

**HERITAGE IMPACT ASSESSMENT PHASE 1 STUDY FOR SIMMER AND JACK GRAVE YARD
EKURHULENI MUNICIPALITY.**

SUBMITTED TO:



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waste Management Services
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Document information

PHASE 1	HERITAGE IMPACT ASSESSMENT PHASE 1 STUDY FOR SIMMER AND JACK GRAVE YARD EKURHULENI MUNICIPALITY		
PURPOSE OF SCOPE: The purpose of this document is to document archaeological sites and burial grounds and graves affected by the proposed Extension of the landfill site			
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Caveat

HERITAGE IMPACT ASSESSMENT PHASE 1 STUDY FOR SIMMER AND JACK EKURHULENI MUNICIPALITY

Authorship: This Report has been prepared by Dr. M. Murimbika (Principal Investigator & Professional Archaeologist) for Siyathembana Trading 293. The report was prepared for Ekurhuleni Municipality.

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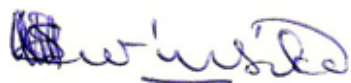
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The survey was carried out within the context of tangible and intangible cultural heritage resources as defined by SAHRA Regulations and Guidelines as to the authorisation proposed exhumation and reburial of graves affected by the power station development (EMM).

Signed by Principal Investigator:



McEdward Murimbika (Ph.D.),

1 February 2017

MANAGEMENT SUMMARY

Background

Simmer and Jack Landfill site is a City of Ekurhuleni (CoE) owned solid waste disposal site (Landfill) situated on the corner of Johan and Rissik and Meade Crescent, east of the N3 highway on portion 2 of the Elandsfontein 90IR in Primrose, Germiston. The site services the southern and parts of Northern areas, notably Germiston, Bedfordview and Edenvale. The landfill is located next to the disused Simmer and Jack historic gold mine that was closed in 1969. Currently the landfill has limited airspace left of use leaving the Waste Management Services Department of CoE with problems regarding solid waste disposal processing and management for the affected service areas. It is in this context that the CoE has proposed to extend the current landfill by building an additional receiving area. However, the proposed extension will flow into an existing historic burial ground and graves site dating back to period when there was a settlement that housed the S&J Mine workers. The grave yard is dated to pre-1940 period (based on the earliest date marked on one of the graves). Therefore, the graves on this site are associated with the active days of Simmer and Jack Mine operational period dating back to the early 1900s until 1969 when the mine closed.

The stated aims of the project are:

- i. Provision of Heritage Services – Phase 1 HIA, Mapping, Reporting
- ii. Grave Survey, Verification and relocation permit application

Summary Results

A preliminary site visit and Reconnaissance Survey was conducted by Siyathembana Principle Investigator (Dr. M. Murimbika) and Heritage Stakeholder Specialist (Ms. H Mlotshwa) on the 13th of July 2016. The site visit confirmed that the burial ground and grave site are more than 60 years. The heritage team also established that the burial ground dates to pre-1941 (date of earliest grave with markings) and as such the National Heritage Resources Act 25 of 1999 automatically protect it. Any interference with this site the South African Heritage Resources Agency (SAHRA) would be illegal until such time that relevant permits and authorisations are issued

Recommendations

- The heritage impact assessment has noted that the proposed extension of the S&J Landfill cells will submerge the identified burial ground which is on direct path of the development. As such the burial ground and grave sites should be exhumed, rescued and graves should be relocated to safe cemetery sites.

- The survey confirmed that the affected landscape has a long history of human occupation making it an active cultural landscape where there is a possibility of encountering previously unknown graves in the project area during subsurface construction work.
- No inquiry is on record as being lodged by potential custodians of the affected graves and burial grounds. However, employees of the landfill management company have confirmed seeing some family members coming to perform ancestral rituals at a couple of the graves. Therefore, a list of potential custodians is being compiled as part of the preparation for the Burial Grounds and Graves Permit applicant process.
- Oral tradition about the site also suggest that most of the un-marked graves on site potentially being to Japanese Prisoners of War (PoWs) who were brought to work in the mine during the 1940s WW2. Other oral tradition information suggests that some of the graves belong to Chinese mine workers who were brought in as labourers during the same period. This information is being considered further.
- In the likely event that no custodians will come forward or will be identified for particular burials or graves, the graves will be treated as unknown graves and as such they fall within the jurisdiction of the National Heritage Resources Act (NHRA) 25 of 1999 under the assumption and observation that some of the graves have been confirmed to be older than 60 years.
- Before any interference with the burial grounds and graves, a Burial Ground and Graves permit application should be lodged with South African Heritage Resources Agency (SAHRA) Burial Grounds and Graves Unit to secure the relevant permission for urgent intervention to rescue, salvage and relocate the burials to a safe and formal burial ground.
- A heritage monitoring program would require the project ECO to work with a stand-by heritage officer to ensure that any chance burial grounds or human remains that may be unearthed accidentally from previously unknown or unidentified grave would be attended to in line with relevant applicable regulations when the proposed Landfill cell construction begins.

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ABBREVIATIONS

AIA	Archaeological Impact Assessment
C	Contractor
CECO	Construction Environmental Conservation Officer
EAP	Environmental Assessment Practitioner
ECO	Environmental Conservation Officer
EIA	Environmental Impact Assessment
EM	Environmental Manager
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LIA	Late Iron Age
NHRA	Nation Heritage Resources Act, Act 25 of 1999
PM	Project Manager
SM	Site Manager
SAHRA	South African Heritage Resources Agency

DEFINITIONS

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

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

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

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

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

Cultural Heritage Resources Same as **Heritage Resources** as defined and used in the National Heritage Resources Act (*Act No. 25 of 1999*). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. **Cultural Heritage Resources** also include **intangible resources** such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

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

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

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

ii. micro-organisms, plant and animal life;

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

iv. the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being. This includes the economic, social, cultural, historical and

political circumstances, conditions and objects that affect the existence and development of an individual, organism or group.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. INTRODUCTION

Simmer and Jack Landfill site is a City of Ekurhuleni (CoE) owned solid waste disposal site situated on the corner of Johan and Rissik and Meade Crescent (east of the N3 highway) on portion 2 of the Elandsfontein 90IR in Primrose, Germiston. The site services the southern and parts of Northern areas, notably Germiston, Bedfordview and Edenvale. The landfill is located next to the disused Simmer and Jack gold mine that was closed in 1969. Currently the landfill has limited airspace left of use leaving the Waste Management Services Department of CoE with problems regarding solid waste disposal processing and management for the affected service areas. It is in this context that the CoE has proposed to extend the current landfill by building an additional receiving area. However, the proposed extension will flow into an existing historic burial ground and graves site dating back to per-1941 period. The graves on this site are associated with the active days of Simmer and Jack Mine operational period dating back to the early 1990s until 1969 when the mine closed.

The stated aims of the project are:

- Provision of Heritage Services – Phase 1 Mapping, Reporting
- Grave Survey, Verification and relocation permit application



Figure 1: Location of Simmer and Jack land fill project area.

2. AIMS OF THE STUDY

- ❑ Confirm the existence of the archaeological sites and burial grounds and graves situated within the proposed extension of the landfill.
- ❑ Conduct site condition survey of all archaeological sites and recorded burial grounds and gravesite in the project's primary and secondary footprint impact zone. The primary impact zone being the direct path of the landfill and the secondary impact zone being in the buffer zone where the recorded graves occur
- ❑ Make further recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the affected burial sites.
- ❑ Identify and discuss with local communities (where applicable) on potential impacts of the extension of the landfill and make the necessary recommendations on how to handle the matter.
- ❑ Take responsibility for communicating with SAHRA and other related authorities in order to obtain the relevant burial relocation permits and authorization.

Some expected outcomes of the project are:

- Survey of the affected grave sites/ cemetery.
- Survey affected project area for any heritage sites
- Rescue archaeological sites identified during phase 1 HIA study
- Record and document all graves according to set out format
- Where available, Produce database of legal custodians of graves
- Where applicable, Secure consent for exhumation, relocation and re-interment from burial custodians

3. ASSUMPTIONS AND LIMITATIONS

Regardless of the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources identified during the fieldwork were limited to visible archaeological signatures and graves and burial grounds including those that were already recorded. As such the sites do not necessarily represent all the possible heritage resources present within the area. This study was restricted to physically identifiable burial grounds and graves. This means unidentifiable graves, for example those covered by dense vegetation or have no visible signature are not accounted for herein. As such, should any archaeological sites and burial/grave site (or any protected heritage features and/or objects for that matter) not included in the present inventory be located or observed, a heritage specialist should immediately be contacted.

Such accidentally or chance finds heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist had been able to make an assessment as to the

significance of the site (or material) in question. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development the procedures and requirements pertaining to graves and burials will apply as set out below.

4. HERITAGE LEGISLATION

The present study was conducted in line with applicable legislations and regulations. The identification, evaluation and assessment of any cultural heritage site, artefact, physical cultural properties, burial grounds and graves, intangible heritage or find in the South African context is required and governed by the following legislations:

1. National Environmental Management Act(NEMA)Act107of1998
2. National Heritage Resources Act(NHRA)Act25 of1999
3. Development Facilitation Act(DFA)Act 67of1995

This present study is equally covered under the following sections in each Act, which refer directly to the identification, evaluation and assessment of cultural heritage resources.

1. National Environmental Management Act (NEMA) Act 107 of 1998
 - a) Basic Environmental Assessment (BEA)– Section (23)(2)(d)
 - b) Environmental Scoping Report (ESR)–Section (29)(1)(d)
 - c) Environmental Impacts Assessment (EIA)–Section (32)(2)(d)
 - d) EMP (EMP)–Section (34)(b)
2. National Heritage Resources Act (NHRA) Act 25 of 1999
 - a) Protection of Heritage resources–Sections34 to36; and
 - b) Heritage Resources Management – Section38
3. Minerals and Petroleum Resources Development Act (MPRDA)Act 28 of 2002
 - a. Section 39 (3)
4. Development Facilitation Act (DFA) Act 67 of 1995
 - a) The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section31.

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34 (1) of the NHRA states that “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...” The NEMA (No107of1998) states that an integrated EMP should (23:2(b))“...identify, predict and evaluate the actual and potential impact on

the environment, socio-economic conditions and cultural heritage". In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure that a comprehensive legally compatible HIA report is compiled.

As highlighted in introductory sections of this report, the study specifically focuses on archaeological sites, historic structures and burial grounds and graves affected by the planned EMM landfill Extension development. All burial grounds and individual graves are protected by law irrespective of their age. Furthermore, there are regulations, which control handling and management of human remains and grave goods. Specifically, in terms of the Section 36 (3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) no person may, without a permit issued by the relevant 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 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; 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.

Therefore, in addition to the formal protection of culturally significance graves, all graves which are older than 60 years and which are not already located in a cemetery (such as ancestral graves in rural areas), are protected. Communities, which have an interest in the graves, must be consulted before any disturbance can take place. The graves of victims of conflict and those associated with the liberation struggle will have to be included, cared for, protected and memorials erected in their honour where practical. Regarding graves and burial grounds, the NHRA distinguishes between the following:

- Ancestral graves
- Royal graves and graves of traditional leaders
- Graves of victims of conflict
- Graves of individuals designated by the Minister by notice in the Gazette
- Historical graves and cemeteries
- Other human remains, which are not covered in terms of the Human Tissue Act, 1983 (Act No.65 of 1983).

All human remains are also protected under the Human Tissue Act, 1983 (Act No.65 of 1983). In addition, Municipal Ordinances provide for both burial grounds/cemetery and gravesites within certain localities.

5. GRAVES OUTSIDE NHRA PROTECTION

Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier.

This function is usually delegated to the Provincial MEC for Local Government and Planning or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA).

The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

6. PREVIOUSLY UNIDENTIFIED BURIAL SITES/GRAVES

The proposed S&J Landfill extension development is situated in an historic and contemporary cultural landscape with historic mining and mining industry heritage resources and contemporary human settlements and building, including an operational landfill. Given the history of human occupation of the affected area, there is a possibility that previously unknown burials may be discovered during subsurface construction work. Should burial sites be accidentally found, they must be reported to the nearest police station to ascertain whether or not a crime has been committed and a heritage expert should be called in to establish whether the burial is covered the NHRA. If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains must be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities give their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

7. SOCIAL CONSULTANCY

The Siyathembana research team has been liaising with Mr Flip Viljoen (082 371 0443) CoE employee with working knowledge of the Simmer& Jack area, and confirmed that they have never heard or seen anyone coming to the graveyard, and they suspect that the people were coming from China or Japan and its not confirmed as there are no documents to prove that. Fumani Shirilele (CoE Engineer and Project Manager), also has no idea who these people are. Nelson Mnjanji, and Johan van Wyngaardt current management company employees responsible for the landfill operation, also confirmed that during their times of working no one has come to the office which is at the land to ask to go the graveyard or to do rituals on site. There is no sign of interaction of the grave, the office at the landfill have confirmed that they have not witnessed any person coming to site. We also consulted the chamber of mines (011 498 7100) if they have any information on the grave site at simmer and jack and nothing was confirmed. We also consulted Germiston Methodist church(011 873 8633) and they confirmed that they don't have information rather they did not know there was a grave yard at the landfill same with Presbyterian Church. During the EIA process for the landfill gas extraction public participation was done and there is no information on grave or anyone who claimed to know anything or information about the graves or relatives. On the first of September on site notices were placed and we did not receive any respondents on the graves or anyone with knowledge of the custodians. The inquiries we done to help the project team identify any potentially know custodians of any other graves from the project area. The consultations are still on-going and announcements and of the

proposed relocation of the affected burials will be posted as detailed in the project schedule and SARHA regulations. Further detailed social and ethnological consultation are under way in line with the requirements of the National Heritage Resources Act (1999) to ensure that the potential custodians are identified and consulted about the proposed relocation of the affected graves.

8. METHODOLOGY

The methods in this study followed an HIA process that consisted of three steps:

Step I – Literature Review: The background information to the field survey leans greatly on the Heritage Impact Assessment Report completed for EMM EIA Study for the expansion Project.

Step II – Physical Survey: A physical survey was conducted on foot through project area by qualified archaeologists, aimed at locating and documenting archaeological sites, historic structures and graves and burial ground sites falling within and adjacent to the proposed development footprint.

Step III – The final step involved the recording and documentation of relevant burial grounds and grave sites, as well as the assessment of sites in terms of the heritage impact assessment criteria and report writing, as well as mapping and constructive recommendations on rescue, salvage and relocation of the burial grounds and grave sites as well as protecting those sites that will not be directly destroyed by the development but are in close proximity of the development where there is a possibility that they may be affected from secondary impacts.

9. SITE SIGNIFICANCE

All the archaeological sites and burial grounds and gravesite covered by this report fall under the Generally Protected heritage sites category under the NHRA (Act 35 of 1999) and they all retain a High and Medium Significance. Therefore, all the sites that are on the direct path of the development should be protected in situ or mitigated before destruction.

9.1. Methodology for Impact Assessment

Impact Rating

The impacts of the planned development are considered VERY HIGH from both a heritage and developmental perspectives. The proposed development will completely destroy and existing physical material in situ.

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or socio-cultural) environment, and would result in severe or very severe effects, or beneficial or very beneficial effects. The affected burial ground will adversely and permanently be affected. The permanent loss of physical cultural properties or cultural landscape would be viewed by informed society as being of VERY HIGH significance

However, the proposed extension of waste disposal landfill facilities will serve the needs of the broader community of CoE. As such the outcome of the project will have significant positive impact on the wider society.

Certainty

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

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

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

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

Landfill extension development impacts are considered DEFINITE and will certainly destroy any graves or burial ground on its direct path.

9.2. Duration

SHORT TERM: 0 to 5 years

MEDIUM: 6 to 20 years

LONG TERM: more than 20 years

PERMANENT: site will be demolished or is already demolished

The Archaeological sites and grave and burial grounds on the direct path of the development will PERMANENTLY be affected or submerged if mitigation is not implemented prior to the development commencing.

10. RESULTS: BURIAL GROUNDS AND GRAVES

The field survey identified a burial GROUND whereby (more than 85% of the identified graves), as highlighted in previous sections, burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 3). They have both historical and social significance. Wherever they exist they may not be tempered with or interfered with during any proposed development. It is important to note that the possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present.

10.1 Summary of graves recorded.

BURIAL SITE	NUMBER OF GRAVES RECORDED
Burial ground with individual graves and potential Mass graves	+67 graves clearly marked and potentially +100 more not individual marked.

Table 1: Coordinates for burial sites recorded during the survey.

Burial Ground Site	Latitude	Longitude
	26°12'9.48"S	28° 8'53.67"E



Figure 2:: Location of Burial Ground and Graves Site located within the Simmer & Jack landfill site.

10.2. Burial ground

- Grave Site recorded in report – These graves would require full survey and mapping. The site is over-grown with grass. 67 individual graves were recorded. Three are marked with headstones where as the rest are marked with stone oval cairns. There are several more graves that are not clearly marked or demarcated. There are several other graves in their hundreds that were not marked in any significant demarcation. Detailed survey is required to confirm the status of the sites. This may require pre-survey site vegetation clearance.
- The Heritage Permits from SAHRA are required for:
 - Burial Ground and Graves Rescue excavation and Relocation permit;



Figure 3: One of the few marked graves in the historic Simmer and Jack cemetery



Figure 4: Photographs of sections of the Simmer and Jack historic burial grounds with a mixture of marked, traditional and potentially mass burial graves dating to the early years for the mine operation



Figure 5: Photographs of sections of the Simmer and Jack historic burial grounds with a mixture of marked, traditional and potentially mass burial graves dating to the early years for the mine operation

11. GENERAL APPLICABLE HERITAGE MANAGEMENT GUIDELINES

This study has confirmed that there is burial grounds which are located on at Simmer and Jack Landfill. it is advisable that information section on cultural resources be included in the SHEQ training given to contractors involved in surface earthmoving activities. These sections must include basic information on:

- Graves;
- Archaeological finds; and
- Historical Structures.

This module must be tailor made to include all possible finds that could be expected in that area of construction.

In the event that human remains are uncovered or previously unknown graves are discovered in the course of the proposed development a qualified archaeologist needs to be contacted and an evaluation of the finds made. If the remains are to be rescued, salvaged, exhumed and relocated, the relocation procedures as accepted by SAHRA need to be followed. This includes an extensive social consultation process.

12. SUMMARY RECOMMENDATIONS AND CONCLUDING REMARKS

This report is limited to survey and confirmation of location of the burial grounds and gravesites in relation to Simmer and Jack landfill. No other physical cultural properties are discussed herein. The burials grounds and graves are classified as of high cultural significance. Two procedures are recommended for the identified burial grounds and gravesites. Burial and gravesites in the secondary impact zone may not require any interference. Such sites should be marked and fenced off for in situ protect during and after the dam raising development.

- i. All graves identified within the servitude are under threat in one way or the other from the proposed extension of the landfill. Such recorded graves directly affected should be rescued or salvaged by exhumation and relocated as soon as the necessary permits are obtained.
- ii. An urgent Burial Ground and Graves heritage permit from SAHRA should be obtained to allow all affected graves that fall under the NHRA to be exhumed and relocated as stipulated by applicable laws and SAHRA regulations.
- iii. All graves that do not fall under the NHRA will be treated and relocated within the Human Tissue Act of 1983 and the local municipality graves and human burial ordinances.
- iv. Should any link be established between the burials and any community or families, consent should be secured from the custodians of the burials before the relocation exercise in conducted.
- v. The relocation exercise will be overseen by the accredited heritage professional and a professional Undertaker will conduct the actual exhumation and re-interment.

Should additional previously unidentified graves be identified within the development path or buffer zones during construction works, the following measures must be taken.

- i. Mitigation of graves will require a fence around the cemetery with a buffer of at least 10 meters.

- ii. If graves are accidentally discovered during construction, activities must cease in the area and a qualified archaeologist be contacted to evaluate the find. To remove the remains a rescue permit must be applied for with SAHRA and the local South African Police Services must be notified of the find.

13. GRAVE RELOCATION PROCESS

Where the graves are to be relocated, a full grave relocation process that includes comprehensive social consultation must be followed.

The grave relocation process must include:

- i. A detailed social consultation process, that will trace the next of kin and obtain their consent for the relocation of the graves, that will be at least 60 days in length;
- ii. On-Site notices indicating the intent of the relocation
- iii. Newspaper Notice indicating the intent of the relocation
- iv. A permit from the local authority;
- v. A permit from the Provincial Department of health;
- vi. A permit from the South African Heritage Resources Agency if the graves are older than 60 years or unidentified and thus presumed older than 60 years;
- vii. An exhumation process that keeps the dignity of the human remains and cultural rights intact;
- viii. An exhumation process that will safeguard the legal implications towards the developing company;
- ix. The actual exhumation and reburial process will be done by a reputable company that is well versed in relocations;
- x. The process must be conducted in such a manner as to safeguard the legal rights of the families as well as that of the developing company.

14. CONCLUSION

Public consultation to identify the potential custodians of the graves should continue. The information regarding the possibility of the some of the graves belonging to Japanese PoW should be researched further. The CoE should assist with further consultations with external parties.

We recommend that the development should only proceed after mitigation (rescue and relocation of the burial ground) has been completed. This report to SAHRA, in fulfilment of the requirements of the National Heritage Resources Act. According to Section 38(4) of the Act the report shall be considered

timeously by the Council which shall, after consultation with the person proposing the development, decide –

- whether or not the development may proceed;
- any limitations or conditions are to be applied to the development;
- what general protections in terms of this Act apply, and what formal protections may be applied to such heritage resources;
- whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and

If permission is granted for development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and adhere to the protocol described in Section 9 of this report should any heritage resources, as defined in the Act, be discovered during the course of development activities.

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16. APPENDIX 1: BURIAL RELOCATION PROJECT METHOD STATEMENT

1. DISCOVERY AND NOTIFICATION

If human burial remains are accidentally discovered during development at Simmer and Jack landfill expansion site, the following guidelines apply:

- a) The finder will immediately cease any further activity at the site and report the site to the EMM ECO. The ECO will notify the heritage expert (Archaeologist) and authorities.

2. SITE PROTECTION AND IDENTIFICATION

- a) The ECO and the Archaeologist and the permitting authority shall take reasonable measures to protect the site from environmental factors and any form of unauthorized interference or disturbance.
- b) Based on the evidence reported at the scene, the Archaeologist will investigate the site and make a preliminary determination as to the nature of the remains.
- c) Existing site inventories, land use records, and community, and authorities, should be consulted as soon as possible about possible identification of the remains. Some examination of the site/remains may be required to determine its cultural affiliation and age, and whether or not the site is modern or historic.
- d) The Archaeologist shall apply and acquire the relevant exhumation and rescue Permit from SAHRA Graves and Burial Unit.

3. INVESTIGATION AND REPORTING

a) The ECO will direct the Archaeologist to carry out an investigation under any required permits, in consultation with the affected custodians (if available) and other affected parties, to make an initial report citing, if possible, the cultural affiliation of the human remains.

b) Within a reasonable time to be specified by the EO, and the affected parties, the Archaeologist shall deliver a written report and any notification not yet made, to:

- the ECO, and the affected custodians if appropriate;
- the SAHRA;
- the permitting authority of SAHRA Graves and Burials Unit
- any other representative of the interred, if known.

c) The written report shall attempt to identify:

- the representative group of the interred;
- the geographic boundaries of the site;
- the grave offerings or other heritage resources that may be associated with the remains or the site.

d) The Archaeologist may, with the agreement of the proper authority and the representative of the interred, if known, remove all or part of the human remains for temporary custody where the remains may otherwise be at risk prior to their re-burial at a safe site.

3.1 REPORTING

a) If the site is determined to be a contemporary burial site, the appropriate representative will be contacted in writing to provide further direction on the disposition of the remains.

b) EMM contractors carrying out authorized activity where a historic or archaeological burial site is discovered can continue that activity with the consent of the EO, where appropriate. The activity must stay 150 meters away from the grave while further arrangements are made by the Archaeologist to rescue and relocate the remains to a safe cemetery.

d) The Archaeologist may publish notice of the discovery in a newspaper or other public notice seeking information on the remains and alerting members of the public about the impending relocation of the remains to a predetermined formal cemetery or burial ground.

4. SITE DISPOSITION AGREEMENT (MANAGEMENT PLAN)

4.1 When the site or remains are identified

a) The site shall not be disturbed and the EO, if on direct path of EMM development work, shall initiate discussions towards entering into a site disposition agreement with the representative of the interred where applicable.

b) If the site is a historic or archaeological burial site, there must be joint approval of the site management plan on reburial as stated in the scope of services in terms of contract between EMM.

c) Decisions regarding reburial, relocation or other disposition should be determined on a case by case basis in consultation with those concerned and in a timely manner.

Site disposition agreements shall determine such things as:

1. the interim care of the human remains;
2. the scope and extent of analysis to be performed on the human remains, if any;
3. the exact location of the place where the human remains are to remain or to be interred;
4. the style and manner of disinterment, if applicable;

5. the style and manner of reinterment, if applicable;
6. the time period in which disinterment and reinterment is to take place;
7. the procedures relating to, and the final disposition of any grave offerings discovered with the human remains and any additional analysis of them;
8. the provision for future maintenance of the cemetery or site where the human remains are to be located;
9. access to the site and ways to prevent disturbance;
10. any other issue agreed upon.

4.2 When no representative is identified or no disposition is specified:

If disposition is not specified by a representative, or the remains are not claimed or no affiliation is established within a reasonable time, the Archaeologist shall with the necessary SAHRA permits and approvals provide for the following disposition:

- a) cover and leave the remains where they were found and have the site recorded as a burial site/heritage site, if on land suitable for a burial site; or
- b) have the remains disinterred and reinterred in the nearest appropriate cemetery; or
- c) remove the remains from the site for analysis and may have them reinterred in a recognized cemetery or;
- d) may act as the temporary repository of the remains until they are re-located for reburial at designated cemetery.

(Where the remains were found on dam raising site but are not historic or archaeological remains, the Archaeologist may remove the remains in consultation with the EO and the affected parties.)

5. ARBITRATION

Q) If no disposition or reburial agreement or management plan is reached within a reasonable time the matter may be referred to arbitration for settlement.

6. RECORDS

- a) A record of the site and a report of the discovery and disposition plan shall be kept by the Archaeologist, for future reference to protect the site or identify the re-burial site.
- b) Access to information about discovered sites will be addressed in any site management plan developed under these guidelines, and will be protected under the Access to Information and Protection of Privacy legislations, and the NHRA.

7. BURIAL RELOCATION & REBURIAL

- Burial Relocation involves the identification of each grave and the manual excavation of the interred remains. Human remains, coffin features, and grave goods are exposed, their positions in the grave are carefully recorded, and maps and photographs of each grave are made following standard archaeological recovery techniques.
- Once excavation and examination are completed, the interred along with their grave goods are inventoried and carefully wrapped in acid-free tissue. Human remains are arranged anatomically and all materials are placed in specially designed containers, specified by the laws and regulations governed by the state where the re-interment location has been determined. The goal of re-interment is to restore as much of the original mortuary meaning as possible.
- Burial relocation is extremely culturally sensitive and EMM and contractors/service provider staff understands that the utmost respect must be shown to the interred, as well as the descendant communities. We advocate respectful involvement of descendent communities in the relocation process, whenever possible, and have an excellent reputation for communicating with descendant groups.
- Siyathembana Trading has extensive experience conducting cemetery relocations for government agencies, other cultural resource firms, developers and private citizens in South Africa. We assure our clients as well as the descendent communities that the greatest amount of respect and care is taken when excavating and relocating these cemeteries.

8. RISKS

1. Legal Risks

EMM is exposed to a myriad of legal requirements on the local and national level when having to relocate burials. Burial relocation can infringe a number of human rights enshrined in the Constitution and legislations such the NHRA. If not carried out properly, grave relocation can impact the right to burial and dignity. Community opposition may result in protests and delays on development.

Mitigation

When human remains are identified during the development, all measures must be taken to ensure the law an applicable regulations are enforced including mandatory public notifications.

2. Reputational risk

Relocation of human burials in particular also brings with it high risks for the EMM's reputation which is exacerbated by the instantaneous spread of news across the world via the internet. Lack of proper planning and management may lead to negative consequences, which in turn may affect the EMM reputation.

Mitigation

Human remains identified in development contexts should be handled with utter most care to ensure the exhumation and relocation takes place in accordance with the law.

3. Operational risks

Legal action arising from the inadequate planning and implementation of burial relocation may result in EMM permission to expand the Landfill via preliminary injunctions.

Operational risks may also arise from community protests directly. Cases of community opposition and protests, has previously disrupted work for days and weeks, involving, for example, the blockage of construction sites and vital roads and infrastructure. Construction may be delayed or disrupted.

Protests may be violent and impact on the health and safety of EMM staff perpetuating work delays in construction and operations. EMM facilities, machinery, housing and other assets may be damaged and rendered unusable.

Mitigation

Simmer and Jack Landfill project site should have adequate security. All burials related matters should be held by the professional heritage team and reburial specialists. Human remains discovered during development should be reported to the ECO urgently and the Archaeologist notified in time to avoid any delays with the remains exposed on site. All exhumations and reburial exercises should be handled or schedule in a manner that does not require the remains to be held elsewhere temporarily.

4. Financial risks

Legal, reputational and operational risks may also lead other financial costs to the project. Moreover, costs may arise from legal action or disruptions in operations and work delays. Additional costs may be incurred when public protests require work to stop on site as a result of human remains discovery on site.

5. Human Remains Handling Risks

Exhumation, handling, transportation and reburial of human remains also pose a threat to public health if not handled to strict protocols. This risk is particularly highest in contemporary burials.

17. APPENDIX 2: GENERAL PRECAUTIONS

The following precautionary measures can help employers and employees remain safe and healthy whilst handling human remains. The transportation, handling and storage of human remains must also be carried out in a manner that preserves public safety and maintains the dignity of the deceased person.

PERSONAL PROTECTIVE EQUIPMENT

Hand Protection:

When handling potentially infectious materials, use appropriate barrier protection including latex and nitrile gloves (powder-free latex gloves with reduced latex protein content can help avoid reaction to latex allergies). These gloves can be worn under heavy-duty gloves which will, in turn, protect the wearer from cuts, puncture wounds, or other injuries that break the skin (caused by sharp environmental debris or bone fragments). A combination of a cut-proof inner layer glove and a latex or similar outer layer is preferable.

Foot Protection:

Footwear should similarly protect against sharp debris.

Hygiene:

- Wash your hands with soap and water or with an alcohol-based hand cleaner immediately after you remove your gloves.
- Give prompt care to any wounds sustained during work with human remains, including immediate cleansing with soap and clean water. Workers should also be vaccinated against hepatitis B, and get a tetanus booster if indicated.
- Ensure disinfection of vehicles and equipment.

SUMMARY

- In general, personnel involved in the recovery and handling of human remains from a burial site can limit risk from potential exposure by following the guidelines below.
- Vinyl or Latex gloves should be worn.

- Masks and protective eyewear or face shields should be worn during procedures that are likely to generate fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes.
- Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.
- Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
- Ensure universal precautions for blood and body fluids.
- Ensure use of body bags.
- Ensure disinfection of vehicles and equipment.
- Bodies do not need to be disinfected before disposal (except in case of cholera).
- Vaccinate workers against hepatitis B.

18. APPENDIX 3: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

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

1. First, establish the context of the burial:

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

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

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

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

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

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

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

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

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

A. However, it is the responsibility of the developer to ensure that none of the affected graves within the cemetery are burials of victims of conflict. The

applicant is also required in line with the heritage legislation to verify that the graves have no social significance to the local communities.

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

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

DEFINITIONS AND APPLICABLE REGULATIONS

1). A "Cemetery" is defined as any land, whether public or private, containing one or more graves.

2). A "grave" includes "(a) any place, whether wholly or partly above or below the level of ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and (b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure of whatsoever nature forming part of or appurtenant to a grave.

3). No person shall desecrate, destroy or damage any grave in a cemetery, or any coffin or urn without written approval of the Administrator.

4). No person shall exhume, disturb, remove or re-inter anybody in a cemetery, or any coffin or urn without written approval of the Administrator.

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

- a). A statement of where the body is to be re-interred.
- b). Why it is to be exhumed.
- c). The methods proposed for exhumation.
- d). Written permission from local authorities, nearest available relatives and their religious body

owning or managing the cemetery, and where all such permission cannot be obtained, the application must give reasons why not.

6). The Administrator has the power to vary any conditions and to impose additional conditions.

7). Anyone found guilty and convicted is liable for a maximum fine of R200 and maximum prison sentence of six months.

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

"Victims of Conflict" are:

a). Those who died in this country as a result of any war or conflict but excluding those covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992).

b). Members of the forces of Great Britain and the former British Empire who died in active service before 4 August 1914.

c). Those who, during the Anglo Boer War (1899-1902) were removed from South Africa as prisoners and died outside South Africa, and,

d). Those people, as defined in the regulations, who died in the "liberation struggle" both within and outside South Africa.

6. Any burial that is older than 60 years, which is outside a formal cemetery administered by a local authority, is protected in terms of Section 36(3b) of the National Heritage Resources Act. No person shall destroy, damage, alter, exhume or remove from its original position, remove from its original site or export from the Republic any such grave without a permit from the SAHRA.

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

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

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

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

PROCEDURE FOR CONSULTATION

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

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

The applicant must keep records of the actions undertaken, including the names and contact details of all persons and organizations contacted and their response, and a copy of such records must

be submitted to the provincial heritage resources authority with the application.

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

If the consultation fails to reach an agreement, the applicant must submit records of the consultation and the comments of all interested parties as part of the application to the provincial heritage resources authority.

In the case of a burial discovered by accident, the regulations state that when a grave is discovered accidentally in the course of development or other activity:

- a). SAHRA or the provincial heritage resources authority (or delegated representative) must, in co-operation with the Police, inspect the grave and decide whether it is likely to be older than 60 years or otherwise protected in terms of the Act; and whether any further graves exist in the vicinity.
- b). If the grave is likely to be so protected, no activity may be resumed in the immediate vicinity of the grave, without due investigation approved by SAHRA or the provincial heritage resources authority; and
- c). SAHRA or the provincial heritage resources authority may at its discretion modify these provisions in order to expedite the satisfactory resolution of the matter.
- d). Archaeological material, which includes human and hominid remains that are older than 100 years (see definition in section 2 of the Act), is protected by the National Heritage Resources Act (Section 35(4)), which states that no person may, without a permit issued by the responsible heritage resources authority - destroy, damage, excavate, alter or remove from its original site any archaeological or palaeontological material.

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

TREAT HUMAN REMAINS WITH RESPECT

- a). Every attempt should be made to conserve graves in situ. Graves should not be moved unless this is the only means of ensuring their conservation.
- b). The removal of any grave or graveyard or the exhumation of any remains should be preceded by an historical and archaeological report and a complete recording of original location, layout, appearance and inscriptions by means of measured drawings and photographs. The report and recording should be placed in a permanent archive.
- c). Where the site is to be re-used, it is essential that all human and other remains be properly exhumed and the site left completely clear.
- d). Exhumations should be done under the supervision of an archaeologist, who would assist with the identification, classification, recording and preservation of the remains.
- e). No buried artifacts should be removed from any protected grave or graveyard without the prior approval of SAHRA. All artifacts should be re-buried with the remains with which they are associated. If this is not possible, proper arrangements should be made for the storage of such relics with the approval of SAHRA.
- f). The remains from each grave should be placed in individual caskets or other suitable containers, permanently marked for identification.
- g). The site, layout and design of the area for re-interment should take into account the history and culture associated with, and the design of, the original grave or graveyard.
- h). Re-burials in mass graves and the use of common vaults are not recommended.
- i). Remains from each grave should be re-buried individually and marked with the original grave markers and surrounds.
- j). Grouping of graves, e.g. in families, should be retained in the new layout.
- k). Material from the original grave or graveyard such as chains, kerbstones, railing and should be re-used at the new site wherever possible.
- l). A plaque recording the origin of the graves should be erected at the site of re-burial.
- m). Individuals or groups related to the deceased who claim the return of human remains in

museums and other institutions should be assisted to obtain documentary proof of their ancestry.

19. APPENDIX 4: HERITAGE MANAGEMENT PLAN INPUT INTO PROJECT

Objectiv		<ul style="list-style-type: none"> • Protection of archaeological sites and land considered to be of cultural value; • Protection of known physical cultural property sites against vandalism, destruction and theft; and • The preservation and appropriate management of new archaeological finds should these be discovered during construction. 						
No.	Activity	Mitigation Measures	Duration	Frequency	Responsibility	Accountable	Contacted	Informed
Pre-Construction Phase								
1	Planning	Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan, and marked as no-go areas. No cultural, archaeological sites identified during the field survey phase.	Throughout Project	Weekly Inspection	Contractor [C] CECO	SM	ECO	EA EM PM
Construction Phase								
1	Emergency Response	Should any archaeological or physical cultural property heritage resources be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped until heritage authority has cleared the development to continue.	N/A	Throughout	C CECO	SM	ECO	EA EM PM
		Should any archaeological, cultural property heritage resources be exposed during excavation or be found on site, a registered heritage specialist or SAHRA official must be called to site for		Throughout	C CECO	SM	ECO	EA EM PM

		inspection.						
		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 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 SAHRA.		When necessary	C CECO	SM	ECO	EA EM PM
		Should any remains be found on site that is potentially human remains, the SAHRA and South African Police Service should be contacted.		When necessary	C CECO	SM	ECO	EA EM PM
Rehabilitation Phase								
		Same as construction phase.						
Operational Phase								