HERITAGE IMPACT ASSESSMENT FOR THE REPLACEMENT OF THE 11KV OVERHEAD POWERLINE BETWEEN SIGNAL SCHOOL AND ADMIRALITY WEST SUBSTATION, SIMON'S TOWN, WESTERN CAPE PROVINCE

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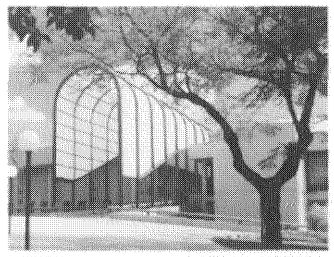

SUMMARY

HERITAGE IMPACT ASSESSMENT FOR THE REPLACEMENT OF THE 11KV OVERHEAD POWERLINE BETWEEN SIGNAL SCHOOL AND ADMIRALITY WEST SUBSTATION, SIMON'S TOWN, WESTERN CAPE PROVINCE

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the boundaries of the area in which it is proposed to install an underground electricity cable.

A number of buildings and other features of cultural significance occur in the general area of the development. Furthermore, it is anticipated that hidden features might be exposed during the installation of the cable. It is therefore our viewpoint that the proposed development can take place in the study area, on condition of acceptance of the following recommendations:

- The heritage features in the vicinity of the Signal School/Sanatorium should be avoided. An archaeologist should be on standby when the trench is excavated in the locality of the Sanatorium and adjacent buildings. If any object, feature or structure is exposed, work must cease immediately in order for an archaeologist to investigate and implement suitable mitigation measurements.

- If the cable is to be installed below the old pole structures, the trench must be excavated manually and care must be taken to avoid any damage to these structures.

- Where the trench crosses the stone pathway, the latter should be documented photographically before trenching takes place, in order that it can successfully be reconstructed afterwards.

- The built-up area is very sensitive. Features dating from the 18th century are found all along the so-called "Historic Mile". It is conceivable that hidden features, e.g. rubbish dumps, walkways, paving, and even unmarked burials can be exposed. It is therefore mandatory that an archaeologist is in attendance for the whole period of time that the trench for the cable is excavated in this section. If archaeological sites or graves are exposed during construction work, all work must immediately be stopped in order for the archaeologist to implement suitable mitigation measures.

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GLOSSARY OF TERMS AND ABBREVIATIONS

STONE AGE

Early Stone Age (ESA)	2 000 000 - 150 000 Before Present
Middle Stone Age (MSA)	150 000 - 30 000 BP
Late Stone Age (LSA)	30 000 - until c. AD 200

IRON AGE

Early Iron Age (EIA)	AD 200 - AD 1000
Late Iron Age (LIA)	AD 1000 - AD 1830

HISTORIC PERIOD

Since the arrival of the white settlers - c. AD 1840 in this part of the country

ADRC - Archaeological Data Recording Centre

Impact - A description of the effect of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space

PHRA – Provincial Heritage Resources Agency

SAHRA - South African Heritage Resources Agency

DEFINITIONS AND ASSUMPTIONS

- *Cultural resources* are all non-physical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.

- The *significance* of the sites and artefacts are determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

- Sites regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.

- Archaeological sites: any area of land containing artefacts, ecofacts, features and structures in any combination of the above.

- Isolated occurrences: findings of artefacts or other remains located apart from archaeological sites. Although these are noted and samples are collected, it is not used in impact assessment and therefore do not feature in the report.

- Traditional cultural use: resources which are culturally important to people.

- The latitude and longitude of archaeological sites are to be treated as sensitive information by the developer and should not unduly be disclosed to members of the public.

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1. INTRODUCTION

The National Cultural History Museum[1], Pretoria, was appointed by Strategic Environmental Focus to conduct a Heritage Impact Assessment (HIA) in and area in which it is proposed to install an electricity cable. As this is part of the Cape Peninsula National Park, it was decided to install the cable below ground. For this purpose, a trench approximately 1m wide (at surface level) and 1 m deep will be excavated to accommodate the cable.

2. SCOPE OF WORK

The scope of work consisted of conducting a Phase 1 archaeological survey of the site in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999).

This include:

- Conducting a desk-top investigation of the area;
- A visit to the proposed development site.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development areas;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

[1] The National Cultural History Museum is affiliated to the Northern Flagship Institution, which acts as parent body for a number of museums, all of which resort under the Department of Arts and Culture.

3. STUDY APPROACH AND METHODOLOGY

3.1 Extent of the Study

This survey and impact assessment covers the areas of the proposed development and its related infrastructure, as presented in Section 4 and illustrated in Figures 1 to 3.

3.2 Methodology

3.1 *Preliminary investigation*

3.1.1 Survey of the literature
A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various reports, anthropological, archaeological and historical sources were consulted - see the list of references below. Nothing pertaining to the area specific was found and most sources deal with topics in the larger geographical region – see list below.

3.1.2 Data bases
The *Heritage Sites Database* and the *Environmental Potential Atlas* was consulted.

3.1.3 Interviews
A number of individuals and institutions were consulted – see list of references below

3.1.4 Other sources
Aerial photographs, topocadastral and other maps were also studied - see the list of references below.

3.2 *Field survey*

The area that had to be investigated, was identified by Strategic Environmental Focus by means of maps. The site was visited on 6 November 2006 and the proposed route of the underground cable was walked.

3.3 *Documentation*

Sites, objects and structures that are identified are documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities are determined by means of the *Global Positioning System* (GPS)[2] and plotted on a map.

Map datum used: Hartebeeshoek 94 (WGS84).

[2] According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then to correlate it with reference to the physical environment before plotting it on the map.

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

4.1 Location

Being linear in nature, the study area stretches from the old electricity substation on Red Hill, behind the Naval Signal School/Old Sanatorium, in the Cape Peninsula National Park, eastwards down the mountain into the town of Simon's Town (see Fig. 1).

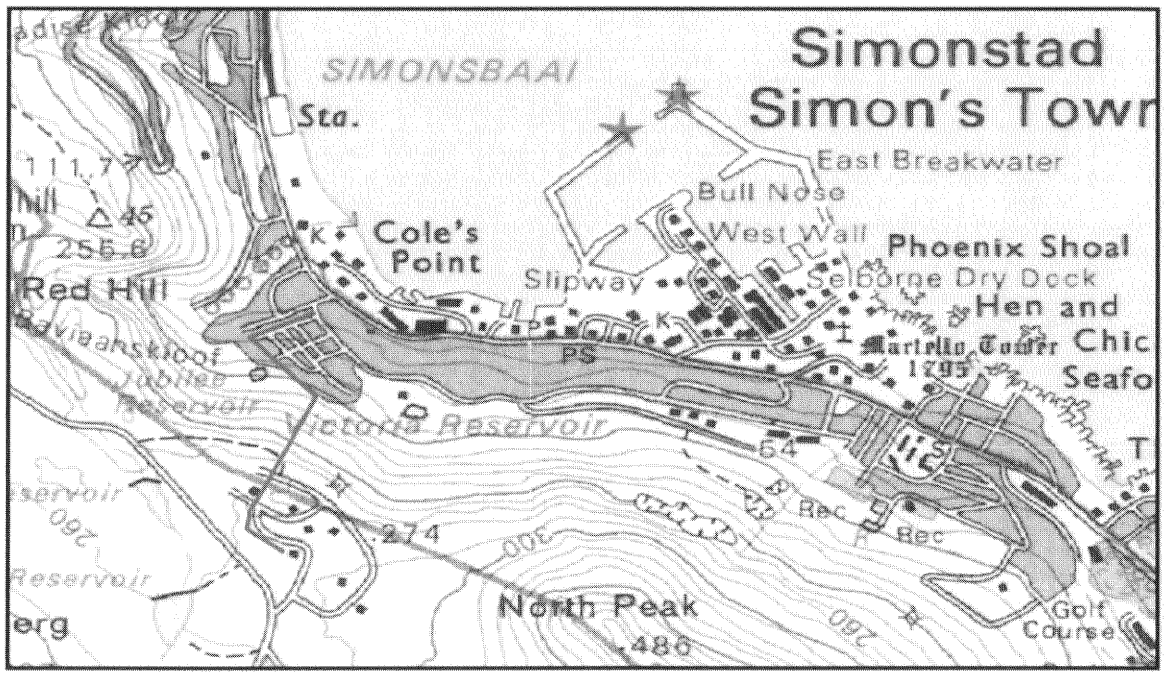

Fig. 1. Location of the study area, indicated by the red line (Map, courtesy of the Government Printer.

4.2 Identified sites

From a cultural history perspective, this whole area is viewed to be very sensitive.

4.2.1 *Signal School area*

Starting at the top, the electric cable will run from the substation, following the road north past the old Signal School. Part of this school was originally built in 1903 as a sanatorium for ill sailors (Fig. 2). In front of the Sanatorium is found two heritage sites: the grave of Able Seaman Just Nuisance and a monument commemorating local men who died during the Great War (1914-1918).

- All these structures are clearly visible and it would be easy to avoid them. However, one is not certain if there are any features hidden below the surface in the area of the Signal School.

4.2.2 *Mountain slope*

Adjacent to the first mentioned features, on the western side, are two features that descent all the way down to the town. First of these is the old 'Aerial Ropeway' constructed in 1903 to provide transport for patients to the Sanatorium. The pole structures for these are all still in place and was later used for stringing electricity wires as well. Following that for a short section, before branching off in a more western direction, is the old stone pathway, also leading down towards town (Fig. 2 and 3).

- Apparently the cable will be installed below the current pole structures. As such, it will also cross the old stone pathway at least three times.

4.2.3 *Urban area*

Probably the most sensitive area is where the cable will pass through the built environment in Simon's Town self. The whole fore-shore (from the railway station to the East Dockyard gates) forms part of the so-called "Historic mile". In this area can be found structures, civilian as well as military, going as far back as 1741, the year in which it was decided to use Simon's Bay as winter anchorage for the Dutch East India Company fleet. However, as all structures are clearly visible, it would be easy to avoid them. Furthermore, the Admirality West substation is located higher upslope, away from St George's Road, which is the main road passing through town and the main focus of the "Historic mile". It is anticipated that there would be less likelihood of hidden features as one goes upslope, away from the fore-shore.

- Although the cable will be installed along the side of existing roads, it is anticipated that there might be some features that are hidden below the surface in the area, e.g. rubbish dumps, walkways, paving, and even unmarked burials.

5. IDENTIFICATION OF RISK SOURCES

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

The following project actions may impact negatively on heritage sites and other features of cultural importance. The actions are most likely to occur during the construction phase of a project.

Table 1

Construction phase:

Possible Risks	**Source of the risk**
Actually identified risks	
- damage to sites	Construction work
Anticipated risks	
- looting of sites	Curious workers

Operation phase:

Possible risks	**Source of risk**
Actually identified risks	
- damage to sites	Not keeping to development plans
Anticipated risks	
- damage to sites	Unscheduled construction/developments
- looting of sites	Curious workers/visitors

6. RECOMMENDATIONS

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7. **REFERENCES**

7.1 **Data bases**

Heritage Sites Database, Pretoria.

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

7.2 **Literature**

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Dommisse, B. & Westby-Nunn, T. 2002. Simon's Town: an illustrated historical perspective. Simon's Town: Westby-Nunn.

Walker, M. n.d. *Simon's Town: the historic mile walk*.

7.3 **Interviews**

Ms C Salter-Jansen, curator, Simon's Town Museum
Cdr (ret.) Bisset, Naval Heritage Trust
SLt R Khumalo, Naval Museum, Simon's Town.

7.4 **Other sources**

1: 50 000 Topocadastral maps – 3318DC
Aerial photographs – courtesy of Google Earth

8. **PROJECT TEAM**

J van Schalkwyk, principal investigator
E Grobler, historian

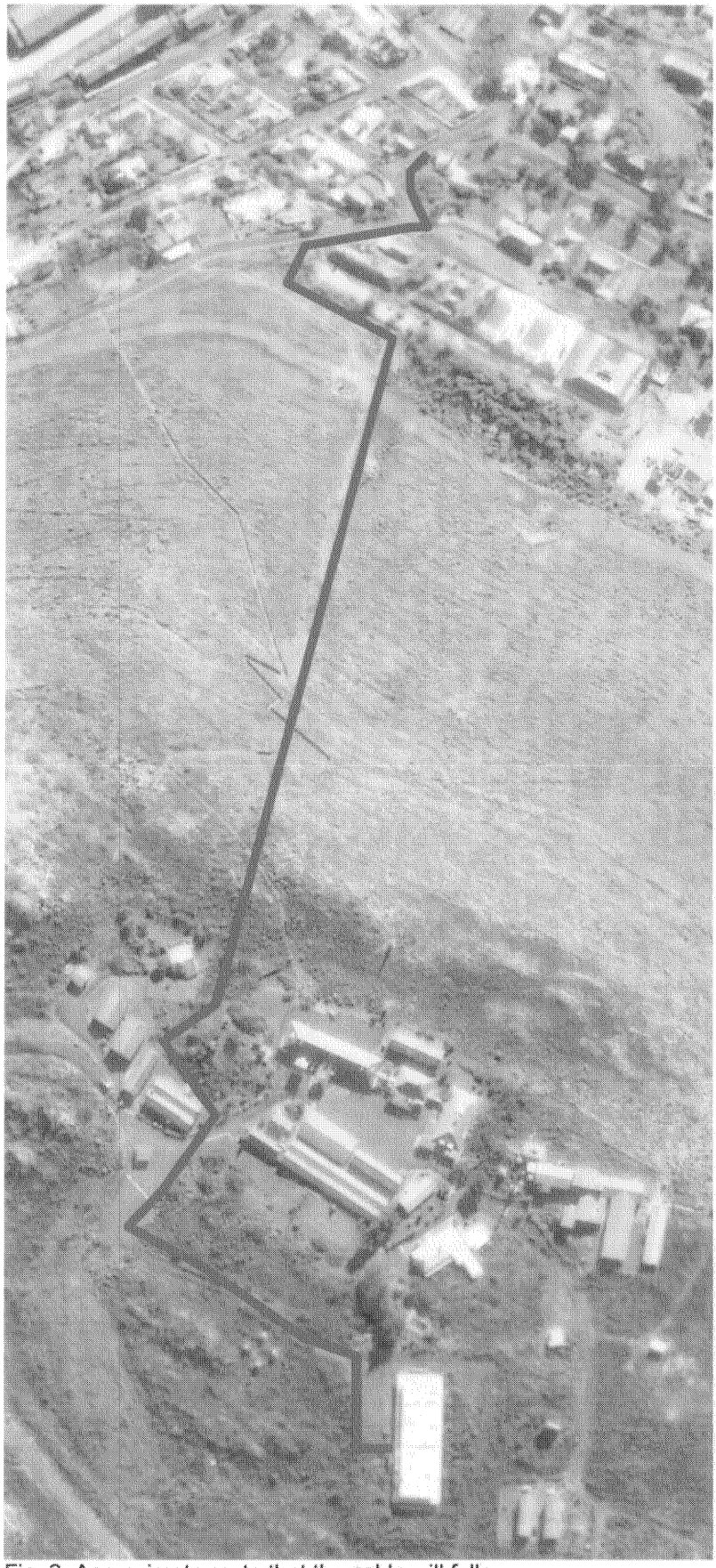

Fig. 2. Approximate route that the cable will follow.

Fig. 3. Showing the location of the stone pathway (right hand side of the photo) and of the various pole structures (red arrows).

Fig. 4. Map in the Simon's Town Museum showing the location of Stone Age sites In the Cape Peninsula. The closest site to the development is at Froggy point on the southern outskirts of Simon's Town.