

F1

Att: Bernard



Our Ref: C13/3/6/1/1/1/C16
 Enquiries: Ndaknyakhe Ndlovu
 Tel: 021 483 9685
 Email: ndlovu@pgwc.gov.za

Cape Town, 03 September 2007

Mr. J. Kaplan
 P. O. Box 159, Ricbeek West, 7306
acrm@acacocesa.co.za

Dear Mr. Kaplan,

RE: PHASE 1 AIA: PROPOSED 66KV POWERLINE, ST HELENA BAY TO BRITANNIA BAY, AND A SUBSTATION, ST. HELENA BAY, WESTERN CAPE PROVINCE

The Archaeology, Palaeontology and Meteorites (APM) Committee of the Western Cape Provincial Heritage Resources Authority, Heritage Western Cape (HWC), at a meeting held on 06 August 2007, discussed the Phase 1 AIA for the proposed overhead powerline and a small substation at St. Helena Bay.

The following was noted:

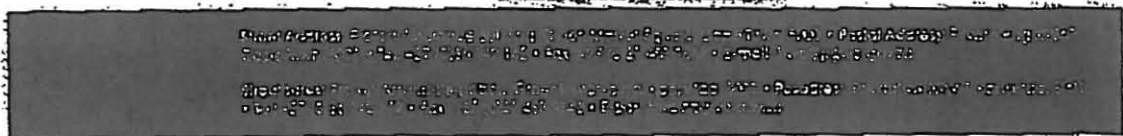
1. This is a linear development of 6km, therefore exceeding 300m, and it requires a NID and an AIA. The NID checklist has been completed.
2. Site A is an extensive scatter of well-preserved shellfish remains. Elsewhere, only a few Later Stone Age tools and a retouched glass case bottle were found; the LSA artefacts include a quartz core and two quartz flakes. A small fresh water spring is located in the vicinity of Site A.
3. The archaeological remains at Site A have been rated as having high local significance
4. Nothing of significance was noted at the proposed sub-station site.

From the APM Committee area of competency, the committee agreed:

1. To accept the recommendations made in the AIA report.
2. There were no objections to the power line and substation, provided that Site A and the fresh water spring are avoided
3. Although unlikely, however, in the event that human burials or archaeological resources are uncovered or exposed during earthworks or excavations, especially at Loop 3, they must be reported immediately to the South African Heritage Resources Agency - for burials only (Att: Mrs M. Leslie or Mrs. C. Schetzmeier 021 462 4502) and Heritage Western Cape (Att: Ndaknyakhe Ndlovu 021 483 9685). An archaeologist will be required to remove the remains at the expense of the developer.

Yours faithfully

Ndaknyakhe Ndlovu
 Senior Heritage Officer: Archaeologist



Our Ref: ST HELENA BAY & ST BRITANNIA BAY/ SCHOONGESIG

Enquiries: Celeste Booth
Tel: 021 483 9685
E-mail: Cbooth@pgwc.gov.za



25 July 2008

Mr J. Kaplan
Agency for Cultural Resource Management
PO Box 159
Riebeeck West
7306

PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA): PROPOSED NEW DEVELOPMENT LINE ROUTES AND SUBSTATION POSITIONS FOR THE PROPOSED NEW 66/11KV SCHOONGESIG SUBSTATION: ST HELENA BAY AND BRITANNIA BAY

The above matter was discussed at the Archaeology, Palaeontology and Meteorites (APM) Permit Committee meeting held on 1 July 2008:

The following was noted for the proposed development:

1. A Notification of Intent to Develop (NID) has been submitted to the Built Environment and Landscape Committee (BELCOM) for comment.
2. Important archaeological heritage remains will not be negatively impacted.
3. Archaeological sites documented in Options E and F occur in a landscape that has been radically transformed and modified as a result of modern agricultural activities.

Heritage Western Cape (HWC) agreed that:

1. Archaeological monitoring by an archaeologist or archaeology student (Masters) must be required during all earth moving activities.
2. The recommendations are approved.
3. The developer is responsible for costs associated with further heritage related work.
4. Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, all work must cease and immediately be reported to SAHRA (Ms Mary Leslie 0214624502), or HWC Ms Celeste Booth 021 483 9685).
5. Burial remains should not be disturbed or removed until inspected by the archaeologist.

www.capegateway.gov.za/culture_sport

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Yours faithfully

A handwritten signature in black ink, appearing to read 'Celeste Booth', with a large, sweeping flourish at the end.

Celeste Booth

Heritage Officer (Archaeology)

For: Accounting Authority: Heritage Resources Management Services.

Pp Heritage Western Cape

APPENDIX G1 Archaeological Phase 1 Assessment 2008

And Appendix G1 Archaeological Phase 1 Assessment 2007

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
LINE ROUTES AND SUBSTATION POSITIONS FOR THE
PROPOSED NEW 66/11 KV SCHOONGESIG
SUBSTATION: ST HELENA BAY TO BRITANNIA BAY**

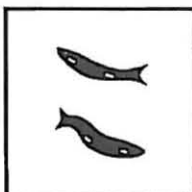
Prepared for

ENVIROAFRICA

Att: Mr Jerry Avis
PO Box 5367
Helderberg
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Client: **Eskom Holdings**

By



Agency for Cultural Resource Management

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**JUNE
2008**

Executive summary

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment of five new line route options for the proposed 66/11 kV overhead powerline and Schoongesig substation situated between St. Helena Bay and Britannia Bay.

The St. Helena Bay region on the Cape west coast is experiencing an increase in demand for electricity due mainly to the increase of new residential developments in the surrounding area. The Schoongesig area is the worst effected and the existing Eskom line cannot supply the increasing demands.

The proposed Schoongesig line route and substation position was investigated in 2007 by the archaeologist, as part of an earlier assessment of the proposed project. However, as a result of public input, several new line options (or alternatives) are now being considered.

Five alternative route options (excluding the 2007 proposed route – Option B) were assessed by the archaeologist.

The Preferred (Option F) and Alternative (Option E) route option was subjected to a Phase 1 archaeological impact assessment, while the remaining line options - Options A, C and D (unlikely to be considered) were assessed at a scoping level.

The aim of the study is to locate and map archaeological sites that may be negatively impacted by the planning and construction of the proposed new line option and substation position, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A Notification of Intent to Develop (NID) checklist has been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

The following findings were made:

Option A, C, and D

Apart from a few dispersed fragments of shellfish and the occasional quartz flake, chunk and broken quartzite cobble no significant or coherent archaeological sites were documented or noted during archaeological scoping of route Options A, C and D.

Option E

Dispersed bits of shellfish and the occasional stone flake were documented in route Option E.

Option F

Dispersed scatters of weathered and fragmented shellfish, a few stone flakes and some pottery were documented in old agricultural lands in the preferred route option.

Dispersed and highly fragmented shellfish and a few Later Stone Age flakes and chunks were documented among a prominent outcropping of granite on the Farm Davids Fontyn just south of the T-off of the existing powerline at Sterbakenkop. A number of ruined and demolished stone cottages also occur among the outcropping. The site, unfortunately, has already been damaged and highly disturbed as a result of more recent human activity.

None of the archaeological sites and remains documented during the study will be severely negatively impacted by the proposed project. These sites already occur in a severely modified and transformed landscape.

With regard to the proposed development of a 66/11 kV overhead powerline and substation situated between St. Helena Bay and Britannia Bay, the following recommendations are made:

- The Preferred (Option F) and Alternative (Option E) route options are acceptable and no one route is favoured over the other.
- No archaeological mitigation is required.

Table of Contents

	<u>Page</u>
Executive summary	1
1. INTRODUCTION	4
2. TERMS OF REFERENCE	4
3. THE STUDY SITE	5
4. STUDY APPROACH	7
4.1 Method of survey	7
4.2 Constraints and limitations	7
4.3 Identification of potential risks	7
4.4 Results of the desk-top study	7
5. FINDINGS	8
5.1 Option A	8
5.2 Option B, C and D	8
5.3 Option E	8
5.4 Option F	11
5.5 Proposed substations	13
6. IMPACT STATEMENT	13
7. CONCLUSION	13
8. REFERENCES	14

1. INTRODUCTION

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment of five new line route options for the proposed 66/11 kV overhead powerline and Schoongesig substation situated between St. Helena Bay and Britannia Bay on the Cape West Coast.

The proposed powerline line is about 6 km long.

The St. Helena Bay region is currently experiencing an increase in demand for electricity due to the increase of mainly new residential developments in the area. The Schoongesig area is the worst effected and the existing Eskom line cannot supply the increasing demands.

The proposed Schoongesig line route and substation position was investigated in 2007 by the archaeologist, as part of an earlier assessment of the proposed project (Kaplan 2007a). However, as a result of public input, several new line options (or alternatives) are now being considered.

The extent of the proposed development (a linear development exceeding more than 300 m in length) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological sites that may be negatively impacted by the planning and construction of the proposed new line option and substation position, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A Notification of Intent to Develop (NID) checklist has been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed routes and substation positions;
- to identify and map any sites of archaeological significance within the proposed routes and substation positions;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed routes and substation positions;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed routes and substation positions.

3. THE STUDY SITE

A locality map indicating the proposed route options and substation positions is illustrated in Figure 1.

The ± 6 km long 66/11 kV powerline, will T-off the existing powerline south of St. Helena Bay at Sterbakenkop on the Farm Davids Fontyn. From the T-off, the powerline will be located within the boundaries of the following farms: Davids Fontyn, Schuitjes Klip and Duyker Eiland, to the proposed Schoongesig substation which is situated next to the Stompneusbaai/Britannia Bay road. It is important to note that the maximum span between powerline poles is about 300 m, with the average being 225m.

An aerial photograph illustrating the proposed route options is illustrated in Figure 2.

Option F (purple) is the Preferred, route and Option E (yellow) the Alternative route preferred by the Applicant.

Option B has already been investigated (Kaplan 2007a).

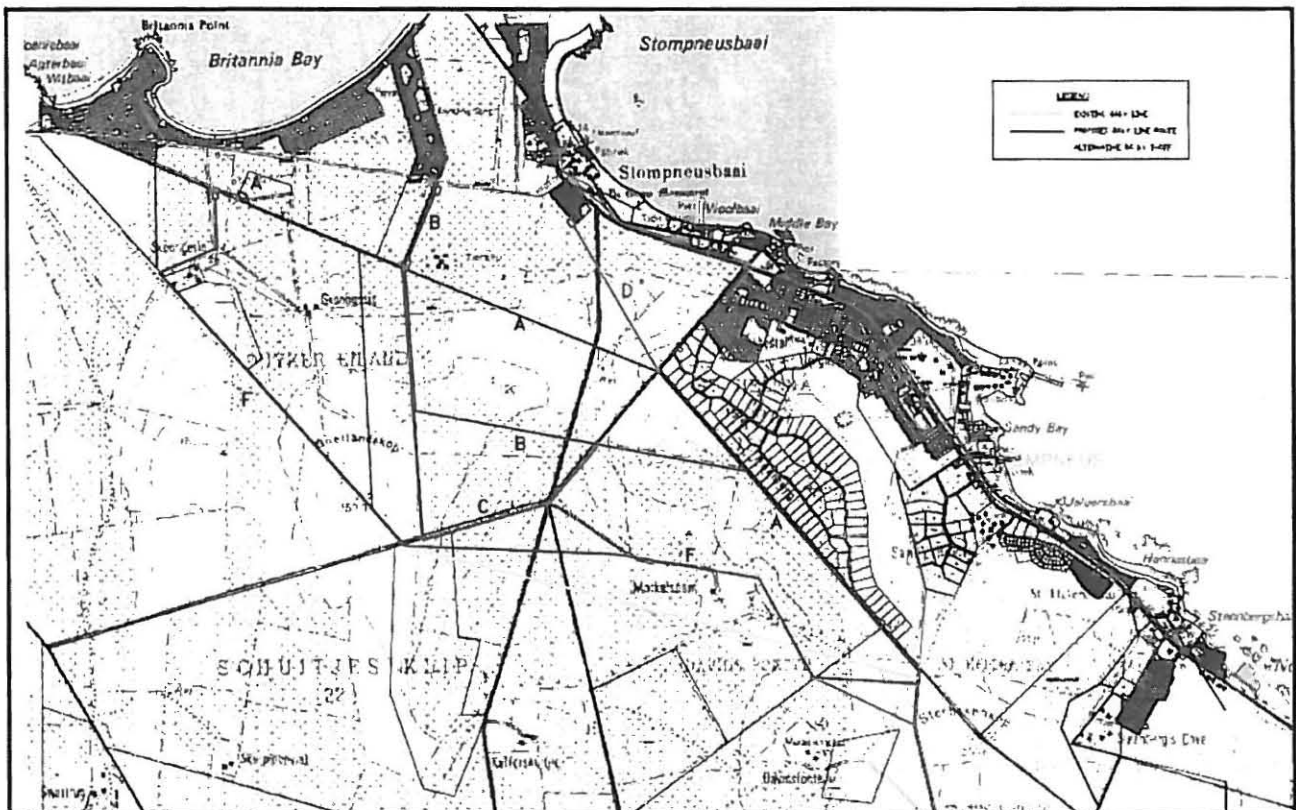


Figure 1. Locality Map (3217 DB & DD Vredenburg) indicating proposed line route options

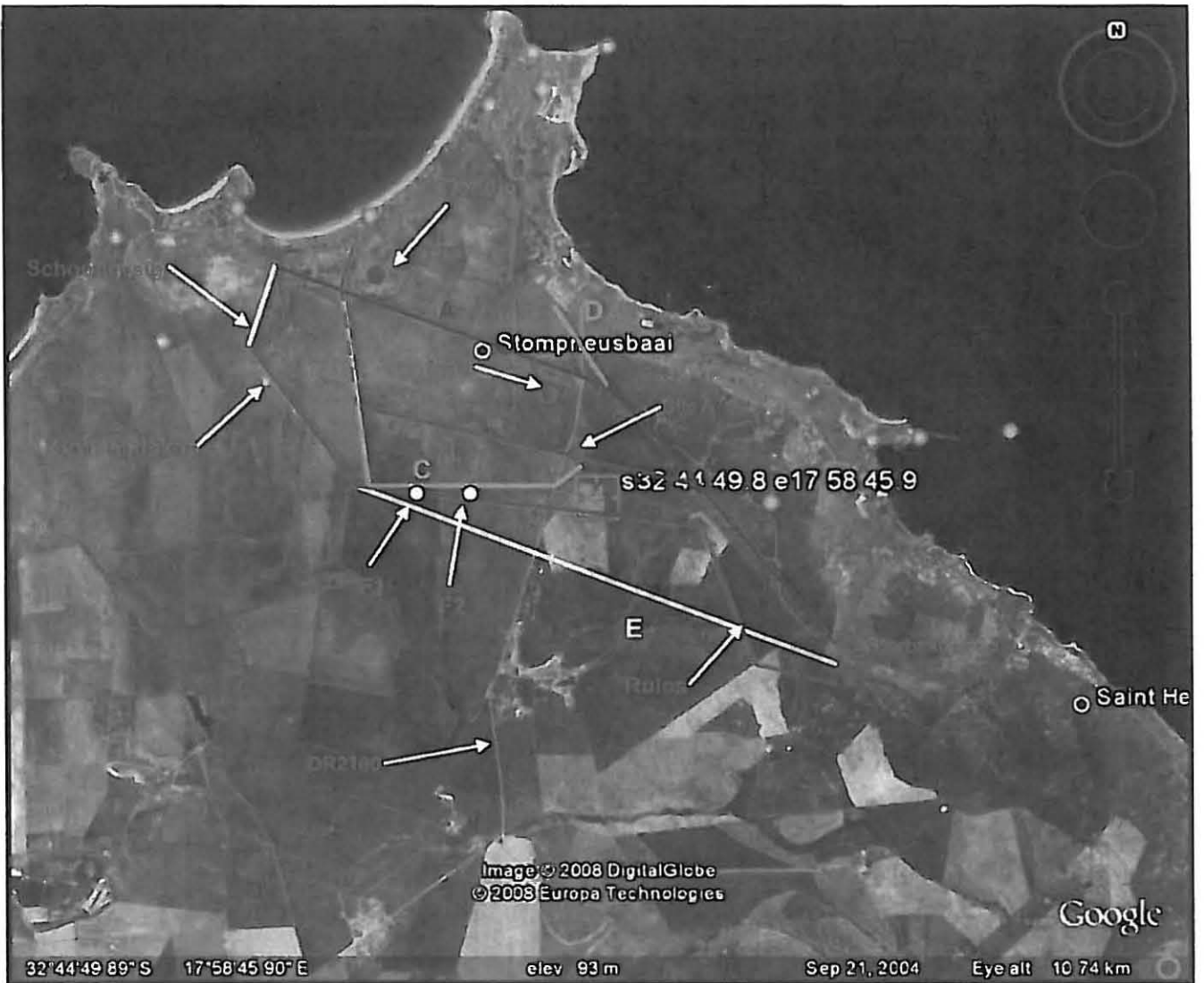


Figure 2. Aerial photograph of the study site illustrating the approximate location of the proposed route options

4. APPROACH TO THE STUDY

4.1 Method of survey

The approach followed in the archaeological study entailed a detailed survey of Option F (the Preferred, route) and Option E (the Alternative route).

Options A, C and D were subjected to archaeological scoping only, as it appears highly unlikely, as a result of the public participation process, that these line options will be considered.

Archaeological heritage remains were recorded using a hand-held Garmin Geko 201 GPS unit set on map datum wgs 84.

The site visit and assessment took place on the 27th and 28th May, 2008.

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no major constraints or limitations associated with the study. However, a short (\pm 300 m long) section of the proposed route, from the Vodacom base station on Soetlandskop (Option F) where it intersects with Option C and E is very well vegetated, resulting in low archaeological visibility.

4.3 Results of the desk-top study

It is well known that large numbers of archaeological sites occur along the rocky shoreline, in the St. Helena Bay area, mostly around Duyker Eiland and Britannia Bay (Kaplan 2006a, b, 2003, 1993; Halkett & Hart 1995; Thackeray & Cronin 1975). Extensive scatters of shellfish remains, stone tools and pottery have also recently been documented along the rocky shoreline in St. Helena Bay (Kaplan 2006c, d, 2007b).

With its rocky shoreline, the St. Helena Bay region clearly acted as foci that attracted both LSA hunter-gatherers and later Khoekhoe herders as it offered greater opportunities for the exploitation of marine foods, particularly shellfish, while the local shales and granites provided vital nutrients for domestic stock. Shellfish meat was either cooked in pots or on open fires, but there is also evidence to suggest that meat was dried and smoked. Other marine resources exploited included sea birds, fish, crayfish, seal, dolphin, and even occasionally whales.

Research focussing on the Khoekhoe herder economy around 2000 years ago in the Vredenburg Peninsula has also identified large numbers of sites up to several kilometres from the shoreline (Sadr *et al* 1992). Many of these sites, comprising substantial shellfish deposits with pottery and stone tools, are centred round the many large granite outcroppings that are ubiquitous in Vredenburg, Paternoster and the St. Helena Bay area (see also Kaplan 2006e).

5. IMPACT ASSESSMENT AND DESCRIPTION

5.1 Option B

Option B has already been subjected to a detailed Phase 1 AIA (Kaplan 2007a)¹. Well preserved shellfish remains, stone flakes and the retouched base of a case bottle were found scattered around a natural spring, alongside the DR2160 (see Site A in Figure 2)

5.2 Option A, C and D

Apart from a few dispersed fragments of shellfish and the occasional quartz flake, chunk and broken quartzite cobble no significant or coherent archaeological sites were documented or noted during archaeological scoping of route Options A, C and D. More than 90% of route Option C follows existing farm roads.

It is important to note that Duyker Eiland 6 and the surrounding properties inland of Golden Mile Drive (through which the proposed Options A, C and D pass), was subjected to archaeological scoping (Kaplan 2006e). Important sites were documented at a prominent granite outcrop at Tierklip, as well on the lower rocky slopes alongside DR2160 (refer to Figure 2). These archaeological sites typically comprise fairly substantial scatters of shellfish, with stone flakes, ostrich eggshell and pottery. The Tierklip site is fairly disturbed and the surrounding area quite degraded due to it been a popular recreational space, while the sites among the granite boulders and slopes alongside DR2160 are quite well preserved (see Site B in Figure 2).

5.3 Option E

Option E is the applicants, preferred Alternative route. The route line follows a straight line over the Farm Morkelsdam toward Duyker Eiland. It follows the boundary of the farms Davids Fontyn and Schuitjes Klip, until it turns straight toward the proposed substation position. Almost 90% of the Option E receiving environment comprises old agricultural lands (wheat), or lands that have been recently ploughed (Figures 3-11).

A few quartz and quartzite stone flakes and broken/smashed cobbles, including a well crafted silcrete retouched blade, were found in ploughed (north facing) fields overlooking DR2160.

A few patches of fragmented and weathered shellfish and a large ESA quartzite core and flake, were also noted in the wheat fields between DR2160 and Sterbakenkop.

Patches of fragmented and crushed shellfish and a few quartz stone flakes and chunks were documented on the granite outcropping south of Sterbakenkop (refer to Figure 2). A GPS reading for the site is S 32° 46 06.8 S 17° 59. 44.3. These finds also apply to route Option F.

Several ruined and demolished (old) farm buildings also occur on the rocky outcrops just south of Sterbakenkop (Figures 12-14). Glass and pieces of undecorated ceramics are also scattered about the rocky outcrop. These finds also apply to route Option F.

¹ Refer also to HWC letter dated 03 September, 2007 (attached)



Figure 3. Option E view facing north



Figure 6. Option E view facing south west



Figure 4. Option E view facing north



Figure 7. Option E view facing north



Figure 5. Option E view facing north

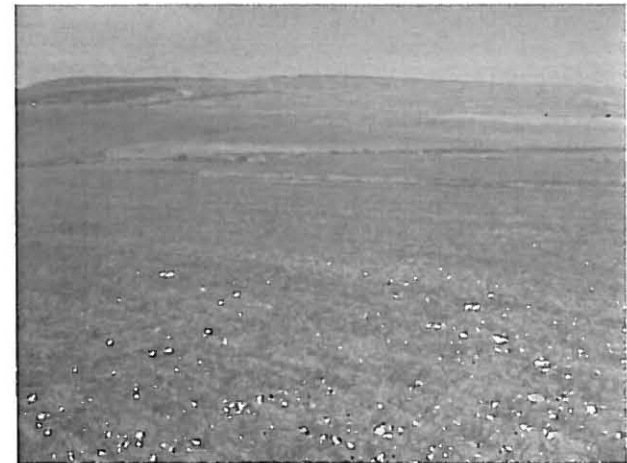


Figure 8. Option E view facing north



Figure 9. Option E view facing north



Figure 12. Ruin building on Sterbakenkop



Figure 10. Option E view facing south



Figure 13. Ruined building on rocky kopje



Figure 11. Option E view facing north to Sterbakenkop



Figure 14. Ruined building on rocky kopje

5.4 Option F

Option F is the preferred route. The line route is over the farm Morkelsdam and follows mostly farm roads and the edges of wheat fields. Except for a well vegetated parcel of land between the Vodacom base station on Soetlandskop and where the proposed line intersects with Option C and E, about 80-90% of the receiving environment comprises agricultural lands (Figures 15-24).

F1 (S 32° 44 49.3 S 17° 59. 45.9).

A dispersed scatter of weathered and fragmented shellfish was documented in old agricultural fields on loose sandy soils about 25 m from the fence line on the farm Schuitjies Klip (Figure 25). The shellfish comprises fragments of mainly limpets (*Scutellastra argenvillei*, *S. cochlear* and *S. granularis*) and Black Mussel (*Choromytilus meridionalis*), with some whelk and barnacle also occurring. Three quartz chunks, one quartz flake and four small undecorated pieces of weathered pottery were also counted.

The archaeological remains have been rated as having low local significance.

F2 (S 32° 44 53.1 S 17° 58. 01.7)

Another, even more dispersed scatter of weathered and fragmented shellfish was found on loose sandy soils in larger open patches of partially cleared lands, about 120 m north of F1 (Figure 26), overlooking DR160. Dune mole rat activity and burrowing is quite extensive. The shellfish is dominated by limpets (including one or two whole shell) with fewer pieces of black mussel and barnacle occurring. One large piece of trough shell (*Lutreria lutreria*) was also identified. A few quartz chunks and flakes were counted, but no pottery was found.

The archaeological remains have been rated as having low local significance.



Figure 15. Option F view facing west toward Britannia Bay



Figure 16. Option F view facing west toward Britannia Bay



Figure 17. Option F view facing north

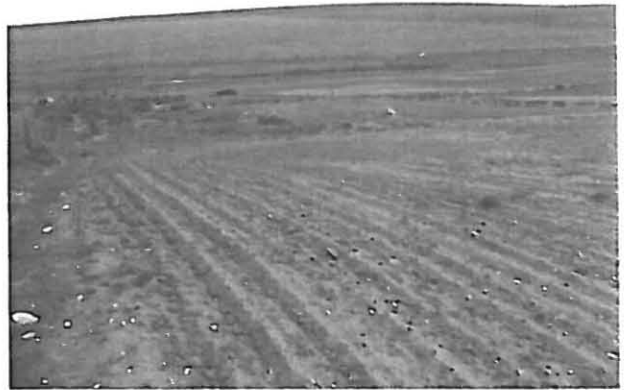


Figure 20. Option F view facing south



Figure 18. Option F view facing north



Figure 21. Option F view facing north

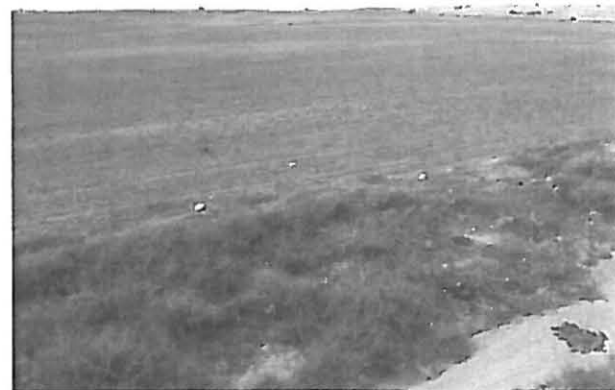


Figure 19. Option F view facing north



Figure 22. Option F view facing south



Figure 23. Option F view facing north



Figure 25. Option F Site 1 view facing north



Figure 24. Option F view facing north to Sterbakenkop



Figure 26. Option F Site 2 view facing north

5.5 Proposed substations

No archaeological remains were documented at the proposed Schoongesig substation (Kaplan 2007a), nor at any of the proposed alternative substation positions (see Figure 1)

6. IMPACT STATEMENT

The proposed Schoongesig 66/11 kV overhead powerline routes (Options A, C, D, E and F) situated between St. Helena Bay and Britannia Bay will not impact negatively on important archaeological heritage remains.

Although archaeological sites have been documented in Options E and F, they occur in a landscape (i.e. agricultural lands) that has been radically transformed and modified as result of modern agricultural activities.

7. RECOMMENDATIONS

With regard to the proposed development of the Schoongesig 66/11 kV overhead powerline and substation situated between St. Helena Bay and Britannia Bay, the following recommendations are made:

- The Preferred (Option F) and Alternative (Option E) route options are acceptable and no one route is favoured over the other.
- No archaeological mitigation is required.

8. REFERENCES

- Halkett, D. & Hart, T. 1995. A Phase 1 Archaeological Impact Assessment of Portion 6 of the farm Dyker Eiland, St. Helena Bay. Report prepared for Beyers, A.W. Land Surveyors and Township Consultants. Archaeology Contracts Office, University of Cape Town.
- Kaplan, J. 2007a. Phase 1 Archaeological Impact Assessment proposed 66 Kv powerline St. Helena Bay to Britannia Bay. Report prepared for EnviroAfrica. Agency for Cultural Resource Management.
- Kaplan, J. 2007b. Phase 1 Archaeological Impact Assessment St Helena Views Phase 3 Coastal Portion Erf 35 St Helena Bay. Report prepared for CK Rumboll and Partners. Agency for Cultural Resource Management.
- Kaplan, J. 2006a. Phase 1 Archaeological Impact Assessment portion 7 of the Farm Duyker Eiland No. 6. St. Helena Bay. Report prepared for CK Rumboll and Partners. Agency for Cultural Resource Management.
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- Kaplan, J. 2005. A Phase 1 Archaeological Impact Assessment of the area surrounding the abandoned Die Kop quarry site situated on the Farm Kleinberg 87/1 Vredenburg. Report prepared for Site Plan Consulting. Agency for Cultural Resource Management.
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- Sadr, K., Gribble, J. & Euston-Brown, G. 1992. The Vredenburg Peninsula survey, 1991/92. In Smith, A.B. & Muti, B (eds) Guide to archaeological sites in the south western Cape. Department of Archaeology, University of Cape Town.

Thackeray, F & Cronin, M. 1975. Report on archaeological survey within the Saldanha area. Unpublished report, South African Museum, Cape Town.

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED 66 KV POWERLINE:
ST HELENA BAY TO BRITANNIA BAY**

Prepared for

ENVIROAFRICA

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Client: **Eskom Holdings**

By

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**JULY
2007**

Executive summary

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed 66 kV overhead powerline and small substation situated between St. Helena Bay and Britannia Bay on the Cape West Coast.

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A Notification of Intent to Develop (NID) checklist has been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

The following findings were made:

An extensive scatter of well-preserved shellfish remains, including a small number of Later Stone Age tools, a retouched/flaked base of a glass case bottle, glass fragments and a small piece of decorated porcelain was documented alongside the gravel road (DR2160) situated between Vredenburg and St. Helena Bay, close to where the proposed powerline crosses the road. A fresh-water spring alongside the road was the obvious target for Stone Age people.

The archaeological remains have been rated as having high local significance.

Crushed shellfish and a few Later Stone Age flake tools were also documented around a prominent outcropping of granite relatively close to the powerline route, but this site will not be impacted by the proposed project. The site, unfortunately, has already been damaged and disturbed as a result of recent human activity.

Fragments of shellfish and the occasional whole shell, quartz flake and chunk were also located along, or close to, the proposed powerline route, but these remains have been rated as having low local significance.

With regard to the proposed development of a 66 kV overhead powerline and the Schoongesig substation, situated between St. Helena Bay and Britannia Bay, the following recommendation is made:

- The proposed powerline **must** avoid the scatter of shellfish and the fresh water spring situated alongside the gravel road (DR2160) between Vredenburg and St. Helena Bay.

1. INTRODUCTION

EnviroAfrica, on behalf of Eskom Holdings requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed 66 kV overhead powerline and a small substation situated between St. Helena Bay and Britannia Bay on the Cape West Coast.

The extent of the proposed development (a linear development exceeding more than 300 m in length) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A Notification of Intent to Develop (NID) checklist has been completed by the archaeologist and submitted to Heritage Western Cape (Belcom) for comment.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed route;
- to identify and map any sites of archaeological significance within the proposed route;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed route;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed route

3. THE STUDY SITE

A locality map indicating the proposed route is illustrated in Figure 1.

An aerial photograph indicating GPS points along the proposed route is illustrated in Figure 2.

The ± 6 km long 66 kV powerline will T-off the existing powerline south of St. Helena Bay at Sterbakenkop on the Farm Davids Fontyn No.18 at co-ordinates S 32° 45' 48" E 18° 00' 18" (on map datum wgs 84). From the T-off, the powerline will be located 11 m within the boundaries of the following farms: Portion of Portion 7 of Davids Fontyn No. 18, Farm 18/7 and Farm 6/4, to the proposed Schoongesig substation which is situated next to the Stompneusbaai/Britannia Bay road south of Shelly Point, at S 32° 43' 36" E 17° 57' 51".

Figures 3-10 illustrates the receiving environment of the proposed powerline route.

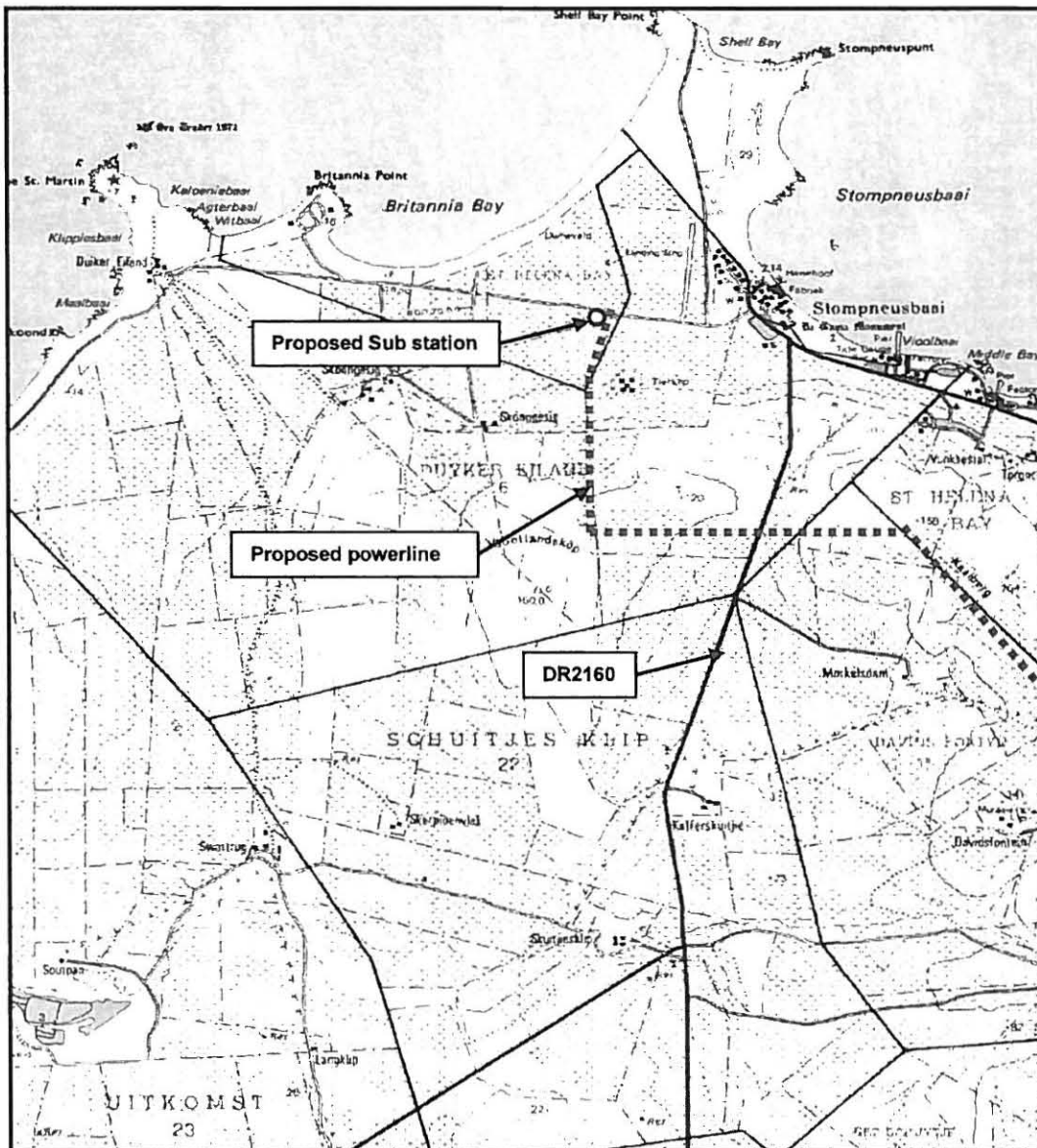


Figure 1. Site locality map (3217 DB & DD Vredenburg)



Figure 2. Aerial photograph of the study site and the proposed powerline route



Figure 3. View of the route facing east from the Stompneusbaai/St Helena Bay Road



Figure 4. View of the route facing west to the Stompneusbaai St. Helena Bay Road

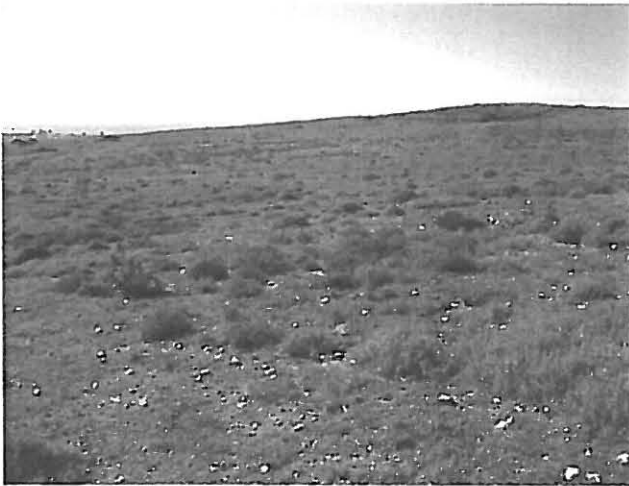


Figure 5. View of the route facing north



Figure 8. View of the route facing north



Figure 6. View of the route facing south. Arrow indicates Vredenburg/St Helena Bay Road



Figure 9. View of the route facing north



Figure 7. View of the route facing north west



Figure 10. View of the route facing north and T-off at Sterbakenkop

4. APPROACH TO THE STUDY

4.1 Method of survey

The approach followed in the archaeological study entailed a detailed survey of the proposed route and the proposed Schoongesig substation.

Archaeological heritage remains were recorded using a hand-held Garmin Geko 201 GPS unit set on map datum wgs 84.

The site visit and assessment took place on the 26th June, 2007.

A desktop study was also undertaken.

4.2 Limitations

There were no limitations associated with the study.

4.3 Results of the desk-top study

It is well known that large numbers of archaeological sites occur along the rocky shoreline, in the St. Helena Bay area, mostly around Duyker Eiland and Britannia Bay (Kaplan 2006a, b, 2003, 1993; Halkett & Hart 1995; Thackeray & Cronin 1975). Recently, extensive scatters of shellfish remains, stone tools and pottery have been documented along the rocky shoreline in St. Helena Bay (Kaplan 2006c, d, 2007).

With its rocky shoreline, the St. Helena Bay region acted as foci that attracted both LSA hunter-gatherers and later Khoekhoe herders as it offered greater opportunities for the exploitation of marine foods, particularly shellfish, while the local shales and granites provided vital nutrients for domestic stock. Shellfish meat was either cooked in pots or on open fires, but there is also evidence to suggest that meat was dried and smoked. Other marine resources exploited included sea birds, fish, crayfish, seal, dolphin, and even occasionally whales.

Research focussing on the Khoekhoe herder economy around 2000 years ago in the Vredenburg Peninsula has also identified large numbers of sites up to several kilometres from the shoreline (Sadr *et al* 1992). Many of these sites, comprising substantial shellfish deposits with pottery and stone tools, are centred round the many large granite outcroppings that are ubiquitous in Vredenburg, Paternoster and the St. Helena Bay area (see also Kaplan 2006e).

5. LEGISLATIVE REQUIREMENTS

5.1 The National Heritage Resources Act (Act No. 25 of 1999)

The National Heritage Resources (NHR) Act requires that "...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment"

The relevant sections of the Act are briefly outlined below.

5.2 Archaeology (Section 35 (4))

No person may, without a permit issued by the SAHRA or Heritage Western Cape, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

5.3 Burial grounds and graves (Section 36 (3))

No person may, without a permit issued by SAHRA or Heritage Western Cape, destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority.

6. IMPACT ASSESSMENT AND DESCRIPTION

Site A (S 32° 44' 426" E 17° 58' 656")

An extensive scatter of well-preserved shellfish remains, measuring about 60-70 m in extent, was documented alongside the gravel road (DR2160) situated between Vredenburg and St. Helena Bay, close to where the powerline crosses the road (see Figure 2). The scatter is visible in a few open patches about 30 m north of the gravel road, but most of it is obscured by thick vegetation and groundcover (Figure 11). A large concrete structure is located about 25 m further to the north.

The shellfish comprises mostly small fragments and is dominated by the limpets (Scutellastra argenvillei and Cymbula granatina), with some C. miniata also occurring. Relatively large amounts of Black Mussel (Choromytilus meridionalis) are also present. Some whelk was also noted, while several large whole S. argenvillei were counted.

Only a few Later Stone Age tools were found. These include a quartz core, two quartz flakes, one quartz chunk and one quartzite flake. No pottery or ostrich eggshell was found. One large crayfish mandible was identified, and some tortoise bone, but the latter is probably very recent.

A very interesting find is the retouched/flaked base of a large case bottle (Figure 12). Some (modern) glass, rusted metal and a small piece of decorated porcelain were also found. Finds of re-used European artefacts in a possible Stone Age (Herder) context are virtually unknown from the Vredenburg/St Helena Bay area, the equivalent being a flaked brick tile from a 15-17th Century kraal from the northern end of the Vredenburg Peninsula (Karim Sadr pers. comm.). Two recent studies, however, have documented a retouched piece of flaked glass from a case bottle, and a large retouched piece of refined annular earthenware at Die Kop quarry near Veldriff (Kaplan 2005), as well as a retouched piece of white porcelain from a large site near Duyker Eiland, not too far from the proposed powerline route (Kaplan 2006a).

A natural, fresh water spring and seep alongside DR2160 was the obvious target for Stone Age people, as most of the shellfish described above is scattered around the spring (Figure 13).

The archaeological remains have been rated as having high local significance.



Figure 11. Site A alongside DR2160. Shellfish occurs in the open patches in the foreground of the plate.



Figure 13. Fresh water spring alongside DR2160

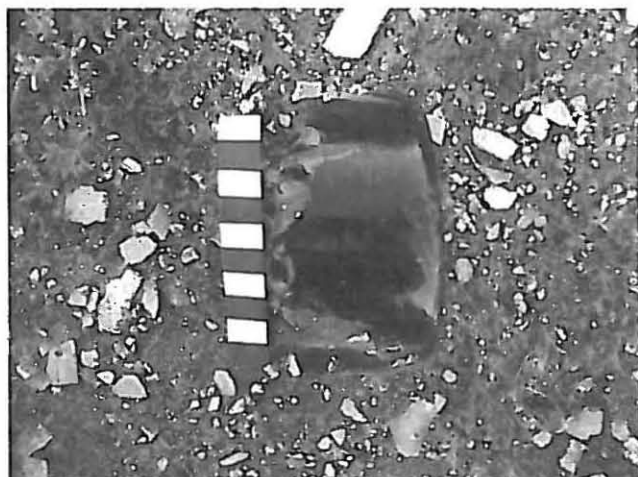


Figure 12. Retouched/flaked base of a case bottle. Scale is in cm

Fragments of shellfish, crushed shellfish and a few Later Stone Age flake tools and chunks were also documented around a prominent outcropping of granite relatively close to the powerline route, but this site will not be impacted by the proposed project. The site has, unfortunately, already been damaged and disturbed as a result of more recent human activity.

The occasional piece of shellfish (mainly limpet), large whole limpet shell, and quartz flake and chunk were also located alongside or close to the proposed powerline route, but these remains have been rated as having low local significance.

6.1 Proposed Schoongesig Substation

No archaeological heritage remains were documented at the proposed Schoongesig Substation site alongside the Britannia Bay/Stompneusbaai road (see Figure 1).

7. IMPACT STATEMENT

The proposed 66 kV overhead powerline situated between St. Helena Bay and Britannia Bay may impact negatively on important archaeological heritage remains located alongside DR2160 (i.e. the gravel road between Vredenburg and St. Helena Bay).

8. RECOMMENDATIONS

With regard to the proposed 66 kV overhead powerline (and Schoongesig Substation), situated between St. Helena Bay and Britannia Bay, the following recommendation is made:

- The proposed powerline **must** avoid the extensive scatter of shellfish (Site A) and the fresh water spring situated alongside the gravel road (DR2160) between Vredenburg and St. Helena Bay.

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