
PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

**CAGADU DISTRICT AND INACCESSIBLE ROADS PROJECT,
EASTERN CAPE, SOUTH AFRICA**

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**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
CACADU DISTRICT AND INACCESSIBLE ROADS PROJECT,
EASTERN CAPE, SOUTH AFRICA**

EXECUTIVE SUMMARY

TERMS OF REFERENCE:

BESC has been appointed as independent environmental consultant by the project proponent, the Department of Roads and Public Works, to prepare the EMP's for the proposed *Cacadu District and Inaccessible Roads Project*, in accordance with requirements of the Minerals and Petroleum Resources Development Act, No 28 of 2002 (MPRDA 2002). The original project proposal centered on the legalization or permitting of 30 borrow pits situated in the Cacadu, Chris Hani, O.R. Tambo and Alfred Nzo District Municipal areas of the Eastern Cape. Two borrow pits were excluded from the project based on environmental concerns, bringing the total of borrow pits addressed in the project to 28. The project was initiated to address the repair and rebuilding of badly damaged roads, mainly as a result of adverse weather, specifically rain and floods, from mid 2010 to the present. ArchaeoMaps was appointed by BESC to conduct the Phase 1 AIA for the proposed project.

THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT:

PROJECT AREA: Cacadu, Chris Hani, O.R. Tambo and Alfred Nzo District Municipal areas, Eastern Cape.

GAP ANALYSIS: Phase 1 AIA field assessment included all 28 borrow pits.

METHODOLOGY: Six day field assessment; GPS co-ordinates – Garmin Oregon 550; Photographic documentation – Pentax K20D. Archaeological and cultural heritage site significance assessment and mitigation recommendations – SAHRA 2007 system.

SUMMARY:

Road	Total	Borrow Pits	Recommendations
Cacadu District Municipality			
N/A	4	DR01776_BP01; 1763_BP01; 1763_BP02; 397_BP01	N/A
Chris Hani District Municipality			
N/A	11	07357_BP01; 07460_BP02; R344-CHDM-IR01_BP01; R344-CHDM-IR01_BP02; R344-CHDM-IR01_BP03; 08600_BP01; 08602_BP01; 08602_BP02; 08602_BP04; 08599_BP01; 08599_BP02	<p>08602_BP01: Site 08602_BP01.1 – Iron Age: In situ conservation and sign posting. Stone Age: Test excavations under SAHRA Excavation Permit</p> <p>08602_BP02: Ndonga Ethiopian Mission Church cultural landscape. Development not recommended. Permanent sign posting</p> <p>08602_BP04: Ndonga Ethiopian Mission Church cultural landscape. Site 08602_BP04.2 – Permanent sign posting. Formal conservation of F3</p> <p>08599_BP01: Site 08599_BP01.1 – In situ conservation, sign posting. F1 & F2 – destruction if necessary under SAHRA Site Destruction permit</p> <p>08599_BP02: Site 08599_BP02.1 – Surface collection under SAHRA Collections Permit</p>
O.R. Tambo District Municipality			
N/A	8	ORTDM-IR01_BP01; ORTDM-IR02_BP01; ORTDM-IR02_BP02; ORTDM-IR03_BP01; ORTDM-IR04_BP01; ORTDM-IR04_BP02; ORTDM-IR04_BP03; ORTDM-IR04_BP04	N/A
Alfred Nzo District Municipality			
N/A	5	ANDM-IR01_BP01; ANDM-IR01_BP02; ANDM-IR01_BP03; ANDM-IR01_BP04; ANDM-IR01_BP05	N/A

RECOMMENDATIONS:

It is recommended that the proposed development, the *Cacadu District and Inaccessible Roads Project*, situated across the Cacadu, Chris Hani, O.R. Tambo and Alfred Nzo District Municipal areas of the Eastern Cape, proceeds as applied for provided the developer complies with the abovementioned recommendations.

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1) TERMS OF REFERENCE

Biotechnology and Environmental Specialist Consultancy (BESC) has been appointed as independent environmental consultant by the project proponent, the Department of Roads and Public Works, to prepare the Environmental Management Plans (EMP's) for the proposed *Cacadu District and Inaccessible Roads Project*, in accordance with requirements of the Minerals and Petroleum Resources Development Act, No 28 of 2002 (MPRDA 2002). The original project proposal centered on the legalization or permitting of 30 borrow pits situated in the Cacadu, Chris Hani, O.R. Tambo and Alfred Nzo District Municipal areas of the Eastern Cape. Two borrow pits were excluded from the project based on environmental concerns, bringing the total of borrow pits addressed in the project to 28. The project was initiated to address the repair and rebuilding of badly damaged roads, mainly as a result of adverse weather, specifically rain and floods, from mid 2010 to the present.

ArchaeoMaps Archaeological Consultancy was appointed by BESC to conduct the Phase 1 Archaeological Impact Assessment (AIA) for the proposed *Cacadu District and Inaccessible Roads Project*, Eastern Cape.

1.1) *Development Location, Details & Impact*

The *Cacadu District and Inaccessible Roads Project* is based on the legalization or permitting of 28 borrow pits situated across 4 District Municipal areas of the Eastern Cape and including:

- ❖ Cacadu District Municipality – 4 borrow pits
- ❖ Chris Hani District Municipality – 11 borrow pits
- ❖ O.R. Tambo District Municipality – 8 borrow pits
- ❖ Alfred Nzo District Municipality – 5 borrow pits

The project initiated by the Department of Roads and Public Works aims to address repair and rebuilding of badly damaged roads, mainly as a result of adverse weather, specifically rain and floods, from mid 2010 to the present. Varying degrees of damage to roads have left some in a state of high risk to travel, whilst others have become inaccessible, having left communities virtually cut off from motorized access.

Development impact at each of the proposed borrow pits is averaged at 1-1.5ha. The estimated development footprint will be exceeded in cases where continuing use of large existing borrow pits are proposed. All borrow pits to be used will be formally fenced with access gates – demarcating development areas, minimizing development impact spill-over and channeling traffic during the implementation and operational phases.

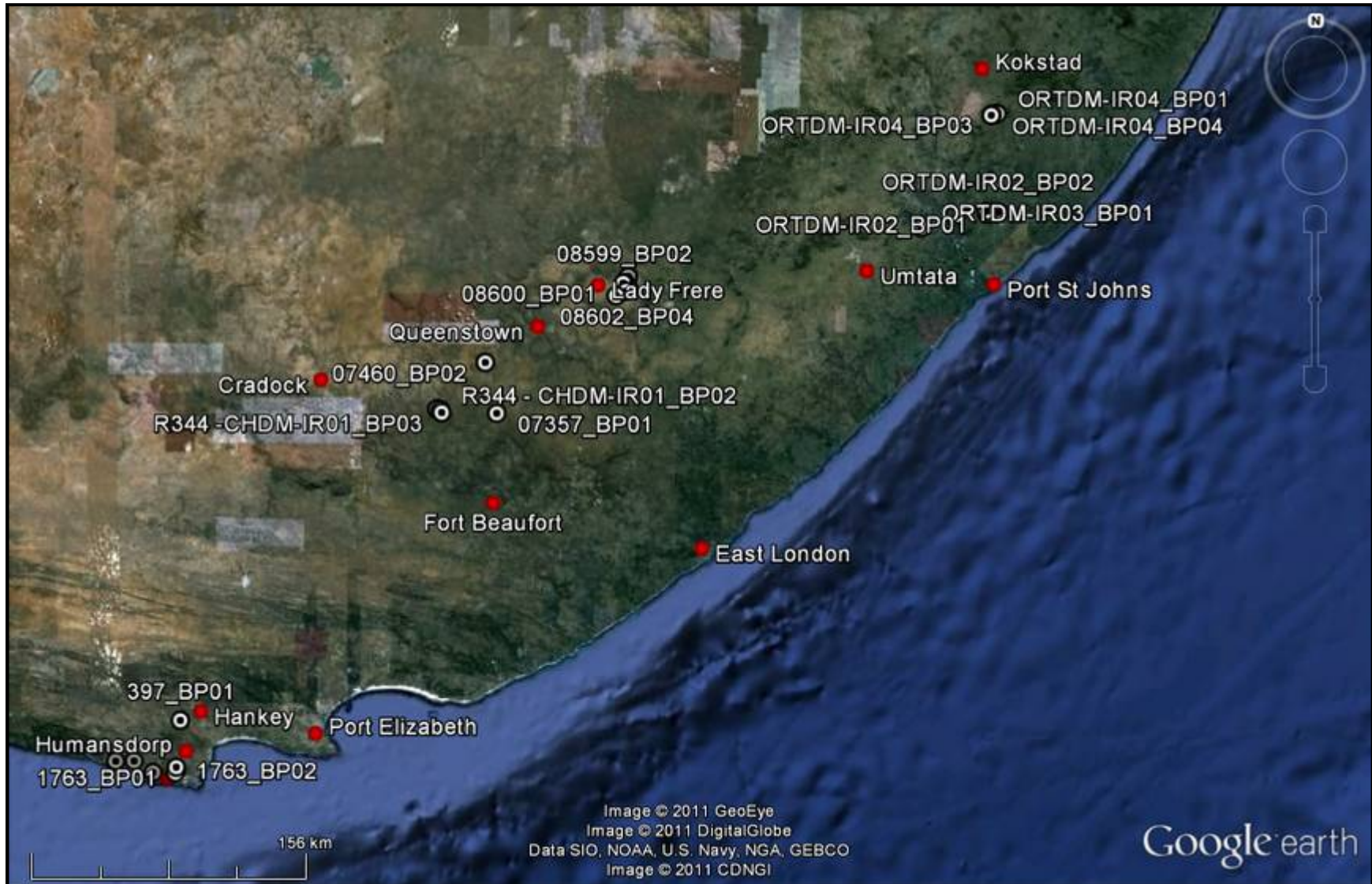


Figure 1: General locality of the Cacadu District and Inaccessible Roads Project

2) THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

2.1) *Archaeological Legislative Compliance*

The Phase 1 Archaeological Impact Assessment (AIA) was done for purposes of compliance to the South African Heritage Resources Agency's (SAHRA) requirements in terms of the National Heritage Resources Act, No 25 of 1999 (NHRA 1999), with specific reference to Section 38.

The Phase 1 AIA was requested as specialist sub-section with findings and recommendations thereto to be included in the Environmental Management Plans (EMP's) of the proposed borrow pits in compliance with requirements of the Minerals and Petroleum Resources Development Act, No 28 of 2002 (MPRDA 2002), the National Environmental Management Act, No 107 of 1998 (NEMA 1998) and NEMA Regulations (2006 & 2010), and the NHRA 1999.

The Phase 1 AIA aimed to locate, identify and assess the significance of cultural heritage resources, inclusive of archaeological deposits / sites, built structures older than 60 years, burial grounds and graves, graves of victims of conflict and basic cultural landscapes or views as defined and protected by the NHRA 1999, that may be affected by the proposed development.

This report comprises of a basic Phase 1 AIA. The report does not include a pre-feasibility assessment or any specialist heritage components inclusive of socio-cultural consultation, historical architecture or cultural landscapes.

2.1.1) *Socio-cultural Consultation*

[At present SAHRA does not have a Policy or formal Guidelines on socio-cultural consultation, or the SAHRA SIA process. However, aspects thereof is covered in the NHRA 1999 and included in related Guidelines. The SAHRA Guidelines (2007) states that *'The legislation (NHRA 1999) requires that all heritage resources, that is, all places or objects of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of ALL these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures over 60 years, living heritage and the collection of oral histories, historical settlements, landscapes, geological sites, palaeontological sites and objects.'*... *'The archaeological and palaeontological components discussed here therefore form only part of the heritage resources that the law requires heritage authorities to assess.'*... *'In this sense, Archaeological (or Palaeontological) Impact Assessments that are part of Heritage Impact Assessments are similar to specialist reports that form part of the EIA process.'*... *'The process of assessment for the archaeological (AIA) or palaeontological (PIA) specialist components of heritage impact assessments, usually involves...* 2. A Phase 1 Impact Assessment / Specialist Report, which identifies: a. Identifies the sites; b. Assesses their significance; c. Comments on the impact of the development; d. Makes recommendations for their mitigation or conservation.'... *'When a Phase 1 is part of an EIA, wider issues such as public consultation and assessment of the visual impacts of the development may be undertaken as part of the general study and may not be required from the archaeologist. If however the Phase 1 forms a major component of an HIA it will be necessary to ensure that the study addresses such issues and complies with Section 38 of the National Heritage Resources Act.'*]

2.1.1.1) Socio-cultural consultation – The Gamtkwa KhoiSan Council:

Kobus Reichert, Heritage Representative of the Gamtkwa KhoiSan Council (Gamtkwa Council), contacted BESC (2011-11-14), requesting consultation with the project archaeologist on the development in an e-mail, quoted, *'Please note that we require the appointed archaeologist to consult with our traditional structure in order to discuss his/her findings, since we do not regard the Public Participation Process that forms part of the EIA as formal consultation about heritage matters as required in Section 38(3)(e) of the National Heritage Resources Act, no 25 of 1999.'* [The Gamtkwa Council is a registered I&AP on the Public Participation Process (PPP) of the project].

In response thereto BESC requested ArchaeoMaps to consult with the Gamtkwa Council. ArchaeoMaps made contact with the Gamtkwa Council on 2011-11-20; in response thereto the Gamtkwa Council indicated on 2011-11-21 *'...We can arrange a meeting (if necessary) after we have had an opportunity to study your report. If the Gamtkwa Council accepts your recommendations and findings there is no need for a formal meeting. Please provide us with a copy as soon as your report becomes available...'*

[ArchaeoMaps highlighted the importance of *'consultation'* in the socio-cultural consultation process (2011-11-23 & 25) to the Gamtkwa Council, as well as the fact that the SAHRA SIA (to differentiate it from the EIA SIA, a socio-economic assessment) *'... is 'complimentary' to the AIA in order to provide a wider range of both past and present cultural concerns to be addressed, to raise the level of assessment closer to a HIA to then be commented on by SAHRA.'* It was also stated that socio-cultural consultation or SIA is an established and developing social science process, with its application field being specifically the development arena. SIA has at its base, or principle methodology, public consultation. The importance of consultation in the SIA process, a pragmatic process underscoring the very principles of *'inclusion'* and *'involvement'* was stressed (Van Willigen 1986).]

Based on correspondence by the Gamtkwa Council to BESC (2011-11-14) and ArchaeoMaps (2011-11-20), ArchaeoMaps responded (2011-11-23): *'I here feel it necessary to bring to your attention the fact that these 2 pieces of correspondence do imply a significant shift in involvement and stance that directly affects the SAHRA SIA or public consultation as well as concerns related to the AIA process;*

1. *From 'involvement' in the SAHRA SIA process, where your concerns can be addressed as part of the cultural concerns to be raised and thus taken into account by SAHRA in their evaluation of the assessment (the SAHRA HRC / ARC Comment), to*
2. *The Gamtkwa Council as additional or 2nd level 'critique' on the Phase 1 AIA and SAHRA HRC / ARC Comment thereon. The 'public consultation' process here changes to a special group (Gamtkwa Council's) additional evaluation of a specific aspect of the HIA (or EIA) or particular EIA specialist study (and in that very different from the principle of 'involvement' in, and thus the SAHRA SIA process).'*

It was emphasized that the request of the Gamtkwa Council to first study the Phase 1 AIA report with consultation based on either their acceptance or rejection thereof (an *'out of the ordinary request'*) was no longer in accordance with the principles of the SAHRA SIA or public consultation process or SIA as social science process, with possible negative effect thereof on the greater environmental process and the project itself. Also that (2011-11-23) *'BESC and ArchaeoMaps are in agreement that the Gamtkwa's request will be respected, provided that:*

1. *It is brought to the attention of SAHRA that this process is followed at the request of the Gamtkwa Council, with cognizance to the fact that it is not in accordance with the normal SAHRA SIA or AIA procedure (and thus affecting Section 38 of the NHRA 1999); and*
2. *That additional costs incurred as a result of this request be carried by the Gamtkwa Council.'*

[The Gamtkwa Council was invited (2011-11-23) to reconsider their request and become a part of the process through consultation.]

On 2011-11-23 the Gamtkwa Council replied in response to ArchaeoMaps stating that: *'The type of 'out of the ordinary' request that you are referring to, is a standard request that we have made over the last 6 years in more than a hundred EIA processes where we have been registered as an I&AP.'* And further thereto *'...We also find point 2 unacceptable and we will certainly not be liable for any additional costs.'*

In response thereto (2011-11-25) ArchaeoMaps pointed out the differences between the EIA Public Participation Process (PPP) and the SAHRA SIA process. It was again reiterated that the Gamtkwa Council specifically requested to be consulted in terms of Section 38(3)(e) (2011-11-14):

❖ **National Heritage Resources Act, No 25 of 1999, Section 38(3)**

The responsible heritage resources authority must specify the information to be provided in a report required in terms of sub-section (2)(a): Provided that the following must be included:

- (e) the results of consultation with communities affected by the proposed development and other interested and affected parties regarding the impact of the development on heritage resources.

Not ArchaeoMaps, BESC or the project proponent, the Department of Roads and Public Works, can reasonably be held responsible for a public consultation process (or the possible outcomes of a public consultation process) requested by a specific community in terms of Section 38(3)(e), where the very community who requested to be consulted is not available for consultation.

[The Gamtkwa Council was again invited (2011-11-25) to reconsider their request and become a part of the process through consultation.]

There was no further communication between ArchaeoMaps and the Gamtkwa Council after 2011-11-25. No process of consultation was entered into; by implication there is no 'results of consultation' to be included in this report.

2.2) Methodology & Assessor Accreditation

The Phase 1 AIA was conducted over a 6 day period (2011-11-28 to 11-30, 2011-12-01, 2011-12-04 and 2011-12-06) by one archaeologist. The assessment was done by vehicle and foot, and limited to a Phase 1 surface survey; no excavation or sub-surface testing was done. GPS co-ordinates were taken with a Garmin Oregon 550 GPS (Datum: WGS84). Photographic documentation was done with a Pentax K20D camera. A combination of Garmap and Google Earth software was used in the display of spatial information.

Archaeological and cultural heritage site significance assessment and associated mitigation recommendations were done according to the system prescribed by SAHRA (2007).

SAHRA ARCHAEOLOGICAL AND CULTURAL HERITAGE SITE SIGNIFICANCE ASSESSMENT			
<i>SITE SIGNIFICANCE</i>	<i>FIELD RATING</i>	<i>GRADE</i>	<i>RECOMMENDED MITIGATION</i>
High Significance	National Significance	Grade 1	Site conservation / Site development
High Significance	Provincial Significance	Grade 2	Site conservation / Site development
High Significance	Local Significance	Grade 3A / 3B	Site conservation or extensive mitigation prior to development / destruction
High / Medium Significance	Generally Protected A	-	Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B	-	Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C	-	On-site sampling, monitoring or no archaeological mitigation required prior to or during development / destruction

Table 1: SAHRA archaeological and cultural heritage site significance assessment

The assessment was done by Karen van Ryneveld (ArchaeoMaps):

- Qualification: MSc Archaeology (2003) WITS University.
- Accreditation:
 1. 2004 – Association of Southern African Professional Archaeologists (ASAPA) – Professional Member.
 2. 2005 – ASAPA CRM Section: Accreditation – Field Director (Stone Age, Iron Age, Colonial Period).
 3. 2010 – ASAPA CRM Section: Accreditation – Principle Investigator (Stone Age).

Karen van Ryneveld is a SAHRA listed CRM archaeologist.

2.3) Coverage and Gap Analysis

The Phase 1 AIA covered all 28 borrow pits. In a number of cases homesteads or residences were situated in particular close proximity to the assessment areas. It is not the intention of the developer to impact on any of the homesteads / livelihoods of the local community, but where development necessitates relocation, this will be addressed in the Social Impact Assessment (SIA) of the project. The Phase 1 AIA was not done to homestead level; cultural heritage resources, particularly graves, may well be expected within the homestead yards. In the unlikely event that relocation will be considered associated homestead-level cultural heritage resources will be addressed.

2.4) Phase 1 AIA Assessment Findings

Archaeological and cultural heritage resources, as described and protected under the NHRA 1999, were identified at 5 of the borrow pit study sites, all located within the Chris Hani District Municipal area, listed as:

1. 08602_BP01;
2. 08602_BP02;
3. 08602_BP04;
4. 08599_BP01; and
5. 08599_BP02.

2.4.1) *Cacadu District Municipality*

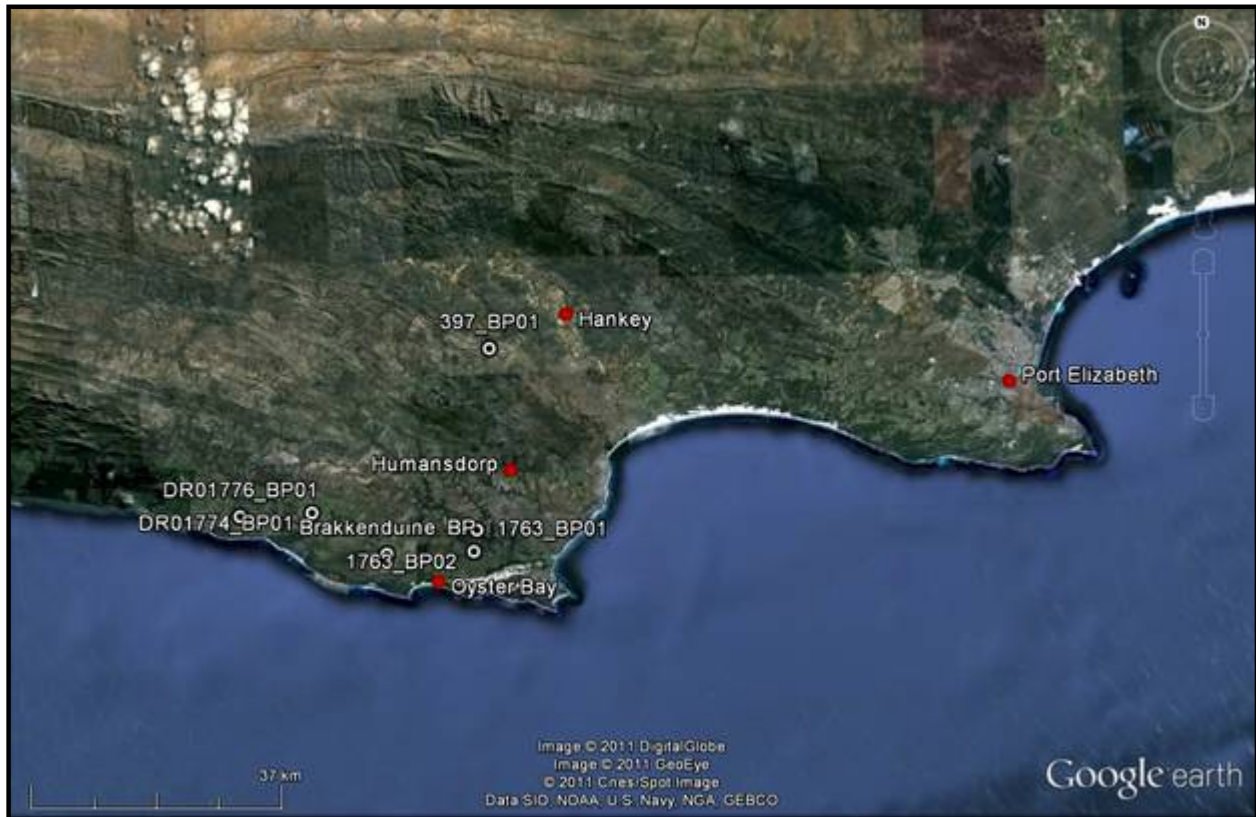


Figure 2: Proposed borrow pits in the Cacadu District Municipal area

Six borrow pits were proposed as part of the development situated within the Cacadu District Municipal area. Two of the borrow pits (DR01774_BP01 and Brakkenduine BP) were excluded, based on environmental concerns. Four borrow pits, including DR01776_BP01, 1763_BP01, 1763_BP02 and 397_BP01, thus forms part of the final proposed development.

Phase 1 AIA assessment focused on approximate 1-1.5ha areas immediately surrounding the borrow pits.

SUMMARY OF PHASE 1 AIA FINDINGS – BORROW PITS IN THE CACADU MUNICIPAL AREA:

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified during Phase 1 AIA assessment of the borrow pits proposed for development within the Cacadu District Municipal area.

2.4.1.1) DR01776_BP01 – S34°04'21.4"; E24°20'39.2"



Figure 3: Borrow pit DR01776_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit DR01776_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit DR01776_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 4: Current impact at borrow pit DR01776_BP01

2.4.1.2) 1763_BP01 – S34°06'09.5"; E24°43'10.0"



Figure 5: Borrow pit 1763_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 1763_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit 1763_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 6: General view of borrow pit 1763_BP01

2.4.1.3) 1763_BP02 – S34°07'50.2"; E24°42'48.0"



Figure 7: Borrow pit 1763_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 1763_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit 1763_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 8: Current large scale impact at borrow pit 1763_BP02

2.4.1.4) 397_BP01 – S33°51'56.8"; E24°45'01.0"



Figure 9: Borrow pit 397_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 397_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit 397_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 10: Current large scale impact at borrow pit 397_BP01

2.4.2) Chris Hani District Municipality



Figure 11: Proposed borrow pits in the Chris Hani District Municipality area

Eleven borrow pits are proposed as part of the development situated within the Chris Hani District Municipal area, including 07357_BP01; 07460_BP02; R344-CHDM-IR01_BP01; R344-CHDM-IR01_BP02; R344-CHDM-IR01_BP03; 08600_BP01; 08602_BP01; 08602_BP02; 08602_BP04; 08599_BP01 and 08599_BP02.

Phase 1 AIA assessment focused on approximate 1-1.5ha areas immediately surrounding the borrow pits.

SUMMARY OF PHASE 1 AIA FINDINGS – BORROW PITS IN THE CHRIS HANI DISTRICT MUNICIPAL AREA:

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified during Phase 1 AIA assessment of 6 of the borrow pit study sites, including 07357_BP01; 07460_BP02; R344-CHDM-IR01_BP01; R344-CHDM-IR01_BP02; R344-CHDM-IR01_BP03; 08600_BP01.

Assessment of borrow pit 08602_BP01 yielded both Iron and Stone Age remains, with Iron Age remains situated in immediate proximity to the development area, but allowing conservation of site features. Stone Age remains have already and will be impacted on directly by development.

Study site 08602_BP02 is situated amidst a rich and extensive Iron Age site with associated contemporary significance. A number of features were recorded, but assessment was limited by the Umkwetha initiation ceremony. Iron Age remains recorded at the study site continues wide across the landscape, across the road and up to 08602_BP04, forming an intriguing and rich cultural landscape. Some Iron Age features have already been impacted on by development. In addition Iron Age remains in the area are underlain by Stone Age remnants. Stone

Age remains will also be directly impacted on by further development. Continued use of this site is not recommended. Should the developer wish to proceed with development of the site, development will have to be preceded by extensive recording and both Iron and Stone Age mitigation.

The Iron Age cultural landscape of 08602_BP02 continues to 08602_BP04. However, here Iron Age site features can be conserved. The underlying Stone Age member is much less significant than at 08602_BP02.

Assessment of 08599_BP01 again yielded an intersecting Iron Age site. Again, based on proximity to the development area, site features can be conserved.

At 08599_BP02 lensed Stone Age 'collections' would need to be sampled before development proceeds.

2.4.2.1) 07357_BP01 – S32°19'34.0"; E26°39'17.2"



Figure 12: Borrow pit 07357_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 07357_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit 07357_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 13: View of a portion of borrow pit 07357_BP01

2.4.2.2) 07460_BP02 – S32°04'30.9"; E26°35'04.0"



Figure 14: Borrow pit 07460_BP02

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 07460_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit 07460_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 15: General view of the borrow pit 07460_BP02 terrain

2.4.2.3) R344-CHDM-IR01_BP01 – S32°18'24.1"; E26°18'09.7"



Figure 16: Borrow pit R344-CHDM-IR01_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit R344-CHDM-IR01_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit R344-CHDM-IR01_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 17: Current impact at the large existing R344-CHDM-IR01_BP01 study site

2.4.2.4) R344-CHDM-IR01_BP02 – S32°18'46.9"; E26°19'28.0"



Figure 18: Borrow pit R344-CHDM-IR01_BP02

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit R344-CHDM-IR01_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit R344-CHDM-IR01_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 19: General view of the borrow pit R344-CHDM-IR01_BP02 study site

2.4.2.5) R344-CHDM-IR01_BP03 – S32°19'31.7"; E26°19'54.4"



Figure 20: Borrow pit R344-CHDM-IR01_BP03

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit R344-CHDM-IR01_BP03.

RECOMMENDATIONS: It is recommended that use of borrow pit R344-CHDM-IR01_BP03 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 21: General view of borrow pit R344-CHDM-IR01_BP03

2.4.2.6) 08600_BP01 – S31°44'07.9"; E27°20'28.7"



Figure 22: Borrow pit 08600_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit 08600_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit 08600_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 23: View of a portion of the 08600_BP01 study site

2.4.2.7) 08602_BP01 – S31°40'28.3"; E27°23'46.2"



Figure 24: Borrow pit 08602_BP01

The borrow pit 08602_BP01 area is characterized by the remains of a former Iron Age village to the east (and extending fairly far beyond the area of recording) with a single stock enclosure situated to the west of the study site, west of the access road. The general area is also underlain by a Stone Age member, with only the odd artefact visible on the surface but with disturbed areas displaying fairly high densities of material, most probably confined to the top approximate 15cm layer. Development to date have not impacted on any Iron Age remains and formalization of the borrow pit is possible without impacting thereon. However quarrying has impacted on Stone Age remains and continued use of the area by definition will further impact directly on Stone Age resources.

❖ **SITE 08602_BP01.1 – CEMETERY/GRAVE SITE, IRON AGE, STONE AGE – S31°40'27.4"; E27°23'50.1"**

Iron Age remains are present primarily to the east of the study site, with limited extensions thereof to the south and west. Site documentation here included only the recording of what is currently interpreted as the western perimeter of a former rather extensive village, with continuing remains thereof extending at least half a kilometer to the east. Site features recorded (F1-9) represent primarily stock enclosure and residential remains, while intersecting grave sites (G1-3) testifies to typical Iron Age burial practices; where the dead were not removed from the village, but buried in association with specific site features.

Features recorded comprised of stock enclosures and hut remains: Stock enclosures vary between remains of circular and rectangular shape implying at least a post-Colonial period date, although continued use over an extensive period of time is definitely inferred. Stock enclosures vary in size between approximately 4-7m in diameter, with the F9 stock enclosure being particularly prominent – situated west of the access road the circular enclosure has a diameter of approximately 30m. Hut remains are represented by simple changes in vegetation, though more than often circular wall outlines are still visible and in places typical hut mounds are interpreted as testimony to the most recent residential abandonment. (Stone Age material was interestingly mostly visible in disturbed areas, often identified in hut mound material). Intersecting these features are fire/cooking places, a few small mounds, overgrown but interpreted as middens. The F8 feature (site co-ordinate) proved to be interesting; the feature comprises of a semi-oval mounded feature, with large stones outlining parts and other simply demarcating positions on the feature. The feature is not interpreted as a grave; but is of inferred religious /

sentimental / traditional significance. (Recorded feature localities are summarized as F1 – S31°40'27.0"; E27°23'48.5"; F2 – S31°40'26.6"; E27°23'49.9"; F3 – S31°40'26.0"; E27°23'49.7"; F4 – S31°40'25.8"; E27°23'50.0"; F5 – S31°40'26.5"; E27°23'51.3"; F6 – S31°40'28.1"; E27°23'51.9"; F7 – S31°40'28.3"; E27°23'52.3"; F8 – S31°40'27.4"; E27°23'50.1" and F9 – S31°40'29.2"; E27°23'43.5"). Intersecting feature localities are also graves: Identified graves comprised of rather disturbed stone piles, with, in the case of both G1 and G2, only a single grave present at the localities, but more extensive cemeteries can be expected towards the east of the site. The G3 grave, situated in direct association with remains of what must have been a fairly large field / enclosure (based on stone monolithic corner stones) is prominent, built high up and seems to be maintained (Recorded cemetery/grave localities are summarized as G1 – S31°40'26.2"; E27°23'51.9"; G2 – S31°40'27.7"; E27°23'52.2" and G3 – S31°40'32.6"; E27°23'53.4").

Underlying the Iron Age remains at the site is a Stone Age member, overlain by topsoil with very few artefacts visible in undisturbed surface areas. Stone Age lithic artefacts were found eroded in disturbed erosion dongas at the borrow pit area and also in disturbance caused by Iron Age occupation. Based on the members sub-surface context it is impossible to determine basic site extend or attempt an artefact ratio (artefacts: m²) recording in order to describe basic densities of artefacts. Typologically and technologically the member is ascribed to the Middle Stone Age (MSA) typified by its flake and blade technology with artefacts being fairly large, implying an early to middle MSA industry.

RECOMMENDATIONS: Iron Age remains, including both recorded features and graves are ascribed a SAHRA *Medium Significance* and a *Generally Protected B Field Rating*. Development has already impacted on the general site area, but not on individual features, the majority of which are situated to the east of the existing borrow pit. In the case of borrow pit 08602_BP01 formalization of the borrow pit, implying a fence and controlled access, will aid in ensuring the conservation of features, rather than continued informal use thereof.

Stone Age material at the site is ascribed a SAHRA *Medium Significance* and *Generally Protected B Field Rating*. Current impact has already affected the Stone Age resources at the site and continued use imply further direct impact thereon. It is recommended that test pit excavations be done before development proceeds to collect a sample of the material and determine depth of deposit. Excavations should be done under a SAHRA Excavation permit.

1. The site should be permanently sign posted (It is recommended that the sign be placed to the east of the borrow pit);
2. Test excavations to collect a sample of the Stone Age material that will be impacted on should be done before development commences. Test excavations should be done under a SAHRA Excavation Permit after which destruction of the remainder of the Stone Age material can proceed under a SAHRA Site Destruction Permit.



Figure 25: General view of the 08602_BP01 borrow pit



Figure 26: Remains of a circular stock enclosure with evidence of a grain pit towards the east



Figure 27: Remains of a hut – Stone Age artefacts were often identified in disturbed Iron Age areas



Figure 28: Lithic artefacts visible in hut wall mound remains



View of the G2 grave site area



Figure 29: The G3 grave



Figure 30: Remains of a hut with the 08602_BP01 study site in the background



Figure 31: View of the F8 feature



Figure 32: A selection of Stone Age artefacts from the general borrow pit area

2.4.2.8) 08602_BP02 – S31°41'59.3"; E27°24'46.6"



Figure 33: Borrow pit 08602_BP02

Current quarrying impact at the borrow pit 08602_BP02 study site has impacted on and in cases largely destroyed a number of Iron Age features. Related features were recorded to the north-east of the study site. Associated site features however continue further south, south-west (to as far as the 08602_BP04 study site) and west, across the access road to the banks of the Ndonga River. The rich Iron Age cultural landscape at the study site is directly associated with the Ndonga Ethiopian Mission Church site (dated roughly to the mid 1800's), known to be situated in the area between the 08602_BP02 and the 08602_BP04 borrow pit sites, across the road and closer to the banks of the Ndonga River. Attempts to locate the actual Mission Church site was abandoned; the assessment was done at the time of the Umkwetha Initiation Ceremony and bands of young boys/men were active across the landscape with a number of Umkwetha huts situated more specifically in the area west of the access road and intersecting archaeological Iron Age features; emphasizing the contemporary cultural significance of the Iron Age cultural landscape. In addition borrowing activities at the study site has already impacted on the Stone Age member underlying the Iron Age site. Continued use of the site will result in further impact on Stone Age resources.

❖ **SITE 08602_BP02.1 – CEMETERY/GRAVE SITE, IRON AGE, STONE AGE – S31°41'53.7"; E27°24'52.4"**

Iron Age remains are already impacted on by existing borrowing quarrying impact. The localities of Iron Age impacted features situated within the footprint of the existing borrow pit is summarized as: I1 – S31°42'01.0"; E27°24'46.2", I2 – S31°41'58.9"; E27°24'47.9"; I3 – S31°42'02.8"; E27°24'45.9"; I4 – S31°42'02.9"; E27°24'45.5", I5 – S31°42'02.8"; E27°24'44.6", I6 - 31°42'03.2"; E27°24'44.7" and I7 – S31°42'03.6"; E27°24'44.9". Impacted features comprise primarily of stock enclosure remains, but circular, but with the majority of them being rectangular in shape and impacted on to varying degrees. Stock enclosure features are in general of medium size implying average diameters of approximately 4-5m. Impacted feature F6 represents a hut locality, characterized by circular mound foundations while I3 needs to be mentioned. The feature represents the remains of a rectangular stock enclosure but with a grave adjoined immediately thereto. Damage to the I1 and I2 features are most prominent; features identified to the south of the area of impact seems to have been 'conserved' by users of the borrow pit, and impact surrounds, rather than affects these features directly. In a similar manner the F3 grave is well conserved despite impact in the immediate vicinity.

To the north of the existing borrow pit the rich density of Iron Age features continues, Iron Age features are inferred to all be associated with the rough Ndonga Ethiopian Mission Church period of activity in the area, but continued use of the landscape specifically for burial testifies to the significance thereof for the contemporary population. Cemetery or grave sites intersecting the Iron Age features on the landscape is summarized as: G1 – S31°41'57.1"; E27°24'51.7"; the cemetery comprises of approximately 16 graves of both modern and traditional style with a portion of the site fenced off. G2 – S31°41'49.9"; E27°24'50.7"; the cemetery area includes about 33 graves, the majority of which are traditional style graves but including a few modern graves. G3 – S31°41'51.3"; E27°24'49.7" comprises of 6 graves, 4 of which are situated in a straight line with 2 situated slightly south of the line of graves. G4 – S31°41'53.4"; E27°24'48.8" is represented by a small burial area containing 3 graves located immediately adjacent to a stock enclosure. G5 – S31°41'55.3"; E27°24'48.0" comprises of an easily identifiable grave, 2 mounds in proximity thereto may however represent associated graves. It is important to note that the general area is still used and grave site localities or numbers of graves at cemeteries may well increase as a result of contemporary use of the general Iron Age cultural landscape.

The area just north of the borrow pit study site is also particularly rich in Iron Age feature remains, again primarily being stock enclosures. Stock enclosures are of both circular and rectangular shape, but with circular shaped enclosures dominating, the general area may well reflect a slightly older age than other parts of the landscape where rectangular stock enclosures are more prominent. In addition to stock enclosures a small number of features represent huts or residential areas, being far outnumbered by stock enclosure remains it is inferred that the actual village was situated elsewhere and that hut localities identified amidst the stock enclosures represent simply accommodation units for stock keepers. The localities of identified Iron Age features are briefly described as F1 – S31°41'54.7"; E27°24'52.7", F2 - S31°41'54.6"; E27°24'51.9", F3 – S31°41'53.7"; E27°24'52.4", F4 – S31°41'51.0"; E27°24'53.5", F5 – S31°41'50.3"; E27°24'54.1", F6 – S31°41'52.9"; E27°24'49.6", F7 – S31°41' 54.3"; E27°24'48.0" and F8 – S31°41'54.2"; E27°24'48.8". Of the identified features the F3 features needs further discussion (site co-ordinate), the feature comprises of a rough oval / rectangular shaped stock enclosure measuring in length more than 70m and adjoined in the west by further (F6) stock enclosure remains. The F5, F6 and F7 circular stock enclosures all measure about 20m in diameter – witness to the high number of livestock that must have been kept at the site. No associated artefacts were found – artefact are however inferred to be present, sub-surfacely, and covered by overburden and vegetation.

Iron Age remains are evidently underlain by a Stone Age member, most visible in the area of current borrowing impact but continuing across the general Iron Age area, but essentially confined to its sub-surface context and in that not possible to at present comment on site extend or actual artefact densities. Typologically and technologically the lithics are ascribed to the Middle Stone Age (MSA) typified by its flake and blade technology with the size of artefact as a rough indicator towards a possible middle MSA industry.

RECOMMENDATIONS: It is not recommended that development at the site continues as applied for.

Iron Age remains, including both recorded features and graves are ascribed a SAHRA *High Significance* and a *Generally Protected A Field Rating*. Iron Age features recorded in the vicinity of the 08602_BP02 study site form an integrated part of the Ndonga Ethiopian Mission Church Iron Age cultural landscape and further impact on this prominent component of the cultural landscape is not recommended. Should development however have to proceed, then it should be preceded by extensive recording of the Ndonga Ethiopian Mission Church cultural landscape and excavation of all features already impacted on as well as signatory features that will not be impacted to further our understanding of the complexities of the site. All excavations should be done under a SAHRA Excavation Permit.

Stone Age material at the site is ascribed a SAHRA *Medium Significance* and *Generally Protected B Field Rating*. Current impact has already affected the Stone Age resources at the site and continued use imply further direct impact thereon. It is recommended that test pit excavations be done before development proceeds to collect a sample of the material and determine depth of deposit. Excavations should be done under a SAHRA Excavation Permit.

1. The site should be permanently sign posted (It is recommended that the sign be placed to the F3 stock enclosure feature);



Figure 34: General view of 08602_BP02



Figure 35: A selection of lithic artefacts from the borrow pit study site



Figure 36: General view of the area surrounding the 08602_BP02 study site, with its many Iron Age stone features and an Umkwtha hut situated amidst features



Figure 37: View of the I2 feature situated within the already impacted area



Figure 38: The grave of the I3 feature situated within the already impacted area



Figure 39: Stone outlines of a grain storage pit



Figure 40: Stone wall remains of the large rectangular F3 feature



Figure 41: View of a portion of the G2 cemetery site



Figure 42: View of the line of graves characterizing the G3 cemetery / graves area



Figure 43: View of the G1 cemetery



Figure 44: General view of the F5 feature

2.4.2.9) 08602_BP04 – S31°42'42.4"; E27°23'49.4"



Figure 45: Borrow pit 08602_BP04

A number of Iron Age features are situated specifically west of the proposed borrow pit study site with a single identified resource located to the east thereof. More Iron Age remains are present, but not recorded for purposes of this report, situated west of the borrow pit study site, at distances of 250+m thereof, but all together, still comprising part of the greater Ndonga Ethiopian Mission Church Iron Age cultural landscape, with a number of prominent features also situated north of the access road towards the Ndonga River Valley. Current impact at the borrow pit study site and continued further use of the site can be managed with reference to the conservation of Iron Age features. Stone Age resources recorded at Site 08602_BP02.1 tapered out noticeably towards the borrow pit 08602_BP04 site. With only a handful encountered at the site and immediate surrounds.

❖ **SITE 08602_BP04.1 – CEMETERY/GRAVE SITE, IRON AGE – S31°42'41.6"; E27°23'53.2"**

A number of Iron Age features were recorded in proximity to the Phase 1 AIA assessment area for the 08602_BP04 study site, none situated closer that 20m from the development area, with localities summarized as F1 – S31°42'44.9"; E27°23'45.2", F2 – S31°42'44.5"; E27°23'45.2", F3 - S31°42'45.4; E27°23'44.4", F4 – S31°42'45.8": E27°23'42.5", F5 – S31°42'42.4"; E27°23'44.2", F6 – S31°42'44.3"; E27°23'53.8" and F7 – S31°42'45.2"; E27°23'53.3". Recorded feature localities represent both stock enclosure and hut remains: Stock enclosure remains vary between (F1 & F6) double circular stock enclosure remains with approximate 5-8m diameters to circular enclosure remains identified only by a change in vegetation cover (F3 and F5) with diameters of between 6-8m. Former residential or hut localities are identified by circular mound outlines. Intersecting the Iron Age 'kraal' or village features are a number of cemeteries or grave site areas including G1 – S31°42'45.0"; E27°23'43.6", an area where approximately 6 traditional style graves were found and G2 – S31°42'46.2"; E27°23'41.9", where the degraded remains of a single graves was discovered in direct association with a rectangular stock enclosure. To the east of the study site is a single burial place, situated approximately 20m from the area of impact: This burial place (G3 – S31°42'41.6"; E27°23'53.2" – Site co-ordinate) comprises of 2 traditional graves demarcated only by stone headstones.

A particular low density of Stone Age artefacts were found across the assessment area, with only a handful collected in totally, testifying to the radical decrease in Stone Age heritage sensitivity from the 08602_BP02 study

site, situated only about 2km north east of the 08602_BP02 study site. Identified lithics are all ascribed to the MSA and comprising all of flakes. No definite Stone Age member was identified within the exposed stratigraphic section, not expected considering the particular low density of Stone Age artefacts at the general area, including the 08602_BP04 area and immediate surrounds.

RECOMMENDATIONS: Iron Age remains, including both recorded features and graves are ascribed a SAHRA *High Significance* and a *Generally Protected A Field Rating*. Again the Iron Age features recorded form part of the Ndonga Ethiopian Mission Church Iron Age cultural landscape. None of the features have been impacted on to date and none will be impacted by continued use of the site, provided that the current approximate 20m conservation buffer between the borrow pit and the site features be maintained. Feature G3 being situated at the entrance area of the borrow pit and by implication more exposed to increasing impact should be formally conserved. The feature should be permanently fenced with an access gate. The site should be permanently sign posted.

Stone Age material at the site is of such a low density that a SAHRA site significance assignation is not relevant. It is recommended that destruction of Stone Age resources proceed without the developer having to apply for a SAHRA Site Destruction Permit.



Figure 46: General view of 08602_BP04



Figure 47: General view of the G1 feature



Figure 48: View of the F2 hut mound remains



Figure 49: General view of the Iron Age landscape west of the study site



Figure 50: Selected graves from the G1 feature



Figure 51: View of the G2 feature and immediate surrounds



Figure 52: The 2 graves comprised the F3 feature

2.4.2.10) 08599_BP01 – S31°38'21.4"; E27°24'32.6"



Figure 53: Borrow pit 08599_BP01

The general borrow pit 08599_BP01 area is typified by the widely dispersed stock enclosure features constituting the Iron Age Site 08599_BP01.1. The site is further described below. No Iron Age features are situated within the development footprint: Phase 1 AIA assessment yielded no archaeological or cultural heritage resources either on the surface or within exposed sub-surface sections of the immediate borrow pit 08599_BP01 study site.

❖ **SITE 08599_BP01.1 – IRON AGE – S31°38'20.8"; E27°24'21.1"**

Site 08599_BP01.1 is typified by the characteristic widely spread site features of many Later Iron Age sites across the Eastern Cape. Features in direct proximity to the borrow pit study site are briefly described: Features 1 and 2 (F1 – S31°38'26.1"; E27°24'30.5"; F2 – S31°38'24.5"; E27°24'33.3") comprises, in each case, of the stone foundation remains of a circular stock enclosure with an approximate diameter of 5m and a smaller rectangular adjoining calf camp to the one side. Feature 3 (F3 - S31°38'20.8"; E27°24'21.1": Site co-ordinate) constitutes a 'complex' of stock enclosure remains situated along the slope of the hill down to the road and extending slightly east, west and south-westwards thereof. Stock enclosures are all rectangular in shape with an adjoining smaller calf camp. The stock enclosure highest up on the slope of the hill comprises of 2 stock camps (in the region of approximately 7x5m) with an adjoining calf camp, while all the other remains, the enclosure just down-slope, and the one slightly to the east thereof both comprise of only one stock enclosure with an adjoining calf camp. Slightly towards the west of F3 is a small enclosure, again demarcated only by rough foundation remains, more or less 2x2m in size. A number of circular stone outlines (fire pits / storage stands) all with diameters of approximately 80cm to 1m are present in the general area. Feature 4 (F4 – S31°38'25.0"; E27°24'15.1") demarcates the locality of the enclosure situated furthest south west; remains of an approximate 5x4m rectangular stock enclosure with walls still standing to approximately 30-40cm high. Further to the west of the recorded site features associated stone feature remains taper out towards the road and south towards the village where the distinction between abandoned or old and new stone enclosures becomes muddled.

The rectangular shape of stock enclosure features are the best indication of a site date, implying a date at least coinciding with Colonial settlement. A mixture of circular and rectangular enclosure remains are often found, in cases implying extended temporal use of a site. No residential remains were identified with the stock enclosure

ruins, implying that settlement may well have been a slight distance away – most probably in the area of contemporary settlement, which may in itself indicate a relatively recent date.

None of the Iron Age features recorded as forming part of Site 08599_BP01.1 are directly threatened or will be impacted on by the proposed development; Features 1 and 2 (F1 & F2) being the most sensitive, and situated between 10-30m from the recorded site assessment area. This approximate 10-30m 'conservation barrier' between the site features and the borrow pit fence should be maintained. Alternatively the features, both stock enclosures, should be destroyed under a SAHRA Site Destruction Permit (Phase 2 mitigation of the stock enclosures are not recommended, based on the limited potential research data that such excavations can possibly yield). In addition the site should be permanently sign posted.

RECOMMENDATIONS: Site 08599_BP01.1 is ascribed a SAHRA *Low Significance* and a *Generally Protected C Field Rating*. The features comprising the site will primarily be conserved, aside from possible impact on Feature 2 (F2, stone foundation remains of a stock enclosure). It is recommended that use of borrow pit 08599_BP01 proceeds as applied for provided the developer complies with the following requirements:

3. The site should be permanently sign posted (It is recommended that the sign be placed in the vicinity of the most prominent site feature being the F2 'complex' of remains);
4. Should Features 1 and 2 (F1 & F2) fall within the final borrow pit fence the features should be destroyed under a SAHRA Site Destruction Permit.



Figure 54: View of a portion of the 08599_BP01 borrow pit study site



Figure 55: View of the F1 feature



Figure 56: The main 'kraal' complex at the F3 feature



Figure 57: 'Kraal' remains at the F3 feature locality



Figure 58: Further feature remains at the F3 locality



Figure 59: A stone circle at the F3 locality



Figure 60: General view of the area west of the hill with the F4 feature in the background

2.4.2.11) 08599_BP02 – S31°40'19.8"; E27°22'48.0"



Figure 61: Borrow pit 08599_BP02

The borrow pit 08599_BP01 study site is characterized by low densities of Middle Stone Age (MSA) material, with particular low densities identified on the surface, but with more artefact present in slightly scraped areas. This Stone Age feature is further described as Site 08599_BP02.1.

❖ **SITE 08599_BP02.1 – STONE AGE – S31°40'19.8"; E27°22'48.0"**

The general surface area around borrow pit 08599_BP02 yielded a few Stone Age artefacts, but in general with densities too low to ascribed an artefact ratio (artefacts: m²) thereto. However, closer to current quarrying impact and identified in slightly scraped surfaces of the gravel access road and at intervals across the existing area of impact lense-like features or 'collections' of artefacts were present. These surface 'collections' were usually found in fairly small areas, approximating 3x3m areas, where varying artefact ratios of 8-15:1 was recorded. All 'collections' comprised of Middle Stone Age (MSA) artefacts, typified by the flake and blade technology used. Based on the size of the artefacts it is inferred that the collection may rather date to earlier or middle MSA times. Very low densities of artefacts were still present between these clustered 'collections' – giving the impression of clear activity (perhaps knapping) areas, whilst general use of the site, basic post depositional processes and the site's prolonged exposure to the elements have resulted in a fair degree of surface disturbance. No anthropic member was identified in the large exposed sub-surface sections of the borrow pit; lense-like features with stratigraphic depth are not expected.

Impact at the borrow pit is inferred to have already taken its toll on Stone Age deposits and continued use of the area will further impact thereon.

RECOMMENDATIONS: Site 08599_BP02.1 is ascribed a SAHRA *Low Significance* and a *Generally Protected C Field Rating*. It is recommended that a systematic surface sample be taken before development continues at the site (alternatively the site will have to be conserved in its entirety).

1. Systematic surface sample of the MSA lithic features to be taken before development continues. The sample has to be taken under a SAHRA Collections Permit.



Figure 62: General view of the large08599_BP02 study site



Figure 63: Close-up of some in situ Stone Age artefacts



Figure 64: Selected artefacts from Site 08599_BP01.1

2.4.3) O.R. Tambo District Municipality

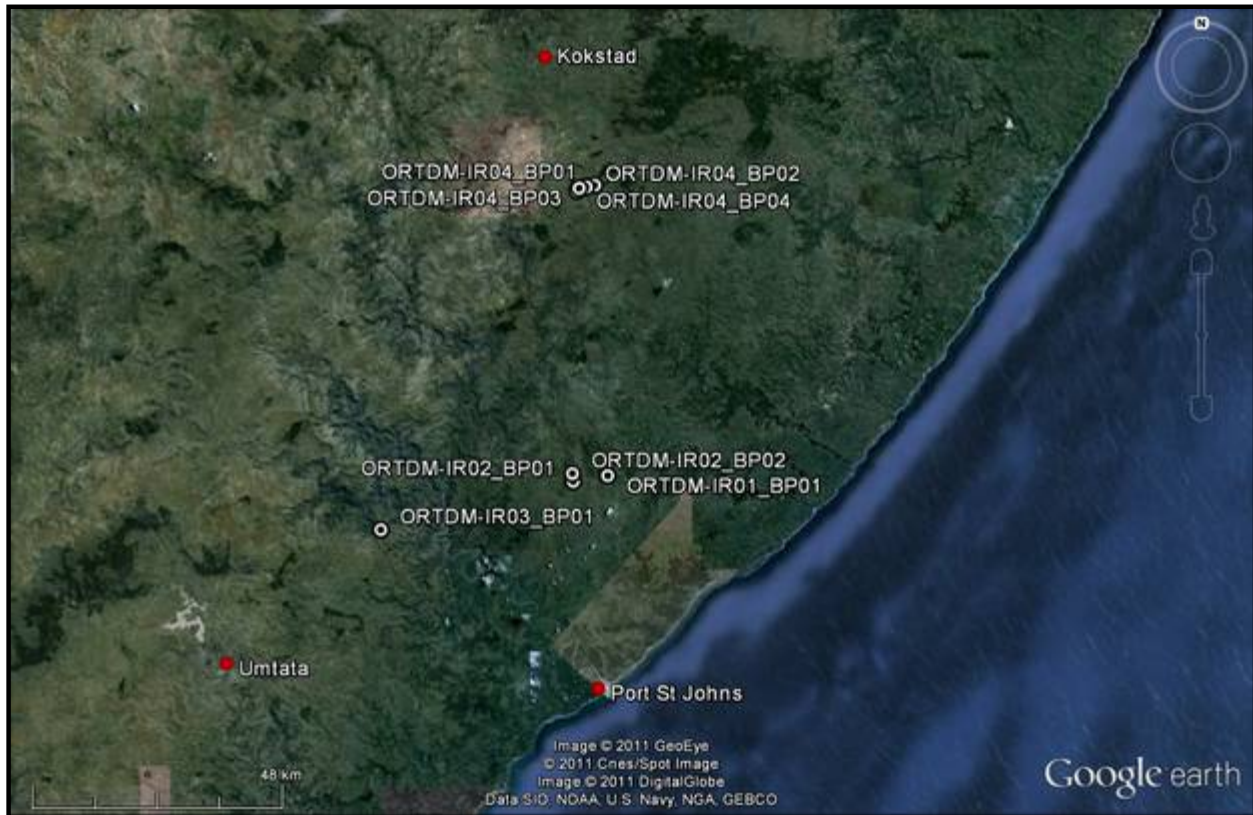


Figure 65: Proposed borrow pits in the O.R. Tambo District Municipality area

Eight borrow pits are proposed as part of the development situated within the O.R. Tambo District Municipal area, including ORTDM-IR01_BP01, ORTDM-IR02_BP01, ORTDM-IR02_BP02, ORTDM-IR03_BP01, ORTDM-IR04_BP01, ORTDM-IR04_BP02, ORTDM-IR04_BP03 and ORTDM-IR04_BP04.

Phase 1 AIA assessment focused on approximate 1-1.5ha areas immediately surrounding the borrow pits.

SUMMARY OF PHASE 1 AIA FINDINGS – BORROW PITS IN THE O.R. TAMBO DISTRICT MUNICIPAL AREA:

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified during Phase 1 AIA assessment of the borrow pits proposed for development within the O.R. Tambo District Municipal area.

2.4.3.1) ORTDM-IR01_BP01 – S31°15'48.6"; E29°33'20.6"



Figure 66: Borrow pit ORTDM-IR01_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR01_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR01_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 67: General view of the ORTDM-IR01_BP01 study site

2.4.3.2) ORTDM-IR02_BP01 – S31°16'25.3"; E29°29'13.4"



Figure 68: Borrow pit ORTDM-IR02_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR02_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR02_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 69: General view of a portion of borrow pit ORTDM-IR02_BP01

2.4.3.3) ORTDM-IR02_BP02 – S31°15'37.2"; E29°29'07.1"

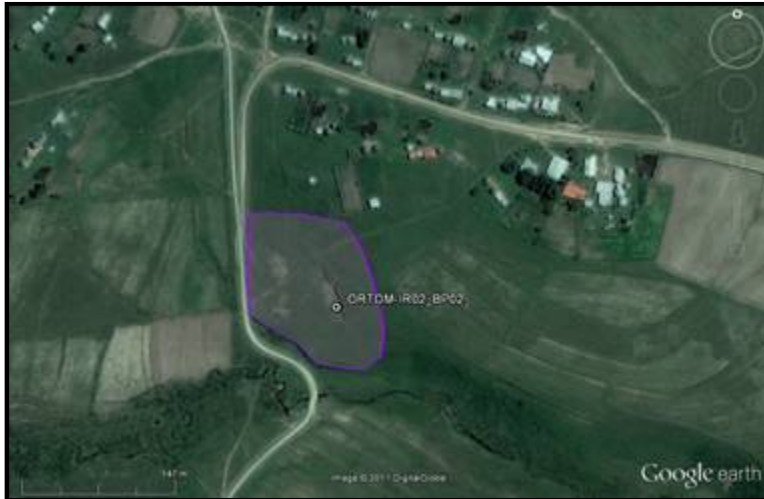


Figure 70: Borrow pit ORTDM-IR02_BP02

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR02_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR02_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 71: Current impact at the ORTDM-IR02_BP02 locale

2.4.3.4) ORTDM-IR03_BP01 – S31°21'24.3"; E29°06'08.5"



Figure 72: Borrow pit ORTDM-IR03_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR03_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR03_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.

[No photographic documentation.]

2.4.3.5) ORTDM-IR04_BP01 – S30°46'12.7"; E29°31'38.7"



Figure 73: Borrow pit ORTDM-IR04_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR04_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR04_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 74: View from the ORTDM-IR04_BP01 study site onto the adjacent road with visible sections as road cuttings

2.4.3.6) ORTDM-IR04_BP02 – S30°46'23.3"; E29°30'38.7"



Figure 75: Borrow pit ORTDM-IR04_BP02

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR04_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR04_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 76: Exposed anthropic sterile sections at ORTDM-IR04_BP02

2.4.3.7) ORTDM-IR04_BP03 – S30°46’32.1”; E29°29’41.3”



Figure 77: Borrow pit ORTDM-IR04_BP03

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR04_BP03.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR04_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 78: General view of the ORTDM-IR04_BP03 study site (exposed sections visible in road cuttings only)

2.4.3.8) ORTDM-IR04_BP04 – S30°46'48.0"; E29°29'34.4"



Figure 79: Borrow pit ORTDM-IR04_BP04

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ORTDM-IR04_BP04.

RECOMMENDATIONS: It is recommended that use of borrow pit ORTDM-IR04_BP04 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 80: Existing large scale impact at the ORTDM-IR04_BP04 study site

2.4.4) Alfred Nzo District Municipality

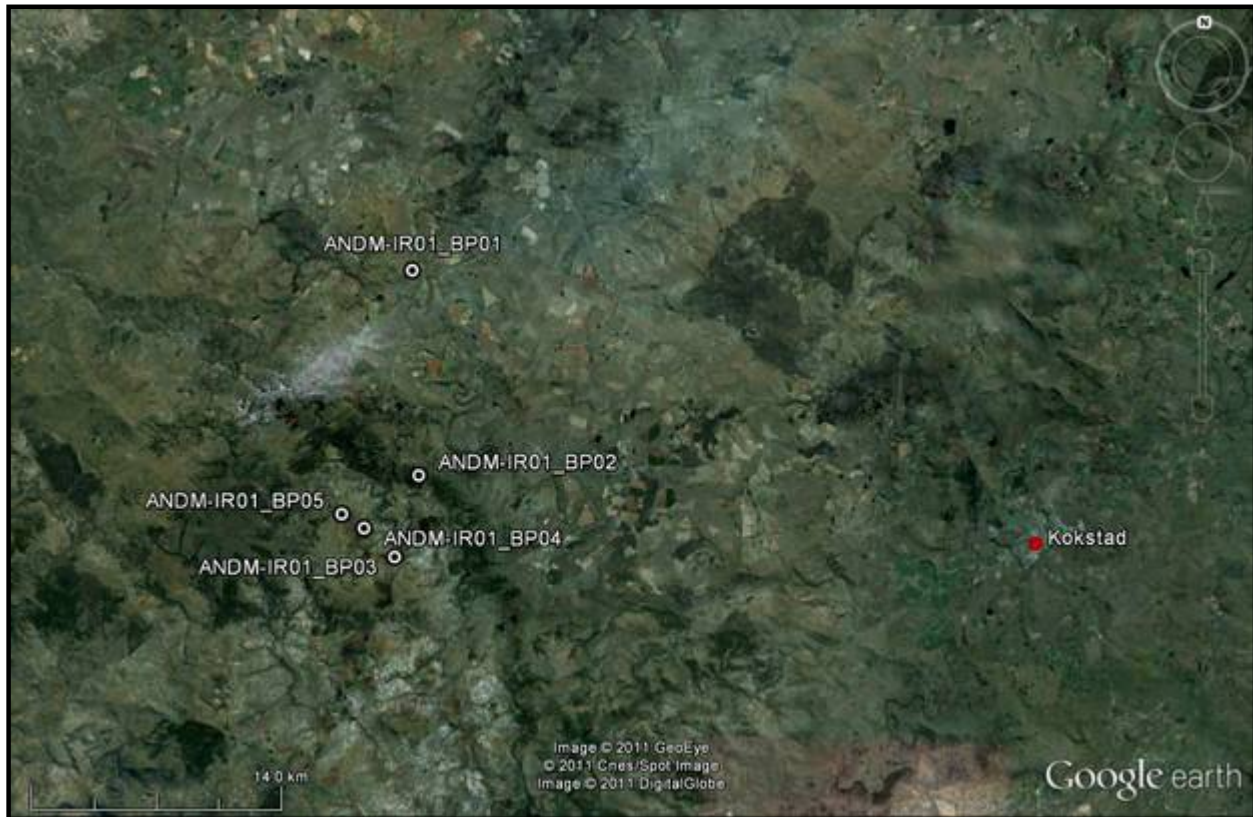


Figure 81: Proposed borrow pits in the Alfred Nzo District Municipal area

Five borrow pits are proposed as part of the development situated within the Alfred Nzo District Municipal area, including ANDM-IR01_BP01, ANDM-IR01_BP02, ANDM-IR01_BP03, ANDM-IR01_BP04 and ANDM-IR01_BP05.

Phase 1 AIA assessment focused on approximate 1-1.5ha areas immediately surrounding the borrow pits.

SUMMARY OF PHASE 1 AIA FINDINGS – BORROW PITS IN THE ALFRED NZO DISTRICT MUNICIPAL AREA:

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified during Phase 1 AIA assessment of the borrow pits proposed for development within the Alfred Nzo District Municipal area.

2.4.4.1) ANDM-IR01_BP01 – S30°25'54.9"; E29°03'30.8"

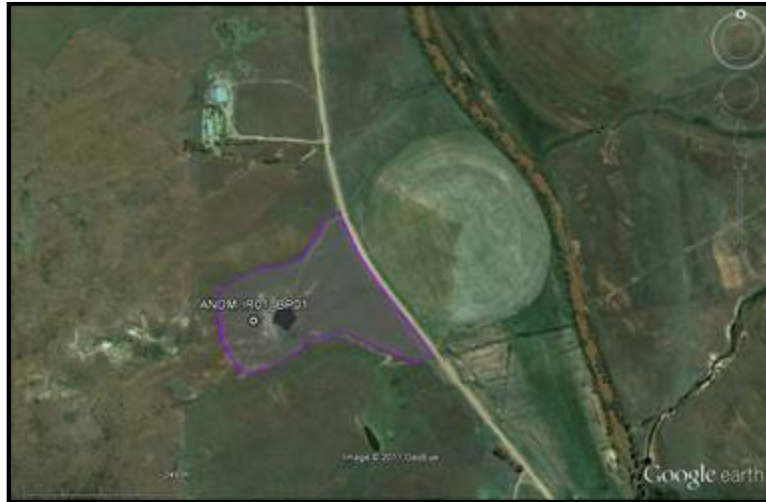


Figure 82: Borrow pit ANDM-IR01_BP01

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ANDM-IR01_BP01.

RECOMMENDATIONS: It is recommended that use of borrow pit ANDM-IR01_BP01 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 83: View of a portion of the ANDM-IR01_BP01 study site

2.4.4.2) ANDM-IR01_BP02 – S30°32'00.8"; E29°04'03.3"



Figure 84: Borrow pit ANDM-IR01_BP02

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ANDM-IR01_BP02.

RECOMMENDATIONS: It is recommended that use of borrow pit ANDM-IR01_BP02 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 85: General view of the ANDM-IR01_BP02 study site

2.4.4.3) ANDM-IR01_BP03 – S30°34'28.5"; E29°03'20.8"



Figure 86: Borrow pit ANDM-IR01_BP03

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ANDM-IR01_BP03.

RECOMMENDATIONS: It is recommended that use of borrow pit ANDM-IR01_BP03 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 87: Some current disturbance at the ANDM-IR01_BP03 study site

2.4.4.4) ANDM-IR01_BP04 – S30°33'39.6"; E29°02'14.2"



Figure 88: Borrow pit ANDM-IR01_BP04

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ANDM-IR01_BP04.

RECOMMENDATIONS: It is recommended that use of borrow pit ANDM-IR01_BP04 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 89: View of a portion of the ANDM-IR01_BP04 study site

2.4.4.5) ANDM-IR01_BP05 – S30°33'16.0"; E29°01'26.5"



Figure 90: Borrow pit ANDM-IR01_BP05

No archaeological or cultural heritage resources, as defined and protected under the NHRA 1999, were identified on the surface or within exposed sub-surface sections during the Phase 1 AIA assessment of borrow pit ANDM-IR01_BP05.

RECOMMENDATIONS: It is recommended that use of borrow pit ANDM-IR01_BP05 proceeds as applied for without the developer having to comply with additional heritage compliance requirements.



Figure 91: General view of the borrow pit ANDM-IR01_BP05 study site

3) CONCLUSION AND RECOMMENDATIONS

With reference to cultural heritage compliance as per the requirements of the NHRA 1999 it is recommended that the proposed project, the *Cacadu District and Inaccessible Roads Project*, proceeds as applied for provided the developer complies with recommendations pertaining to identified archaeological and cultural heritage resources:

1. Assessment of borrow pit 08602_BP01 yielded both Iron and Stone Age remains, with Iron Age remains situated in immediate proximity to the development area, but allowing conservation of site features. Stone Age remains have already and will be impacted on directly by development.
 2. Study site 08602_BP02 is situated amidst a rich and extensive Iron Age site with associated contemporary significance. A number of features were recorded, but assessment was limited by the Umkwetha initiation ceremony. Iron Age remains recorded at the study site continues wide across the landscape, across the road and up to 08602_BP04, forming an intriguing and rich cultural landscape. Some Iron Age features have already been impacted on by development. In addition Iron Age remains in the area are underlain by Stone Age remnants. Stone Age remains will also be directly impacted on by further development. Continued use of this site is not recommended. Should the developer wish to proceed with development of the site, development will have to be preceded by extensive recording and both Iron and Stone Age mitigation.
 3. The Iron Age cultural landscape of 08602_BP02 continues to 08602_BP04. However, here Iron Age site features can be conserved. The underlying Stone Age member is much less significant than at 08602_BP02.
 4. Assessment of 08599_BP01 again yielded an intersecting Iron Age site. Again, based on proximity to the development area, site features can be conserved.
 5. At 08599_BP02 lensed Stone Age 'collections' would need to be sampled before development proceeds.
- ❖ **Sign Posting:** Sign posting is not at present defined by SAHRA and the following can be used as guideline: Signs should indicate that the sites are formally protected under the NHRA 1999 and that any damage thereto or impact thereon is prohibited by law. In addition the sites should indicate a reference for purposes of future identification. Sign boards can be in the region of approximately 60-70cm x 40cm in size which will provide for a reasonable size sign with clear legible lettering. Sign boards are usually done by professional sign writers (durability) on a metal board and fixed to a treated wooden or metal pole. Sign boards can be in a basic color (black / white/ green / blue) with any font type (lettering in black / white). It is recommended that sign posts be done in English / Xhosa.

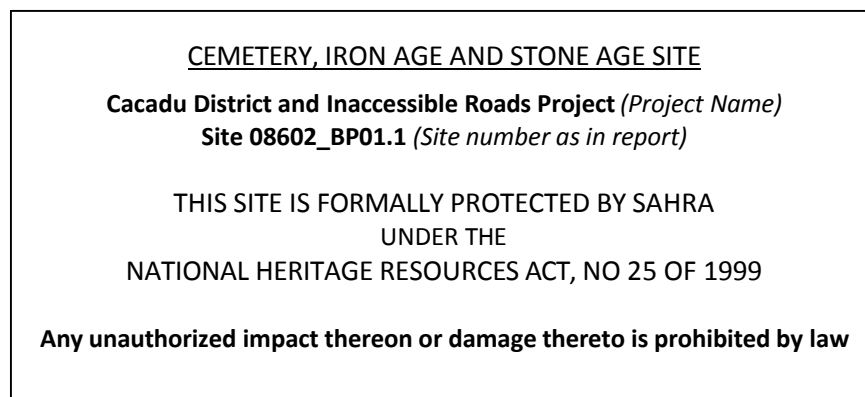


Figure 92: Recommended heritage sign posting

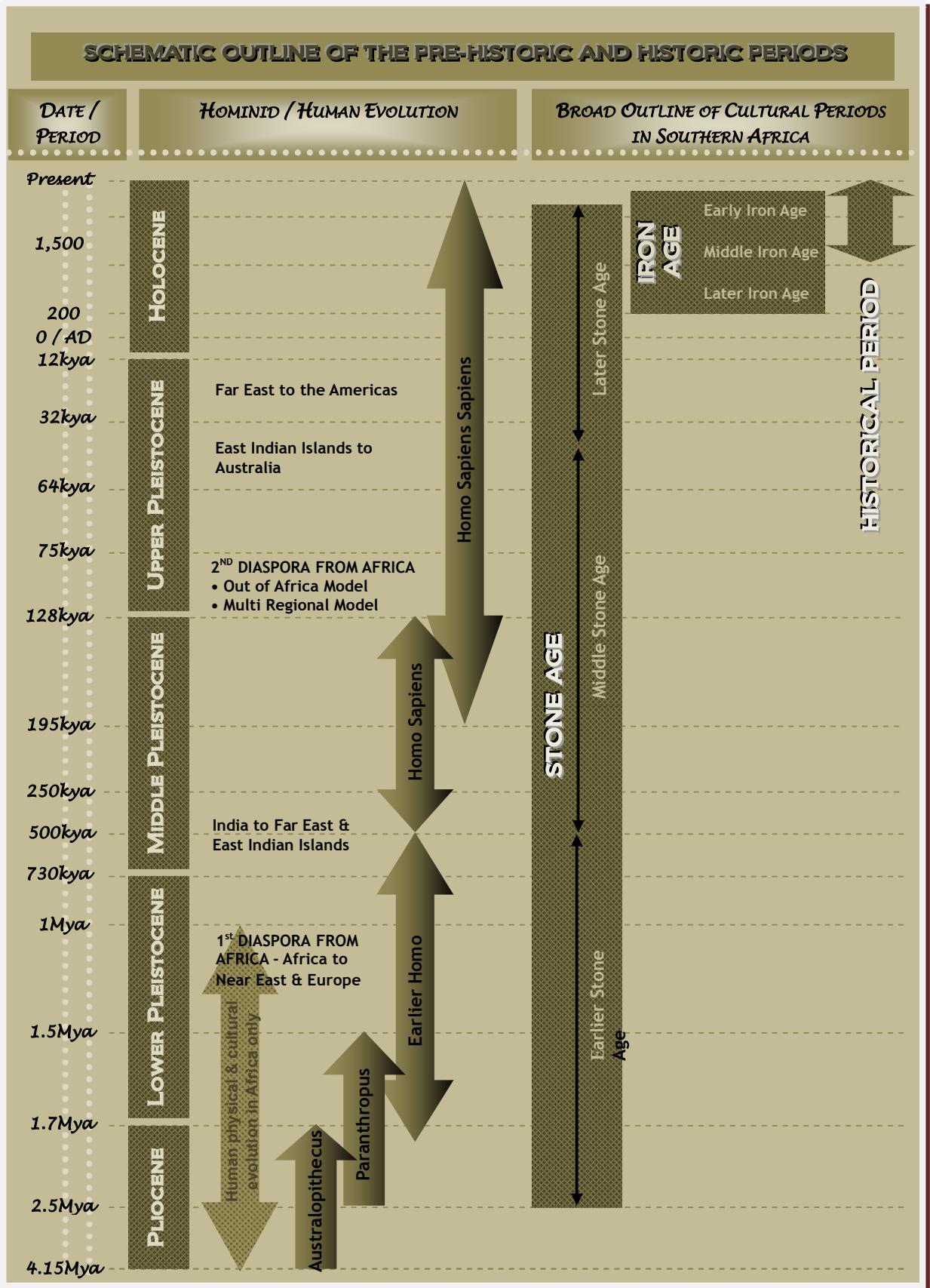
CACADU DISTRICT AND INACCESSIBLE ROADS PROJECT					
EASTERN CAPE					
MAP CODE	SITE	TYPE / PERIOD	DESCRIPTION	CO-ORDINATES	PRELIMINARY RECOMMENDATIONS
Cacadu District Municipality					
DR01776_BP01	-	-	-	S34°04'21.4"; E24°20'39.2"	N/A
1763_BP01	-	-	-	S34°06'09.5"; E24°43'10.0"	N/A
1763_BP02	-	-	-	S34°07'50.2"; E24°42'48.0"	N/A
397_BP01	-	-	-	S33°51'56.8"; E24°45'01.0"	N/A
Chris Hani District Municipality					
07357_BP01	-	-	-	S32°19'34.0"; E26°39'17.2"	N/A
07460_BP02	-	-	-	S32°04'30.9"; E26°35'04.0"	N/A
R344-CHDM-IR01_BP01	-	-	-	S32°18'24.1"; E26°18'09.7"	N/A
R344-CHDM-IR01_BP02	-	-	-	S32°18'46.9"; E26°19'28.0"	N/A
R344-CHDM-IR01_BP03	-	-	-	S32°19'31.7"; E26°19'54.4"	N/A
08600_BP01	-	-	-	S31°44'07.9"; E27°20'28.7"	N/A
08602_BP01	-	-	-	S31°40'28.3"; E27°23'46.2"	See Site 08602_BP01.1
Site 08602_BP01.1	Cemetery/grave Iron Age & Stone Age	Iron Age Village; MSA		S31°40'27.4"; E27°23'50.1"	Cemetery/grave & Iron Age – In situ conservation (conservation as is) Stone Age – Test excavations under SAHRA Excavation Permit
08602_BP02	-	-	-	S31°41'59.3"; E27°24'46.6"	See Site 08602_BP02.1
Site 08602_BP02.1	Cemetery/grave Iron Age & Stone Age	Contemporary significance; Iron Age stock enclosure complex; MSA		S31°41'53.7"; E27°24'52.4"	Ndonga Ethiopian Mission Church Iron Age cultural landscape – Development not recommended Permanent sign posting
08602_BP04	-	-	-	S31°42'42.4"; E27°23'49.4"	See Site 08602_BP04
Site 08602_BP04	Cemetery/grave Iron Age & Stone Age	Contemporary significance; Iron Age stock enclosure complex; MSA			Ndonga Ethiopian Mission Church Iron Age cultural landscape – permanent sign posting, formal conservation of F3
08599_BP01	-	-	-	S31°38'21.4"; E27°24'32.6"	See Site 08599_BP01.1
Site 08599_BP01.1	Iron Age	Stock enclosures		S31°38'20.8"; E27°24'21.1"	In situ conservation (conservation as is) Permanent sign posting F1 & F2 – destruction under SAHRA Site Destruction Permit if necessary
08599_BP02	-	-	-	S31°40'19.8"; E27°22'48.0"	See Site 08599_BP02.1
Site 08599_BP02.1	Stone Age	MSA		S31°40'19.8"; E27°22'48.0"	Surface collection under SAHRA Collections Permit
O.R. Tambo District Municipality					
ORTDM-IR01_BP01	-	-	-	S31°15'48.6"; E29°33'20.6"	N/A
ORTDM-IR02_BP01	-	-	-	S31°16'25.3"; E29°29'13.4"	N/A
ORTDM-IR02_BP02	-	-	-	S31°15'37.2"; E29°29'07.1"	N/A
ORTDM-IR03_BP01	-	-	-	S31°21'24.3"; E29°06'08.5"	N/A
ORTDM-IR04_BP01	-	-	-	S30°46'12.7"; E29°31'38.7"	N/A
ORTDM-IR04_BP02	-	-	-	S30°46'23.3"; E29°30'38.7"	N/A
ORTDM-IR04_BP03	-	-	-	S30°46'32.1"; E29°29'41.3"	N/A
ORTDM-IR04_BP04	-	-	-	S30°46'48.0"; E29°29'34.4"	N/A
Alfred Nzo District Municipality					
ANDM-IR01_BP01	-	-	-	S30°25'54.9"; E29°03'30.8"	N/A
ANDM-IR01_BP02	-	-	-	S30°32'00.8"; E29°04'03.3"	N/A
ANDM-IR01_BP03	-	-	-	S30°34'28.5"; E29°03'20.8"	N/A
ANDM-IR01_BP04	-	-	-	S30°33'39.6"; E29°02'14.2"	N/A
ANDM-IR01_BP05	-	-	-	S30°33'16.0"; E29°01'26.5"	N/A

Table 2: Development and Phase 1 AIA assessment findings – co-ordinate details

NOTE: Should any archaeological or cultural heritage resources as defined and protected by the NHRA 1999 and not reported on in this report be identified during the course of development the developer should immediately cease operation in the vicinity of the find and report the site to SAHRA / an ASAPA accredited CRM archaeologist.

4) REFERENCES

1. South African Government. (No. 107) of 1998. *National Environmental Management Act*.
2. South African Government. (No. 28) of 2002. *Minerals and Petroleum Resources Development Act*.
3. South African Government. (No. 62) of 2008. *National Environmental Management Second Amendment Act*.
4. South African Government. (No. 25) of 1999. *National Heritage Resources Act*.
5. South African Heritage Resources Agency. 2007. *SAHRA APM Guidelines. Minimum standards for the archaeological and heritage components of impact assessments (SG2.2)*. Unpublished guidelines.
6. Van Willigen, J. 1986. *Applied Anthropology: An Introduction*. New York: Bergin & Garvey.



EXTRACTS FROM THE NATIONAL HERITAGE RESOURCES ACT (No 25 of 1999)

DEFINITIONS

Section 2

In this Act, unless the context requires otherwise:

- ii. *"Archaeological"* means –
 - a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
 - b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10 m of such representation;
 - c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic,... and any cargo, debris, or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation.
- viii. *"Development"* means any physical intervention, excavation or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –
 - a) construction, alteration, demolition, removal or change of use of a place or structure at a place;
 - b) carrying out any works on or over or under a place;
 - c) subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
 - d) constructing or putting up for display signs or hoardings;
 - e) any change to the natural or existing condition or topography of land; and
 - f) any removal or destruction of trees, or removal of vegetation or topsoil;
- xiii. *"Grave"* means a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;
- xxi. *"Living heritage"* means the intangible aspects of inherited culture, and may include –
 - a) cultural tradition;
 - b) oral history;
 - c) performance;
 - d) ritual;
 - e) popular memory;
 - f) skills and techniques;
 - g) indigenous knowledge systems; and
 - h) the holistic approach to nature, society and social relationships.
- xxxi. *"Palaeontological"* means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trances;
- xli. *"Site"* means any area of land, including land covered by water, and including any structures or objects thereon;
- xliv. *"Structure"* means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith;

NATIONAL ESTATE

Section 3

- 1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- 2) Without limiting the generality of subsection 1), the national estate may 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 –
 - i. 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 –
 - i. 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).

STRUCTURES

Section 34

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

ARCHAEOLOGY, PALAEOLOGY AND METEORITES

Section 35

- 3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.
- 4) No person may, without a permit issued by the responsible heritage resources authority –
 - a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
 - c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
 - d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- 5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may –
 - a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
 - b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
 - c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph a) to apply for a permit as required in subsection 4); and
 - d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.
- 6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

BURIAL GROUNDS AND GRAVES

Section 36

- 3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority –
 - a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
 - b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
 - c) bring onto or use at a burial ground or grave referred to in paragraph a) or b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.
- 4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction of any burial ground or grave referred to in subsection 3a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.
- 5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection 3b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority –
 - a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
 - b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.
- 6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority –
 - a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
 - b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

HERITAGE RESOURCES MANAGEMENT

Section 38

- 1) Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorised as –
 - a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
 - b) the construction of a bridge or similar structure exceeding 50 m in length;
 - c) any development or other activity which will change the character of a site –
 - i. exceeding 5 000 m² in extent; or
 - ii. involving three or more existing erven or subdivisions thereof; or
 - iii. involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
 - iv. the costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - d) the rezoning of a site exceeding 10 000 m² in extent; or
 - e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
 must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- 2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection 1) –
 - a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - b) notify the person concerned that this section does not apply.
- 3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection 2a) ...
- 4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development decide –
 - a) whether or not the development may proceed;
 - b) any limitations or conditions to be applied to the development;
 - c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - e) whether the appointment of specialists is required as a condition of approval of the proposal.

APPOINTMENT AND POWERS OF HERITAGE INSPECTORS

Section 50

- 7) Subject to the provision of any other law, a heritage inspector or any other person authorised by a heritage resources authority in writing, may at all reasonable times enter upon any land or premises for the purpose of inspecting any heritage resource protected in terms of the provisions of this Act, or any other property in respect of which the heritage resources authority is exercising its functions and powers in terms of this Act, and may take photographs, make measurements and sketches and use any other means of recording information necessary for the purposes of this Act.
- 8) A heritage inspector may at any time inspect work being done under a permit issued in terms of this Act and may for that purpose at all reasonable times enter any place protected in terms of this Act.
- 9) Where a heritage inspector has reasonable grounds to suspect that an offence in terms of this Act has been, is being, or is about to be committed, the heritage inspector may with such assistance as he or she thinks necessary –
 - a) enter and search any place, premises, vehicle, vessel or craft, and for that purpose stop and detain any vehicle, vessel or craft, in or on which the heritage inspector believes, on reasonable grounds, there is evidence related to that offence;
 - b) confiscate and detain any heritage resource or evidence concerned with the commission of the offence pending any further order from the responsible heritage resources authority; and
 - c) take such action as is reasonably necessary to prevent the commission of an offence in terms of this Act.
- 10) A heritage inspector may, if there is reason to believe that any work is being done or any action is being taken in contravention of this Act or the conditions of a permit issued in terms of this Act, order the immediate cessation of such work or action pending any further order from the responsible heritage resources authority.