ARCHAEOLOGICAL SURVEY OF THE GLENDALE-SHAKASKRAAL TRANSMISSION LINE: PHASE 1

Eskom is planning to erect a transmission line and build a substation in the Glendale-Shakaskraal region. The Institute for Cultural Resource Management was approached to undertake an archaeological survey in order to identify and assess archaeological and other cultural sites that may be affected by this route. The original route consisted of three alternatives, of which the second option was chosen.

Prior to the survey I consulted the archaeological data base at the Natal Museum in order to determine whether any known sites existed in the area. The desktop analyses indicated that there has been no prior systematic archaeological survey in this area, however one archaeological site has been previously recorded in the vicinity. Moreover, while most of the route is through cane fields, previous surveys and excavations (Anderson and Whitelaw 1996; Maggs 1980) have shown that sugar cane does not cause extensive damage to archaeological sites.

I consulted Acocks' (1975) vegetation map and the Geological Survey map to assess the probability of agricultural sites occurring in the area. The combination of the geology, soils and hydrology initially indicated that certain areas were archaeologically sensitive, especially for farming communities who are reliant on environmental factors. For example, in other regions Sweetveld grasslands (for grazing) with sandstone or dolerite outcrops (for building materials) appear to be the more favoured landscapes for Iron Age farmers. While the vegetation along this route is not ideal, it did suggest that Iron Age sites may occur. Furthermore, the Umvoti River Valley, as with other major river valleys, appears to be archaeologically sensitive.

LEGISLATION PERTAINING TO CULTURAL RESOURCES

Cultural sites are protected by various forms of legislation. The main legislation pertaining to archaeological, historical and palaeontological remains is the National Monuments Act No. 20 of 1969, Sect. 12 (2A)(a-f). This Act makes it an offence to damage, excavate, alter, or remove from its original site any archaeological, historical and palaeontological material, as well as human graves, without permission from the National Monuments Council. Permission is granted in the form of a permit, which may include restrictions regarding the development of that site. This restriction often necessitates some form of archaeological mitigation.

The National Monuments Act makes it clear that cultural sites older than fifty years, as well as palaeontological sites, require a permit if they are to be damaged or destroyed. Engineering activities are not excluded from this legislation. The only occasion a permit is not required for engineering activity, is if the cultural remains are to be moved from their original site. Nonetheless, an institute such as a museum or the National Monuments Council have to be informed prior to the removal of the remains, and preferably be on site during the removal. Failure to do so is an offence. 'Removal' and 'damage' are not synonymous actions.

DEFINITION OF AN ARCHAEOLOGICAL SITE

Archaeological sites have been defined using various criteria. I use the definition used by the Natal Museum for a recent project to determine site significance and predictive modelling (Wahl 1996). These definitions vary according to the type of site analysed, and are:

Stone Age:
"ten or more stone artefacts; or fewer than ten stone artefacts but which occur in association with other stone Age and/or Iron Age artefacts";
"other...artefacts" include art, beads, grinding stones, engravings, pottery, and places of spiritual/religious importance.

Iron Age:
more than "ten sherds, but [including] sites with fewer than ten sherds, but that occur in association with other Iron Age and/or Stone Age artefacts";
"other artefacts" include engravings, graves, grindstones, stone walling, settlements, and places of spiritual/religious importance (Wahl 1996:11).

DESCRIPTION AND ASSESSMENT OF ARCHAEOLOGICAL SITES IN THE STUDY AREA

A total of four archaeological sites were recorded in the study area. Three of these sites are associated with Iron Age agriculturist communities, while one is associated with gather-hunters. These sites are in the direct path of the transmission and some will require some form of mitigation. These sites range from medium to high significance. The location of these sites are given in Appendix A.

The method of survey was to drive to each location where a pylon was to be erected and survey that general area. In addition to this, places that appeared to be archaeologically significant along the route were also surveyed.

Site 1 - UMH1:

This site is associated with hunter-gatherers and consists of a scatter of quartz flakes and cores. The scatter is probably in a secondary context and the site is of low significance.

The impact of an electricity pylon on this site would be high negative.

Site 2 - UMV1:

This site is a scatter of sherds and utilised stone fragments. The sherds vary in size and thickness, and represent several vessels. No rims or decorated sherds were observed, however, more of the site is probably below the surface. The age of the site is difficult to assess in the absence of decorated sherds, the rims and lips of the sherds and/or grindstones.

While it is difficult to assess the significance of this site, due to potential subsurface features, I believe that it is at least of medium significance. The site would require mitigation. The impact of an electricity pylon on this site would be high negative.

Site 3 - UMV2:

This site is similar to UMV1, however, it is on a smaller scale. The sherds are from three to four vessels and are undecorated. The site probably extends below the surface, and the observed sherds are a result of recent ploughing. It appears as if the site is the remains of a single house. The age of the site is difficult to assess in the absence of decorated sherds, the rims and lips of the sherds and/or grindstones.

While it is difficult to assess the significance of this site, due to subsurface features, I believe that it is at least of medium significance. The site would require mitigation. The impact of an electricity pylon on this site would be high negative.

Site 4 - UMV3:

This site is located on the hill behind the Glendale substation. According to local informants, the house was occupied 40-50 years ago. The current remains of the house are ephemeral, and the stone building blocks have been disturbed and/or re-used elsewhere. There may be a human grave near these ruins, however this would need to be confirmed.

This site is not yet protected by law, since it is younger than fifty years. Moreover, it is unlikely to be affected by an electricity pylon. The impact of the transmission line would be low negative.

DISCUSSION AND MITIGATION

Four archaeological sites were recorded during the course of the survey. Of these four two will require further mitigation, while the other two may be damaged. A permit for the damage of all four sites is needed, and should only be granted once mitigation is completed.

The mitigation required for each site is as follows:

Site 1 - UMH1

No mitigation is required for this site.

Site 2 - UMV1

Mitigation for this site is required. The substantial scatter of artefacts, and its location on the landscape suggest that it may be significant. The site is also fairly large, ie the dispersion of artefacts covers a wide area.

Mitigation would involve undertaking a small test pit excavation in the area where the pylon is to be erected. This initial excavation will likely be a 2m X 2m hole near the centre peg of the pylon, and will determine the extent of the site, whether a cultural horizon exists, and the state of preservation. If the excavation yields valuable information, then further excavations would be required.

Site 3 - UMV2

Mitigation for this site is required. The scatter of artefacts, *albeit* small, and its location on the landscape suggest that it may be significant. The artefacts appear to be concentrated in a specific area, suggesting an individual's household. This may give insight into a individuals perspective of the larger group in which they live.

Mitigation would involve undertaking a small test pit excavation in the area where the pylon is to be erected. This initial excavation will likely be a 2m X 2m hole near the centre peg of the pylon, and will

determine the extent of the site, whether a cultural horizon exists, and the state of preservation. If the excavation yields valuable information, then further excavations would be required.

Site 4 - UMV3

No mitigation is required.

Glendale Substation

In my original letter to IDEAS (dated 10 June 1995), and my response to Mr T Govender (no reference for Eskom's document; my reference GLEND1), I noted that the location of the three proposed substations were in archaeologically sensitive areas, and that an archaeological survey would be required prior to the construction of such substations.

I was extremely disturbed to find that the area for the proposed substation had already been cleared by construction crews prior to an archaeological survey. This is contrary to the spirit of the otherwise mutually beneficial working relationship between myself and Eskom. I urge the authorities at Eskom not to allow this to happen in the future. There is every reason to believe that archaeological interests and the expansion of the electricity system can be served during the course of future development.

CONCLUSIONS

The archaeological survey of the Glendale-Shakaskraal transmission line located four previously unrecorded archaeological sites. These sites probably date within the last 2000 years and represents agriculturists and hunter-gatherers from various periods.

Three of the four sites may be potentially affected by the transmission line and a management plan and mitigation is required. I suggest that it would be easier, and perhaps more cost effective, for the test pit excavations to be undertaken at each significant site that requires mitigation, as opposed to moving the line. Mitigation should occur prior to the construction of the transmissionlines.

REFERENCES:

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Anderson, G. And Whitelaw, G. 1996. *Results from the archaeological excavations at Sunningdale and Mount Edgecombe, KwaZulu-Natal*. Unpub. Report for Tongaat-Hulette.

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APPENDIX A

GPS LOCATIONS OF ARCHAEOLOGICAL SITES

Site 1 - UMH1: $S29^0$ 19’ 51”; $E31^0$ 06’ 27”
Site 2 - UMV1: $S29^0$ 18’ 19”; $E31^0$ 05’ 53”
Site 3 - UMV2: $S29^0$ 18’ 21”; $E31^0$ 05’ 54”
Site 4- UMV3: $S29^0$ 17’ 14”; $E31^0$ 04’ 57”

These co-ordinates are to be treated with confidentiality.;