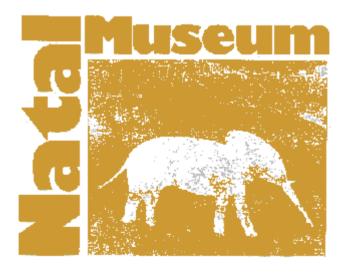
# ARCHAEOLOGICAL SURVEY OF THE PROPSED GREATER ST LUCIA WETLAND PARK

For ACER (AFRICA)

# By Gavin Anderson

Institute for Cultural Resource Management, Natal Museum, Private Bag 9070, Pietermaritzburg, 3200

22 June, 2012



## **INTRODUCTION**

The Institute for Cultural Resource Management (ICRM) was contacted by ACER (Africa) to comment on the proposed development occurring in the Greater St Lucia Wetlands Park (GSLWP). The initial assessment of this development was that the area had high archaeological sensitivity and that archaeological sites would occur in the proposed development. This assessment was based on the work undertaken by Anderson (1996, 1997, 1998, 1999, 2000) in the Richards Bay area, and by Hall (1987) in the GSLWP. The archaeological database, at the Natal Museum, has over 150 archaeological sites already recorded in the GSLWP. These archaeological sites were undertaken by Hall (1987) in the early 1980s in order to study the ecological factors effecting Iron Age settlements in KwaZulu-Natal.

The area along the Eastern Seaboard, especially between Richards Bay and Maputo, is of high archaeological significance. It is this area, where the first agriculturists entered the coastal plains 1700 years ago. At approximately 1500 years ago it appears that a different linguistic group of people entered this area. They were also agriculturists yet had different social organisations. The interaction and timing between these two groups forms part of the academic debates in (pre-)history. Another factor that makes this area of archaeological significance is the period between the Early Iron Age and the Late Iron Age, at c. AD 1000. Current debates centre on the origins of the Late Iron Age people. One side of the debate argues that the Late Iron Age people originated from Central Africa and travelled along the Eastern Seaboard. The other side of the debate argues that the change from the two Iron Ages was one of internal social change and not the result of an influx of new people. The earliest dated Late Iron Age side occurs just north of Durban. Similar, but slightly younger, sites occur in the Richards Bay area. The St Lucia area thus has the potential to yield archaeological information regarding the origins of the Late Iron Age in KwaZulu-Natal. If sites of similar age to the Durban site are located then it would support the one hypothesis over the other. It is these late Iron Age people who spoke the formative Nguni languages. Any Late Iron Age site is thus crucial to the academic debates and in our understanding of local history.

Many of the sites recorded in this survey have been partially damaged by existing roads/tracks, or as a direct result of current construction activities. All archaeological sites are protected by the KwaZulu-Natal Heritage Act of 1997, and previously by the National Monuments Act of 1969. No permits have been issued for the damage, destruction or alteration of these sites. KwaZulu-Natal Heritage will need to be informed regarding these sites. A permit still needs to issued for the damage, destruction and/or alteration of the recorded sites.

On a more positive note a some sites exist that have not been effected by any development. These site have the potential to be salvaged and/or used for archaeotourism. The emphasis on the archaeological component of the EIA should be on these latter sites.

The terms of reference for this project are to undertake an archaeological survey of the following areas in terms of sites with archaeological significance:

- AR1b: Realignment of a section of the Cape Vidal Road (timber loading site to Bhangazi Forest Station)
- AR1c: Realignment of a section of the Cape Vidal Road (timber loading site to Bhangazi Forest Station)
- AR4b: Bhangazi Heritage Site access
- AR5: Catelina Jetty Access Road and Picnic site
- AR10: Cape Vidal Eastern Loop Road
- AW1a & AW1b: St Lucia to Mission Rocks Bulk Water Supply
- AW1b: Mission Rock to Cape Vidal Bulk Water Supply

In addition to the above I was verbally requested to survey:

- Perriers Rock Road Water Supply and the road
- An alternative Picnic Site near Catalina Jetty

## **METHODOLOGY**

Once the routes had been finalised, I consulted the Natal Museum archaeology database for known archaeological sites. Several sites had already been recorded in the GSLWP by Hall (1987) in the 1980s. These sites were initially assessed in terms of their significance, however the criteria for site significance has changed as a result of more information being gathered. Thus the previously recorded sites were revisited and reassessed. The survey of the new roads and pipelines entailed walking along the routes and locating and recording archaeological sites.

Each scatter of artefacts is usually regarded as a site. All sites have been grouped according to low, medium and high significance. Sites of low significance have no diagnostic artefacts. Sites of medium significance have diagnostic artefacts and these are sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of medium significance may also have test-pit excavations. Sites of high significance are excavated and/or extensively sampled. The sites that are extensively sampled have high research potential, yet poor preservation of features. Some sites may be of such high significance that no impact should occur.

Significance is generally determined by several factors. Each site is also assessed in terms of other sites in the specific region and to the broader context.

#### **Defining significance**

Archaeological sites vary according to significance and different criteria relate to each type of site. However, there are several criteria that allow for a general significance assessment of archaeological sites.

These criteria are:

#### 1. State of preservation of:

- 1.1. Organic remains:
  - 1.1.1. Faunal

- 1.1.2. Botanical
- 1.2. Presence of a cultural deposit
- 1.3. Features:
  - 1.3.1. Ash Features
  - 1.3.2. Graves
  - 1.3.3. Middens
  - 1.3.4. Cattle pens
  - 1.3.5. Houses/Structures

#### 2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

#### 3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a good example of a specific time period, feature, or artefact?

#### 4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

#### 5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and/or artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities.

#### 6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

#### 7. Educational:

- 7.1. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.
- 7.2. Educational value is in terms of display at an Heritage institution or local site museum.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. These test-pit excavations may require further excavations if the site is of high significance. Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

## **DESCRIPTION OF SITES**

All sites have been named according to the recorder. Sites with a prefix of 2832 have been recorded by Hall (Natal Museum archaeological site records). Sites with the prefix of SLD are previously unrecorded sites recorded during the current survey. The impact of roads and/or pipelines are assessed according to their <u>current</u> locations. Significance is defined in terms of the whole site while mitigation is assessed in terms of the impact the road and/or pipeline may have on that specific part of the site. Deviations to these locations may require a reassessment of each site. Appendix B lists the geographical co-ordinates of each site. Since archaeological sites are of high sensitivity, the locations of these sites should not be included in any public document. Table 1 summarises the archaeological sites, their significance and required mitigation.

#### SLD1

SLD1 is an ephemeral scatter of shell and some pottery. Over an approximate radius of 40m. It appears as if this site has been extensively damaged by the existing road. There are a few small pockets of shell still *in situ*, however these are a maximum of 15cm in diameter. The pottery is adiagnostic and fragmented. The shells are also mostly fragmented and consist of *P. perna* (brown mussel) and *Ostrideae* (oyster). The site extends to the embankment on the pipeline side of the road, however it will not be impacted. The site dates to the Late Iron Age or Historical Period.

Table 1: recorded archaeological sites

Site Name SLD1	<b>Age</b> Indet	Site already damaged? Yes	Significance Low	Mitigation Required None
SLD2	IA	Yes	Medium	None
SLD3	LIA/HP	Yes	Medium	None
SLD4	LIA	Yes	Low-medium	None
SLD5	LIA/HP	Yes	Medium	None
SLD6	LIA/HP	Yes	Medium	Test-pit excavations
SLD7	LSA & LIA/HP	Yes	Low	None, but monitor
SLD8	ISA/IA	Yes	Low	None
SLD9	LIA/HP	Yes	Medium?	None, but monitor
SLD10	EIA	Yes	Medium	Monitor
SLD11	EIA	Yes	Medium	Monitor
SLD12	LIA/HP	No	Medium	If further affected
SLD13	?LIA	Partially	Medium-high	If further affected
SLD14	ISA/IA	No	Low	None
SLD15a/b	LIA?	No	Medium-high	Test-pit & excavations
SLD16	HP	No	Medium-High	No but no damage
2832BA 32	LIA	No	Medium	If affected
2832BA 38	LIA	No	Low	None
2832BA 78 - 79	LIA	No	Low	None
2832AD 9- 31	EIA/LIA/HP	Partially	Low to medium	None
2832AD 6	LIA	No	Low	None
2832AD 74	EIA	Yes	Low	None
2832AD 81	LIA	Yes	Low	None
CH9680	LIA	Partially	Medium-High	Excavations
CH10020	LIA	Partially	Medium-High	Excavations

Significance: The site is of low significance as it has already been extensively damaged.

Mitigation: No mitigation required

SLD2

SLD2 is a sparse scatter of P. perna over a 10m radius. The site may extend to the embankment on the right hand side of the road, however it will not be impacted. The site

dates to the Late Iron Age or Historical Period.

Significance: The site may be of medium significance.

Mitigation: No further mitigation is required provided that the main site is not affected.

SLD3

SLD3 is a shell midden concentrated on the right hand side of the road. The current road has already damaged part of the site. The remains of the midden is under dense vegetation, although some of it is visible in areas of sparse vegetation. Several artefacts were recorded at this site. These artefacts included pottery, shell and worked stone. The shell remains consist of *P. perna*, although other species are bound to be present. No diagnostic sherds were recorded although at least three vessels are visible. A lower grindstone (30cm x 20cm) was recorded on the main site. The main site has an archaeological deposit and probably

dates to the Late Iron Age.

Significance: This site is of medium significance. It is unlikely that the planned pipeline will

further affect the site.

Mitigation: No further mitigation is required.

SLD4

SLD4 is a shell midden concentrated on the right hand side of the road. The current road

has already damaged part of the site. The remains of the midden is under dense vegetation,

while some remains are visible on the road. It appears that the site has a smaller

concentration of sherds than SLD3. These remains include bone, P. perna, oyster, and

pottery. One pottery sherd has an orange-red colouring. The site probably dates to the Late

Iron Age.

Significance: The site is of low-medium significance. It is unlikely that the planned pipeline

will further affect the site.

Mitigation: No further mitigation is required.

SLD5

SLD5 is a shell midden concentrated on the right hand side of the road. Most of the

midden, and presumably the rest of the site, is under dense vegetation. The site is similar to

SLD3 in size and archaeological debris. The shell remains only consist of *P. perna*. Three

sherds, from different vessels, were recorded and one had an orange-red colouring.

Significance: The site may be of medium significance. It is unlikely that the planned

pipeline will further affect the site.

Mitigation: No further mitigation is required.

SLD6

SLD6 appears to be an extensive scatter of shell and pottery which is located on both

sides of the road. The shell remains consist of well preserved oyster fragments. This is

significant as no P. perna were observed, this making the site different to previously recorded

sites along the road. Sherds from three different vessels were recorded on either side of the

road. The site has and archaeological deposit approximately 15 cm - 20 cm below the

current surface. The site dates to the Late Iron Age or Historical Period.

Significance: The site is of medium significance. The occurrence of only oyster and

archaeological deposit make this site significant. Since the previous sites have been

previously damaged, this site may still be a representative sample of these sites recorded

along this road (even if it has a different shell content).

Mitigation: The site needs to be mitigated as the it is of significance and the pipeline will negatively impact part of the site. I propose a two phase approach to the mitigation. The first phase will to place a series of 1m x 1m excavation test-pits along the route of the pipeline. The aim of these test-pits will be to determine the full significance of the site and to locate potentially important features that may be impacted by the pipeline. This would occur over a maximum of two days. If an *in situ* midden or other feature(s) is located then further mitigation may be required. If further mitigation is required then the more excavations should occur in the vicinity of the pipeline and/or road. If the new road will remove the current topsoil then excavations along the road may also be required.

#### SLD7

This site has been extensively damaged by current roadworks for the GSWDP. According to the Regional Engineer the area was mistakenly marked as a loading area and subsequently the topsoil was removed. The removal of several centimetres of topsoil was sufficient to remove a shell midden, probably the remains of a settlement, and disturb an Early and Late Stone Age deposit.

The archaeological material observed scattered in the area included several pottery sherds, *P. perna* fragments, whelk, an Early Stone Age hand-axe, and a Late Stone Age stone tool (specifically an adze).

The accidental damage to this site highlights the need for consultation with all contractors/consultants prior to any construction activity.

Significance: The original significance of the site cannot be ascertained as it is now disturbed; however, currently it is of low significance.

Mitigation: No further archaeological mitigation is required as the site has already been damaged and that no further construction activity is envisaged. If the area is to be rehabilitated then an archaeologist should be included in the rehabilitation program to ensure that no further damage occurs to the remaining parts of the site.

#### SLD8

SLD8 is located ±20 meters from the ablution blocks at Mission Rocks. It has been extensively damaged by the construction of these facilities and the road. The site consists of a wide variety of shell species (barnacle, oyster, *P. perna*, and *Donax spp.*). A lower grinding stone was also recorded. More of the site, or other smaller sites are likely to occur underneath the dense vegetation of the area.

My experience, and the database at the Natal museum, suggests that there is a very high density of archaeological shell middens within a 1 km radius of any rock outcrop along the beach.

Significance: The parts of the remaining site are of low significance since they have been extensively damaged. However, there is a high probability of sites occurring in the proximity of the proposed boardwalk and the last 50m of the road leading to proposed boardwalk. The high diversity of shell species in the one midden suggests that nearby sites may have a similar composition of species.

Mitigation: No mitigation is required for SLD8, as it is already too damaged for salvage. However the construction of the boardwalk and pipeline requires comment. The location of the posts for the boardwalk should occur in consultation with an archaeologist. If the post holes only occur along the existing track from the road to the beach, then is unlikely to affect any archaeological material. However, if post holes should occur beyond this track, then a management plan should be followed.

I propose that the management plan should be as follows:

- 1. Consultation with an archaeologist as to the location of the boardwalk
- 2. An archaeologist should excavate a certain number of these post holes to ensure that no other shell middens occur beneath the current surface.
- 3. Any other future development in this area should be with the consultation of an archaeologist.

#### SLD9

SLD9 occurs on the right hand side of the road along the fire break and just before the Mission Rocks turnoff road. As with SLD7 this site has been damaged by current construction

activity. A bulldozer has cleared the topsoil of the site, and thus removing part of the site. It is currently filled with gravel presumably for the use of the road. A shell midden (*P. perna* and *Patella spp.*), a probable settlement, several pottery sherds, a lower grindstone, and two bones (a bovid rib and phalange) were recorded. The site has a potential deposit. The archaeological material appears to have a spatial component, i.e., material was recorded at different parts of the site. The site dates to the Late Iron Age or Historical Period.

The pipeline may impact on part of the site.

Significance: The site would have been originally of medium significance as it has an apparent good preservation of faunal remains and spatial component. Currently much of material is an a secondary context making it of low significance.

Mitigation: Some form of mitigation would be required for the part of the site that may be affected by the pipeline. I suggest that an archaeologist is on site while this section of the pipeline is excavated. It is unlikely that a shell midden, or any other feature, will be located, however other material may occur. An on site archaeologist would be able to ascertain any the immediate affect of the pipeline on the site, and salvage any material that may occur. Alternatively a few test-pits are excavated to determine if any material may occur in the vicinity of the pipeline.

#### **SLD10**

SLD10 is located on the pipeline side of the road (at the marker: MHPO70), and may have been partially effected by the road. Most of the site appears to be located on the small raised area besides the road. Several Early Iron Age decorated sherds and *P. Perna* fragments were recorded. The decorated sherds indicate that the site is associated with the Mzonjani Phase of the Early Iron Age, i.e. the first farmers in the St Lucia area. These decorated sherds date the site to between 1700 and 1500 years ago. The recorded material remains have probably slumped for the side of the site as a result of the road construction.

Significance: The main site is of medium significance as it has well preserved organic remains and appears to be in a primary context. However, the pipeline is unlikely to affect the site.

Mitigation: No direct mitigation is required for this site. However an archaeologist should be on site when the pipeline is excavated to retrieve potential remains.

#### <u>SLD11</u>

SLS11 is located ±100m along the current road (towards Cape Vidal) from SLD10. As with SLD10 most of the site occurs on the side of the road an appears to be relatively unaffected by the road. Early Iron Age sherds, slag, marine shell (*P. perna* and *Fissurellideae spp.*) were recorded.

Significance: The main site is of medium significance as it has well preserved organic remains and appears to be in a primary context. However, the pipeline is unlikely to affect the site.

Mitigation: No direct mitigation is required for this site. However an archaeologist should be on site when the pipeline is excavated to retrieve potential remains.

Mitigation: No direct mitigation is required for this site. However an archaeologist should be on site when the pipeline is excavated to retrieve potential remains.

#### SLD12

This site was observed in the section of the road cutting near the beginning of the Cape Vidal Eastern Loop road. The observable part of the site is an *in situ* shell midden (of P. perna) with a cultural deposit. The midden is  $\pm 30$ cm below the current topsoil (under dense vegetation) and is  $\pm 3$  cm in depth. The rest of the site probably occurs on both sides of the road. Grindstones fragments were noted further downhill and are probably part of this site.

Significance: The site is of medium significance as it has preserved shell remains in a (stratified) deposit.

Mitigation: If the current road is widened, then the shell midden would require some mitigation. I suggest that the midden is sampled by excavation: specifically that part of the midden that would be damaged.

SLD13

SLD13 appears to be a series of sites in close proximity to each other over a length of ±

200m. The archaeological remains included marine shell (P. perna and oyster) and pottery

fragments found scattered along the crest of the dune. A concentration of shell indicates that

an archaeological deposit is present.

The site is currently under dense vegetation making it difficult to locate specific areas of

the site. However, this type of dune topography, and site settlement pattern, is similar to that

which I have observed in the dunes of Richards Bay. These areas consist several

homesteads (or a village) located on the flatter crest of a dune.

The Cape Vidal Eastern Loop road (AR10) is currently cutting across the north-eastern

part of the site. Pottery and shell fragments are visible in the road cutting.

Significance: The site is of medium-high significance in that it has the potential to yield

information regarding intra-site settlement patterns. There is also a cultural deposit.

Mitigation: The main site should not be effected unless excavations are undertaken.

However, the current road does not appear to impact the main part of the site. The current

road will not be widened any further (according to the Regional Engineer) and thus it is

unlikely to have any further impact on the site. Provided that the width of the road does not

change (i.e. 4 m - 5 m in width) no further mitigation is required. Any changes to this width

would require further archaeological investigation.

SLD14

SLD14 is located on both sides of the road to the Catalina Jetty. It consists of an

ephemeral scatter of *P. perna* fragments over a length of 30 m.

Significance: The site is of low archaeological significance.

Mitigation: This site requires no further mitigation.

#### SLD15a/b

SLD 15a/b is located in the vicinity of the alternative Picnic Site to Catalina Jetty (SLD16). SLD15a is located at the proposed Picnic Site. Pottery sherds were observed along the edge of the site. This suggests the site extends eastwards.

SLD15b is a large shell midden located ±20 m north of SLD15a. The midden is mostly undisturbed and overlooks St. Lucia Lake. The shell midden is ± 15 cm deep, ±10 m in radius and appears to have a stratigraphic deposit. The shell species consist mostly of *P. perna*, oyster and whelk. Well preserved bone (hippo?) was observed in the deposit. This midden is a good representative example of middens in the area and has high research potential. In addition to this, the site has the potential for archaeotourism.

Significance: SLD15a is of low-medium significance while SLD15b is of high significance.

Mitigation: SLD15a has a potential archaeological deposit that will be effected by the boardwalks for the proposed site. If this alternative Picnic Site is selected, then test-pit excavations should occur in the areas where the post-holes shall occur. These test-pits will determine whether archaeological material exists in these specific areas and their full significance.

SLD15b is unlikely to be directly impacted by the proposed Picnic Site. An indirect impact could be with visitors walking over the site. The site should be fenced off so that further damage by animals and potential visitors does not occur. If the Picnic Site is chosen near this site, then both the Catalina Jetty and SLD15a/b may be developed for tourism. These sites have the potential to show visitors the long history of the area.

#### **SLD16**

SLD16 is commonly known as Catalina Jetty. The Jetty was used as a base for the RAF 262 Squadron between 1943 and 1944 (NCS 1995, in ACER 2000). Currently the Catalina Jetty consist of several foundation structures, the jetty itself, and some concrete structures. These are currently under vegetation and not clearly visible. A cultural deposit probably exists underneath the vegetation.

Significance: The site needs to be assessed by and architect and/or historian as I am not

suitably qualified to assess the full significance of the site.

Mitigation: It is unlikely that the structures will be affected by the development of the Picnic

Site, and thus no mitigation would be required. The site does however form part of the history

of St. Lucia and it should be preserved, even if the structures are not yet protected by the

KwaZulu-Natal Heritage Act.

The site also has the potential to be developed into a site museum, in conjunction with

other sites and the current hiking track. Archaeological excavations may yield more material

in the vicinity of the Jetty that can be used for display purposes.

2832BA 32

This site is a dense scatter of pottery and shell fragments over a wide area. It has an

archaeological deposit and probably the remains of a settlement. The site dates the Late Iron

Age.

Significance: The site is of medium significance as it has an archaeological deposit and

apparently well preserved features and artefacts.

Mitigation: If the site is to be affected by the construction of the road and/or pipeline then

test-pit excavations should be undertaken.

2832BA38

This site is an ephemeral scatter of artefacts along the firebreak. The site dates to the Late

Iron Age.

Significance: The site is of low significance

Mitigation: No further mitigation is required.

2832BA 78 - 79

These two site could not be located as a result of dense vegetation. Both sites are

ephemeral scatters of pottery and some shell dating to the Late Iron Age.

Significance: The sites appear to be of low significance.

Mitigation: No further mitigation is required.

2832AD 9 - 19, 26 - 31

These sites are a series of sites on the left hand side of the road (i.e. side oppossite of the

pipeline), between the road and the afforested areas. The sites begin at the first "cattle-

crossing" on the road near the entry gate, and end near the turnoff to the current contractors

offices. The sites date from the Late Iron Age to the Historical Period. The are unlikely to be

affected by current development plans.

Significance: The sites range from low to medium significance.

Mitigation: The sites will not be affected by current development and thus no mitigation is

required. Mitigation may be required if these sites are affected i8n the future.

2832AD 6

This site was recorded in the 1976,a nd not much information has been located in the

records. The site consists of two pieces of pottery and appears to belong to the Late Iron

Age.

Significance: The site is of low archaeological significance.

Mitigation: No further mitigation is required.

2832AD 74

This site dates to the Early and Late Iron Age and is located in the vicinity of the current

staff football field and houses. The site consists of a scatter of sherds and shell that have

been partly damaged by the development of the houses and football field.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

2832AD 81

The site is an ephemeral scatter of sherds dating to the Late Iron Age.

Significance: The site is of low significance:

Mitigation: The site requires no further mitigation.

CH9680

This site is located near the chain marker 9680 and appears to be an ephemeral scatter of sherds and shell. However, on reinspection, 10+ glass beads and an in situ shell midden were observed. The glass beads range in colour (white, pink, light and dark blue, and white with blue stripes) and were located in various parts of the site. The shell midden is ±15 cm below the current surface and appears to be well preserved. A settlement probably occurs in the vicinity of the midden. The midden is likely to yield well preserved faunal remains.

Significance: The site is of medium-high significance due to the glass beads, and cultural deposit. The archaeological material also has display potential.

Mitigation: A large part of the site will be effected and damaged by the road. I propose that several test-pit excavations are placed on the site and that the shell midden is partially excavated.

CH10020

This site is lcoated near the chain marker 10020 and appears to be an ephemeral scatter of sherds and shell. However, on reinspection, an in situ shell midden was observed. The midden is ±10cm below the current surface and appears to be ±15 cm thick. The midden is stratified and appears to be well preserved. A settlement may occur in the vicinity of the site.

Significance: The site is of medium-high significance. The midden is well preserved and can be used as a comparison to the midden at CH9460. The two sites are not necessarily related to each other in time, and thus form part of the historical sequence of the area. The site has display potential

Mitigation: A large part of the site will be effected and damaged by the road. I propose that several test-pit excavations are placed on the site and that the shell midden is partially excavated.

#### **CONCLUSION & FUTURE MANAGEMENT**

The archaeological survey recorded seventeen new sites and reassessed several previously recorded sites. Many of these sites have been damaged by forestry tracks, houses and recreational features. The new roads and pipelines will damage several of these sites as well. Most of these archaeological sites are of low significance. This is a result that they have either been too damaged by previous developments, or that they do not have important archaeological material. However, some sites have not been damaged and they have well preserved features and artefacts, if not rare artefacts. These sites are the *in situ* shell middens with(out) settlements.

Each site is unique in its own right, and forms part of the history of the site. Those sites that can yield information regarding these various points in time are thus important. The material from these sites also have the potential to be used for a site museum or interpretative centre as part of the (archaeo-)tourism package.

Any damage to an archaeological site requires a permit. The GSLWP committee is ultimately responsible for ensuring that contractors abide by the rules stipulated in the permit. However, the responsibility of the site and compliance to the permit requirements are those of the company (in this case SPACE) doing the actual development. No permits have been issued as yet to SPACE to damage any of the archaeological sites. SPACE may need to wait until such permits have been issued. I am currently waiting for the permit to excavate the archaeological sites. These permits are available from KZN Heritage.

Two archaeological sites (of potential significance) have already been damaged as a result of SPACE and KZN NCS not involving a qualified archaeologist to assess areas marked for stockpiles. Two other stockpiles had already been created without an archaeological assessment. While this problem area was finally addressed it does not absolve the relevant parties from not complying with the proposed environmental management plan as set out by ACER(Africa).

Those sites that require excavation will need to be excavated as soon as possible so as not to delay any construction activity.

## **REFERENCES**

Anderson, G. 1996. Archaeological excavations and surveys in the Zulti North and Tisand Mineral leases. CRM Report for Richards Bay Minerals.

Anderson, G. 1997. Archaeological excavations and surveys in the Zulti North and Tisand Mineral leases. CRM Report for Richards Bay Minerals.

Anderson, G. 1998. Archaeological excavations and surveys in the Zulti North and Tisand Mineral leases. CRM Report for Richards Bay Minerals.

Anderson, G. 1999. Archaeological excavations and surveys in the Zulti North and Tisand Mineral leases. CRM Report for Richards Bay Minerals.

Anderson, G. 2000. Archaeological excavations and surveys in the Zulti North and Tisand Mineral leases. CRM Report for Richards Bay Minerals.

Hall, M. 1981. Settlement Patterns in the Iron Age of Zululand: an ecological interpretation. British Archaeological Reports International Series 119: Oxford.

# APPENDIX A

# Geographical co-ordinates of archaeological sites

Site Name	Age	Longitude	Latitude
SLD1	Indet	28 16" 57"	32 28' 33"
SLD2	IA	28 17' 04"	32 28' 37"
SLD3	LIA/HP	28 16' 53"	32 28' 21"
SLD4	LIA	200m from SLD 3	
SLD5	LIA/HP	400m downhill from Perrier	
0.50		Reservoir	00.071.771
SLD6	LIA/HP	28 27' 10"	32 27' 57"
SLD7	LSA & LIA/HP	28 17' 10"	32 27' 52"
SLD8	ISA/IA	28 16' 41"	32 29' 07"
SLD9	LIA/HP	28 16' 09"	32 28' 32"
SLD10	EIA	28 14' 51"	32 29' 16"
SLD11	EIA	28 14' 45"	32 29' 20"
SLD12	LIA/HP	28 11' 25"	32 31' 08"
SLD13	?LIA	28 11' 40"	32 31' 04"
SLD14	ISA/IA	28 11' 24"	32 31' 01"
SLD15a/b	LIA?	28 13' 39"	32 29' 19"
SLD16	HP		
2832BA 32	LIA	28 11' 35"	32 31' 32"
2832BA 38	LIA	28 11' 22"	32 30' 57"
2832BA 78 - 79	LIA	28 10' 25"	32 32' 06-07"
2832AD 9- 31	LIA	28 19' - 20' 18" -	32 25' - 26'
		17"	36" - 06"
2832AD 6	LIA	28 17' 23"	32 26' 53"
2832AD 74	EIA/LIA	28 19' 36"	32 26' 07"
2832AD 81	LIA	28 19' 38"	32 26' 18"
CH9680	LIA	28 11' 32"	32 30' 53"
CH10020	LIA	28 11' 23"	32 31' 01"