

**PHASE 1 ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENT REPORT FOR  
WOLVE KOP MINING PERMIT APPLICATION SITUATED IN THE MIDDELBURG RD  
MAGISTERIAL DISTRICT IN THE EASTERN CAPE PROVINCE**

**DATE: JUNE 2021**



## Document Information

Item	Description
Proposed development and location	Wolve Kop Mine Permit Application
Purpose of the study	To carry out heritage sensitivity assessment to determine the presence of cultural heritage sites and the impact of the proposed project on heritage resources
1:50 000 Topographic Map	
Coordinates	32° 10' 28.35"S 25° 37' 59.37"E
Municipalities	Chris Hani District Municipality, Middelburg Magisterial District
Predominant land use of surrounding area	Residential, roads and commercial.
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Date of Report	12/06/ 2021

## **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.

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

### **Expertise:**

Trust Mlilo, MA. (Archaeology), BA Hons, PDGE, BA & (Univ. of Pretoria) and PhD (Cand. Wits) ASAPA (Professional member) with 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 management work for government, parastatals (Eskom) and several private companies such as BHP Billiton, Rhino Minerals.

Joshua Kumbani, PhD student (Wits University), MA Archaeology (University of Zimbabwe), BA Honours Archaeology (University of Zimbabwe), Certificate in Entrepreneurship (University of Zimbabwe), Certificate in Leadership Development (University of Zimbabwe). Professional member of Association for Southern African Professional Archaeologists (ASAPA).

### **Independence**

The views expressed in this document are the objective, independent views of Mr Trust Mlilo and Mr Joshua Kumbani. The survey was carried out under Afrimat Aggregates (Pty) Ltd. Integrated Specialist Services (Pty) Ltd has no business, personal, financial, or other interest in the proposed Mining Permit application apart from fair remuneration for the work performed.

### **Conditions relating to this report**

The content of this report is based on the authors best scientific and professional knowledge as well as available information. Integrated Specialist Services (Pty) Ltd 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 authors and Afrimat Aggregates (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 and Mr Joshua Kumbani (Professional Archaeologists). The report is for the review of the Heritage Resources Agency (PHRA).

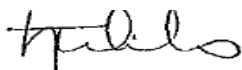
**Geographic Co-ordinate Information:** Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

**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 Mining Permit Application being proposed by Afrimat Aggregates (Pty) Ltd.

Signed by



12/ 06/ 2021

## **Acknowledgements**

The authors acknowledge Afrimat Aggregates (Pty) Ltd 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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## EXECUTIVE SUMMARY

Afrimat Aggregates Operations (Pty) Ltd, a subsidiary of Afrimat is applying for a mining permit to mine 4.9ha of Remaining Extent of Portion 13 of farm 12 Wolve Kop situated in Middelburg RD Magisterial District, Eastern Cape Province. This Archaeology and Heritage Impact Assessment (AIA/HIA) is in fulfilment of Section 38 of the National Heritage Resources Act 25 of 1999 (NHRA). This Phase 1 study serves to inform and guide the applicant (Afrimat Aggregates Operations (Pty) Ltd) and contractors about the potential impacts that the proposed mining development may have on heritage resources (if any) located in the study area. The document must also inform the Eastern Cape Heritage Resource Agency (ECPHRA) and the South African Heritage Resource Agency (SAHRA) Burial Ground and Graves Unit about the presence, absence and significance of heritage resources that may be located in the proposed 4.9ha mining right application site.

The identification, recording, reporting and salvaging (if necessary) of significant heritage resources that may occur on the development footprint should be undertaken by a competent heritage practitioner as required by South African heritage legislation. In compliance with the NHRA and Section 39(3)(b) (iii) of the MPRDA, Afrimat Aggregates Operations (Pty) Ltd (applicant), retained Integrated Specialist Services (ISS) to conduct Phase 1 AIA/HIA of the proposed Mining Permit application in the in Middelburg RD Magisterial District, Eastern Cape Province.

The project also involves the use of existing access roads to link with the proposed quarry site. A stepped approach involving desktop studies, drive-through and detailed field walking was employed in order to identify any heritage landmarks on and around the development footprint. However, it should be noted that the proposed Mining permit application site is not on pristine grounds, having been previously mined and abandoned (see Figure 1). However, when these heritage resources (including graves) are encountered, work must be stopped forth-with, and the finds must be reported to the ECPHRA. However, in terms of the archaeology of the area under study, no mitigation will be required prior to approval of the mining permit application. This report must also be submitted to the ECPHRA for review.

- The findings of this report have been informed by desktop data review, field survey and impact assessment reporting which include recommendations to guide heritage authorities in making decisions with regards to the proposed development.
- The proposed development site is very accessible, and the field survey was effective enough to cover most sections of the project receiving environs.
- The immediate project area is predominantly residential, municipality cemetery and roads.

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 report makes the following recommendations:



- The construction team must be inducted on the possibility of encountering archaeological resources that may be accidentally exposed during clearance and construction at the development site 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 ECPHRA 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 Environmental Management Programme (EMPr) includes recommended safeguard and mitigation measures identified in this report.

**The assessment reached the following conclusions**

- The entire 4.9ha Mining Permit application site has been disturbed by previous mining activities at the site (see Figure 1).

**Recommendations**

- It is also advised that the ECPHRA is alerted when site work begins.
- Strict and clear reporting procedures for chance findings must be followed by and its contractors throughout the whole period of construction.

## ABBREVIATIONS

<b>AIA</b>	Archaeological Impact Assessment
<b>EAP</b>	Environmental Assessment Practitioner
<b>ECO</b>	Environmental Control Officer
<b>EIA</b>	Environmental Impact Assessment
<b>EM</b>	Environmental Manager
<b>EMP</b>	Environmental Management Plan
<b>HIA</b>	Heritage Impact Assessment
<b>LIA</b>	Late Iron Age
<b>NHRA</b>	Nation Heritage Resources Act, Act 25 of 1999
<b>PHRA</b>	Provincial Heritage Resources Agency
<b>PM</b>	Project Manager
<b>SAHRA</b>	South African Heritage Resources Agency
<b>SM</b>	Site Manager
<b>ISS</b>	Integrated Specialist Services (Pty) Ltd

## KEY CONCEPTS AND TERMS

### 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)

### 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, 1999, (Act No. 25 of 1999), as amended (NHRA), 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 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

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# 1 INTRODUCTION

## 1.1. Background

Most heritage sites occur within communities, whose development should not be neglected in the name of heritage preservation but should be encouraged and embraced within legal and adaptive management frameworks (Carter and Grimwade 1997; Salafsky *et al* 2001). This case is true for the entire project area, which hosts palaeontological, archaeological, historical, natural and contemporary heritage resources (see sensitivity map). Afrimat Aggregates Operations (Pty) Ltd, a subsidiary of Afrimat is applying for a mining permit to mine 4.9ha of Remaining Extent of Portion 13 of farm 12 Wolve Kop situated in Middelburg RD Magisterial District, Eastern Cape Province. Very few Heritage studies were done in the area and very few were done within the town (Mlilo 2020). These studies recorded a variety of heritage resources of varying significance. The current study noted that there are several historical buildings and structures within the study area but none of these historical structures will be affected by the proposed mining development.

The purpose of this AIA/HIA Study is to assess presence/absence of heritage resources on the proposed mining development footprint. The study was designed to ensure that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the proposed mining development. The assessment includes recommendations to manage the expected impact of the proposed mining development. The report includes recommendations to guide heritage authorities in making appropriate decision with regards to the environmental approval process for the proposed mining permit application. The report concludes with detailed recommendations on heritage management associated with the proposed mining development.

ISS an independent consulting firm, conducted an assessment, research and consultations required for the preparation of the AIA/HIA report in accordance with its obligations set in the NHRA, as well as the environmental management legislations.

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

- 1) Management summary
- 2) Methodology
- 3) Information with reference to the desktop study
- 4) Map and relevant geodetic images and data
- 5) Global Positioning System (GPS) co-ordinates
- 6) Directions to the site
- 7) Site description and interpretation of the cultural area where the project will take place
- 8) Management details, description of affected cultural environment, photographic records of the project area

- 9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site.
- 10) Conclusion

**1.2. Description of the proposed project**

Afrimat Aggregates Operations (Pty) Ltd, a subsidiary of Afrimat is applying for a mining permit to mine 4.9ha of Remaining Extent of Portion 13 of farm 12 Wolve Kop situated in Middelburg RD Magisterial District, Eastern Cape Province. The site is located 22km North of Noupoort and 14km South of Midros., see attached KMZ files and locality maps). These will all be open cast operations where quarrying will take place through utilising a bench cut method. The material which will be mined is Dolerite best suited for the lower aggregates such as sub-base and base gravel road wearing roads.

The quarrying will entail opening of the surface through open cast mining methods. The applicant will:

- drill and blast the hard rock after the topsoil of the area has been stripped and stockpiled,
- load and haul the material out of the excavation to the crushing and screening plants,
- crush and screen the recovered material at the crusher plant in order to reduce it to various size aggregate,
- stockpile the aggregate at a stockpile area until it is collected by clients.

**1.4. Location of the proposed development**

Proposed project is located at Remaining Extent of Portion 13 of farm 12 Wolve Kop situated in Middelburg RD Magisterial District, Eastern Cape Province. The site is located 22km North of Noupoort and 14km South of Midros., see Figure 1).

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	WOLVE KOP	12	0	31°21'27.72S	25°1'23.76E	Farm
2	WOLVE KOP	12	13	31°22'27.43S	25°1'0.79E	Farm Portion



Figure 1: Proposed mining permit application site (Afrimat 2020 (Pty) Ltd). Note that the application is on an abandoned quarry site





Figure 2: Proposed mining permit application site (Afrimat 2020 (Pty) Ltd).

## 2 LEGAL REQUIREMENTS

Relevant pieces of legislation are applicable to the present study and are presented in this section. Under the NHRA, Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as amended (MPRDA), and the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA) and the Environmental Impact Assessment (EIA) Regulations of 2014, as amended, an AIA/HIA is required as a specialist sub-section of the impact assessment.

Heritage management and conservation in South Africa is governed by the NHRA and falls under the overall jurisdiction of the SAHRA and its Provincial Heritage Resources Authorities (PHRAs), ECPHRA in this case. There are different sections of the NHRA that are relevant to this study. The 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 5 000 square metres (m<sup>2</sup>)**
  - 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 000m<sup>2</sup>
  - 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 NHRA also requires the submission of a HIA report for authorization purposes to the responsible heritage resources agencies (SAHRA/ECPHRA).

Related to Section 38 of the NHRA are Sections 34, 35, 36 and 37. Section 34 stipulates that no person may alter, damage, destroy, relocate etc. any building or structure older than 60 years, without a permit issued by SAHRA or a provincial heritage resources authority. 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 SAHRA or ECPHRA, 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 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 likely discovery of burials or graves by the developer or his contractors. Section 37 of the NHRA deals with public monuments and memorials which exist in the proposed project area.

In addition, the EIA Regulations promulgated in terms of NEMA determine that any environmental reports will include cultural (heritage) issues. The EIA 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 applicant and, the environmental consultant, SAHRA and/or ECPHRA 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.

## **2.1. 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.

Archaeological sites, as defined by the NHRA are 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. 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.

## **2.2. 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 NHRA while other historical and cultural significant sites, places and features, are generally determined by community preferences. The guidelines as provided by the NHRA 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:

## **2.3. 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 also the aesthetic values commonly assessed in the analysis of landscapes and townscape.

#### **2.4. 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.

#### **2.5. 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.

#### **2.6. 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 impact assessment process to take into account the heritage management structure set up by the NHRA. It makes provision for a 3-tier system of management including the SAHRA at a national level, PHRAs at a provincial and the local authority. The NHRA makes provision for two types or forms of protection of heritage resources; i.e. formally protected and generally protected sites:

#### **2.7. 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 PHRAs.
- Grade 3 or local heritage sites.

#### **2.8. 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:

## 2.9. 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 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, MPRDA and NEMA

ACT	Stipulation for developments	Requirement details
NHRA Section 38	Construction of road, wall, powerline, 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 5 000m <sup>2</sup>	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 000m <sup>2</sup>	No
	Any other development category, public open space, squares, parks, recreation grounds	Yes
NHRA Section 34	Impacts on buildings and structures older than 60 years	No
NHRA Section 35	Impacts on archaeological and paleontological heritage resources	None were recorded within the proposed development site
NHRA Section 36	Impacts on graves	None were recorded within the proposed development site
NHRA Section 37	Impacts on public monuments	No
Chapter 5 (21/04/2006) NEMA	HIA is required as part of the impact assessment	Yes
Section 39(3)(b) (iii) of the MPRDA	AIA/HIA is required as part of the impact assessment	Yes

## 2.10. Other relevant legislations

### The Human Tissue Act, 1983

Human Tissue Act, 1983 (Act No. 65 of 1983), as amended (HTA) and Ordinance on the Removal of Graves and Dead Bodies, 1925 (Ordinance No. 7 of 1925), as amended, states that Graves 60 years or older are heritage resources and fall under the jurisdiction of both the NHRA and the HTA. However, graves younger than 60 years

are specifically protected by the HTA and the Ordinance on the Removal of Graves and Dead Bodies, 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.

### **2.11. Terms of Reference**

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

- 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 ECPHRA to make an informed decision in respect of authorisation of the proposed mining development.
- Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in and around the proposed mining development site;
- Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
- Describe the possible impact of the proposed mining development on these cultural remains, according to a standard set of conventions;
- Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
- Review applicable legislative requirements;



## PHOTOGRAPHIC PRESENTATION OF THE PROJECT SITE



Plate 1: Photo 1: View of sign post on the entrance of the proposed mining development site (Photograph © by Author 2021).



Plate 2: Photo 2: View of proposed mining development site (Photograph © by Author 2021). Note that the site has been previously mined.



Plate 3: Photo 3: View of proposed mining development site (Photograph © by Author 2021).



Plate 4: Photo 5: View of proposed mining development site (Photograph © by Author 2021)



Plate 5: Photo 7: View of proposed mining development site (Photograph © by Author 2021)



Plate 6: Photo 8: View of proposed development site (Photograph © by Author 2021).



Plate 7: Photo 9: View of proposed development site (Photograph © by Author 2021).



Plate 8: Photo 10: View of proposed mining development site (Photograph © by Author 2021).



Plate 9: Photo 11: View of proposed mining development site (Photograph © by Author 2021).



Plate 10: Photo 12: View of previously mined sections of the mining right application site (Photograph © by Author 2021).



Plate 11: Photo 14: View of some of the remaining infrastructure left behind by previous miners (Photograph © by Author 2021).



Plate 12: Photo 15: View of mining permit application site (Photograph © by Author 2021).



Plate 13: Photo 17: View of mining development site (Photograph © by Author 2021).



Plate 14: Photo 18: View of previously cleared site (Photograph © by Author 2021).



Plate 15: Photo 19: View of mining permit application site (Photograph © by Author 2021).



Plate 16: Photo 20: View of access road to the proposed mining development site (Photograph © by Author 2021).





Plate 17: Photo 21: View of entrance to the quarry site (Photograph © by Author 2021).

### 3 METHODOLOGY

Relevant published and unpublished sources were consulted in generating desktop information for this report. This included online databases such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) website, Google Earth, Google Scholar and South African Heritage Resources Information System (SAHRIS). Previous HIA in the project area were also consulted. A number of published works on the archaeology, history and palaeontology were also consulted. This included dedicated archaeological, paleontological and geological works by (Breutz 1956; 1968; 1987; Button 1971; Clarck 1971; Eriksson *et al* 1975; Bertrand and Eriksson 1977; Humphreys 1978; Humphreys and Thackeray 1983; Beaumont and Vogel 1984; Beaumont and Morris 1990; Beaumont 1999; Holmgren *et al* 1999; Johnson *et al* 1997; Peabody 1954; Shillington 1985; Wills 1992; Young 1934; 1940, Huffman 2007, Mason 1962). Thus, the proposed truck and garage stop was considered in relation to the broader landscape, which is a key requirement of the International Council on Monuments and Sites (ICOMOS) Guidelines.

This document falls under the Basic assessment phase of the AIA/HIA and therefore aims at providing an informed heritage-related opinion about the mining permit application. This is usually achieved through a combination of a review of any existing literature and a basic site inspection. 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 study was followed by field surveys. The field assessment was conducted according to generally accepted AIA/HIA practices and aimed at locating all possible objects, sites and features of cultural significance on the development footprint. Initially a drive-through was undertaken around the proposed mining development site as a way of acquiring the archaeological impression of the general area. This was then followed by a walk down survey in the study area, with a handheld Global Positioning System (GPS) for recording the location/position of each possible site. Detailed photographic recording was also undertaken where relevant. The findings were then analysed in view of the proposed development in order to suggest further action. 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 mining permit application.

#### 3.1 The Fieldwork surveys

The fieldwork survey was undertaken on the 14<sup>th</sup> of June 2021. The main focus of the survey involved a pedestrian survey which was conducted on the proposed development site. The pedestrian survey focused 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. The literature survey suggests that prior to the 20<sup>th</sup> century modern residential and on-going infrastructure developments; the general area where the proposed development is located 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 of vegetation but is now dominated by a continuous sweep of tall grass and shrubs that limit ground visibility (Plates 1-9).

### **3.2 Visibility and Constraints**

The project site is accessible and cleared making it easier to identify archaeological resources in their original places. In addition, due to the subterranean nature of cultural remains this report should not be construed as a record of all archaeological and historic sites in the area.

### **3.3 Assumptions and Limitations**

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 noted that archaeological deposits (including graves and traces of archaeological heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted immediately, and a competent heritage practitioner, SAHRA must be notified in order for an investigation and evaluation of the find(s) to take place (see NHRA, 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. The author assumes no responsibility for compliance with conditions that may be required by SAHRA in terms of this report.

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

The proposed project activities will be limited to specific right of site as detailed in the development layout (



- Figure 1).
- The construction team to provide link and access to the proposed site by using the existing access roads and there will be no construction beyond the demarcated site.
- No excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on solely observed indicators. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.
- This study did not include any ethnographic and oral historical studies, nor did it investigate the settlement history of the area.

### 3.4 Consultations

Public consultations are being conducted by the EAP and issues raised by Interested and Affected parties will be presented during Specialist integration meetings for the project. Issues relating to heritage will be forwarded to the heritage specialist.

#### **4 CULTURE HISTORY BACKGROUND OF THE PROJECT AREA**

The project area is located in the Chris Hani region of Eastern Cape Province of South Africa that boasts a rich traditional history of prehistoric hunter gatherer communities, the late proto-historic and contemporary Xhosa communities as well as the colonial and settler communities and the recent peopling of the region.

The earliest residents of the Eastern Cape region were the hunter-gatherers associated with Early, Middle and Late Stone Age Traditions. Stone Age sites are generally 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 such as the Klasies River Mouth main site recorded in the project region confirms the existence of Stone Age sites that conform to the generic South African 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. About 2000 years ago, the Khoekhoe herders moved into the region introducing first animal husbandry in the area.

From an archaeological perspective, the Chris Hani area, like most of Eastern Cape region has potential to yield Stone Age period sites (also see Deacon and Deacon, 1997; 1999). Little specific is known about the archaeology of the specific powerline routes, mainly because no systematic research has been conducted on the area. However, the specific affected project-receiving environment has low potential for Stone Age sites since the affected areas consists of previously open velds which does not usually yield such sites. Stone Age sites are usually associated with caves and rock shelters some of which contain rock art paintings. Another class of common archaeological heritage associated with Stone Age periods are coastal shell middens that were campsites and cooking platforms (Binneman 2001, 2005).

The Chris Hani area of Eastern Cape also saw the immigration of the Bantu-speaking farmers associated with Late Iron Age. These came to be known as the southern Nguni Xhosa speaking communities (also see Hammond-Tooke, 1992 and Huffman, 2007). From the 1700s, the Eastern Cape coastlands and hinterlands also witnessed the spread of colonial and settler communities. This marked more than a century of colonial wars, contestations and establishment of new settler settlements and towns. The territory known as Mpondoland, combined the divisions of Bizana, Libode, Ngqeleni, Port St John's, Tabankulu, and Umsikaba. In 1899 provisions of Proclamation 314 allowed for Umsikaba to be partitioned into the divisions of Lusikisiki and Flagstaff. In 1845 Faku, Paramount Chief of the amaMpondo, signed the Maitland Treaty whereby he agreed that trade goods would not be landed on the Pondoland coast without the express permission of the British Colonial Government. In March 1861, the northern reaches of Pondoland, also known as "no-mans-land", were ceded by Faku to the Cape, and the following year were used by the Cape for Griqua resettlement. This was followed by the annexation of a tract of land between

the Umzimkulu and Mtamvuna Rivers, later known as Alfred County, to the Colony of Natal in September 1865. Following breaches of the Maitland Treaty, Sir Henry Barkly proposed that the British be allowed to locate a customs-house at the mouth of the St John's River, in return for an annual royalty of 250 pounds in 1874. The new Paramount Chief, Mqikela, refused this offer and in September 1878 the British unilaterally issued a proclamation absolving minor Mpondo chiefs from their allegiance to Mqikela, while asserting British sovereignty over the tidal estuary of St John's River. At the same time, they extended their protection over the amaXesibe, a group inhabiting the northern corner of Pondoland, and incorporated their territory into Griqualand East. This was followed by the establishment of a port at the river mouth, including a customs house and a magistrate's court. On 15 September 1884, the sliver of land known as the Territory of Port St John's was annexed to the Cape. Such interference in the internal affairs of the amaMpondo nation caused considerable friction within the territory. The Territory of Pondoland was formally annexed to the Cape in September 1894. It was also divided into two parts, and its eastern portion, comprising of the divisions of Maclear, Mount Fletcher, Qumbu, and Tsolo, was ceded to Griqualand East. Presumably, the divisions of Bizana, Libode, Ngqeleni, Port St John's, Tabankulu, and Umsikaba were also proclaimed at the same time”

The town of Cradock itself has its origins in the colonial villages dating to mid-1800s. Eventually, this effectively ushered in new era of colonial occupation by succeeding Afrikaans and British colonial administration authorities through the last half of the 1800s and into the late 1900s. By 1850s the region witnessed the influx of more settler communities, which triggered settler wars between the African chiefdoms and the incoming settlers. Some of these colonial wars and battles lasted into Anglo-Boer wars of 1899-1902. The later effectively led to complete subjugation of African communities to settler administration starting as part of the British Cape colony. There after the region was subsequently annexed by the British and effectively placed the majority of African communities under the Union of South Africa in 1910, which eventually ended with the establishment of the new South Africa in 1994. (<http://www.sahistory.org.za/places/pondoland>).

#### **4.1. 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 is anticipated on the development footprint because

most historical knowledge does not suggest a relationship with the study area *per se*, even though several other places in the general area do have intangible heritage.

#### **4.2. SAHRIS Database and Impact assessment reports in the proposed project area**

There is very little information on previous heritage surveys undertaken in the Chris Hani area on SAHRIS and the internet (Anderson 2013). The Chris Hani area has been rated as green on SAHRIS Palaeontological sensitivity map (Anderson 2013). The HIA conducted in the general area 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 studies include, Waste Water, borrow pits and road upgrades (Almond 2009, 2011, 2013, Anderson 1996, 2009, 2011, 2012, 2013, Almond, J.E., De Klerk, W.J. & Gess, R. 2008, Binneman, J. and Booth 2009, De Jong, Robert. 2011, Kruger. 2014). These archaeologists carried out extensive studies in the Eastern Cape Region but there is no record of studies carried out for the Cradock town in the SAHRIS website except historical buildings and structures that listed on the website.

### **5 RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT 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 at the mine site; indirect impacts may occur during movement of mining and construction vehicles. The excavation for foundations and fence line posts 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 below the surface. Since heritage sites, including archaeological sites, are non-renewable, it is important that they are identified, and their significance assessed prior to any mining activities at the site. 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 quarry site.

Further, archaeological sites and unmarked graves may be buried beneath the surface and may only be exposed during construction of site offices, clearance of the site and mining. The purpose of the AIA is to assess the sensitivity of the area in terms of archaeology and to avoid or reduce the potential impacts of the proposed development by means of mitigation measures (see appended Chance Find Procedure). The study concludes that

the impacts will be negligible since the site has previously been mined and located between main road and railways line. The following section presents results of the field survey. The following section presents results of the archaeological and heritage survey conducted within the proposed development project site.

Table 2: Summary of findings

Heritage resource	Status/Findings
Buildings, structures, places and equipment of cultural significance	None were recorded within the proposed development site
Areas to which oral traditions are attached or which are associated with intangible heritage	None exists on the study area
Historical settlements and townscapes	None exist within the study site
Landscapes and natural features of cultural significance	None
Archaeological and paleontological sites	The project area is archaeologically and paleontological sensitive however no significant archaeological remains were recorded during the survey except for a scatter of undecorated potsherds
Graves and burial grounds	None exist at the site
Movable objects	None
Overall comment	The proposed development site is significantly altered by previous mining activities and retains low heritage significance.



### **5.1. Archaeological Sites**

No archaeological and heritage sites were recorded during the field survey on the proposed development site. However, even though no archaeological artefacts, features or structures were noted chances are that there could be archaeological material that can be buried underneath the ground, and they can only be exposed during work. The affected landscape is heavily degraded from previous farming and mining activities (see Figure 1), this limited the chances of encountering significant *in situ* archaeological sites. Given the high sensitivity potential of the study area it is assumed that there was always a chance of finding archaeological remains. However, the chances of recovering significant archaeological materials were seriously compromised and limited due to previous mining activities and other destructive land use activities such as main roads, railway line and agriculture that already exist on the project area.

Based on the field study results and field observations, it is the considered opinion of the author concluded that the receiving environment for the proposed mining development site is low to medium potential to yield previously unidentified archaeological sites during subsurface excavations and construction work.

### **5.2. Buildings and Structures older than 60 years**

The study did not identify any buildings or structures that are older than 60 years. As such the mining permit application does not trigger Section 34 of the NHRA. In terms of Section 34 of the NHRA, the mining permit application may be approved without further investigation or mitigation.

### **5.3. 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 on the surface. Archaeological and historical burials are usually identified when they are exposed through erosion, mining 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 mining right application site. In terms of Section 36 of the NHRA the mining permit application may be approved without further investigation or mitigation. However, the possibility of encountering previously unidentified burial sites is very low within the proposed development site, should such sites be identified during construction, they are still protected by applicable legislations, and they should be protected (also see Appendixes for more details). Burial sites older than 60 years are protected by the NHRA and those younger than 60 years are protected by the Human Tissue Act.

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

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

#### **5.5. Public Monuments and Memorials**

The survey did not identify any historical monument and public memorials within the proposed development site. There are no monuments or plaques within the proposed development site that are on the National Heritage or provincial List. The proposed mining development will not impact on any listed monuments and memorials in the project area.

#### **5.6. Battle fields**

No known battles or skirmishes associated with the Anglo-Boer war, colonial wars and the struggle against apartheid were fought on the proposed mining development site.

#### **5.8. Archaeo-Metallurgy, Prehistoric Mining and Mining Heritage**

No archeo –metallurgy and mining heritage traces were recorded within the proposed mining development site.

#### **5.9. Visual impacts**

The proposed mining development site is not on the view shed of any listed heritage site.

#### **5.10. Mitigation**

The mining permit application may be approved without further investigation or mitigation, however, bearing in mind that potential for chance finds is for ever present in the area. As such the chance find procedure will applies (see appended Chance finds procedure).

### **6 CUMMULATIVE IMPACTS**

The European Union Guidelines define cumulative impacts as: "Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project. Therefore, the assessment of cumulative impacts for the proposed mining development is considered the total impact associated with the proposed development when combined with other past, present, and reasonably foreseeable future developments projects. An examination of the potential for other projects to contribute cumulatively to the impacts on heritage resources from this proposed development project was undertaken during the preparation of this report. The total impact arising from the proposed project (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. The project's impact is therefore one part of the total cumulative impact on the environment. The analysis of a project's incremental impacts combined with the effects of other projects can often give a more accurate understanding of the likely results of the project's presence than just considering its impacts in isolation. The impacts of the proposed mining development were assessed by comparing the post-project situation to a pre-existing baseline. Where projects can be considered in isolation this provides a good method of assessing a project's impact. However, in this case there are several infrastructure developments where baselines have already been affected, the proposed construction will continue to add to the impacts in the region, it was deemed appropriate to consider the cumulative effects of proposed development.

This section considers the cumulative impacts that would result from the combination of the proposed development. There are existing infrastructure developments within the proposed development site. 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 construction phase they will be increase in human activity and movement of heavy construction equipment and vehicles that could change, alter or destroy heritage resources within and outside the proposed development sites 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.

Heritage resources such as burial grounds and graves and archaeological as well as historical sites are common occurrences within the greater study area. These sites are often not visible and as a result, can be easily affected or lost. In addition, increased human activity during mining phase allows increased access to nearby heritage resources such as cemetery. Furthermore, many heritage resources in the greater study area are informal, unmarked and may not be visible, particularly during the wet season when grass cover is dense. As such, construction workers may not see these resources, which results in increased risk of resource damage and/or loss. Vibrations and earth moving activities associated with drilling and excavation of fuel storage tanks have the potential to crack/damage tombstones at the nearby cemetery, which are known to occur in the greater study area. In addition, vibration from traffic has the potential to impact buildings and features of architectural and cultural significance. A potential interaction between archaeology, architectural and cultural heritage and landscape and visual during both the construction and operational phase of the proposed project is identified. Construction will not result in a visual impact and impact on features of architectural and cultural significance. Construction works associated with the provision of material assets such as gravel, in particular underground works have the potential to interact with archaeology, architectural and cultural heritage.

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 project 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 refer to additional impacts, which even if acceptable if considered in isolation, would together with the existing impacts, exceed the threshold of acceptability and cause harm to the cultural landscape. 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 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 haulage trucks and moving equipment during clearance and excavation within the development site. Movement of heavy construction 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. Cumulative impacts can be significant, if construction vehicles/equipment are not monitored to avoid driving through undetected heritage resources.

## 7 ASSESSMENT OF SIGNIFICANCE

### 7.1. Assessment Criteria

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 alternatives under study for meeting a project need. The significance of the aspects/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 3: 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 biophysical 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 biophysical 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 biophysical 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 biophysical 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*).
<b>Extent (E)</b>		
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.
<b>Duration (D)</b>		
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.
<b>Probability of occurrence (P)</b>		
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 4: Criteria for Rating of Classified Impacts

Significance of predicted <b>NEGATIVE</b> 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 <b>POSITIVE</b> 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.

Table 5: Impact Assessment Matrix

Impacts and Mitigation measures relating to the proposed mining project during mining 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	1	2	16	<ul style="list-style-type: none"> <li>Use chance find procedure to cater for accidental finds</li> </ul>	2	1	1	1	4
	Disturbance of graves	Cultural heritage	-	6	1	1	2	16	<ul style="list-style-type: none"> <li>Chance finds procedure and heritage induction for workers</li> </ul>	2	1	1	1	4
	Disturbance of buildings and structures older than 60 years old	Operational	-	6	2	1	2	18	<ul style="list-style-type: none"> <li>Mitigation not required</li> </ul>	4	1	1	1	4
Haulage	Destruction public monuments and plaques	Operational	-	2	1	1	1	4	<ul style="list-style-type: none"> <li>Mitigation is not required because there are no public monuments within the proposed development site</li> </ul>	2	1	1	4	4

Based on the results of the Impact Assessment Matrix the proposed project is viable from a heritage perspective.

## **8 STATEMENT OF SIGNIFICANCE**

### **8.1. Aesthetic Value**

The aesthetic values of the AIA Study Area and the overall project area are contained in the Mthatha area environment and landscape typical of this part of the Eastern Cape Province. The visual and physical relationship between AIA study area and the surrounding historical Cultural Landscape demonstrates the connection of place to the local and oral historical stories of the African communities who populated this region going back into prehistory.

The proposed development site will be situated within an environment and associated cultural landscape, which, although developed by existing settlements, remains representative of the original historical environment and cultural landscape of this part of Eastern Cape Province. The local communities consider the project area a cultural landscape linked to their ancestors and history. However, the proposed development will not alter this aesthetic value in any radical way since it will add to the constantly changing and developing settlements.

### **8.2. Historic Value**

The Indigenous historic values of the Site of Interest and overall study area are contained in the claim of possible historic homesteads being located on the affected area. The history of generations of the Xhosa clans is tied to this geographical region. Such history goes back to the pre-colonial period, through the colonial era, the colonial wars and subsequent colonial rule up to modern day Eastern Cape Province.

### **8.3. Scientific value**

Past settlements and associated roads and other auxiliary infrastructure developments and disturbance within the HIA Study Area associated with the proposed development has resulted in limited intact landscape with the potential to retain intact large scale or highly significant open archaeological site deposits.

### **8.4. Social Value**

The project sites fall within a larger and an extensive cultural landscape that is integrated with the wider inland. The overall area has social value for the local community, as is the case with any populated landscape. Literature review suggests that social value of the overall project area is also demonstrated through local history which associates the area with the coming of European missionaries, explorers and colonialists and the African struggle against settler colonialism in the second half of the 1800s and at the end of the 1800s, the colonial wars of resistance, the century long struggle for democracy that followed colonial subjugation. Several generations of communities originate from the project area and continue to call it home. As such, they have ancestral ties to the area. The land also provides the canvas upon which daily socio-cultural activities are painted. All these factors put together



confirms the social significance of the project area. However, this social significance is unlikely to be negatively impacted by the proposed development especially given the fact that the development will add value to the human settlements and activities already taking place. Some sections of development site are covered by thick bushes and vegetation retains social value as sources of important herbs and traditional medicines. As such, they must be considered as significant social value sites

## **9 DISCUSSIONS**

Several archaeologists and researchers conducted various Phase 1 archaeological studies in the Eastern Cape Region since 2002. The studies were conducted for various infrastructure developments such as powerlines and substations, pipelines and residential developments. These studies recorded mainly burial sites occurring in homesteads for example Hart (2015, 2017) Therefore, the current study should be read in conjunction with previous Phase 1 Impact Studies conducted in the general project area.

The study did not record any archaeological artefacts that were lying on the ground during the surveys. However, the absence of archaeological material on the ground does not imply that the area does not totally have archaeological material. As such the Chance Find procedure applies. In the event that archaeological material is encountered or revealed during clearance, a professional archaeologist must be retained to monitor and document any exposed archaeological remains. The lack of confirmable archaeological sites recorded during the current survey is thought to be a result of one reason:

- That proposed development site is located within a heavily degraded area and has reduced sensitivity for the presence of highly significant physical cultural site remains, be they archaeological, historical or burial sites, due to previous earth moving disturbances resulting from developments and other land uses in the project area.
- The municipal cemetery was deemed to be younger than 60years, however, it is still protected by the Human Tissue Act and municipal ordinances. The project planners must ensure that they place compatible structures and activities near the cemetery. Public opinion must be sought regarding the compatibility of the proposed project and the adjacent cemetery.

The absence of confirmable and significant archaeological cultural heritage site is not evidence in itself that such sites did not exist in the proposed development area. It may be that, given the dense development in most sections of the development site, if such sites existed before, changing earth-moving activities may have destroyed their evidence on the surface. Significance of the sites of Interest is not limited to presence or absence of physical archaeological sites. These discoveries that were made testifies to the significance of the project area as a cultural landscape of note, which has discernible links to local oral history and folk stories, environmental and ethnobotanical

aesthetics, popular memories etc. associated with significance emanating from intangible heritage of the region.

## 10 RECOMMENDATIONS

The study did not find any permanent barriers to the mining permit application. It is the considered opinion of the authors that the mining permit application may be approved as planned from a heritage resources management perspective, provided that mitigation measures are implemented if and when required. The following recommendations are based on the results of the AIA/HIA research, cultural heritage background review, site inspection and assessment of significance.

- From a heritage point of view, the proposed mining development is viable because the proposed project site has been previously altered by infrastructure developments.
- The mining permit application may be approved to proceed as planned under observation that project work does not extend beyond the surveyed site.
- Should any unmarked burials be exposed during construction/mining, potential custodians must be trekked, consulted and relevant rescue/ relocation permits must be obtained from ECPHRA/SAHRA and or Department of Health before any grave relocation can take place. Furthermore, a professional archaeologist must be retained to oversee the relocation process in accordance with the NHRA.
- Should chance archaeological materials or human burial remains be exposed during subsurface construction 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 construction scheduling while recovering archaeological and any affected cultural heritage data as stipulated by the NHRA regulations.
- Subject to the recommendations herein made and the implementation of the mitigation measures and adoption of the project EMP, there are no other significant cultural heritage resources barriers to the proposed development. The Heritage authority may approve the mining permit application to proceed as planned with special commendations to implement the recommendations here in made.
- If during development, operational or closure phases of this project, any person employed by the applicant, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance, work must cease at the site of the find and this person must report this find to their immediate supervisor, and through their supervisor to the site manager.
- The site Manager must then make an initial assessment of the extent of the find and confirm the extent of the work stoppage in that area before informing an archaeological practitioner.

- In the event that archaeological materials are unearthed, all mining activities within a radius of at least 25m of such indicator should cease and the area be demarcated by a danger tape. Accordingly, a professional archaeologist should be contacted immediately
- It is the responsibility of the applicant to protect the site from publicity (i.e., media) until a mutual agreement is reached.
- Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement by ECPHRA.
- The applicant is reminded that unavailability of archaeological materials (e.g., pottery, stone tools, remnants of stonewalling, graves, etc.) and fossils does not mean they do not occur, archaeological material might be hidden underground, and as such the client is reminded to take precautions during construction.
- Overall, impacts to heritage resources are not considered to be significant for the project receiving environment. It is thus concluded that the project may be cleared to proceed as planned subject to the Heritage Authority ensuring that detailed heritage monitoring procedures are included in the project EMPr for the mining phase, include chance archaeological finds mitigation procedure in the project EMPr (See Appendix 1).
- The findings of this report, with approval of the ECPHRA, may be classified as accessible to any interested and affected parties within the limits of the laws.

## **11 CONCLUDING REMARKS**

The literature review and field research confirmed that the project area is situated within a contemporary cultural landscape dotted with settlements with long local history. Field survey established that the proposed mining development site was degraded by previous mining activities and agriculture. In terms of the archaeology and heritage in respect of the proposed mining development site, there are no obvious 'Fatal Flaws' or 'No-Go' areas. The potential for chance finds is rated low, however, the applicant and contractors are advised to be diligent and observant during clearance and mining, should mining activities commence on the site. The procedure for reporting chance finds has clearly been laid out (see appended chance find procedure). This report concludes that the mining permit application may be approved by ECPHRA to proceed as planned subject to recommendations herein made and heritage monitoring plan being incorporated into the EMPr (also see Appendices). The mitigation measures are informed by the results of the AIA/HIA study and principles of heritage management enshrined in the NHRA.

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National Heritage Resources Act NHRA of 1999 (Act 25 of 1999).

## Appendix 1: Heritage Management Plan Input into the proposed mining project EMPr

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

**Appendix 2: Heritage mitigation measures**

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



## Appendix 3: Legal background in South Africa

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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.

