

**FIRST PHASE HERITAGE IMPACT ASSESSMENT
OF THE PROPOSED DEVELOPMENT OF A NEW
LANDFILL DISPOSAL SITE IN MTHATHA,
LOCATED NEAR QWEQWE VILLAGE, KING
SABATA DALINDYEBO MUNICIPALITY,
EASTERN CAPE.**



ACTIVE HERITAGE cc.

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2010).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A first phase heritage survey of the proposed new landfill disposal site in Mthatha, located near QweQwe Village, King Sabata DalinDyebo Municipality, Eastern Cape identified no heritage sites on the footprint. There is no archaeological reason why the proposed development may not proceed as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for Jeffares & Green Pty (Ltd).
Background to the study	<p>Domestic and garden waste is currently collected together by the King Sabata DalinDyebo Municipality (KSD) and is disposed of at the existing Mthatha Landfill Site. Commercial waste is generally sorted into its recyclable fractions (cardboard, paper, metal and glass) at the point of generation and is collected by private contractors. Building rubble is partly removed by contractors to the existing Municipal Landfill, where it is used as fill material or daily cover material. Largely, however, this waste is illegally dumped in open spaces. The existing Municipal Landfill Site servicing the Mthatha area within the KSD Municipal Area is approaching capacity and is not licensed. Environmental and public health impacts associated with this site are therefore significant and need to be corrected.</p> <p>A need has been identified to establish an adequately designed and licensed landfill site to provide for the future disposal of general wastes generated within the KSD jurisdiction. The KSD Municipality has therefore employed a suitably qualified project team to undertake the design and authorisation of the new landfill site which will have the capacity to service the Mthatha area for the next 20 years. The proposed landfill site will be issued the appropriate licences and permits by the Eastern Cape DEDEAT and the Department of Water Affairs (DWA).</p>
Type of development:	<p>The proposed landfill site will be designed to receive approximately 50 000 tonnes of general waste per annum and will comprise of the following components:</p> <ul style="list-style-type: none"> ▫ Hard standing areas and access roads; ▫ Signage, security fencing and controlled access; ▫ Tipping areas;

	<ul style="list-style-type: none"> ▫ Lined waste cells; ▫ Cover material; ▫ Suitable drainage for clean and contaminated storm water; ▫ Administration buildings; ▫ A weighbridge; ▫ Recycling area / drop-off facility; ▫ Composting area; and ▫ Access road with an intersection off the N2 Freeway <p>In terms of service provision on the site, as there is currently no service infrastructure on the site, completely new infrastructure will need to be established. Potable water is proposed to be provided either from a new borehole or via a tanker service where by the KSD Municipality will deliver water to the site, which will be stored in a storage tank. Electricity is proposed to be supplied via an onsite generator which will be owned and operated by the landfill operator. Sewage generated in the ablution facilities will be disposed of via septic tanks, with liquid being diverted into the leachate management system or the constructed wetland.</p>
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a First Phase Heritage Impact Assessment (HIA)
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)

1.1. Details of the area surveyed:

The site proposed for development is located off the National Route 2 (N2) Freeway, approximately 12km south-west of Mthatha. The area proposed for development is approximately 45ha in extent (Figs 1 & 2). The proposed development site is under the ownership of the Qweqwe Traditional Authority. Current land use within the proposed development area is extensive livestock grazing. The geographic co-ordinates of the corners of the proposed development site are as follows:

SOUTH WEST CORNER: 31° 40' 17.06" S 28° 41' 31.43" E
SOUTH EAST CORNER: 31° 40' 12.37" S 28° 41' 44.25" E
NORTH WEST CORNER: 31° 39' 49.39" S 28° 41' 20.35" E
NORTH EAST CORNER: 31° 39' 42.32" S 28° 41' 37.49" E

1.2. Cultural Heritage legislation

According to Section 3 (2) of the NHRA, the heritage resources of South Africa include:

- a. places, buildings, structures and equipment of cultural significance;
- b. places to which oral traditions are attached or which are associated with living heritage;
- c. historical settlements and townscapes;
- d. landscapes and natural features of cultural significance;
- e. geological sites of scientific or cultural importance;
- f. archaeological and palaeontological sites;
- g. graves and burial grounds, including
 - ancestral graves;
 - ii. royal graves and graves of traditional leaders;
 - iii. graves of victims of conflict;
 - iv. graves of individuals designated by the Minister by notice in the Gazette;
 - v. historical graves and cemeteries; and
 - vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- h. sites of significance relating to the history of slavery in South Africa;
- i. movable objects, including objects recovered from the soil or waters of South Africa, including
 - archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - ii. objects to which oral traditions are attached or which are associated with living heritage;
 - iii. ethnographic art and objects;
 - iv. military objects;
 - v. objects of decorative or fine art;

- vi. objects of scientific or technological interest; and
- vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).”

In terms of section 3 (3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of:

- “a. its importance in the community, or pattern of South Africa's history;
- b. its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- c. its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- d. its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- e. its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- f. its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- g. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- h. its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- i. sites of significance relating to the history of slavery in South Africa.”

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The archaeological history of the Province of the Eastern Cape Province dates back to about 2 million years and possibly older, which marks the beginning of the Stone Age. The Stone Age in the Eastern Cape Province was extensively researched by archaeologists attached to the Albany Museum in Grahamstown, the University of Stellenbosch, the then University of Transkei (UNITRA), Fort Hare University and more recently by rock art researchers attached to the Rock Art Research Institute at the University of the Witwatersrand. The Stone Age period has been divided in to three periods namely: Early Stone Age (ESA) dating between 2 million years ago to about 200 000 years ago, Middle Stone Age (MSA) dating between 200 000 years ago to about 30

000 years ago, and the Later Stone Age (LSA) which dates from 30 000 to about 2 000 year ago. The Stone Age period ends around approximately 2 000 years ago when Bantu-speaking Iron Age farmers from the north arrived in southern Africa. The Iron Age is also divided into three periods, namely: Early Iron Age (EIA) dating between AD 200 and AD 900, Middle Iron Age (MIA) dating between AD 900 and AD 1300, Late Iron Age (LIA) dating between AD 1 300 and 1 820.

2.1 Stone Age

2.1.1 Early Stone Age (ESA)

The ESA is considered as the beginning of the stone tool technology. It dates back to over 2 million years ago until 200 000 years ago. This period is characterised by the Oldowan and Acheulean industries. The Oldowan Industry, dating to approximately between over 2 million years and 1.7 million years predates the later Acheulean. The Oldowan Industry consists of very simple, crudely made core tools from which flakes are struck a couple of times. To date, there is no consensus amongst archaeologists as to which hominid species manufactured these artefacts. The Acheulean Industry lasted from about 1.7 million years until 200 thousand years ago. Acheulean tools were more specialized tools than those of the earlier industry. They were shaped intentionally to carry out specific tasks such as hacking and bashing to remove limbs from animals and marrow from bone. These duties were performed using the large sharp pointed artefacts known as hand axes. Cleavers, with their sharp, flat cutting edges were used to carry out more heavy duty butchering activities (Esterhuysen, 2007). The ESA technology lasted for a very long time, from early to middle Pleistocene and thus seems to have been sufficient to meet the needs of early hominids and their ancestors. Although not identified on the study area, ESA tools occurrence have been reported in other sites in the Transkei (Derricourt 1977: Feely 1987). Apart from stone artefacts, the ESA sites in the Transkei have produced very little as regards other archaeological remains. This has made it difficult to make inferences pointing to economical dynamics of the ESA people in this part of the world (Mazel 1989).

2.1.2 Middle Stone Age (MSA)

The MSA dates to between 200 000 and 30 000 years ago, and is generally associated with the emergence of anatomically modern humans. The MSA technology is therefore believed to have been manufactured by fully modern humans known as *Homo sapiens* who emerged around 250 000 years ago. While some of the sites belonging to this time

period occur in similar contexts as those of ESA, most of the MSA sites are located in rock shelters. Palaeoenvironmental data suggest that the distribution of MSA sites in the high lying Drakensberg and surrounding areas was influenced by the climate conditions, specifically the amount and duration of snow (Carter, 1976). In general, the MSA stone tools are smaller than those of the ESA. Although some MSA tools are made from prepared cores, the majority of MSA flakes are rather irregular and are probably waste material from knapping exercises. A variety of MSA tools include blades, flakes, scrapers and pointed tools that may have been hafted onto shafts or handles and used as spearheads. Between 70 000 and 60 000 years ago new tool types appear known as segments and trapezoids. These tool types are referred to as backed tools from the method of preparation. Residue analyses on the backed tools from South African MSA sites including those in KZN indicate that these tools were certainly used as spear heads and perhaps even arrow points (Wadley, 2007). Derricourt (1977) reported a few MSA sites in the Transkei and some sites investigated by Opperman (1987) in the 1970's and 1980's occur near Maclear directly to the north east of the project area.

2.1.3 Late Stone Age (LSA)

Compared to the earlier MSA and ESA, more is known about the LSA which dates from around 30 000 to 2 000 (possibly later) years ago. This is because LSA sites are more recent than ESA and MSA sites and therefore achieve better preservation of a greater variety of organic archaeological material. The Later Stone Age is usually associated with the San (Bushmen) or their direct ancestors. The tools during this period were even smaller and more diverse than those of the preceding Middle Stone Age period. LSA tool technology is observed to display rapid stylistic change compared to the slower pace in the MSA. The rapidity is more evident during the last 10 000 years. The LSA tool sequence includes informal small blade tradition from about 22 000 – 12 000 years ago, a scraper and adze-rich industry between 12 000 – 8 000 years ago, a backed tool and small scraper industry between 8 000 – 4 000 years and ending with a variable set of other industries thereafter (Wadley, 2007). Adzes are thought to be wood working tools and may have also been used to make digging sticks and handles for tools. Scrapers are tools that are thought to have been used to prepare hides for clothing and manufacture of other leather items. Backed tools may have been used for cutting as well as tips for arrows. It was also during Later Stone Age times that the bow and arrow was introduced into southern Africa – perhaps around 20 000 years ago. Because of the extensive use of the bow and arrow and the use of traps and snares, Later Stone Age people were far more efficient in exploiting their natural environment than Middle Stone

Age people. Up until 2 000 years ago Later Stone Age people dominated the southern African landscape. However, shortly after 2 000 years ago the first Khoi herders and Bantu-speaking agro-pastoralists immigrated into southern Africa from the north. This led to major demographic changes in the population distribution of the subcontinent. San hunter-gatherers were either assimilated or moved off to more marginal environments such as the Kalahari Desert or some mountain ranges unsuitable for small-scale subsistence farming and herding. The San in the coastal areas of the study area were the first to have been displaced by incoming African agro pastoralists. However, some independent and sometimes hybrid groups continue to practice their hunter gatherer lifestyle in the foothills of the Drakensberg until the period of white colonialisation around the 1840's (Opperman 1987; Wright & Mazel, 2007; Mallen 2008; Henry 2010).

The renowned San rock paintings of the Drakensberg region also belongs to the Later Stone Age period although the majority were made between 4000 years ago and about 120 years ago. Rock Art can be in the form of rock paintings or rock engravings. The Eastern Province is renowned for the prolific San rock painting sites concentrated in the southern Drakensberg and adjacent areas (Blundell 2004; Mallen 2008; Henry 2010). These sites are the subject of ongoing research by post-graduate students of the Rock Art Research Institute, University of the Witwatersand. Recently researchers identified 3 new traditions/styles of rock art in the Eastern Cape Drakensberg (*ibid*). One rock art site occurs adjacent to the Mthatha River at the Kambi Forest approximately 25km to the north west of Mthatha. Tsolo and Maclear to the immediate north and north west of Mthatha also have rock art sites. Derricourt (1977) reported 5 rock art sites in the greater Tsolo district. All these sites include typical San fineline paintings. These include paintings of wild ungulates such as eland and other wild bovids as well contact period imagery with depictions of early African agriculturists in contact with San hunter-gatherers. Various other Later Stone Age open air sites are known from the greater Tsolo area. Unfortunately, these have not been well recorded and many are now only known from badly provenanced museum collections (Derricourt 1977). Feely (1988) did locate LSA sites with a possible association with pastoralism in near Cofimvaba and Queenstown to the south west of the study area. It is also known from the historical literature that Khoi pastoralist groups frequented the area to the immediate southwest of Mthatha in the recent past (Peires 1981). However, more systematic research is needed on pastoralism in this part of the Eastern Cape Province.

2.2 Iron Age

2.2.1 Early Iron Age (EIA)

Unlike the Stone Age people whose life styles were arguably egalitarian, Iron Age people led quite complex life styles. Their way of life of greater dependence on agriculture necessitated more sedentary settlements. They cultivated crops and kept domestic animals such as cattle, sheep, goats and dogs. Pottery production is also an important feature of Iron Age communities. Iron smelting was practised quite significantly by Iron Age society as they had to produce iron implements for agricultural use. Although Iron Age people occasionally hunted and gathered wild plants and shellfish, the bulk of their diet consisted of the crops they cultivated as well as the meat of the animals they kept. EIA villages were relatively large settlements strategically located in valleys beside rivers to take advantage of the fertile alluvial soils for growing crops (Maggs 1989; Huffman 2007). The EIA sites in the Eastern Cape Province dates back between AD 600 to AD 900. Based on extensive research on EIA sites in the eastern seaboard they can be divided along the following typological criteria and time lines according to ceramic styles (Maggs, 1989; Huffman 2007):

- _ Msuluzi (AD 500-700);
- _ Ndongondwane (AD 700 – 800);
- _ Ntshekane (AD 800 – 900).

However, no known Early Iron Age sites occur within the study area probably as the greater portion of this area is situated above the 1000m contour. A few have been recorded by Jim Feely (1986) near Mt Frere to the north of the study area. Other have been reported in the Kei River Valley to the south of Mthatha (Binneman 1996). The vast majority of Early Iron Age sites occur below the 1000m contour along areas in the large river valleys with a rainfall of less than 700mm a year (Huffman 2007).

2.2.2 Late Iron Age (LIA)

The LIA is not only distinguished from the EIA by greater regional diversity of pottery styles but is also marked by extensive stone wall settlements. However, in this part of the world, stone walls were not common as the Nguni people used thatch and wood to build their houses (Derricourt 1977). This explains the failure to obtain sites from the aerial photograph investigation of the study area. LIA sites in the Eastern Cape Province occur adjacent to the major rivers in low lying river valleys but also along ridge crests above the 800m contour. The LIA in the greater project area can be ascribed to the Thembu tribal cluster or their immediate predecessors (Feely 1987). It is also possible that some stone walled sites, especially those incorporating shelters or caves, were

constructed by hybrid Khoisan/Nguni groups. Trade played a major role in the economy of LIA societies. Goods were traded locally and over long distances. The main trade goods included metal, salt, grain, cattle and thatch. This led to the establishment of economically driven centres and the growth of trade wealth. Keeping of domestic animals, metal work and the cultivation of crops continued with a change in the organisation of economic activities (Maggs, 1989; Huffman 2007). The existing data base does not indicate the location of any Later Iron Age sites in the greater project area. However, this is most probably an artefact of archaeological survey preferences in the past. It is known from oral history, for instance, that some early Thembu groupings occupied the area from the 17th century onwards (Peires 1981) and it is possible that systematic archaeological ground surveys will locate sites of this period in due course.

2.3 Historic Period

Oral tradition is the basis of the evidence of historical events that took place before written history could be recorded. This kind of evidence becomes even more reliable in cases where archaeology could be utilised to back up the oral records. Sources of evidence for socio political organization during the mid-eighteenth to early nineteenth century in the study area and the Transkei suggest that the people here existed in numerous small-scale political units of different sizes, population numbers and political structures (Feely 1987; Wright & Hamilton, 1989). This period was largely characterised by rage and instability as political skirmishes broke due to the thirst for power and resources between chiefdoms. During the 2nd half of the eighteenth century, stronger chiefdoms and paramountcies emerged. However, these were not fully grown states as there was no proper formal central political body established. This changed in the 1780's when a shift towards a more centralized political state occurred in parts of northern KwaZulu-Natal. The Zulu kingdom, established by King Shaka however became the most powerful in KwaZulu-Natal in the early years of the 19th century and had a marked influence on the local Nguni chiefdoms of the project area (Feely 1987). Refugees from north of the Umtavuna River such as the Bhaca and Qwabe tribes moved into the Transkei and asked the Mpondo chief for permission to settle in adjacent parts. At Qumbu refugees asked the permission of the Mpondomise chief to settle in parts of the area.

These refugees were collectively called amaMfengu and many of these people were settled in parts of the project area and the adjacent areas to the north of Mthatha. One group of refugees from the north, the amaNgwane, crossed the Mthatha River and fought a decisive battle against British colonial troops and their Thembu and Xhosa allies

in 1828 at Mbholompo Point. During this episode the amaNgwane was defeated and the tribe broken-up (Peires 1981). The project area was settled by Thembu communities and their descendants still live in this area.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum and the SAHRA inventory of heritage sites in the Eastern Cape Province. The SAHRIS website was also consulted in order to locate additional sites and to evaluate the results of previous surveys near the study area. In addition, the available archaeological and historical literature covering the Eastern Cape was also consulted.

A visit was made to the study area on the 4th August 2014. A ground survey, following standard and accepted archaeological procedures, was conducted during this visit.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was relatively good in most of the project area. No sites or features were masked by vegetation or other factors. Overgrazing contributed to site visibility in many areas.

3.2.2 Disturbance

No disturbance of potential heritage features was noted. .

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: Eastern Cape Province

Towns: Mthatha

Municipality: King Sabata Dalindyebo Municipality

4.2 Description of the general area surveyed

The proposed development site is bounded to the southwest and northeast, by unnamed drainage lines/erosion dongas (Fig 3). The property is entirely surrounded by communal grazing land (Fig 4). The site falls outside of the Town Planning Scheme and is therefore unzoned. The site has been utilised for agricultural purposes in the past, including crop farming (terraces are in evidence) and the grazing of livestock. No service infrastructure is currently in place on the site (Fig 5).

The site is characterised by a ridge, running approximately northwest to southeast across the middle of the property, sloping downwards, fairly steeply from this ridge towards the drainage lines to the southwest and northeast. Due to the high levels of disturbance on the site, following previous cultivation and the current grazing activities, it is not anticipated that the vegetation of the site will have significant conservation value. In addition, no wetland areas were identified on the site.

4.3 Heritage Survey Results

No archaeological and heritage sites or artefacts were located during the survey. Special care was taken to locate potential grave sites but none occur on the project area. The area is also not part of any known cultural landscape.

4.4 Field Rating

SAHRA developed a methodology to evaluate the significance of heritage sites (Table 3). However, the rating is not applicable for this study as no heritage or archaeological sites were located during the survey.

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

5 RECOMMENDATIONS

The proposed Mthatha Landfill Disposal Site may proceed from an archaeological perspective. However, it should be pointed out that the South African Heritage Act requires that all activities should cease immediately should the developers unearth any heritage sites or artefacts pending an evaluation by the heritage authorities.

6 MAPS AND PHOTOGRAPHS

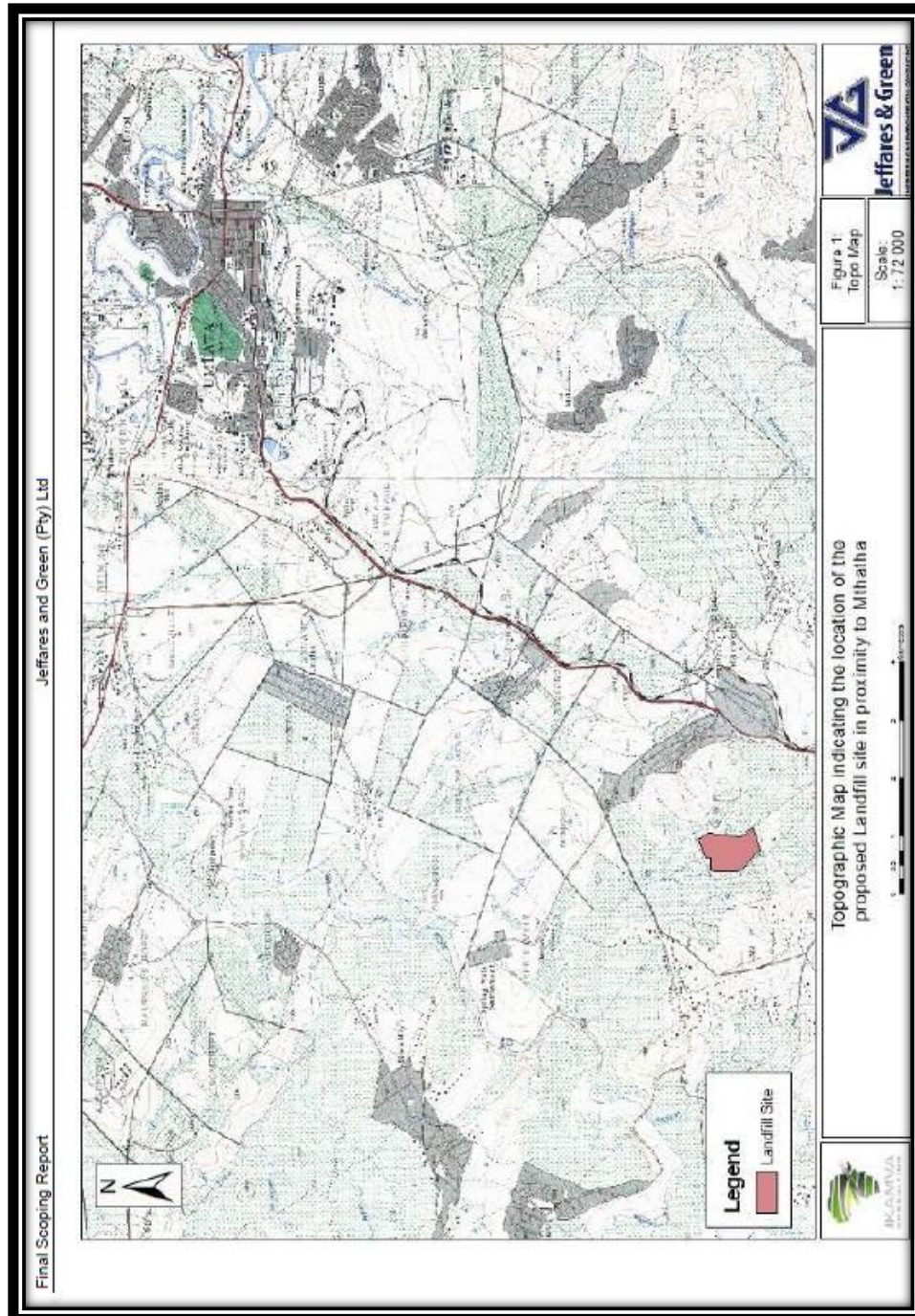


Figure 1. Topographical Map indicating the location of the proposed Mthatha Landfill Disposal Site (Source: Jeffares and Green).



Figure 2. Aerial photograph showing the location of the project area (Source: Jeffares and Green).



Figure 3. View over the study area, erosion donga in the distance.



Figure 4. The study area is characterised by overgrazed grasslands



Figure 5. No structures or human made features were observed on the study area

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves are dealt with in Article 36 of the NHR Act, no 25 of 1999. Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.
- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.

- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave