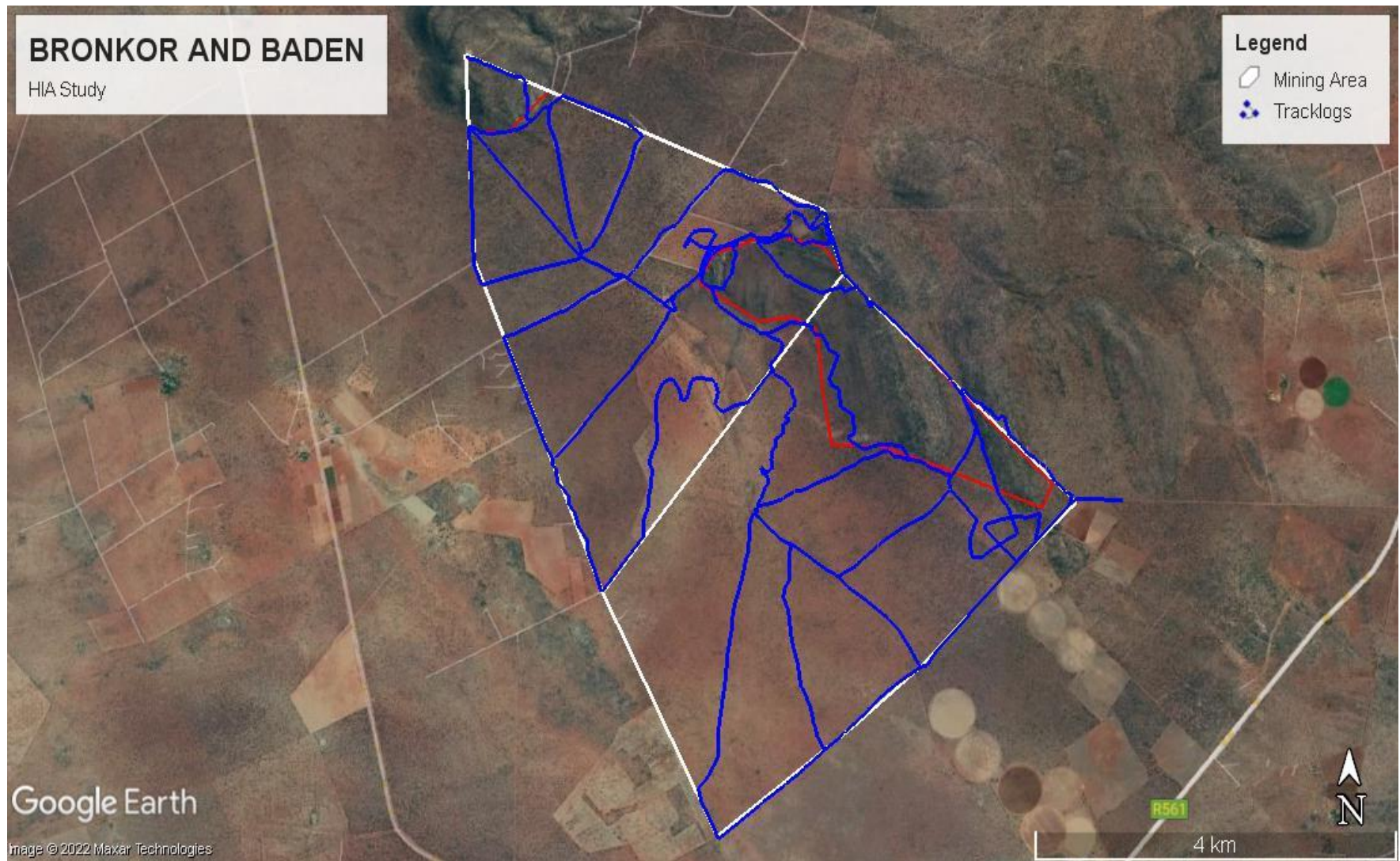


Figure 3: View of tracklogs for the heritage survey. Note that areas were surveyed by way of a drone (ISS 2021)

5.1 Project background and descriptions

Nakedi Solutions (Pty) Ltd is planning to conduct a Mining Right programme and related Activities of Iron Ore, Manganese and Silica on the Farms; Baden 90LR and Portion of Portion 0 of Bronkhorsfontein 42LR within the Blouberg Local Municipality, Limpopo Province.

6. ARCHAEOLOGICAL AND HERITAGE LEGAL FRAMEWORK

Two main pieces of legislations are relevant to the present study and there are presented here. Under the National Heritage Resources Act (Act 25 of 1999) (NHRA) and the National Environmental Management Act (NEMA), an AIA or HIA is required as a specialist sub-section of the EIA.

Heritage management and conservation in South Africa is governed by the NHRA and falls under the overall jurisdiction of the SAHRA and its PHRAs. There are different sections of the NHRA that are relevant to this study. The present proposed development is a listed activity in terms of Section 38 of the NHRA which stipulates that the following development categories require an HIA to be conducted by an independent heritage management consultant:

- Construction of a road, wall, powerline, pipeline, canal or other linear form of development or barrier exceeding 300m in length
- Construction of bridge or similar structure exceeding 50m in length
- Development or other activity that will change the character of a site -
 - ❖ Exceeding 5000 sq m
 - ❖ Involving three or more existing erven or subdivisions
 - ❖ Involving three or more erven or divisions that have been consolidated within past five years
 - ❖ Rezoning of site exceeding 10 000 sq m
 - ❖ The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority
- Any other development category, public open space, squares, parks, recreation grounds

Thus, any person undertaking any development in the above categories, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. Section 38 (2) (a) of the same act also requires the submission of a heritage impact assessment report for authorization purposes to the responsible heritage resources agencies (SAHRA/PHRAs). Because the proposed development will change the character of a site exceeding 5000 sq m, then an HIA is required according to this section of act.

Related to Section 38 of the NHRA are Sections 34, 35, 36 and 37. Section 34 stipulates that no person may **alter damage, destroy and relocate any building or structure older than 60 years, without a permit issued by SAHRA or a provincial heritage resources authority**. This section may not apply to present study since none

were identified. Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant archaeological sites that may be discovered before or during construction. This means that any chance find must be reported to the heritage practitioner or SAHRA/LIHR, who will assist in investigating the extent and significance of the finds and inform about further actions. Such actions may entail the removal of material after documenting the find site or mapping of larger sections before destruction. Section 36 (3) of the NHRA also stipulates that no person may, without a permit issued by the South African Heritage Resources Agency (SAHRA), destroy, damage, alter, exhume or 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. This section may apply in case of the discovery of chance burials, which is unlikely. The procedure for reporting chance finds also applies to the unlikely discovery of burials or graves by the developer or his contractors. Section 37 of the NHRA deals with public monuments and memorials but this may not apply to this study because no protected monument will be physically affected by the proposed project.

In addition, the new EIA Regulations (04 December 2014) promulgated in terms of NEMA (Act 107 of 1998) determine that any environmental reports will include cultural (heritage) issues. The new regulations in terms of Chapter 5 of the NEMA provide for an assessment of development impacts on the cultural (heritage) and social environment and for Specialist Studies in this regard. The end purpose of such a report is to alert the developer, the environmental consultant, SAHRA and interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigatory measures aimed at reducing the risks of any adverse impacts on these heritage resources.

Assessing the Significance of Heritage Resources

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 (Pearson and Sullivan 1995:7). This assessment of the Indigenous cultural heritage significance of the site of Interest as its environments of the study area will be

based on the views expressed by the traditional authority and 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 considered in this project falls within this realm of broad significance.

Archaeological sites, as defined by the National Heritage Resources Act (Act 25 of 1999) as places in the landscape where people once lived in the past – generally more than 60 years ago – and have left traces of their presence behind. In South Africa, archaeological sites include hominid fossil sites, places where people of the Earlier, Middle and Later Stone Age lived in open sites, river gravels, rock shelters and caves, Iron Age sites, graves, and a variety of historical sites and structures in rural areas, towns and cities. Palaeontological sites are those with fossil remains of plants and animals where people were not involved in the accumulation of the deposits. The basic principle of cultural heritage conservation is that archaeological and other heritage sites are valuable, scarce and non-renewable. Many such sites are unfortunately lost on a daily basis through infrastructure developments such as powerlines, roads and other destructive economic activities such as mining and agriculture. This is true for the proposed project area whose main economic activities are agriculture, transport, and mining. It should be noted that once archaeological sites are destroyed, they cannot be replaced as site integrity and authenticity is permanently lost. Archaeological heritage contributes to our understanding of the history of the region and of our country and continent at large. By preserving links with our past, we may be able to appreciate the role past generations have played in the history of our country and the continent at large.

Categories of Significance

Rating the significance of archaeological sites, and consequently grading the potential impact on the resources is linked to the significance of the site itself. The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences. The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with special reference to subsection 3 are used when determining the cultural significance or other special value of archaeological or historical sites. In addition, ICOMOS (the Australian Committee of the International Council on Monuments and Sites) highlights four cultural attributes, which are valuable to any given culture:

Aesthetic Value:

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria include consideration of the form, scale, colour, texture and material of the fabric, the general atmosphere associated with the place and its uses, and the aesthetic values commonly assessed in the analysis of landscapes and townscape.

Historical Value:

Historic value encompasses the history of aesthetics, science and society and therefore to a large extent underlies all of the attributes discussed here. Usually, a place has historical value because of some kind of influence by an event, person, phase or activity.

Scientific Value:

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality and on the degree to which the place may contribute further substantial information.

Social Value:

Social value includes the qualities for which a place has become a focus of spiritual, political, national, or other cultural sentiment to a certain group. It is important for heritage specialist input in the EIA process to take into account the heritage management structure set up by the NHR Act. It makes provision for a 3-tier system of management including the South Africa Heritage Resources Agency (SAHRA) at a national level, Provincial Heritage Resources Authorities (PHRAs) at a provincial and the local authority. The Act makes provision for two types or forms of protection of heritage resources; i.e., formally protected and generally protected sites:

Formally Protected Sites

- Grade 1 or national heritage sites, which are managed by SAHRA
- Grade 2 or provincial heritage sites, which are managed by the PHRA.
- Grade 3 or local heritage sites.

General Protection

- Human burials older than 60 years.
- Archaeological and palaeontological sites.
- Shipwrecks and associated remains older than 70 years.
- Structures older than 60 years.

The certainty of prediction is definite, unless stated otherwise and if the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low. The significance of archaeological sites is generally ranked into the following categories:

Significance Rating Action

No significance: sites that do not require mitigation.

Low significance: sites, which may require mitigation.

2a. Recording and documentation (Phase 1) of site; no further action required.

2b. Controlled sampling (shovel test pits, auguring), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction.

Medium significance: sites, which require mitigation.

3. Excavation of representative sample, C14 dating, mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b].

High significance: sites, where disturbance should be avoided.

4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit required if utilised for education or tourism.

High significance: Graves and burial places

4b. Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinternment [including 2a, 2b & 3].

Furthermore, the significance of archaeological sites was based on six main criteria:

- Site integrity (i.e., primary vs. secondary context),
- Amount of deposit, range of features (e.g., stonewalling, stone tools and enclosures),
- Density of scatter (dispersed scatter),
- Social value,
- Uniqueness, and
- Potential to answer current and future research questions.

An important aspect in assessing the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed water reticulation development outweigh the conservation issues at stake. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data /information, which would otherwise be lost.

Table 1: Evaluation of the proposed development as guided by the criteria in NHRA and NEMA.

ACT	Stipulation for developments	Requirement details
NHRA Section 38	Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length	No
	Construction of bridge or similar structure exceeding 50m in length	No
	Development exceeding 5000 sq m	Yes
	Development involving three or more existing erven or subdivisions	No
	Development involving three or more erven or divisions that have been consolidated within past five years	No
	Rezoning of site exceeding 10 000 sq m	No
	Any other development category, public open space, squares, parks, recreation grounds	No
NHRA Section 34	Impacts on buildings and structures older than 60 years	Non recorded
NHRA Section 35	Impacts on archaeological and palaeontological heritage resources	Subject to identification during Phase 1
NHRA Section 36	Impacts on graves	Subject to identification during Phase 1
NHRA Section 37	Impacts on public monuments	Subject to identification during Phase 1
Chapter 5 (21/04/2006) NEMA	HIA is required as part of an EIA	Yes
Section 39(3)(b) (iii) of the MPRDA	AIA/HIA is required as part of an EIA	Yes

Other relevant legislations

The Human Tissue Act

Human Tissue Act of 1983 and Ordinance on the Removal of Graves and Dead Bodies of 1925 is relevant to relocation of graves affected by development. Graves 60 years or older are heritage resources and fall under the jurisdiction of both the National Heritage Resources Act 25 of 1999. However, graves younger than 60 years are specifically protected by the Human Tissues Act (Act 65 of 1983) and the Ordinance on the Removal of Graves and Dead Bodies (Ordinance 7 of 1925) as well as any local and regional provisions, laws and by-laws. Such burial places also fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial Member of the Executive Committee (MEC) as well as the relevant Local Authorities.

7. METHODOLOGY

Our HIA study was structured in five phases, that is field survey, consultation, report compilation and report review. The methodology is informed by the SAHRA Guidelines on Impact assessment for development projects, as well as the relevant provisions of the local heritage and environmental legislation. We conducted desktop studies, field survey, consultation, report compilation and report review.

7.1 Phase I: Desktop studies

Desktop studies are very crucial for the success of any project because they determine not just what is known but also can identify gaps which must be closed during the study to meet the aims and objectives of the project. Literature on the archaeology and heritage character of the project was reviewed. A review of SAHRIS and other databases was conducted online. Further review of the relevant local and international legal frameworks was also done. Furthermore, relevant documents, databases such as Google Earth and any other available information were consulted. As part of the desktop study, published literature and cartographic data, as well as archival data on heritage legislation, the history and archaeology of the area were studied.

The desktop studies were carried at university libraries, national libraries, local municipality libraries and archives. Electronic databases such as Google Earth, Google Map and Google Images were consulted as well. Special attention was given to provincial and local authority development plans so that the HIA contributes to the attainment of local objectives.

7.2 Phase ii: Fieldwork

The aim of the project is to provide the client with an HIA that will support decision making in order to ensure protection of the heritage resource base of the project area. The heritage resources must be identified, assessed, and ranked. This enables a proper definition of the resource and its boundaries. This requires the participation of a multi-disciplinary team with experience in heritage management, heritage, palaeontology, planning and risk

management fields. This fieldwork aimed at adding to the gaps identified during the review of the existing documentation. The field survey was undertaken on the 23rd of May 2021 by a team comprising the archaeologists, EAPS and the applicant representative. The proposed mining right area was surveyed through farm tracks, access roads, previous mine access road main roads and a drone which covered most of inaccessible areas. The focus of the survey involved a pedestrian survey which was conducted across the proposed study site. The pedestrian survey focussed on parts of the project area where it seemed as if disturbances may have occurred in the past, for example bald spots in the grass veld; stands of grass which are taller than the surrounding grass veld; the presence of exotic trees; evidence for building rubble, and ecological indicators such as invader weeds.

Detailed photographic recording was also undertaken where relevant. The findings were then analysed in view of the proposed mining development in order to assess the impacts of the proposed mining development. The result of this investigation is a report indicating the presence/absence of heritage resources and how to manage them in the context of the proposed mining development.

The literature survey suggests that prior to the 20th century modern agriculture and associated infrastructure; the general project area would have been a rewarding region to locate heritage resources related to Stone Age and particularly Iron Age and historical sites (Bergh 1999). However, the situation today is completely different. The study area now lies on a clearly modified landscape that has previously been cleared for residential developments and associated infrastructure.

7.3 Phase iii: Consultation

The archaeologist consulted the applicant who has vast knowledge of the project area. He confirmed that the area was mainly used for grazing and there are no prehistoric settlements or graves. The EIA Public Participation process will be conducted by the EAP and specialists. The EIA Public Participation Process will invite and address comments from affected communities and any registered heritage bodies on any matter related to the mining right application including heritage concerns that may arise as a result of the project. The heritage team will investigate further information about the historical farmsteads and the location of the family during public participation meetings.

7.4 Phase iv: Report compilation

Report compilation and impact assessment.

7.5 Phase v: Report review, finalisation and submission

Before the final draft of the HIA is submitted to the client, the report will be reviewed internally. The client will be provided with the opportunity make some inputs before the report is finalised.

8. The following photographs illuminate the nature and character of the Project Area.



Plate 1: Photo **A.** showing the eagle's eye view of the proposed Mining Right area (Photo by Molepo 2021)



Plate 2: Photo **B.** showing the eagle's eye view of the proposed Mining Right application area (Photo by Molepo 2021)



Plate 3: Photo **C**. showing the eagle's eye view of the project site (Photo by Molepo 2021)



Plate 4: Photo **D**. showing the eagle's eye view of the project site (Photo by Molepo 2021)



Plate 5: Photo **E**. showing the eagle's eye view of the project site (Photo by Molepo 2021)

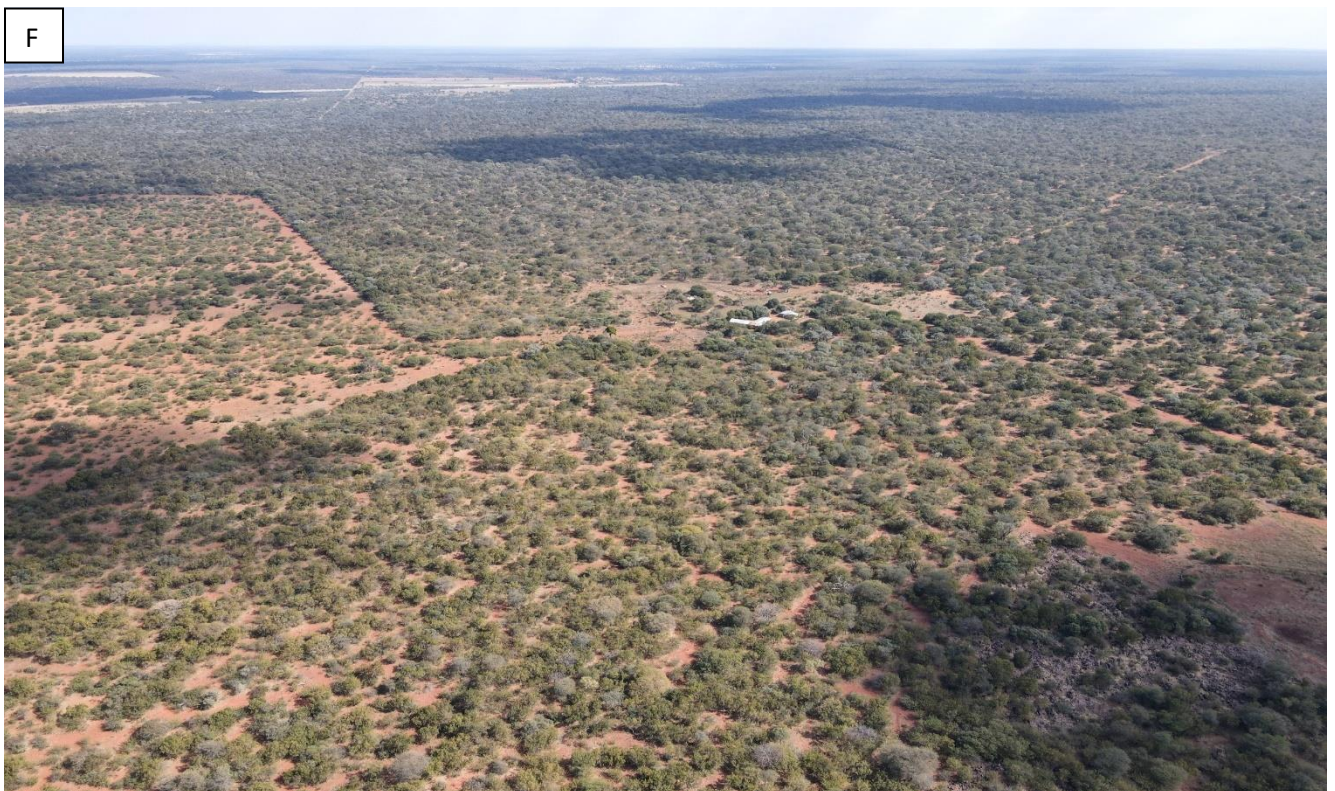


Plate 6: Photo **F**. showing the eagle's eye view of the project site (Photo by Molepo 2021)



Plate 7: Photo **G**. showing the eagle's eye view of the project site (Photo by Molepo 2021)



Plate 8: Photo **H**. showing the eagle's eye view of the project site (Photo by Molepo 2021)



Plate 9: Photo I. showing the eagle's eye view of the project site (Photo by Molepo 2021).



Plate 10: Photo J. showing the proposed Mining Right area.



Plate 11: Photo **K**. showing existing access roads created by the previous miners.



Plate 12: Photo **L**. showing trenches left by previous miners



Plate 13: Photo **M**. showing proposed Mining Right application area.



Plate 14: Photo **N**. showing one the several access roads left by the previous miners.



Plate 15: Photo **O**. showing one of the several trenches left by previous miners.



Plate 16: Photo **P**. showing proposed Mining Right application site.



Plate 17: Photo **Q**. showing proposed Mining Right application site.



Plate 18: Photo **R**. showing rock dump site left by previous miners.



Plate 19: Photo **S**. showing existing access roads within the Mining Right application area.



Plate 20: Photo **T**. showing proposed Mining Right area. Note that most sections of the area were disturbed by previous mining activities.

9. ARCHAEOLOGICAL AND HERITAGE CONTEXT OF THE STUDY AREA

The Limpopo province is one of the richest Iron Age archaeology research regions in southern Africa containing diverse Iron Age sites. It is most probably the most extensively researched region in terms of Iron Age archaeology owing to the diverse Iron Age cultures and traditions found in this region. Like the Stone Age period, the Iron Age period of Limpopo Province can be subdivided into three chronological categories: the EIA (Early Iron Age), MIA (Middle Iron Age) and LIA (Late Iron Age) (e.g., Huffman, 2007; van Schalkwyk, 2007; Hannisch, 2003; Hall & Smith, 2000). Many of the Iron Age sites occur near the flood plains, along and near some of the major rivers; however, some are known to occur in defensive slopes along some of the Limpopo hill slopes and/or mountainous areas (e.g., van Schalkwyk, 2007; Huffman 2007 also see Hall & Smith 2000). Hall & Smith, (2000) produced a map for the distribution of archaeological sites in the area.

Stone Age sites are general identifiable by stone artefacts found scattered on the ground surface, as deposits in caves and rock shelters as well as in eroded gully or river sections. Archaeological sites recorded in the project region confirms the existence of Stone Age sites that conform to the generic SA periodization split into the Early Stone Age (ESA) (2.5 million years ago to 250 000 years ago), the Middle Stone Age (MSA) (250 000 years ago to 22 000 years ago) and the Late Stone Age (LSA) (22 000 years ago to 300 years ago). Stone Age sites in the region are also associated with rock painting sites. Cave sites also exist on the landscape south west of the project area. From an archaeological perspective, the Blouberg area, like most of Limpopo region has potential to yield Stone Age period sites (also see Deacon and Deacon, 1997). However, the specific affected project-receiving environment has low potential for Stone Age sites.

Hannisch (2003) puts the date for Iron Age archaeology of the area north and south of the Soutpansberg Mountains, as well its western and eastern section, to (300 – 700 AD) and the known sites include among others - Happy Rest, Silver Leaves, Eiland – refer to Figure 8 for some of these sites like Happy Rest South of the Soutpansberg Mountains (900 – 1300 AD) and the known sites include among others - K2/Mutamba and Mapungubwe – LIA (1300 -1833 AD) and the known sites include among others – Moloko (early Sotho), Zimbabwe, Khami, early Venda, early Tsonga and Vha-Ngona site - refer Figure 8 for some of the Moloko sites north of the Soutpansberg Mountain. Contrary to Hannisch (2003), Huffman (2007) and van Schalkwyk (2007) date these sites much earlier - when the Early Iron Age (EIA) proto-Bantu-speaking farming communities began arriving in this region, which was then occupied by hunter-gatherers (Hall & Smith, 2000). For example, van Schalkwyk (ibid) date early known Iron Age site to 200 AD. These EIA communities are archaeologically referred to as the Kwale branch of the Urewe EIA Tradition (Huffman, 2007: 127-9). The Iron Age communities occupied the foothills and valley lands introducing settled life, domesticated livestock, crop production and the use of iron (also see Maggs 1984a; 1984b; Huffman 2007, van Schalkwyk, 2007). Alongside the Urewe Tradition was the Kalundu Tradition whose EIA archaeological sites have been recorded along the Limpopo region. Limpopo region is known for the famous golden rhino that was recovered from Iron Age settlement site of Mapungubwe in the Limpopo Shashe Confluence Area Valley (Murimbika

& Tomose, 2012). The Limpopo region is also known for the Late Iron Age Great Zimbabwe Culture sites such as Lephalale and Dzata (ibid). The Kalundu Tradition, one of the LIA traditions occurs in the region (Huffman, 2007).

Because the region was the centre of immigration and migration by the different African groups some of which are ancestors of the contemporary Northern Sotho such as the Tlokwa (west and southwest of the Soutpansberg), Lovedu (east and southeast of the Soutpansberg), the Matlala in the Borutho (Mokopane area), Bapedi and the Ba-Hananwa (e.g. Ga- Malebogo according to the locals) in the Makgabeng, Blouberg and Bochum area. The Vha-Venda who are dominant the north-eastern, eastern and the south-eastern section of the Soutpansberg Mountains, co-existing along the Lovedu – best known for their rain queen, Queen Modjadji. There are archaeological sites that are intermediate between each of these later Iron Age period cultures in the region (e.g., Hannisch, 2003).

Contemporary History and the Peopling of the Region

Throughout the middle of the 1800 Century AD the region witnessed an array of occupation and reoccupation by the different culture groups that contributed to the peopling of the present-day Limpopo. This was partly influenced by the Mfecane processes, contributing to migrations and displacements of people in the region and throughout many parts of South Africa and southern Africa. For example, in the region the Mfecane processes can be linked to the Ndebele of Mzilikazi who later settled in Zimbabwe. The Displaced 'northern Zululand' Ngoni (known in the area east of the study as Vha-Ngona) in the Letaba area – the former Gazankulu area also influenced the peopling of this region. The other influence to peopling of this area can with the early colonial settlers in the 1840s. This like the Mfecane also triggered wars in the region – wars between the African chiefdoms and the incoming settlers. One such example is the battle of Blouberg, also known as the Malebogo wars, between Chief Malebogo and Kruger in the Blouberg Mountains and the Makgabeng Plateau (Smith pers.com 2006). Some of these colonial wars and battles lasted into the First (mid 1860s) and Second (1899 1902) South African War (formerly known as the Anglo-Boer Wars). The later effectively led to complete subjugation of African communities to settler administration starting as part of the ZAR of Transvaal, the Union of South Africa in 1910 following the annexing of the region by the British, the Nationalist South Africa (1982), the Apartheid South Africa as proclaimed in 1962 up to late 1980s until the Democratic South Africa resulting from first democratic elections in 1994.

Intangible Heritage

As defined in terms of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) intangible heritage includes oral traditions, knowledge and practices concerning nature, traditional craftsmanship and rituals and festive events, as well as the instruments, objects, artefacts and cultural spaces associated with group(s) of people. Thus, intangible heritage is better defined and understood by the particular group of people that uphold it. In the present study area, very little intangible heritage remains because no historically known groups occupied the study area and most of the original settler descendants moved away from the area.

SAHRIS Data Base and Impact Assessment Reports in the project area

Several archaeological and heritage studies were conducted within the Blouberg/Bochum area and its vicinity since 1999 and these presents the nature and heritage character of the area. The HIA conducted in the area also provide some predictive evidence regarding the types and ranges of heritage resources to be expected in the proposed project area: (see reference list for HIA reports). The findings of this AIA have been informed by desktop study and field survey. The desktop study was undertaken through SAHRIS for previous Heritage Impact Assessments and Archaeological Impact Assessments from the region, these include work by Van Schalkwyk (2004), Pistorius 2012, Roodt, 1999; 2002, Murimbika 2012; Munyai, 2008a, 2008b, 2008c, 2008d, 2008d and 2008e, Magoma 2014, Mlilo 2017a, 2017b etc. The study reviewed relevant archival documents and publications from the University of Pretoria and Witwatersrand's Libraries. From the archival and literature review, intensive archaeological work done in the region by Mason 1962; Huffman 2007; Smith 1969 shed more light on the archaeology of the project area. In addition, the Project Area was also studied by means of maps on which it appears 2329AA (Blouberg), 1: 50 000 topographical map.

10. RESULTS OF THE FIELD STUDY

The main cause of impacts to archaeological sites is direct, physical disturbance of the archaeological remains themselves and their contexts. It is important to note that the heritage and scientific potential of an archaeological site is highly dependent on its geological and spatial context. This means that even though, for example a deep excavation may expose buried archaeological sites and artefacts, the artefacts are relatively meaningless once removed from their original position. The severe impacts are likely to occur during clearance, construction of access roads and excavations. The excavation and clearance of topsoil will result in the relocation or destruction of all existing surface heritage material. Similarly, the clearing of access roads will impact material that lies buried beneath the surface. Since heritage sites, including archaeological sites, are non-renewable, it is important that they are identified, and their significance assessed prior to construction. It is important to note, that due to the localised nature of archaeological resources, that individual archaeological sites could be missed during the survey, although the probability of this is very low within the proposed bulk water site. Further, archaeological sites and unmarked graves may be buried beneath the surface and may only be exposed during excavation. The purpose of the AIA is to assess the sensitivity of the study area in terms of archaeology and heritage as well as to avoid or reduce the potential impacts of the proposed mining development by means of mitigation measures (see appended Chance Find Procedure). The study concludes that the impacts to archaeological resources will be negligible since the site was previously mined (see Plate 3, 4, 6). The following section presents results of the field survey.

10.4 Archaeological Heritage Sites

The proposed Mining Right site did not yield any confirmable archaeological remains. A large section of the affected landscape is heavily degraded from previous and current land use such as mining, agriculture, clearing and other infrastructure developments such as access roads and powerlines. This limited the chances of encountering

significant *in situ* archaeological sites. As such the impacts of proposed mining development are considered to be low. (Figure 1). It is the considered opinion of the author that the chances of recovering significant archaeological materials were seriously compromised and limited due to previous mining activities and other destructive land use patterns such as road works and farming infrastructure that already exist on the project area.

Based on the field study results and field observations, the author concluded that the receiving environment for the proposed development is low to medium potential to yield previously unidentified archaeological sites during subsurface excavations and construction work associated with the proposed mining development. This observation is supported by the fact that no Iron Age sites are indicated in a historical atlas around the area; however, this may be an indication of a lack of research. As such the mining right application may be approved without further archaeological investigations or mitigation.

10.5 Burial grounds and graves

Human remains and burials are commonly found close to archaeological sites; they may be found in abandoned and neglected burial sites or occur sporadically anywhere as a result of prehistoric activity, victims of conflict or crime. It is often difficult to detect the presence of archaeological human remains on the landscape as these burials, in most cases, are not marked at the surface. Archaeological and historical burials are usually identified when they are exposed through erosion and earth moving activities for infrastructure developments such as powerlines and roads. In some instances, packed stones or stones may indicate the presence of informal pre-colonial burials.

The field survey did not record any burial site within the proposed mining right site. It should be noted that 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 not, they may not be tempered with or interfered with during any proposed mining 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 within the mining right site, should such sites be identified during subsurface mining/ construction work, they are still protected by applicable legislations, and they should be protected.

10.6 Buildings and Structures older than 60 years

The study did not identify any buildings and structures that are older than 60 years. As such the mining right application does not trigger Section 34 of the NHRA because the buildings and structures are younger than 60-year threshold.

10.7 Public Monuments and Plaques

The study did not identify any public monuments and commemorative plaques within the mining right site. Therefore, the site does not trigger Section 37 of the NHRA.

10.8 Natural and Geological Heritage

The survey did not record any significant cave or sacred geological formations which are in the heritage register of the Limpopo region.

Impact Assessment

An impact can be defined as any change in the physical-chemical, biological, cultural and/or socio-economic environmental system that can be attributed to human activities related to the mining right area under study for meeting project needs. The significance of the impacts of the process will be rated by using a matrix derived from Plomp (2004) and adapted to some extent to fit this process. These matrixes use the consequence and the likelihood of the different aspects and associated impacts to determine the significance of the impacts.

The significance of the impacts will be determined through a synthesis of the criteria below:

Table 2: Criteria Used for Rating of Impacts

Nature of the impact (N)		
Positive	+	Impact will be beneficial to the environment (a benefit).
Negative	-	Impact will not be beneficial to the environment (a cost).
Neutral	0	Where a negative impact is offset by a positive impact, or mitigation measures, to have no overall effect.
Magnitude(M)		
Minor	2	Negligible effects on heritage or social functions / processes. Includes areas / environmental aspects which have already been altered significantly and have little to no conservation importance (negligible sensitivity*).
Low	4	Minimal effects on heritage or social functions / processes. Includes areas / environmental aspects which have been largely modified, and / or have a low conservation importance (low sensitivity*).
Moderate	6	Notable effects on heritage or social functions / processes. Includes areas / environmental aspects which have already been moderately modified and have a medium conservation importance (medium sensitivity*).
High	8	Considerable effects on heritage or social functions / processes. Includes areas / environmental aspects which have been slightly modified and have a high conservation importance (high sensitivity*).
Very high	10	Severe effects on biophysical or social functions / processes. Includes areas / environmental aspects which have not previously been impacted upon and are pristine, thus of very high conservation importance (very high sensitivity*).
Extent (E)		
Site only	1	Effect limited to the site and its immediate surroundings.
Local	2	Effect limited to within 3-5 km of the site.
Regional	3	Activity will have an impact on a regional scale.
National	4	Activity will have an impact on a national scale.
International	5	Activity will have an impact on an international scale.
Duration (D)		
Immediate	1	Effect occurs periodically throughout the life of the activity.

Short term	2	Effect lasts for a period 0 to 5 years.
Medium term	3	Effect continues for a period between 5 and 15 years.
Long term	4	Effect will cease after the operational life of the activity either because of natural process or by human intervention.
Permanent	5	Where mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient.
Probability of occurrence (P)		
Improbable	1	Less than 30% chance of occurrence.
Low	2	Between 30 and 50% chance of occurrence.
Medium	3	Between 50 and 70% chance of occurrence.
High	4	Greater than 70% chance of occurrence.
Definite	5	Will occur, or where applicable has occurred, regardless or in spite of any mitigation measures.

Once the impact criteria have been ranked for each impact, the significance of the impacts will be calculated using the following formula:

$$\text{Significance Points (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) \times \text{Probability}$$

The significance of the ecological impact is therefore calculated by multiplying the severity rating with the probability rating. The maximum value that can be reached through this impact evaluation process is 100 SP (points). The significance for each impact is rated as High (SP≥60), Medium (SP = 31-60) and Low (SP<30) significance as shown in the below.

Table 3: Criteria for Rating of Classified Impacts

Significance of predicted NEGATIVE impacts		
Low	0-30	Where the impact will have a relatively small effect on the environment and will require minimum or no mitigation and as such have a limited influence on the decision
Medium	31-60	Where the impact can have an influence on the environment and should be mitigated and as such could have an influence on the decision unless it is mitigated.
High	61-100	Where the impact will definitely have an influence on the environment and must be mitigated, where possible. This impact will influence the decision regardless of any possible mitigation.
Significance of predicted POSITIVE impacts		
Low	0-30	Where the impact will have a relatively small positive effect on the environment.
Medium	31-60	Where the positive impact will counteract an existing negative impact and result in an overall neutral effect on the environment.
High	61-100	Where the positive impact will improve the environment relative to baseline conditions.

The significance of each activity should be rated without mitigation measures (WOM) and with mitigation (WM) measures for both construction, operational and closure phases of the proposed development

Table 4: Impact Assessment Matrix for proposed development

Impacts and Mitigation measures relating to the construction during Operational Phase														
Activity/Aspect	Impact /	Aspect	Nature	Magnitude	Extent	Duration	Probability	Significance before mitigation	Mitigation measures	Magnitude	Extent	Duration	Probability	Significance after mitigation
Clearing and construction	Destruction of archaeological remains	Cultural heritage	-	6	1	4	2	22	<ul style="list-style-type: none"> None required because no archaeological remains were recorded Use chance find procedure to cater for accidental finds 	2	1	1	1	4
	Disturbance of graves	Cultural heritage	-	4	1	1	1	6	<ul style="list-style-type: none"> None required 	2	1	1	1	4
	Disturbance of buildings and structures older than 60 years old	Operational	-	6	1	4	1	11	<ul style="list-style-type: none"> None required 	2	1	1	1	4
Movement of equipment	Destruction public monuments and plaques	Operational	-	2	1	1	1	4	<ul style="list-style-type: none"> Mitigation is not required because there are no public monuments within the mining right application site 	2	1	1	4	4

10.9 Mitigation Measures

From a heritage perspective mitigation is not required because the buildings and structures are younger than 60 years. In terms of Section 36 of the NHRA that protects graves, mitigation is not required.

10.10 Cumulative Impacts

This section considers the cumulative impacts that would result from the combination of the proposed mining activities. An examination of the potential for other projects to contribute cumulatively to the impacts on heritage resources from this proposed mining right application was undertaken during the preparation of this report. The impacts of the proposed Mining Right Application were assessed by comparing the post-project situation to a pre-existing baseline. The total impact arising from the proposed development (under the control of the applicant), other activities (that may be under the control of others, including other developers, local communities, government) and other background pressures and trends which may be unregulated. In this case there are a number of infrastructure developments which have been approved. The project's impact is therefore one part of the total cumulative impact on the environment. There are infrastructure developments such as powerlines, roads, substation and future residential developments planned for the area. As such increased development in the project area will have a number of cumulative impacts on heritage resource whether known or covered in the ground. For example, during mining they will be increase in human activity and movement of heavy construction equipment and delivery vehicles that could change, alter or destroy heritage resources within and outside the proposed development site given that archaeological remains occur on the surface. Cumulative impacts that could result from a combination of the proposed development and other actual or proposed future developments in the broader study area include site clearance and the removal of topsoil could result in damage to or the destruction of heritage resources that have not previously been recorded for example abandoned and unmarked graves.

No specific paleontological resources were found in the project area during the time of this study; however, this does not preclude the fact that paleontological resources may exist within the greater study area. As such, the proposed development has the potential to impact on possible paleontological resources in the area. Sites of archaeological, paleontological, or architectural significance were not specifically identified, and cumulative effects are not applicable. The nature and severity of the possible cumulative effects may differ from site to site depending on the characteristics of the sites and variables.

Cumulative impacts that need attention are related to the impacts of access roads and impacts to buried heritage resources. Allowing the impact of the proposed mining development to go beyond the surveyed area would result in a significant negative cumulative impact on sites outside the surveyed area. A significant cumulative impact that needs attention is related to stamping by especially mining vehicles during clearance and mining within the development site. Movement of heavy construction/mining vehicles must be monitored to ensure they do not drive

beyond the approved sites. No significant cumulative impacts, over and above those already considered in the impact assessment, are foreseen at this stage of the assessment process.

Table 5: Summary of findings

Heritage resource	Status/Findings
Buildings, structures, places and equipment of cultural significance	None were recorded.
Areas to which oral traditions are attached or which are associated with intangible heritage	None exists
Historical settlements and townscapes	None survives in the proposed area.
Landscapes and natural features of cultural significance	None
Archaeological and palaeontological sites	None
Graves and burial grounds	None were recorded within the mining right site
Movable objects	None
Overall comment	The surveyed area has no identifiable archaeological remains on the surface, but sub-surface chance finds are still possible (see Chance Finds Procedure).

11. DISCUSSION

Various specialists conducted several Phase 1 Archaeological/ Heritage studies for various infrastructure developments and mining developments in the project area since 2006. The current study should be read in conjunction with previous Phase 1 Impact Studies conducted in the proposed project area for example Van Schalkwyk (2004) for Late Iron Age site in the Magkabeng Plateau, Mlilo (2017) for Road 1468 Borrow Pits, Magoma, (2014) for powerline, (Kusel (2008), Van Schalkwyk (2011a, 2011b, 2012, 2013) and Pistorius (2008, 2011, 2012) and Roodt (2003). A number of LIA sites were recorded in the Makgabeng area as well as San rock art. Magoma (2014) rescued human remains exposed at GaMalebogo (Mafateng Village) on Portion of the farm Buffelshoek 261 LR during powerline construction. These findings attest to the fact that the project area is located within a rich LIA landscape. As such the potential for encountering subsurface LIA remains ranges from medium to high on the proposed development site (See the appended Chance find procedure for handling of chance finds). The lack of confirmable archaeological sites recorded during the current survey is thought to be a result of previous clearance and ploughing that may have destroyed surface remains. In addition, surface visibility was compromised by thick vegetation cover. However, the absence of confirmable and significant archaeological cultural heritage sites is not evidence in itself that such sites did not exist within the proposed mining right application site. It should be noted that significance of the site of Interest (mining right development site) is not limited to presence or absence of physical archaeological sites.

12. RECOMENDATIONS

The study did not find any permanent barriers to the proposed mining right application although heritage resources of varying significances occur in the general project area. It is the opinion of the author that the mining right application may be approved, provided that mitigation measures are implemented as and when required. The aim of the survey was to evaluate potential heritage resources that would occur within the boundaries of a proposed mining development site and to determine if there are any fatal flaws that would prevent the proposed development from taking place on the proposed development. The following recommendations are based on the results of the AIA/HIA research, cultural heritage background review, site inspection and assessment of significance.

1. From a heritage perspective supported by the findings of this study, the proposed mining right application may be approved as planned without further investigation/mitigation.

2. The footprint impact of the proposed mining development and associated infrastructure should be kept to minimal to limit the possibility of encountering chance finds.
3. Should any unmarked graves be exposed during mining affected families must be trekked and consulted and relevant rescue/ relocation permits must be obtained from SAHRA 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.
4. The Project Public Participation Process should ensure that any cultural heritage related matters for this project are given due attention whenever they arise and are communicated to LIHRA throughout the proposed 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.
5. Should chance archaeological materials or human remains be exposed during subsurface mining work on any section of the proposed 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 mining scheduling while recovering archaeological and any affected cultural heritage data as stipulated by the NHRA regulations.
6. Subject to the recommendations herein made and the implementation of the mitigation measures and adoption of the project EMP, there are no significant cultural heritage resources barriers to the proposed development. The Heritage authority may approve the mining right application as planned.

13. CONCLUSION

The literature review and field research confirmed that the mining right area is situated within a previously mined area with existing roads and other dilapidated mining infrastructure. Field survey established that the mining right site was degraded by previous mining activities and agriculture. The aim of the study was to assess potential heritage resources that may occur within the proposed mining right area and to determine if there are any fatal flaws that would prevent the proposed mining development from taking place on the site presented for consideration. In terms of the archaeology and heritage in respect of the proposed mining right application, there are no obvious 'Fatal Flaws' or 'No-Go' areas. However, the potential for chance finds, still remains and the applicant and contractors are advised to be diligent and observant, should construction activities commence. The procedure for reporting chance finds has clearly been laid out. This report concludes that the proposed mining right application may be approved by SAHRA/LIHRA to proceed as planned subject to recommendations herein made (also see Appendices).

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**15. APPENDIX 1 CHANCE FIND PROCEDURE FOR THE PROPOSED MINING RIGHT APPLICATION
ON THE FARMS BADEN 90LR AND PORTION OF PORTION 0 OF BRONKHORSFONTEIN 42LR
WITHIN BLOUBERG LOCAL MUNICIPALITY, CAPRICORN DISTRICT MUNICIPALITY OF LIMPOPO
PROVINCE.**

May 2021

ACRONYMS

BGG	Burial Grounds and Graves
CFPs	Chance Find Procedures
ECO	Environmental Control Officer
HIA	Heritage Impact Assessment
ICOMOS	International Council on Monuments and Sites
NHRA	National Heritage Resources Act (Act No. 25 of 1999)
SAHRA	South African Heritage Resources Authority
SAPS	South African Police Service
UNESCO	United Nations Educational, Scientific and Cultural Organisation

CHANCE FIND PROCEDURE

INTRODUCTION

An Archaeological Chance Find Procedure (CFP) is a tool for the protection of previously unidentified cultural heritage resources during construction. The main purpose of a CFP is to raise awareness of all construction workers and management on site regarding the potential for accidental discovery of cultural heritage resources and establish a procedure for the protection of these resources. Chance Finds are defined as potential cultural heritage (or paleontological) objects, features, or sites that are identified outside of or after Heritage Impact studies, normally as a result of construction/mining activities. Chance Finds may be made by any member of the project team who may not necessarily be an archaeologist or even visitors. Appropriate application of a CFP on development projects has led to discovery of cultural heritage resources that were not identified during archaeological and heritage impact assessments. As such, it is considered to be a valuable instrument when properly implemented. For the CFP to be effective, the site manager must ensure that all personnel on the proposed development site understand the CFP and the importance of adhering to it if cultural heritage resources are encountered. In addition, training or induction on cultural heritage resources that might potentially be found on site should be provided. In short, the Chance find procedure details the necessary steps to be taken if any culturally significant artefacts are found during mining.

DEFINITIONS

In short, the term 'heritage resource' includes structures, archaeology, meteors, and public monuments as defined in the South African National Heritage Resources Act (Act No. 25 of 1999) (NHRA) Sections 34, 35, and 37. Procedures specific to burial grounds and graves (BGG) as defined under NHRA Section 36 will be discussed separately as this requires the implementation of separate criteria for CFPs.

BACKGROUND

Proposed development site is subject to heritage survey and assessment at planning stage in accordance with the NHRA. These surveys are based on surface indications alone and it is therefore possible that sites or significant archaeological remains can be missed during surveys because they occur beneath the surface. These are often accidentally exposed in the course of construction/mining work and hence the need for a Chance Find Procedure to deal with accidental finds. In this case an extensive Archaeological Impact Assessment was completed by Mlilo (2021) over a large area earmarked for mining development. The

AIA/HIA conducted was very comprehensive covering the entire site. The studies did not record any significant archaeological or heritage resources.

PURPOSE

The purpose of this Chance Find Procedure is to ensure the protection of previously unrecorded heritage resources within the proposed filling station development site. This Chance Find Procedure intends to provide the applicant and contractors with appropriate response in accordance with the NHRA and international best practice. The aim of this CFP is to avoid or reduce project risks that may occur as a result of accidental finds whilst considering international best practice. In addition, this document seeks to address the probability of archaeological remains finds and features becoming accidentally exposed during earth moving and ground altering activities during mining. The proposed mining activities have the potential to cause severe impacts on significant tangible and intangible cultural heritage resources buried beneath the surface or concealed by vegetation cover. Mudzunga Consulting (Pty) developed this Chance Find Procedure to define the process which govern the management of Chance Finds during construction/mining. This ensures that appropriate treatment of chance finds while also minimizing disruption of the mining schedule. It also enables compliance with the NHRA and all relevant regulations. Archaeological Chance Find Procedures are to promote preservation of archaeological remains while minimizing disruption of mining scheduling. It is recommended that due to the low to moderate archaeological potential of the project area, all site personnel and contractors be informed of the Archaeological Chance Find procedure and have access to a copy while on site. This document has been prepared to define the avoidance, minimization and mitigation measures necessary to ensure that negative impacts to known and unknown archaeological remains as a result of project activities are prevented or where this is not possible, reduced to as low as reasonably practical during construction.

Thus, this Chance Finds Procedure covers the actions to be taken from the discovering of a heritage site or item to its investigation and assessment by a professional archaeologist or other appropriately qualified person to its rescue or salvage.

CHANCE FIND PROCEDURE

General

The following procedure is to be executed in the event that archaeological material is discovered:

- All mining activity in the vicinity of the accidental find/feature/site must cease immediately avoid further damage to the site.

- Briefly note the type of archaeological materials you think you've encountered, and their location, including, if possible, the depth below surface of the find
- Report your discovery to your supervisor or if they are unavailable, report to the project ECO who will provide further instructions.
- If the supervisor is not available, notify the Environmental Control Officer immediately. The Environmental Control Officer will then report the find to the Site Manager who will promptly notify the project archaeologist and SAHRA.
- Delineate the discovered find/ feature/ site and provide 25m buffer zone from all sides of the find.
- Record the find GPS location, if able.
- All remains are to be stabilised *in situ*.
- Secure the area to prevent any damage or loss of removable objects.
- Photograph the exposed materials, preferably with a scale (a yellow plastic field binder will suffice).
- The project archaeologist will undertake the inspection process in accordance with all project health and safety protocols under direction of the Health and Safety Officer.
- **Finds rescue strategy:** All investigation of archaeological soils will be undertaken by hand, all finds, remains and samples will be kept and submitted to a museum as required. In the event that any artefacts need to be conserved, the relevant permit will be sought from the SAHRA.
- An on-site office and finds storage area will be provided, allowing storage of any artefacts or other archaeological material recovered during the monitoring process.
- In the case of human remains, in addition, to the above, the SAHRA Burial Ground Unit will be contacted and the guidelines for the treatment of human remains will be adhered to. If skeletal remains are identified, an archaeologist will be available to examine the remains.
- The project archaeologist will complete a report on the findings as part of the permit application process.
- Once authorisation has been given by SAHRA, the Applicant will be informed when construction activities can resume.

MANAGEMENT OF CHANCE FINDS CHANCE FINDS

Should the Heritage specialist conclude that the find is a heritage resource protected in terms of the NRHA (1999) Sections 34, 36, 37 and NHRA (1999) Regulations (Regulation 38, 39, 40), Mudzunga Consulting

(Pty) Ltd will notify SAHRA and/or PHRA on behalf of the applicant. SAHRA/PHRA may require that a search and rescue exercise be conducted in terms of NHRA Section 38, this may include rescue excavations, for which Mudzunga Consulting (Pty) Ltd will submit a rescue permit application having fulfilled all requirements of the permit application process.

In the event that human remains are accidentally exposed, SAHRA Burial Ground Unit or Mudzunga Consulting Heritage Specialist must immediately be notified of the discovery in order to take the required further steps:

- a. Heritage Specialist to inspect, evaluate and document the exposed burial or skeletal remains and determine further action in consultation with the SAPS and Traditional authorities:
- b. Heritage specialist will investigate the age of the accidental exposure in order to determine whether the find is a burial older than 60 years under the jurisdiction of SAHRA or that the exposed burial is younger than 60 years under the jurisdiction of the Department of Health in terms of the Human Tissue Act.
- c. The local SAPS will be notified to inspect the accidental exposure in order to determine where the site is a scene of crime or not.
- d. Having inspected and evaluated the accidental exposure of human remains, the project Archaeologist will then track and consult the potential descendants or custodians of the affected burial.
- e. The project archaeologist will consult with the traditional authorities, local municipality and SAPS to seek endorsement for the rescue of the remains. Consultation must be done in terms of NHRA (1999) Regulations 39, 40, 42;
- f. Having obtained consent from affected families and stakeholders, the project archaeologist will then compile a Rescue Permit application and submit to SAHRA Burial Ground and Graves Unit.
- g. As soon as the project archaeologist receives the rescue permit from SAHRA he will in collaboration with the company/contractor arrange for the relocation in terms of logistics and appointing of an experienced undertaker to conduct the relocation process.

- h. The rescue process will be done under the supervision of the archaeologist, the site representative and affected family members. Retrieval of the remains shall be undertaken in such a manner as to reveal the stratigraphic and spatial relationship of the human skeletal remains with other archaeological features in the excavation (e.g., grave goods, hearths, burial pits, etc.). A catalogue and bagging system shall be utilised that will allow ready reassembly and relational analysis of all elements in a laboratory. The remains will not be touched with the naked hand; all Contractor personnel working on the excavation must wear clean cotton or non-powdered latex gloves when handling remains in order to minimise contamination of the remains with modern human DNA. The project archaeologist will document the process from exhumation to reburial.
- i. Having fulfilled the requirements of the rescue/burial permit, the project archaeologist will compile a mitigation report which details the whole process from discovery to relocation. The report will be submitted to SAHRA and to the company.

Note that the relocation process will be informed by SAHRA Regulations and the wishes of the descendants of the affected burial.

16. APPENDIX 2: HERITAGE MANAGEMENT PLAN INPUT INTO THE PROPOSED MINING RIGHT APPLICATION EMP

Objective	<ul style="list-style-type: none">Protection of archaeological sites and land considered to be of cultural value;Protection of known physical cultural property sites against vandalism, destruction, and theft; andThe preservation and appropriate management of new archaeological finds should these be discovered during construction.							
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 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 form site;		Throughout	C CECO	SM	ECO	EA EM 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 Mine Manager who in turn will inform LIHRA.		When necessary	C CECO	SM	ECO	EA EM PM
		Should any remains be found on site that is potentially human remains, the LIHRA and South African Police Service should be contacted.		When necessary	C CECO	SM	ECO	EA EM PM
Rehabilitation Phase								
		Same as mining phase.						
Operational Phase								
		Same as mining phase.						

17. Appendix 3: HERITAGE MITIGATION MEASURE TABLE

SITE REF	HERITAGE ASPECT	POTENTIAL IMPACT	MITIGATION MEASURES	RESPONSIBLE PARTY	PENALTY	METHOD REQUIRED	STATEMENT
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 and mining work which may disturb previously unidentified chance finds.	<p>Possible damage to previously unidentified archaeological and burial sites during mining phase.</p> <ul style="list-style-type: none"> • Unanticipated impacts on archaeological sites where project actions inadvertently uncovered significant archaeological sites. • Loss of historic cultural landscape; • Destruction of burial sites and associated graves • Loss of aesthetic value due to mining work • Loss of sense of place <p>Loss of intangible heritage value due to change in land use</p>	<p>In situations where unpredicted impacts occur mining activities must be stopped, and the heritage authority should be notified immediately.</p> <p>Where remedial action is warranted, minimize disruption in mining scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate.</p> <ul style="list-style-type: none"> • Where burial sites are accidentally disturbed during mining, the affected area should be demarcated as no-go zone by use of fencing during mining, and access thereto by the construction and mining teams must be denied. • 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 and mining work. 	<ul style="list-style-type: none"> • 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 and mining work on sites where such development projects commences within the farm.</p>	

18. APPENDIX 4: LEGAL 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.

