



PHASE 1

HERITAGE SCOPING STUDY

AN

ARCHAEOLOGICAL INVESTIGATION FOR THE PROPOSED NEW WASTE DISPOSAL FACILITY ON PORTION 1 OF FARM RIETVLY 276 LS, WITHIN MAKHADO LOCAL MUNICIPALITY OF VHEMBE DISTRICT, LIMPOPO PROVINCE, SOUTH AFRICA.

Report Prepared for:

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Executive Summary

Site name and location: The proposed new waste disposal facility site is situated west of Louis Trichardt next to the stone crushers quarry, located on farm portion 1 of Rietvly 276 LS, within Makhado Local Municipality of the Vhembe district, Limpopo Province of South Africa.

Local Authority: Makhado Local Municipality

Developer: Makhado local municipality

Date of field work: 30th November, 1st December 2009

Date of report: 1 December 2009

Findings: A Phase 1 heritage impact assessment (HIA) study as required in terms of section 38 of the National Heritage Resource Act (Act 25 of 1999) was conducted for the proposed Makhado new waste disposal facility. Area west of Makhado (formally known as Louis Trichardt), next to the stone crusher Quarry on portion 1 of Rietvly 267 LS (Paddock R17), was chosen by Makhado local municipality. No further studies/Mitigations are required as within the proposed area and its surrounding there is no archaeological or place of historical significance that will be impacted by the proposed waste disposal facility. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed waste disposal facility project and we recommend to South African Heritage Resources Agency (SAHRA) authorities to approve the project as planned.

Acknowledgements:

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1. INTRODUCTION

Makhado Local Municipality commissioned studies on the proposed waste disposal facility located on portion 1 of farm Rietvly 267 LS. Bazisa Technical waste solution was appointed to handle the environmental aspects of the proposed project. They appointed Vhufa Hashu Heritage Consultants to conduct an Archaeological and Cultural Heritage Impact Assessment study as part of the Environmental Impact Assessment (EIA) for the proposed project.

As part of the development process, an application for an Environmental Assessment Authorization must be completed. This report is one of a series of appendices prepared for the impact assessment that is to be submitted to the Department of Environmental Affairs and Tourism (DEAT) _environmental assessment office, in support of the application as amended by the National Environmental Management (NEMA) Act no 107 of 1998 regulation in terms of chapter 5 section (32)(2)(d) and section (34) (b), The Mineral and Petroleum Resource Development (MPRDA) Act 28 of 2002 and Development Facilitation (DFA) Act 67 of 1995 regulation GNR1 of 7 January 2000 section 31 . The information presented in this report provides the background and the basis for the Heritage Resources component of the Project impact assessment. The heritage resources impact assessment focused on archaeological sites.

The Project proposal constitutes an activity, which may potentially be harmful to heritage resources that may occur in the demarcated area. The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) and graves and burial sites (section 36). In order to comply with the legislation, the Applicant requires information on the heritage resources, and their significance that occur in the demarcated area. This will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources. In terms of the National Heritage Resources Act (1999) the following is of relevance:

Historical remains

Section 34(1) No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

Archaeological remains

Section 35(4) No person may, without a permit issued by the responsible heritage resources authority:

- destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite

Burial grounds and graves

Section 36 (3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority:

(i) 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

(ii) bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.

Culture resource management

Section 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development:

- must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

development means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including:

- (i) Construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (ii) Any change to the natural or existing condition or topography of land, and
- (iii) Any removal or destruction of trees, or removal of vegetation or topsoil;

place means a site, area or region, a building or other structure

structure means any building, works, device or other facility made by people and which is fixed to the ground.

2. AIM OF STUDY

The aim of this Heritage Impact Assessment (HIA) Study was to determine the presence or absence of heritage resources such as archaeological, historical sites, features, graves, places of religious and cultural significance, and to submit appropriate mitigation recommendations with regard to the identified cultural resources management measures that may be affected by the proposed development.

2.1 Project Developers and Consultants

Developers are encouraged to consider archaeological values in their project planning and design from the outset. This will minimize scheduling and budget difficulties at later stages. As Consultants in the archaeological assessment process, we are responsible for: (*see table 1*)

- ❖ Determining the presence of archaeological sites that may be adversely impacted by the proposed development, and evaluate their significance.
- ❖ Identification of potential adverse impacts to archaeological sites protected under the National Heritage Resources Act No: 25 of 1999.
- ❖ Assessing of the heritage significance of identified archaeological sites to assist in the development of appropriate mitigation strategies.
- ❖ Make recommendations for avoidance or mitigation of protected or otherwise significant archaeological sites.
- ❖ Reporting the results of these studies to the Heritage Authorities.

Table 1

3. TERMS OF REFERENCE

The **Terms of Reference** for the study were to:

- (I) To establish whether any of the type and ranges of heritage resources as outlined in section 3 of the National Heritage Resources Act (Act 25 of 1999) do occur in or near the proposed project, and, if so to establish the significance of such cultural resources within their aspect of their occurrence in terms of their historical, social, religious, aesthetic and scientific value.

- (II) To establish whether such heritage resources will be affected by the proposed development, and if so, to determine/develop possible mitigation or control measures that can be applied to these heritage resources to minimize/preserve the identified cultural resources

- (III) Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction.

4. TERMINOLOGY

The following aspects have direct bearing on the survey and the resulting report:

- **Archaeological sites** are places where people lived and left evidence of their presence in the form of artifacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.
- **Cultural Resources** are all non-physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- **Cultural Significance** is the aesthetic, historical, scientific and social value for past, present and future generations.
- **Conservation** means all the processes of looking after a place so as to retain its cultural significance.
- **Historic** means significant in history.
- **Historical** means belonging to the past.
- **In Situ material** means archaeological remains that have not been disturbed.
- **Place** means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

- **Preservation** means protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

5. METHODOLOGY

Physical Survey

The extent of the proposed area and corridors were determined as well as the extent of the areas to be affected by secondary activities (access route) during the development. Physical survey was aided by vehicle and on foot covering the proposed area, peripheral areas which will not be affected by the proposed project. A systematic inspection of the area on along linear transects resulted in the maximum coverage of the proposed area. The survey was conducted on the 30, November, 2009.

A brief literature survey relating to the Pre-historical and historical context of the project area where the proposed waste disposal facility have been earmarked was consulted, Institute such as South African Heritage resource agency office in Polokwane and the Irish Museum were consulted to determine whether any heritage resources have been identified during earlier archaeological survey near the proposed site. In addition, the proposed site was studied by means of the 1:50 000 topographical maps and the 1:250 000 map on which the proposed study area appears.

Restrictions

It must be pointed out that heritage resources can be found in unexpected places, it must also be borne in mind that survey may not detect all the heritage resources in a given project area. While some remains may simply be missed during surveys (observation) others may occur below the surface of the earth and may be exposed once development (such as the construction of the facilities and access roads) commences.

Documentation

All sites/find spots located during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/find spots were plotted using a Global Positioning System (GPS) (Garmin E-Trek Legend) and numbered accordingly.

6. ASSESSMENT CRITERIA

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were based on the following criteria:

- ✓ The unique nature of a site
- ✓ The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc.)
- ✓ The wider historic, archaeological and geographic context of the site.
- ✓ The preservation condition and integrity of the site
- ✓ The potential to answer present research questions.

6.1 Site Significance

The site significance classification standards is indicated by means of stipulation derived from the National Heritage Resources Act (Act 25 of 1999) and endorsed by the South African Heritage Resources Agency (2006) approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, have been used as guidelines in determining the site significance for the purpose of this report

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction
Generally Protected C (GP.C)	Grade 4C	Low Significance	Destruction

Grading and rating systems of identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).

6.2 Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

Example: The change to soil conditions will impact the natural system, and the impact on affected parties (e.g. farmers) would be HIGH.

MODERATE

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are real, but not substantial.

Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

Example: The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

Example: The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people living some distance away.

NO SIGNIFICANCE

There are no primary or secondary effects at all that are important to scientists or the public.

Example: A change to the geology of a certain formation may be regarded as severe from a geological perspective, but is of NO SIGNIFICANCE in the overall context.

6.3 Certainty

DEFINITE: More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

PROBABLE: Over 70% sure of a particular fact, or of the likelihood of an impact occurring.

POSSIBLE: Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.

UNSURE: Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

6.4 Duration

SHORT TERM : 0 – 5 years

MEDIUM: 6 – 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

6.5 Mitigation

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- ✓ **A** – No further action necessary
- ✓ **B** – Mapping of the site and controlled sampling required
- ✓ **C** – Preserve site, or extensive data collection and mapping required; and
- ✓ **D** – Preserve site

7. SITE LOCATION

The proposed new waste disposal facility site is situated west of Louis Trichardt next to the stone crushers located on farm portion 1 of Rietvly 276 LS, within Makhado Local Municipality of the Vhembe district, Limpopo Province of South Africa. The identified property includes four paddocks with a total of 327 hectares the four paddocks are described as follows:

- ✓ R15 63 hectares
- ✓ R16 88 hectares
- ✓ R17 91 hectares
- ✓ R18 85 hectares

The required size for the new waste disposal facility will be only 20 hectares, and has been earmarked to be developed on paddock R17. The site selection was based on the slope gradient, access to the main road R522 which is coming from Louis Trichardt this road connects to a gravel road after passing Tshikota location, absence of perennial stream and distance from residential and industrial area. The proposed facilities will be subdivided into cells where the first cell will be excavated and prepared for disposal; while the first cell is in operation the second cell will be excavated. The proposed facilities will include installation of 2 metre height fence and construction of a gate house to avoid unauthorized access to the site, construction of administration facilities which include office blocks, changing and ablution blocks for staff working at the disposal facility site. The natural flow of water will be used to develop surface drainage and storm water diversion drain system. The storm water ablution pond will be opposite the proposed main office.

An entrance road will be developed south of the proposed property via the proposed security gate; the road system inside the facility will be gravel roads, service road and fire break will surround the entire area.

Currently there is no municipal water and sewer reticulation, only an existing electricity power line was noted cutting across the site east of the reservoir and animal drinking trough.

The physical environment of the area earmarked for the proposed waste disposal facility has slope gradient of about 20metre, certain section of the proposed area is characterized by recuperating pioneer vegetation which shows sign that at some stage the vegetation has been cleared off. Evidence of Geo-technical soil sampling, livestock dung deposit has been noticed around the concrete drinking water trough and south of the concrete reservoir. The dominant tree species identified on site includes, *acacia Karoo* (Sweet thorn) *Dichrostachys cineria* (Sickle bush) *Grewia flava* (velvet raisin) *Grewia flaverscens* (Sandpaper raisin) *Ziziphus mucronata* (Buffalo thorn) *Ximenia caffra* (Sourplum) *Gymnosporia buxifolia* (Common spike-thorn) *Flueggea virosa* (White-berry bush) etc. The current land use of the area is agriculture the area is being used as livestock grazing Paddocks

Site global positioning system co-ordinates (GPS S23^o, 03'.021." and E 29^o, 51', 122")



Figure 1: View of the study area taken towards the southern side of the proposed area earmarked for the development of the waste disposal facility the area is characterized by cleared off vegetation.



Figure 2: View of the existing electricity power line across the proposed site.



Figure 3: Some of the recent past infrastructure a concrete reservoir and livestock drinking trough.

7.1 HISTORICAL BACKGROUND OF THE AREA.

After the disappearance of Thohoyandou a dispute of succession followed, which broke the Venda nation into three parts, the one in the west under Ramabulana the one in the east under Ravhura and the one to the south. The western section inherited much of the political mantle of the Singo line. When the Voortrekker Party (Group) under Louis Trichardt arrived at the foot of the Soutpansberg area in 1836, they joined the first group to arrived in the area under the leadership of Coenraad de Buys, the well known frontier ruffian who came to the area at around 1821.They formed an alliance and aided the Ramabulana to oust and replace the western Venda chief Ramavhoya assuming control of the salt pan north of the soutpansberg mountain. The capital of the newly formed Zoutpansberg republic was laid at Schoemansdal, the area is little west of today's town of Makhado (Formerly Louis Trichardt) approximately 4 kilometers from the proposed waste disposal facility site. The Singo dynasties through their various vicissitudes and

transformation would become one of the major influences and point of reference of the Louistrichardt or Makhado area and the whole area was under the chieftainship of Makhado.

The Schoemansdal Boers after settling at the area, they engaged themselves on hunting were large animals such as elephant were hunted for ivory, for twenty years Schoemansdal dominated ivory export trade before the discovery of gold. During this year's elephant were hunted and slaughtered in huge numbers. They succeeded in the hunt because they were aided by armed African Hunters known as Batsumi "Swart skurts" who hunted throughout the region. Hunters of both Boers and British were followed by missionaries along the so called missionary road or road to the north. In 1877-1899 the South African government sought to implement the native location policy where white could be incorporated into African communities and by so doing the government wanted to take more African land and impose their domination on the African communities. Chief Makhado and his group attacked Schoemansdal Boers community and this coincides with the discovery of diamonds in Kimberly. The far north was (Zoutpansberg) was regarded as the most unruly and uncontrolled part of the republic they attempted to settle a white population under law passed in 1886 known as the "Occpatie wet". Both the Bahananwa and Venda refused to allow either location or white settlement and only began to comply after their resistance was broken in wars of 1894 and 1898(Bonner and Carruthers: 2003).

9. ASSESMENT OF SITES AND FINDS

This section contains the results of the heritage site/find assessment. The phase 1 heritage scoping assessment program as required in terms of the section 38 of the National Heritage Resource Act (Act 25 of 1999) done for the proposed project.

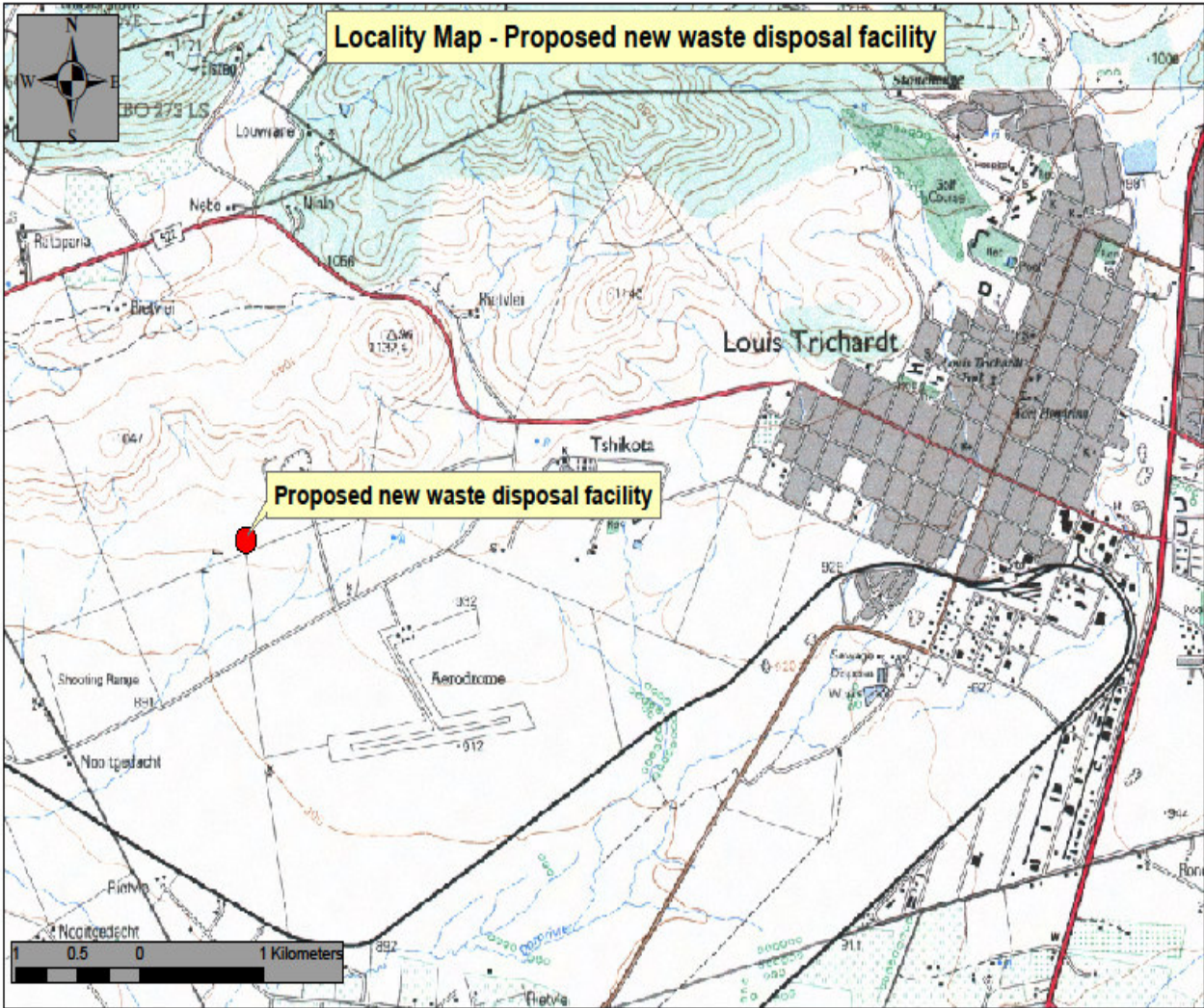
There are no primary or secondary effect at all that are important to scientist or the general public.

<i>Heritage Significance:</i>	No significance
<i>Impact:</i>	Negative
<i>Impact Significance:</i>	High
<i>Certainty:</i>	Probable
<i>Duration:</i>	Permanent
<i>Mitigation:</i>	A

10. RECOMMENDATIONS

No further studies/Mitigations are recommended for the proposed project and there is no archaeological or place of historical significance that will be impacted by the proposed project. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed waste disposal site project and we recommend to South African Heritage Resources Agency (SAHRA) authorities to approve the project as planned.

11. TOPOGRAPHICAL MAP



THE PROPOSED NEW WASTE DISPOSAL FACILITY INDICATED BY RED DOT

12. REFERENCE

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