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PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

**MANZIMDAKA VILLAGES WATER RETICULATION SUPPLY  
SCHEME – BULK WATER SUPPLY BACKLOG:  
NGCOBO CLUSTER 6, EASTER CAPE, SOUTH AFRICA**

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**CONTENTS**

<b>1) TERMS OF REFERENCE.....</b>	<b>3</b>
1.1) <i>Development Location, Details &amp; Impact.....</i>	<i>3</i>
<b>2) THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT.....</b>	<b>6</b>
2.1) <i>Archaeological Legislative Compliance.....</i>	<i>6</i>
2.2) <i>Methodology &amp; Assessor Accreditation.....</i>	<i>6</i>
2.3) <i>Coverage and Gap Analysis.....</i>	<i>7</i>
2.4) <i>Phase 1 AIA Assessment findings.....</i>	<i>8</i>
2.4.1) SITE M1 – Cemetery - S31°28'01.1"; E28°06'54.4" .....	13
2.4.2) SITE M2 – Cemetery - S31°28'04.6"; E28°06'55.9" .....	14
2.4.3) SITE M3 – Cemetery - S31°26'40.7"; E28°06'36.0" .....	15
2.4.4) SITE M4 – Cemetery - S31°27'30.7"; E28°06'48.5" .....	16
2.4.5) SITE M5 – Cemetery & Stock Enclosure - S31°27'45.0"; E28°06'47.3" .....	17
2.4.6) SITE M6 – Cemetery & Contemporary Residence - S31°27'46.1"; E28°06'44.5" .....	18
2.4.7) SITE M7 – Cemetery & Contemporary Residence - S31°27'51.2"; E28°06'56.3" .....	19
2.4.8) SITE M8 – Iron Age Homestead - S31°28'14.0"; E28°06'49.1" .....	20
2.4.9) SITE M9 – Contemporary Stock Enclosure - S31°26'57.3"; E28°07'03.6" .....	22
2.4.10) SITE M10 – Iron Age Homestead - S31°29'31.1"; E28°08'02.3" .....	24
2.4.11) SITE M11 – Cemetery - S31°29'29.1"; E28°08'06.8" .....	26
2.4.12) SITE M12 – Cemetery - S31°29'35.4"; E28°08'09.0" .....	27
2.4.13) SITE M13 – Cemetery - S31°29'31.4"; E28°08'11.3" .....	28
2.4.14) SITE M14 – Cemetery - S31°29'26.7"; E28°08'11.7" .....	29
2.4.15) SITE M15 – Cemetery - S31°29'26.7"; E28°08'11.7" .....	30
2.4.16) SITE M16 – Cemetery - S31°29'20.3"; E28°08'20.6" .....	31
2.4.17) SITE M17 – Cemeteries - S31°29'16.6"; E28°08'17.4" .....	32
2.4.18) SITE M18 – Cemetery - S31°29'14.9"; E28°08'19.6" .....	34
2.4.19) SITE M19 – Cemeteries - S31°29'10.3"; E28°08'25.2" .....	35
2.4.20) SITE M20 – Cemetery - S31°29'07.2"; E28°08'03.5" .....	37
<b>3) CONCLUSION AND RECOMMENDATIONS.....</b>	<b>38</b>
3.1) <i>Background.....</i>	<i>38</i>
3.2) <i>Recommendations.....</i>	<i>39</i>
<b>4) REFERENCES CITED.....</b>	<b>44</b>

**APPENDIX A:**

*Schematic Outline of the Pre-Historic and Historic Periods*

**APPENDIX B:**

*Extracts from the National Heritage Resources Act (No 25 of 1999)*

## LIST OF FIGURES

Figure 1: General locality of Manzimdaka in relation to Ngcobo, Eastern Cape.....	4
Figure 2: Spatial distribution of villages comprising the Manzimdaka Administrative Area.....	5
Figure 3: Development co-ordinates of the proposed Manzimdaka Villages Water Supply Scheme .....	5
Figure 4: Phase 1 AIA assessment findings .....	8
Figure 5: View of a portion of the Manzimdaka-A study site .....	9
Figure 6: Channeled development impact corridors characterizing parts of the Manzimdaka-A portion of the study site .....	9
Figure 7: View of the northern part of Didwayo-A .....	9
Figure 8: View over the central part of Didwayo-A from SP21.....	10
Figure 9: Channeled development corridors in Didwayo-A – 1.....	10
Figure 10: Channeled development corridors in Didwayo-A – 2.....	10
Figure 11: Virgin development areas in the vicinity of SP27, SPR5, RC4 and R3.....	11
Figure 12: General view over Luxswesweni .....	11
Figure 13: View of the BPT3-MSR2-BPT2-RC7 line route.....	11
Figure 14: View of Sitholeni-C north from Didwayo-A .....	12
Figure 15: General view over Sitholeni-C north from Sitholeni-C south.....	12
Figure 16: General view over Sitholeni-C south .....	12
Figure 17: View of the M1 grave.....	13
Figure 18: View of the Site M2 cemetery.....	14
Figure 19: View of the contemporary Site M3 Ntseke cemetery.....	15
Figure 20: View of the M4 graves.....	16
Figure 21: View of the two M5 graves in the foreground with the remains of the stone stock enclosure at the back.....	17
Figure 22: The Site M6 grave with the recent homestead in the background.....	18
Figure 23: View of Site M7 .....	19
Figure 24: A possible stone covered grave at Site M7 .....	19
Figure 25: Wall remains at Site M8.....	20
Figure 26: General view of Site M8 .....	21
Figure 27: Hut mound remains at Site M8 - 1.....	21
Figure 28: Hut mound remains at Site M8 - 2.....	21
Figure 29: General view of the SPR4 spring and Site M9.....	22
Figure 30: Close-up of stone walling at Site M9 - 1 .....	23
Figure 31: Close-up of stone walling at Site M9 - 2 .....	23
Figure 32: Close-up of stone walling at Site M9 - 3 .....	23
Figure 33: Ruined wall remains on a stone terrace at Site M10 .....	24
Figure 34: Remains of the abovementioned hut with traces of the front verandah.....	25
Figure 35: Hut leveling and mound remains of a hut at Site M10 .....	25
Figure 36: Hut remains at Site M10.....	25
Figure 37: General view of the M12 cemetery .....	27
Figure 38: Close-up of one of the M12 graves.....	27
Figure 39: View of the Site M13 graves situated within the fenced agricultural field of Jonas Mbohi.....	28
Figure 40: General view of Site M15 .....	29
Figure 41: A child of the Mhlapo family pointing towards the M15 graves .....	30
Figure 42: A sandstone block forming part of an old hut ruin near Site M15.....	30
Figure 43: General view of the contemporary homestead where the M16 graves reported on by Mrs. Mhlapo are situated.....	31
Figure 44: View of the M17.1 grave .....	32
Figure 45: The graves at M17.2, both fairly difficult to identify due to thick grass cover .....	33
Figure 46: General view of the M17.3 cemetery.....	33
Figure 47: Close-up of a recent grave at M17.3 .....	33
Figure 48: General view of Site M18 .....	34
Figure 49: Close-up of a grave at Site M18 .....	34
Figure 50: View of the M19.1 male cemetery .....	35
Figure 51: General view of the M19.2 female and child cemetery.....	36
Figure 52: Close-up of a fairly recent grave characterized by a prominent earth mound and an old grave with only a headstone indicating the locality of the grave at Site M19.2.....	36
Figure 53: General view of the Site M20 cemetery, situated within an encamped agricultural field.....	37

## LIST OF TABLES

Table 1: Manzimdaka villages population data (SBA & SC 2010).....	3
Table 2: SAHRA archaeological and cultural heritage site significance assessment .....	7
Table 3: Development and Phase 1 AIA assessment findings – co-ordinate details.....	43

## 1) TERMS OF REFERENCE

Africa Geo-Environmental Services (AGES) has been appointed as independent environmental consultant by the service provider Stemele Bosch Africa (SBA) / Sinakho Consulting Joint Venture, on behalf of the proponent, the Chris Hani District Municipality (CHDM), to prepare the Environmental Impact Assessment (EIA) for the proposed *Manzimdaka Villages Water Reticulation Supply Scheme – Bulk Water Supply Backlog: Ngcobo Cluster 6*, near Ngcobo in the Eastern Cape. ArchaeoMaps Archaeological Consultancy has been appointed by AGES to conduct the Phase 1 Archaeological Impact Assessment (AIA) as specialist sub-section to the EIA.

### 1.1) Development Location, Details & Impact

The proposed *Manzimdaka Villages Water Reticulation Supply Scheme – Bulk Water Supply Backlog; Ngcobo Cluster 6* study site centers on the Manzimdaka Administrative Area, located approximately 30km north-east of Ngcobo in the Easter Cape. The Manzimdaka Administrative Area is made up of 5 individual villages with a total of 152 households and an average population size of 991, briefly summarized as (SBA & SC 2010):

MANZIMDAKA VILLAGES POPULATION DATA			
DWA VILLAGE NAME	LOCAL VILLAGE NAME	HOUSEHOLDS	POPULATION
Manzimdaka – A	Nkanka	55	331
Didwayo – A	-	45	271
Didwayo – B	-	22	129
Sitholeni – C	-	27	162
Luxwesweni – C	-	3	18
<b>TOTAL</b>		<b>152</b>	<b>991</b>

**Table 1:** Manzimdaka villages population data (SBA & SC 2010)

The development design is based on a pipeline / linear development of approximately 24km and the installation of 58 standpipes in order to provide water to the 5 villages of the Manzimdaka Administrative Area (SBA & SC 2010).

The proposed water supply strategy focuses on the initial supply of bulk water to villages through the utilization of a local spring scheme which will ultimately be link to the regional bulk water scheme when available. Design of the proposed Manzimdaka scheme is sub-divided into 2 sub-sections, namely (SBA & SC 2010):

1. The Bulk system (supply line from main supply reservoirs); and
2. The Reticulation system.

Individual components of the development include (SBA & SC 2010):

1. Spring protection;
2. Reservoirs;
3. Main supply line;
4. Water reticulation network; and
5. Associated standpipes.

The implementation of the regional bulk water scheme will take place parallel to the implementation of localized spring schemes – local village water supply infrastructure has been designed to accommodate the changeover from the spring supply scheme by the regional bulk water system once the bulk water infrastructure has been installed (SBA & SC 2010).

There is at present no formalized existing water infrastructure within the Manzimdaka Administrative Area: Villagers are making use of unsuitable raw water, drawn directly from localized streams and springs and are often required to walk great distances to collect water. In addition analysis of the water has proven it to be unsuitable for human consumption and is recorded as a major agent in the spread of disease, especially amongst children. The development design aims to provide water to standpipes with a maximum walking distance of 200m (SBA & SC 2010).

The general development area can be described as predominantly mountainous and falling between the Ntsuba River in the east and the Kudidwayo River in the west. Vegetation consists mainly of grassland, with pockets of natural bush around the water courses emanating from the mountain slopes. The majority of the area is underlain by bedrock, less than 1m below the present day surface (SBA & SC 2010).



**Figure 1:** General locality of Manzimdaka in relation to Ngcobo, Eastern Cape



Figure 2: Spatial distribution of villages comprising the Manzimdaka Administrative Area

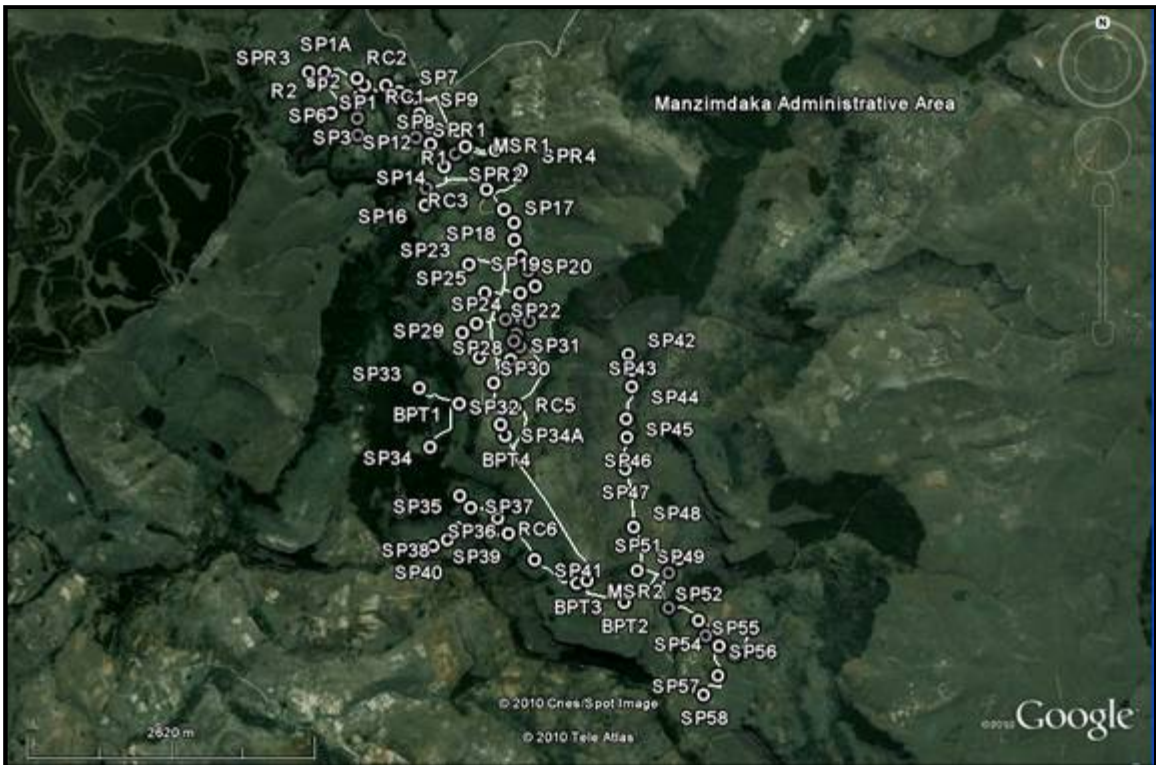


Figure 3: Development co-ordinates of the proposed Manzimdaka Villages Water Supply Scheme

## 2) THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

### 2.1) *Archaeological Legislative Compliance*

The Phase 1 Archaeological Impact Assessment (AIA) was requested by the South African Heritage Resources Agency (SAHRA) mandatory responsible for the National Heritage Resources Act, Act No 25 of 1999 (NHRA 1999). The Phase 1 AIA comprises one of three parts of the Heritage Impact Assessment (HIA) for purposes of development compliance to requirements set out in the NHRA 1999, being:

- 1) The Palaeontological Impact Assessment (PIA);
- 2) The Archaeological Impact Assessment (AIA); and
- 3) The Socio-cultural Impact Assessment (SCIA).

The Phase 1 AIA was requested as specialist sub-section to the HIA for the developments' Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) in compliance with requirements of the National Environmental Management Act, No 107 of 1998 (NEMA 1998), the NEMA 2<sup>nd</sup> Amendment Act, No 62 of 2008 (NEMA 2008) and the NEMA Regulations (2006), and the NHRA 1999 and NHRA Regulations (2000 & 2002).

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 cultural landscapes or views as defined and protected by the NHRA 1999, that may be affected by the proposed development.

- Palaeontological deposits / sites as defined and protected by the NHRA 1999 are not included as subject to this report.
- No socio-cultural consultation was conducted with the aim to identify intangible heritage resources or sites of cultural significance associated with oral histories. Comments on potential socio-cultural aspects are included in the site descriptions.

### 2.2) *Methodology & Assessor Accreditation*

The Phase 1 AIA was conducted over a 5 day period (2010-11-16 to 17, 2010-12-02 to 03 and 2011-01-04) by one archaeologist and assisted in part by Pieter Knoetze (Xhosa consultation and translation). The assessment was done by foot and LVD, and limited to a Phase 1 surface survey; no excavation or sub-surface testing was done. GPS co-ordinates were taken with a Garmin GPSmap 60CSx 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.

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.

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

<b>SAHRA ARCHAEOLOGICAL AND CULTURAL HERITAGE SITE SIGNIFICANCE ASSESSMENT</b>			
<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 2:** SAHRA archaeological and cultural heritage site significance assessment

### 2.3) Coverage and Gap Analysis

Heavy rains and adverse weather throughout the months of November and December greatly affected the fieldwork component of the Phase 1 AIA: General slippery conditions, large scale clayey erosion gullies and high water levels in both the Ntsuba and Kudidwayo rivers, towards the eastern and western extremities of the project area resulted in bridges / water crossings beings washed away / flooded, complicating access to Luxwesweni, Didwayo-B and Sitholeni-C north (rivers were crossed for assessment of Sitholeni-C south but found particularly dangerous), allowing assessment of only 16.5km (68.75%) of the proposed 24km line route development, and including Manzimdaka-A, Didwayo-A and Sitholeni-C south.

Throughout the villages of Manzimdaka-A and Didwayo-A the development line route is fairly closely associated and planned according to existing linear development line routes in close association to access roads or pathways. There is no access road(s) leading to the villages of Luxwesweni, Didwayo-B and Sitholeni-C; secluded from basic development infrastructure by river courses east, south and west and the Manzimdaka mountain to the north, development will be across virgin land.

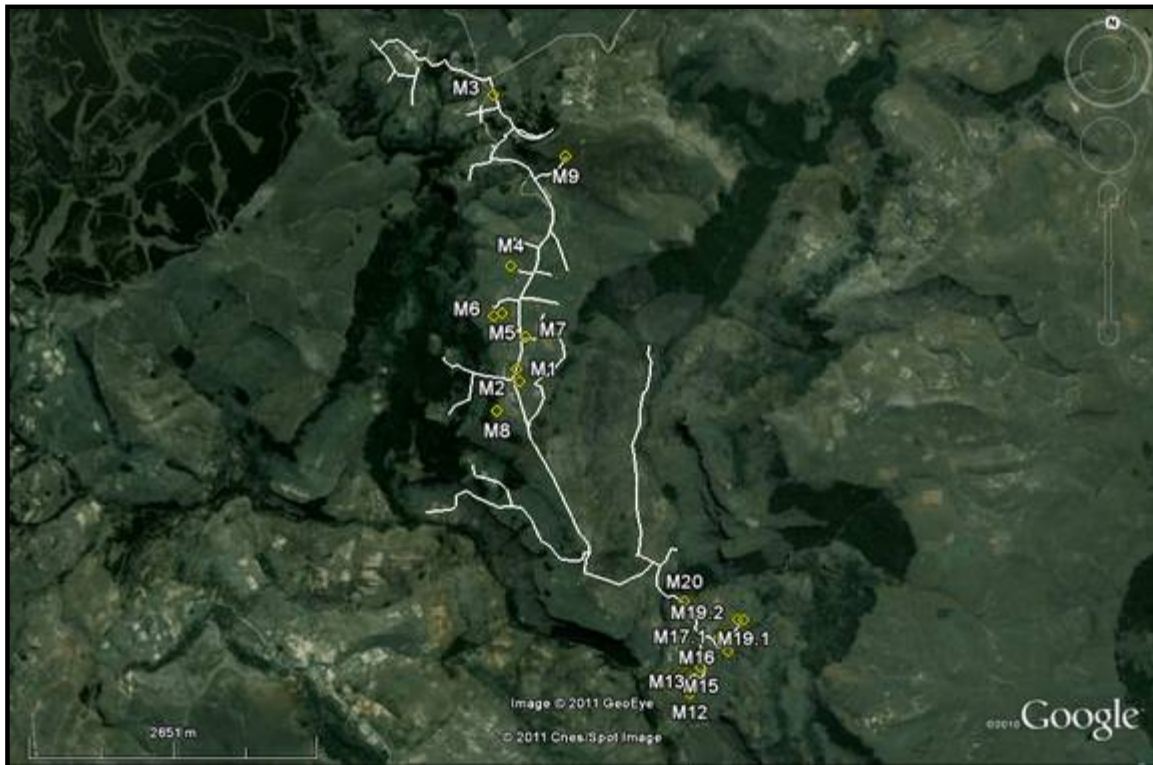
Landscape features that affected the assessment include particularly steep slope / krans gradient, varying between 1:5 and 5:1. The general terrain is characterized by a central northern V-shaped mountain from where the landscape drops east- and westwards towards the river valleys of the Ntsuba and Kudidwayo rivers respectively, forming the natural drainage courses of the general terrain. Extremely adverse conditions (rain and fog) impacted on the assessment; not necessarily visibility but specifically affecting assessment time and access restrictions. Vegetation consists basically of grassland with pockets of natural bush around the water courses emanating from the mountain slopes. Geologically the area is characterized by basal sandstone layers less than 1m below the surface.



#### 2.4) Phase 1 AIA Assessment findings

A total of 20 archaeological and cultural heritage resources were identified during the Phase 1 AIA of the proposed *Manzimdaka Villages Water Reticulation Supply Scheme – Bulk Water Supply Backlog; Ngcobo Cluster 6*, near Ngcobo in the Eastern Cape. Identified resources are classified in 2 basic categories:

1. *Contemporary Resources*, comprising primarily of cemetery sites (including individual graves); and
2. *Later Iron Age Resources* (temporally falling within the Colonial Period) which served to establish Iron Age occupation of the greater Manzimdaka terrain at the approximate mid 1800's.



**Figure 4:** Phase 1 AIA assessment findings



**Figure 5:** View of a portion of the Manzimdaka-A study site



**Figure 6:** Channeled development impact corridors characterizing parts of the Manzimdaka-A portion of the study site



**Figure 7:** View of the northern part of Didwayo-A



**Figure 8:** View over the central part of Didwayo-A from SP21



**Figure 9:** Channeled development corridors in Didwayo-A – 1



**Figure 10:** Channeled development corridors in Didwayo-A – 2



**Figure 11:** Virgin development areas in the vicinity of SP27, SPR5, RC4 and R3



**Figure 12:** General view over Luxswesweni



**Figure 13:** View of the BPT3-MSR2-BPT2-RC7 line route



**Figure 14:** View of Sitholeni-C north from Didwayo-A



**Figure 15:** General view over Sitholeni-C north from Sitholeni-C south



**Figure 16:** General view over Sitholeni-C south

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**2.4.1) SITE M1 – Cemetery - S31°28'01.1"; E28°06'54.4"**

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Site M1 (S31°28'01.1"; E28°06'54.4") comprises of a single stone stacked grave situated immediately east (within 5m) of the proposed line route. The grave, easily visible with high stacked stones may well be of very recent origin. The site is formally protected under the NHRA 1999. Despite no direct impact close proximity of the proposed line route to the site remains a major concern.

- **RECOMMENDATIONS:** *Site M1 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. Close proximity of the line route to the site remains a major concern. It is recommended that the site be formally conserved (fenced with an access gate) and the line be placed no closer than 10-15m from the M1 grave.*



**Figure 17:** View of the M1 grave

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**2.4.2) SITE M2 – Cemetery - S31°28'04.6"; E28°06'55.9"**

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Site M2 (S31°28'04.6"; E28°06'55.9") is situated approximately 60m east of the proposed line route. The site comprises of a formally fenced cemetery containing at least 6 identifiable graves, although older less discernable graves may well be present. The site is formally protected under the NHRA 1999, and based on existing formal conservation measures (despite the fact that the fence is fairly dilapidated) and proximity from the proposed line route no additional measures will be necessary prior to development impact.

- **RECOMMENDATIONS:** *Site M2 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. Based on proximity from the proposed line route and existing conservation measures no additional measures are necessary prior to development impact.*



**Figure 18:** View of the Site M2 cemetery

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**2.4.3) SITE M3 – Cemetery - S31°26'40.7"; E28°06'36.0"**

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Site M3 (S31°26'40.7"; E28°06'36.0") constitutes a small informal cemetery comprising of 2 very recent graves. Both graves have modern covers and headstones. The Ntseke cemetery is situated immediately east of the Ntseke agricultural field, with the current access road along with the proposed line route immediately west thereof. Proximity of the site to the proposed line route is of concern. Steep landscape gradient would not allow a heritage conservation area between the cemetery and the access road or line route development.

- **RECOMMENDATIONS:** *Site M3 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. Close proximity of the line route to the site remains a major concern. It is recommended that the site be formally conserved (fenced with an access gate). Based on steep landscape gradient a heritage conservation area would not be possible between the site and the existing access road and line route development.*



**Figure 19:** View of the contemporary Site M3 Ntseke cemetery



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**2.4.4) SITE M4 – Cemetery - S31°27'30.7"; E28°06'48.5"**

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Site M4 (S31°27'30.7"; E28°06'48.5") is situated approximately 70m west of the proposed line route. The site comprises of a small informal cemetery of at least 5 discernable graves. Graves are stone outlined and earth filled, but stone outlines of older graves have disappeared in the interim and earth fills have settled. The site is at present not fenced.

- **RECOMMENDATIONS:** *Site M4 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 70m west of the proposed line route. Based on possible development impact spill-over it is recommended that the site be fenced (formally or temporarily) prior to development impact.*



**Figure 20:** View of the M4 graves

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**2.4.5) SITE M5 – Cemetery & Stock Enclosure - S31°27'45.0"; E28°06'47.3"**

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Site M5 (S31°27'45.0"; E28°06'47.3") comprises of the remains of a rectangular stone stock enclosure of approximately 15x15m in dimension. Towards the eastern side of the stock enclosure two graves are visible; one clearly demarcated by its stone covering and the other showing traces of the original stone outline with a still visible earth fill. The site is situated more or less 75m south-east of the proposed line route. No conservation measures are in place.

- **RECOMMENDATIONS:** *Site M5 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 75m south-east of the proposed line route. Based on possible development impact spill-over it is recommended that the two graves be fenced (formally or temporarily) prior to development impact.*



**Figure 21:** View of the two M5 graves in the foreground with the remains of the stone stock enclosure at the back

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**2.4.6) SITE M6 – Cemetery & Contemporary Residence - S31°27'46.1"; E28°06'44.5"**

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Site M6 (S31°27'46.1"; E28°06'44.5") comprises of the ruined remains of a fairly recent homestead in itself not of archaeological significance. A single grave is situated to the south of the site. The grave assumed to have been fenced based on pole and wire debris in the immediate vicinity thereof is characterized only by mound remains with a few stones lying about which may signify an original headstone or grave stone outline. The site is situated approximately 80m south of the proposed line route.

- **RECOMMENDATIONS:** *Site M6 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 80m south of the proposed line route. Based on possible development impact spill-over it is recommended that the grave at Site M6 be fenced (formally or temporarily) prior to development impact.*



**Figure 22:** The Site M6 grave with the recent homestead in the background

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**2.4.7) SITE M7 – Cemetery & Contemporary Residence - S31°27'51.2"; E28°06'56.3"**

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The Site M7 (S31°27'51.2"; E28°06'56.3") contemporary homestead remains are characterized by a number of mounds with low lying stone walling still visible. The site itself, of fairly recent origin, is not of archaeological significance. At least one feature, very reminiscent of a stone covered grave, was identified and more graves may well be present. Thick grass cover however hampered the identification of features. The site is situated approximately 20m north of the proposed line route.

- **RECOMMENDATIONS:** *Site M7 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated more or less 20m north of the proposed line route. The site, in itself not of archaeological significance, may contain a number of graves and based thick grass cover, greatly hampering the identification of features at the site, it is recommended that the site be fenced (formally or temporarily) prior to development impact.*



**Figure 23:** View of Site M7



**Figure 24:** A possible stone covered grave at Site M7

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**2.4.8) SITE M8 – Iron Age Homestead - S31°28'14.0"; E28°06'49.1"**

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Site M8 (S31°28'14.0"; E28°06'49.1") comprises of at least 3 hut remains, primarily identifiable by slight overgrown mounds, but with *daga* in places still visible on the surface of the mounds. No other archaeological artefacts were present on the surface of the site. Slightly towards the south-east of the site a small piece of stone walling is visible, inferred to represent an associated original stock enclosure. Traditional building methods; larger outer stones with rubble infill is beautifully represented at the wall remains. The site, at present fairly overgrown and with features in large fairly difficult to discern may well represent one of the founding homesteads of Didwayo-A, and graves are expected to be present, although none could be identified during the survey. Site extent measures more or less 50x50m in size. The site is situated more than 200m west of the proposed line route and will not be impacted on by development.

- **RECOMMENDATIONS:** *Site M8 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 200m west of the proposed line route. Based on the significance of the site, despite proximity from the line route it is recommended that the site be fenced (formally or temporarily) prior to development to avoid possible development impact spill-over.*



**Figure 25:** Wall remains at Site M8



**Figure 26:** General view of Site M8



**Figure 27:** Hut mound remains at Site M8 - 1



**Figure 28:** Hut mound remains at Site M8 - 2

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**2.4.9) SITE M9 – Contemporary Stock Enclosure - S31°26'57.3"; E28°07'03.6"**

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Site M9 (S31°26'57.3"; E28°07'03.6") was first identified and reported on to ArchaeoMaps by Roelof Lindique, AGES, on 2010-10-22 after an environmental site visit to the project area. The site is situated at the SPR4 spring and is identified by stone walling erected within the spring shelter. Aside from stone walling no other archaeological remains such as ceramic, *daga* etc was found, ensuring site status as a stock enclosure. Consultation with nearby resident and landowner Mr. Texan Msjontolisi(?) indicated that the site is of very recent origin, thus not formally protected under the NHRA 1999. He constructed the stone walls as a young man as an enclosure for his family's goats. Having spent his working career in Diepkloof, Johannesburg, he retired to the Manzimdaka area where he is today still actively involved in small scale subsistence farming, but focusing on cattle rather than goat the site has fallen into disuse. Mr. Texan Msjontolisi(?) pointed out that he has no particular concern should development require impact on, or destruction of the 'contemporary' site, but consultation prior to impact would be appreciated.

- **RECOMMENDATIONS:** *Site M9 comprises of a contemporary heritage site not formally protected under the NHRA 1999; a SAHRA site significance assignation is thus irrelevant. Consultation with the landowner is recommended prior to development impact.*



**Figure 29:** General view of the SPR4 spring and Site M9



**Figure 30:** Close-up of stone walling at Site M9 - 1



**Figure 31:** Close-up of stone walling at Site M9 - 2



**Figure 32:** Close-up of stone walling at Site M9 - 3



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**2.4.10) SITE M10 – Iron Age Homestead - S31°29'31.1"; E28°08'02.3"**

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Site M10 (S31°28'14.0"; E28°06'49.1") comprises of an Iron Age homestead. Partially standing walls of 3 huts together with mound remains of a fourth are visible, all originally built on stone constructed platforms. A fifth platform, too small for a hut, is inferred to have been a cooking place. No stock enclosure remains were identified within the immediate vicinity of the homestead, but thick vegetation may have obscured traces thereof, as well as that of associated surface artefacts and middens. The homestead represents the first ancestral settlement of the community currently living in Sitholeni-C south. The homestead is believed to have been occupied from the mid 1800's and was vacated in *circa* 1951 when descendants of the 1<sup>st</sup> settler moved east, upslope from the homestead. A grave is believed to be present to the north of the northernmost hut remains, but surface evidence or traces thereof is no longer visible (Pers. Comm.: Jonas Mbobi). The site is situated approximately 130m east of the proposed line route development and will not be directly impacted on by development.

- **RECOMMENDATIONS:** *Site M10 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 130m east of the proposed line route. Based on the significance of the site, despite proximity from the line route it is recommended that the site be fenced (formally or temporarily) prior to development to avoid possible development impact spill-over.*



**Figure 33:** Ruined wall remains on a stone terrace at Site M10



**Figure 34:** Remains of the abovementioned hut with traces of the front verandah



**Figure 35:** Hut leveling and mound remains of a hut at Site M10



**Figure 36:** Hut remains at Site M10

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**2.4.11) SITE M11 – Cemetery - S31°29'29.1"; E28°08'06.8"**

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Site M11 (S31°29'29.1"; E28°08'06.8") is situated approximately 50m west of the proposed line route. The site comprises of a single fairly recent grave, individually fenced at the time of the assessment. No further information regarding the grave or other gravesites in the vicinity of the homestead could be obtained from residents, who refused the request to photograph the site or supply any additional information for purposes of project documentation. The project team left the vicinity of the homestead at the request of residents without further surface survey in general area. More graves may well be present in the vicinity of the homestead and consultation with residents is recommended prior to development impact.

- **RECOMMENDATIONS:** *Site M11 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 50m west of the proposed line route. The site is at present fenced, complying with SAHRA Minimum Site Conservation Standards. [More graves may well be present in the vicinity of the homestead and consultation with residents is recommended prior to development impact.]*

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**2.4.12) SITE M12 – Cemetery - S31°29'35.4"; E28°08'09.0"**

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Site M12 (S31°29'35.4"; E28°08'09.0") comprises of a fairly large approximate 10x20m cemetery. The informal cemetery is situated more or less 100m south of the proposed line route and south of the homestead and agricultural fields of Jonas Mbobi. The cemetery contains more or less 18 graves, which, to the memory of Jonas Mbobi (Pers. Comm) represents 10 child, 5 male and 3 female graves. The exact date of origin of the cemetery is unknown, but use thereof ceased in 1946; implying that the cemetery pre-dates 60 years of age and is formally protected under the NHRA 1999.

- **RECOMMENDATIONS:** *Site M12 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 100m south of the proposed line route. Based on the significance of the site, despite proximity from the line route it is recommended that the site be fenced (formally or temporarily) prior to development to avoid possible development impact spill-over. The Mbobi family however indicated that they would appreciate any conservation measures to be pre-negotiated prior to implementation.*



**Figure 37:** General view of the M12 cemetery



**Figure 38:** Close-up of one of the M12 graves

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**2.4.13) SITE M13 – Cemetery - S31°29'31.4"; E28°08'11.3"**

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Site M13 (S31°29'31.4"; E28°08'11.3") is situated more or less 50m south of the proposed line route. The site comprises of 4 graves situated within the fenced agricultural field of Jonas Mbobi with all graves belonging to members of the Mbeshu, or founding family of Sitholeni-C south. Graves are all of fairly recent origin although some of them may well pre-date 60 years of age (Pers. Comm.: Jonas Mbobi).

- **RECOMMENDATIONS:** *Site M13 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 50m south of the proposed line route. The site is at present fenced complying with SAHRA Minimum Site Conservation Standards.*



**Figure 39:** View of the Site M13 graves situated within the fenced agricultural field of Jonas Mbobi

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**2.4.14) SITE M14 – Cemetery - S31°29'26.7"; E28°08'11.7"**

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Site M14 (S31°29'26.7"; E28°08'11.7") comprises of 2 clusters of graves situated close to one another next to a stone livestock encampment: The 1<sup>st</sup> cluster comprises of 3 graves all dating to the late 1800's, and representing some of the first graves of the founding Mbeshu family directly associated with occupation of Site M10. The 2<sup>nd</sup> cluster of graves is of very recent origin; all 4 thereof date to the period 2004-2007, again belonging to members of the Mbeshu family (Pers. Comm.: Jonas Mbohi). The site is situated approximately 100m south of the proposed line route and in close proximity to Site M13. The site is formally protected under the NHRA 1999; based on the older component of the site the site is also of archaeological significance.

- **RECOMMENDATIONS:** *Site M15 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 100m south of the proposed line route. Based on the significance of the site, despite proximity from the line route it is recommended that the site be fenced (formally or temporarily) prior to development to avoid possible development impact spill-over. The Mbohi family indicated that they would appreciate any conservation measures to be pre-negotiated prior to implementation.*



**Figure 40:** General view of Site M15

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**2.4.15) SITE M15 – Cemetery - S31°29'26.7"; E28°08'11.7"**

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Site M15 (S31°29'26.7"; E28°08'11.7") comprises of 3 graves situated in a field to the north of a contemporary homestead and approximately 25m south-west of the proposed line route. The graves, not easily discernable due to thick grass cover, belong to the Mhlapo family (with an identifiable head and footstone pointed out by a child of the Mhlapo family). Date of origin of the site is unknown, but ruined remains at the homestead may indicate a fairly significant age where in direct association with old homestead ruins a sandstone block was still present. Grindstones and blocks are often associated with traditional Iron Age customs, however more contemporary use thereof cannot be ruled out, specifically in extremely remote areas.

- **RECOMMENDATIONS:** *Site M15 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 25m south-west of the proposed line route. Based on proximity from the line route it is recommended that the site be fenced (formally or temporarily) prior to development. It is recommended that conservation measures be negotiated with the homestead owners prior to implementation.*



**Figure 41:** A child of the Mhlapo family pointing towards the M15 graves



**Figure 42:** A sandstone block forming part of an old hut ruin near Site M15

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**2.4.16) SITE M16 – Cemetery - S31°29'20.3"; E28°08'20.6"**

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Two graves (M16:  $\approx$ S31°29'20.3"; E28°08'20.6") are known to be present next to the stock enclosure at the contemporary homestead. Homeowners were not present at the time of the assessment and with the graves being situated within the homestead yard the sites were not visited. Sites were reported on by Mrs. Mhlapo [1], consulted with regards to the M17 cemetery sites. Graves will by implication be situated approximately 60m south-east of the proposed line route.

- **RECOMMENDATIONS:** *The Site M16 graves will comprise of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. Graves are inferred to be situated approximately 60m south-east of the proposed line route. It is recommended that conservation measures (formal or temporary) be pre-negotiated with the land owners prior to implementation.*



**Figure 43:** General view of the contemporary homestead where the M16 graves reported on by Mrs. Mhlapo are situated



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**2.4.17) SITE M17 – Cemeteries - S31°29'16.6"; E28°08'17.4"**


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The M17 cemeteries are located in 3 clusters: M17.1 (S31°29'16.6"; E28°08'17.4), M17.2 (S31°29'16.7"; E28°08'18.2) and M17.3 (S31°29'15.0"; E28°08'17.9). Site M17.1 comprises of a single grave, believed to be a forefather of the current Mhlapo family. Site M17.2 represents 2 graves, one representing a Mhlapo and the other a Tyika family member grave. Site M17.3 comprises of 3 graves, all fairly recent and belonging to the Mhlapo family. Site information was provided by Mrs. Mhlapo [1], however being married into the family she could provide no additional information or estimated of ages of the graves. An old man and member of the specific Mhlapo family was encountered, visiting another homestead at the time of the assessment. Mr. Mhlapo mentioned that the oldest of the specific Mhlapo family homestead cemeteries was situated at the back of the homestead, again with dates dating to the late 1800's / early 1900's, corroborating information supplied by Jonas Mbobi for early settlement at Sitholeni-C south. He mentioned that the M17.1-M17.3 cemetery clusters represent graves of later origin but that many of the graves, specifically M17.1 may well pre-date 60 years of age. It was suggested by Mr. Mhlapo that any conservation measures for purposes of development be discussed in a meeting with the family / homestead members. He also pointed out that occupation of the homestead dates to the early 1900's, in essence making it of archaeological significance and formally protected under the NHRA 1999. However, traditional practices of reoccupation and renovation have eliminated traces of early occupation.

- RECOMMENDATIONS:** *The M17 cemeteries comprise of heritage sites as defined and protected under the NHRA 1999. All clusters thereof (M17.1, M17.2, M17.3 and the cemetery at the back of the contemporary homestead reported on by Mr. Mhlapo) are assigned SAHRA MEDIUM SIGNIFICANCE status and GENERALLY PROTECTED B FIELD RATINGS. Cemetery clusters are situated at varying distances from the proposed line route with Sites M17.1-M17.3 on average 50m north-west of the line route, but the site reported on by Mr. Mhlapo may well be in much closer proximity. It is recommended, taking cognizance of the suggestion of Mr. Mhlapo, that conservation measures (formal or temporary) be pre-negotiated with the family / homestead members prior to implementation.*



**Figure 44:** View of the M17.1 grave



**Figure 45:** The graves at M17.2, both fairly difficult to identify due to thick grass cover



**Figure 46:** General view of the M17.3 cemetery



**Figure 47:** Close-up of a recent grave at M17.3

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**2.4.18) SITE M18 – Cemetery - S31°29'14.9"; E28°08'19.6"**

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Site M18 (S31°29'14.9"; E28°08'19.6") comprises of 6 identifiable graves within an approximate 15x15m area. Graves were difficult to identify due to thick grass cover, but ruined headstones, grave markers and very settled grave infills indicate significant age, well beyond 60 years of age and thus formally protected under the NHRA 1999: The cemetery is inferred to be one of the earlier cemeteries in the general area. Residents were aware of the presence of the cemetery but no additional information could be provided.

- **RECOMMENDATIONS:** *Site M18 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 50m south-west of the proposed line route. It is recommended that the site be fenced (formally or temporarily) prior to development, but conservation measures should be pre-negotiated with the community prior to implementation.*



**Figure 48:** General view of Site M18



**Figure 49:** Close-up of a grave at Site M18

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**2.4.19) SITE M19 – Cemeteries - S31°29'10.3"; E28°08'25.2"**

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The Site M19 Mhlapo family cemeteries are again divided in two clusters: M19.1 (S31°29'10.3"; E28°08'25.2") and M19.2 (S31°29'10.5"; E28°08'23.1"). Site M19.1 comprises of 3 fairly discernable graves, all being male graves of the Mhlapo family and characterized by overgrown earth mounds with still identifiable stone outlines. Site M19.2 comprises of an approximate 10x15m area. Twelve graves were identified within the area, some with clear earth mounds can reasonably be inferred to be of very recent origin. But the majority of the graves were difficult to identify; stone demarcations have disappeared and earth infills have settled in the interim, indicative of significant age. All graves at Site M19.2 are believed to be that of women and children (Pers. Comm.: Mrs. Mhlapo [2]).

- **RECOMMENDATIONS:** *The M19 cemeteries comprise of heritage sites as defined and protected under the NHRA 1999. Both clusters thereof (M19.1 and M19.2) are assigned SAHRA MEDIUM SIGNIFICANCE status and GENERALLY PROTECTED B FIELD RATINGS. Cemetery clusters are situated more or less 40m from the proposed line route. It is recommended, also at the request of Mrs. Mhlapo [2], that conservation measures (formal or temporary) be pre-negotiated with the family prior to implementation, at a time when specifically older male members of the family are at home.*



**Figure 50:** View of the M19.1 male cemetery



**Figure 51:** General view of the M19.2 female and child cemetery



**Figure 52:** Close-up of a fairly recent grave characterized by a prominent earth mound and an old grave with only a headstone indicating the locality of the grave at Site M19.2

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**2.4.20) SITE M20 – Cemetery - S31°29'07.2"; E28°08'03.5"**

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Site M20 (S31°29'07.2"; E28°08'03.5") is situated more or less 20m north of the proposed line route. The site comprises of 9 graves located within a fenced agricultural field. Residents were not at home at the time of assessment; no additional information regarding the age of the graves could be obtained, but it can reasonably be inferred that at least some of the graves will pre-date 60 years of age.

- **RECOMMENDATIONS:** *Site M20 comprises of a heritage site as defined and protected under the NHRA 1999. The site is ascribed a SAHRA MEDIUM SIGNIFICANCE and a GENERALLY PROTECTED B FIELD RATING. The site is situated approximately 20m north of the proposed line route. The site is at present fenced complying with SAHRA Minimum Site Conservation Standards.*



**Figure 53:** General view of the Site M20 cemetery, situated within an encamped agricultural field

### 3) CONCLUSION AND RECOMMENDATIONS

With reference to cultural heritage compliance as per the requirements of the NHRA 1999 it is recommended that the proposed *Manzimdaka Villages Water Reticulation Supply Scheme – Bulk Water Supply Backlog: Ngcobo Cluster 6*, near Ngcobo in the Eastern Cape proceeds as applied for, provided the developer complies with the following requirements:

#### 3.1) *Background*

The project, which centers on the supply of water to villagers of the Manzimdaka Administrative Area, including the villages of Manzimdaka-A, Didwayo-A, Luxwesweni, Didwayo-B and Sitholeni-C, by means of 58 standpipes along an approximate 24km line route development, aims to provide water to each of the affected 152 households within a 200m walking distance.

Heavy rains and adverse weather throughout the months of November and December greatly affected the fieldwork component of the Phase 1 AIA: General slippery conditions, large scale clayey erosion gullies and high water levels in both the Ntsuba and Kudidwayo rivers, towards the eastern and western extremities of the project area resulted in bridges / water crossings being washed away / flooded, prohibiting access to Luxwesweni, Didwayo-B and Sitholeni-C north, allowing assessment of only 16.5km (68.75%) of the proposed 24km line route development, and including Manzimdaka-A, Didwayo-A and Sitholeni-C south.

A total of 20 archaeological and cultural heritage resources were identified along the 16.5/24km line route assessment. All identified resources are of Iron Age traditional affiliation, temporally varying from the Colonial to the Contemporary Period.

- No Stone Age resources were identified: Local sandstone rich deposits of the southern Drakensberg foothills may simply not have provided suitable knapping material for large scale Stone Age occupation. However, the presence of sites cannot be excluded along line routes not assessed. Often small geological intrusions of more suitable knapping material were explored, while selection of raw material also changed as technology evolved and became more refined.
- Iron Age occupation of the area proved to be very recent and restricted to the latter part of the Colonial Period. Data recorded at Sitholeni-C south may well be indicative of the first occupation (Site M10) of the general area and confirming Iron Age occupation dating back to the mid to late 1800's. Early occupation is supported by the presence of fairly old cemeteries, with locally recorded dates reaching back to the late 1800's and early 1900's (Sites M12, M14 and M17). In addition the survey highlighted the value of local consultation where little has been done with reference to the formal recording of local histories and brief interviews specifically with Jonas Mbohi and Mr. Mhlapo, in essence complementary to one another and corroborating information supplied by the other, proved invaluable for purposes of interpretation.

Despite the fact that no local information could be obtained for Site M8, the site is interpreted as representing of the 1<sup>st</sup> occupation evidence in the greater Manzimdaka-A and Didwayo-A area. A relative date of no more than the mid to late 1900's is assigned to the site, supported in large by the general lack of large, old cemeteries across the Manzimdaka mountain.

- The primary heritage resource identified during the survey comprises of fairly contemporary cemeteries. Assignment of graves pre-dating and post-dating 60 years of age remains extremely problematic, the result of traditional Xhosa burial practices. The only way of verifying the age of individual graves will be through a large scale community consultation process, the scope of which is outside that of a basic Phase 1 AIA. Some contemporary graves are associated with inscribed headstones.

### 3.2) *Recommendations*

The proposed *Manzimdaka Villages Water Reticulation Supply Scheme – Bulk Water Supply Backlog: Ngcobo Cluster 6*, near Ngcobo in the Eastern Cape, will not impact directly on any identified cultural heritage resources.

- **CEMETERIES:**

**(Sites M1, M2, M3, M4, M11, M12, M13, M14, M15, M16, M17, M18, M19 and M20)**

Local consultation indicated that, in general across the Manzimdaka Administrative Area, villagers had no particular religious / ethical objection to the formal conservation (formal fence with access gate) of cemeteries for purposes of development. Formal / temporary conservation of cemeteries should be preceded by community consultation. Where landscape gradient, current location or household preference prohibits formal or temporary conservation, it is recommended that an appointed family member be on site at the time of development.

- **CONTEMPORARY IRON AGE REMAINS DIRECTLY OR INDIRECTLY ASSOCIATED WITH CEMETERIES:**

**(Sites M5, M6, M8 and M10)**

1. In the cases of contemporary sites (Sites M5 and M6) local consultation should aim to determine if family members would want the sites to be either formally or temporarily conserved in totally or only focusing on the graves.
2. In the case of archaeological sites (Sites M8 and M10) it is recommended that conservation of the sites focuses on total site conservation, either formally or temporary.

- **CONTEMPORARY SITES:**

**(Site M9)**

Development will impact on the contemporary Site M9 stock enclosure. Impact should be preceded by consultation with Mr. Texan Msjontolisi(?).

- **ARCHAEOLOGICAL MONITORING:**

Portions of line routes (7.5km) not included in this Phase 1 AIA should be assessed by means of on-site archaeological monitoring at the time of assessment, including Luxwesweni Village (co-ordinates SP33, SP34 and BPT1 and the associated line route), Didwayo-B Village (co-ordinates SP35, SP36, SP38, SP39, SP40, RC6, SP37, SP41, BPT3, MSR2 and BPT2 and the associated line route) and Sitholeni-C north (co-ordinates SP42, SP43, SP44, SP45, SP46, SP47, SP48, SP49, SP50 and SP51 and the associated line route).



[Primary agents that negatively affected the assessment, including high water levels not expected to recede much before the end of the rainy season, March / April, and large scale damage associated therewith, not expected to be addressed on municipal level prior to planned commencement of the development would not make Phase 1 AIA assessment of areas not included in this assessment a practical recommendation. Access obstacles encountered is envisioned to be first addressed at the time of development implementation; thus the recommendation for on-site archaeological monitoring rather than Phase 1 assessment preceding development.]

- **GENERAL:**

1. Should any archaeological or cultural heritage resources as defined and protected under 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.
2. The developer is reminded that all structures pre-dating 60 years of age are formally protected under the NHRA 1999, with an automatic blanket *Provincial Heritage Resource* status assigned to them. Any impact on, alteration to or destruction of these resources are subject to application and approval from SAHRA and has to be done under an Eastern Cape Provincial Heritage Resources Agency (EC PHRA) permit. Structures post-dating 60 years of age are not formally protected under the NHRA 1999. Impact on or destruction of such structures is not subject to SAHRA application or approval.
3. Should any graves or human remains be encountered during the course of development the developer should immediately alert both the police and SAHRA / an ASAPA accredited CRM archaeologist. The process associated with the identification of human remains post-dating 60 years of age are managed by the police while the process associated with human remains pre-dating 60 years of age are managed by SAHRA under the NHRA 1999 and in accordance with requirements of the Human Tissues Act, Act No 65 of 1983 (HTA 1983) and the Human Tissues Amendment Act, Act No 51 of 1989 (HTAA 1989).

**MANZIMDAKA VILLAGES WATER RETICULATION SUPPLY SCHEME, NGCOBO CLUSTER 6**

**MANZIMDAKA-A, DIDWAYO-A, LUXWESWENI, DIDWAYO-B AND SITHOLENI-C**

MAP CODE	SITE	TYPE / PERIOD	DESCRIPTION	CO-ORDINATES	PRELIMINARY RECOMMENDATIONS
<b>DEVELOPMENT AREA</b>					
BPT1	-	-	-	S31°28'03.9"; E28°06'42.1"	N/A
BPT2	-	-	-	S31°29'03.2"; E28°07'38.9"	N/A
BPT3	-	-	-	S31°28'56.6"; E28°07'22.3"	N/A
BPT4	-	-	-	S31°28'13.1"; E28°06'58.0"	N/A
MSR1	-	-	-	S31°26'58.1"; E28°07'03.5"	N/A
MSR2	-	-	-	S31°28'55.7"; E28°07'25.8"	N/A
R1	-	-	-	S31°26'50.1"; E28°06'44.8"	N/A
R2	-	-	-	S31°26'30.7"; E28°05'54.1"	N/A
R3	-	-	-	S31°27'47.4"; E28°07'03.0"	N/A
RC1	-	-	-	S31°26'32.2"; E28°06'10.4"	N/A
RC2	-	-	-	S31°26'32.1"; E28°06'17.7"	N/A
RC3	-	-	-	S31°27'02.2"; E28°06'51.8"	N/A
RC4	-	-	-	S31°27'45.8"; E28°07'01.0"	N/A
RC5	-	-	-	S31°28'04.8"; E28°07'01.2"	N/A
RC6	-	-	-	S31°28'37.8"; E28°06'54.8"	N/A
RC7	-	-	-	S31°29'06.1"; E28°07'55.1"	N/A
SPR4	-	-	-	S31°26'57.3"; E28°07'03.7"	N/A
SP1	-	-	-	S31°26'30.2"; E28°06'08.0"	N/A
SP10	-	-	-	S31°26'44.0"; E28°06'32.3"	N/A
SP11	-	-	-	S31°26'46.8"; E28°06'27.6"	N/A
SP12	-	-	-	S31°26'48.9"; E28°06'32.7"	N/A
SP13	-	-	-	S31°26'52.1"; E28°06'41.4"	N/A
SP14	-	-	-	S31°26'55.6"; E28°06'37.4"	N/A
SP15	-	-	-	S31°27'01.6"; E28°06'31.1"	N/A
SP16	-	-	-	S31°27'06.4"; E28°06'30.7"	N/A
SP17	-	-	-	S31°27'08.1"; E28°06'57.8"	N/A
SP18	-	-	-	S31°27'11.9"; E28°07'01.2"	N/A
SP19	-	-	-	S31°27'16.8"; E28°07'01.3"	N/A
SP1A	-	-	-	S31°26'28.7"; E28°05'57.2"	N/A
SP2	-	-	-	S31°26'35.0"; E28°06'08.8"	N/A
SP20	-	-	-	S31°27'20.3"; E28°07'03.4"	N/A
SP21	-	-	-	S31°27'25.6"; E28°07'05.9"	N/A
SP22	-	-	-	S31°27'30.1"; E28°07'08.3"	N/A
SP23	-	-	-	S31°27'23.7"; E28°06'45.7"	N/A
SP24	-	-	-	S31°27'32.1"; E28°07'03.2"	N/A
SP25	-	-	-	S31°27'31.9"; E28°06'51.2"	N/A
SP26	-	-	-	S31°27'39.6"; E28°06'58.2"	N/A
SP27	-	-	-	S31°27'40.2"; E28°07'06.3"	N/A
SP28	-	-	-	S31°27'40.8"; E28°06'48.4"	N/A
SP29	-	-	-	S31°27'43.4"; E28°06'43.5"	N/A
SP3	-	-	-	S31°26'39.9"; E28°05'58.9"	N/A
SP30	-	-	-	S31°27'50.6"; E28°06'49.4"	N/A
SP31	-	-	-	S31°27'51.3"; E28°06'59.9"	N/A
SP32	-	-	-	S31°27'57.9"; E28°06'54.2"	N/A
SP33	-	-	-	S31°27'59.3"; E28°06'27.6"	N/A
SP34	-	-	-	S31°28'16.7"; E28°06'31.6"	N/A
SP34A	-	-	-	S31°28'09.9"; E28°06'56.5"	N/A
SP35	-	-	-	S31°28'31.1"; E28°06'41.7"	N/A
SP36	-	-	-	S31°28'34.7"; E28°06'45.4"	N/A

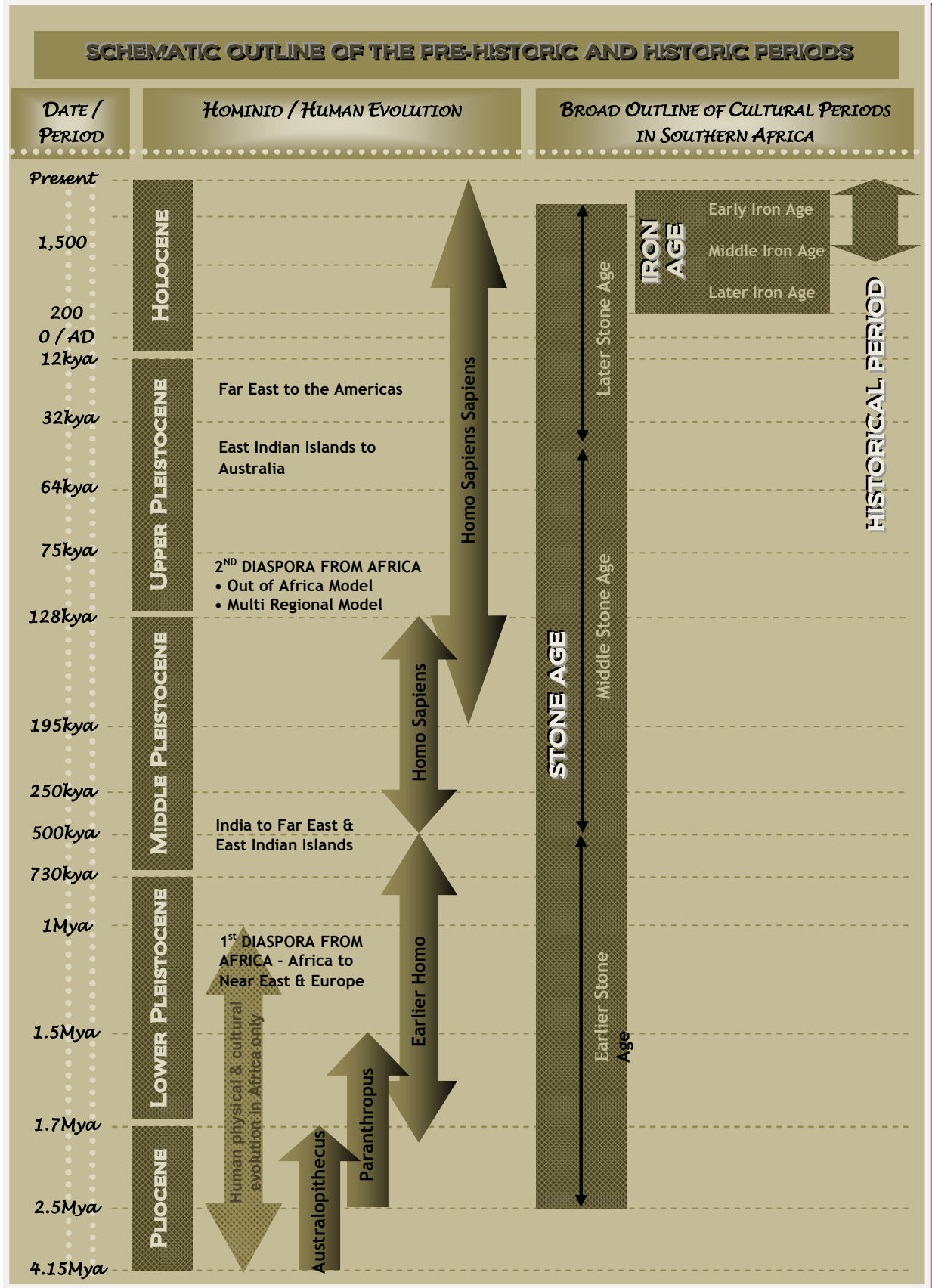
SP37	-	-	-	S31°28'42.4"; E28°06'58.5"	N/A
SP38	-	-	-	S31°28'44.8"; E28°06'36.6"	N/A
SP39	-	-	-	S31°28'46.8"; E28°06'31.5"	N/A
SP4	-	-	-	S31°26'41.3"; E28°06'07.7"	N/A
SP40	-	-	-	S31°28'47.8"; E28°06'25.9"	N/A
SP41	-	-	-	S31°28'50.2"; E28°07'07.6"	N/A
SP42	-	-	-	S31°27'49.2"; E28°07'40.5"	N/A
SP43	-	-	-	S31°27'53.9"; E28°07'41.8"	N/A
SP44	-	-	-	S31°27'58.9"; E28°07'41.8"	N/A
SP45	-	-	-	S31°28'08.6"; E28°07'39.8"	N/A
SP46	-	-	-	S31°28'14.2"; E28°07'40.1"	N/A
SP47	-	-	-	S31°28'23.8"; E28°07'39.5"	N/A
SP48	-	-	-	S31°28'41.1"; E28°07'42.4"	N/A
SP49	-	-	-	S31°28'54.1"; E28°07'43.6"	N/A
SP5	-	-	-	S31°28'46.1"; E28°06'07.8"	N/A
SP50	-	-	-	S31°28'55.4"; E28°07'55.1"	N/A
SP51	-	-	-	S31°28'51.2"; E28°07'58.7"	N/A
SP52	-	-	-	S31°29'09.8"; E28°08'05.7"	N/A
SP53	-	-	-	S31°29'14.3"; E28°08'08.2"	N/A
SP54	-	-	-	S31°29'17.1"; E28°08'12.8"	N/A
SP55	-	-	-	S31°29'19.3"; E28°08'18.1"	N/A
SP56	-	-	-	S31°29'11.4"; E28°08'24.2"	N/A
SP57	-	-	-	S31°29'26.0"; E28°08'12.3"	N/A
SP58	-	-	-	S31°29'32.1"; E28°08'07.4"	N/A
SP6	-	-	-	S31°26'37.6"; E28°06'03.9"	N/A
SP7	-	-	-	S31°26'34.0"; E28°06'22.2"	N/A
SP8	-	-	-	S31°26'35.6"; E28°06'27.4"	N/A
SP9	-	-	-	S31°26'40.1"; E28°06'28.9"	N/A
SPR1	-	-	-	S31°26'49.8"; E28°06'58.2"	N/A
SPR2	-	-	-	S31°26'51.3"; E28°06'55.0"	N/A
SPR3	-	-	-	S31°26'28.6"; E28°05'51.8"	N/A
SPR5	-	-	-	S31°27'43.9"; E28°07'01.8"	N/A
<b>HERITAGE SITES</b>					
M1	Site M1	Contemporary / Colonial Period	Cemetery	S31°28'01.1"; E28°06'54.4"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M2	Site M2	Contemporary / Colonial Period	Cemetery	S31°28'04.6"; E28°06'55.9"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M3	Site M3	Contemporary	Cemetery	S31°26'40.7"; E28°06'36.0"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M4	Site M4	Contemporary / Colonial Period	Cemetery	S31°27'30.7"; E28°06'48.5"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M5	Site M5	Contemporary / Colonial Period	Cemetery & stock enclosure	S31°27'45.0"; E28°06'47.3"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M6	Site M6	Contemporary	Cemetery & residence	S31°27'46.1"; E28°06'44.5"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M7	Site M7	Contemporary	Cemetery & residence	S31°27'51.2"; E28°06'56.3"	<b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M8	Site M8	Iron Age / Colonial Period	Homestead	S31°28'14.0"; E28°06'49.1"	<b>In situ conservation</b> or <b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per community consultation
M9	Site M9	Contemporary	Stock enclosure	S31°26'57.3"; E28°07'03.6"	<b>In situ conservation</b> / Community consultation prior to impact
M10	Site M10	Iron Age / Colonial Period	Homestead	S31°29'31.3"; E28°08'02.3"	<b>In situ conservation</b> or <b>Formal</b> (fence with gate) / <b>Temporary conservation</b> , as per

					<i>community consultation</i>
M11	Site M11	Contemporary	Cemetery	S31°29'29.1"; E28°08'06.8"	<b>Formal (fence with gate) / Temporary conservation, as per community consultation</b>
M12	Site M12	Iron Age / Colonial Period	Cemetery	S31°29'35.4"; E28°08'09.0"	<b>Formal (fence with gate) / Temporary conservation, as per community consultation</b>
M13	Site M13	Iron Age / Contemporary / Colonial Period	Cemetery	S31°29'31.4"; E28°08'11.3"	<b>Formal (fence with gate) / Temporary conservation, as per community consultation</b>
M14	Site M14	Contemporary / Colonial Period	Cemetery	S31°29'36.3"; E28°08'09.2"	<b>Formal (fence with gate) / Temporary conservation</b>
M15	Site M15	Contemporary / Colonial Period	Cemetery	S31°29'26.7"; E28°08'11.7"	<b>Formal (fence with gate) / Temporary conservation</b>
M16	Site M16	Contemporary / Colonial Period	Cemetery	S31°29'20.3"; E28°08'20.6"	<b>Formal (fence with gate) / Temporary conservation</b>
M17.1	Site M17	Contemporary / Colonial Period	Cemeteries	S31°29'16.6"; E28°08'17.4"	<b>Formal (fence with gate) / Temporary conservation</b>
M17.2	-	Contemporary / Colonial Period	-	S31°29'16.7"; E28°08'18.2"	<b>Formal (fence with gate) / Temporary conservation</b>
M17.3	-	Contemporary / Colonial Period	-	S31°29'15.0"; E28°08'17.9"	<b>Formal (fence with gate) / Temporary conservation</b>
M18	Site M18	Iron Age / Colonial Period	Cemetery	S31°29'14.9"; E28°08'19.6"	<b>Formal (fence with gate) / Temporary conservation</b>
M19.1	Site M19	Iron Age / Contemporary / Colonial Period	Cemeteries	S31°29'10.3"; E28°08'25.2"	<b>Formal (fence with gate) / Temporary conservation</b>
M19.2	-	Iron Age / Contemporary / Colonial Period	-	S31°29'10.5"; E28°08'23.1"	<b>Formal (fence with gate) / Temporary conservation</b>
M20	Site M20	Contemporary / Colonial Period	Cemetery	S31°29'07.2"; E28°08'03.5"	<b>Formal (fence with gate) / Temporary conservation</b>

**Table 3:** Development and Phase 1 AIA assessment findings – co-ordinate details

**4) REFERENCES CITED**

1. South African Government. (No. 107) of 1998. *National Environmental Management Act*.
2. South African Government. (No. 62) of 2008. *National Environmental Management Second Amendment Act*.
3. South African Government. (No. 25) of 1999. *National Heritage Resources Act*.
4. South African Heritage Resources Agency. 2007. *Minimum standards for the archaeological and heritage components of impact assessments*. Unpublished guidelines.
5. Stemele Bosch Africa (SBA) & Sinakho Consulting (SC). 2010. *Design Report – Chris Hani District Municipality – Manzimdaka Villages Water Supply Scheme – Bulk water Supply Backlog: Ngcobo Cluster 6*. Unpublished report.



*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 m<sup>2</sup> 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 m<sup>2</sup> 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.