

AN ASSESSMENT OF THE POTENTIAL IMPACTS ON AN INFORMAL CEMETERY SITUATED ON PTN 32 OF THE FARM DE DOORNS 552 RESULTING FROM THE UPGRADE OF THE 66kV POWERKLINE BETWEEN THE HAMMANSHOF AND KWAGGASKLOOF SUB-STATIONS NEAR WORCESTER

Prepared for

SIVEST

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June 2013



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1. INTRODUCTION

ACO Associates (ACO) have been requested to undertake an archaeological assessment of the upgrading of the existing 66kV overhead powerline between the Hammanshof and Kwaggaskloof substations, in the vicinity of Brandvlei Dam to the south of Worcester (Figure 1). An NID application was submitted to HWC and the interim comment (Attachment 1) required an HIA that would determine the extent and impact on the informal farm cemetery immediately adjacent to the Hammanshof substation. No other issues were otherwise noted in the desktop assessment or during the drive down. The impact of the 66kV line upgrade is therefore considered very limited from a heritage point of view.

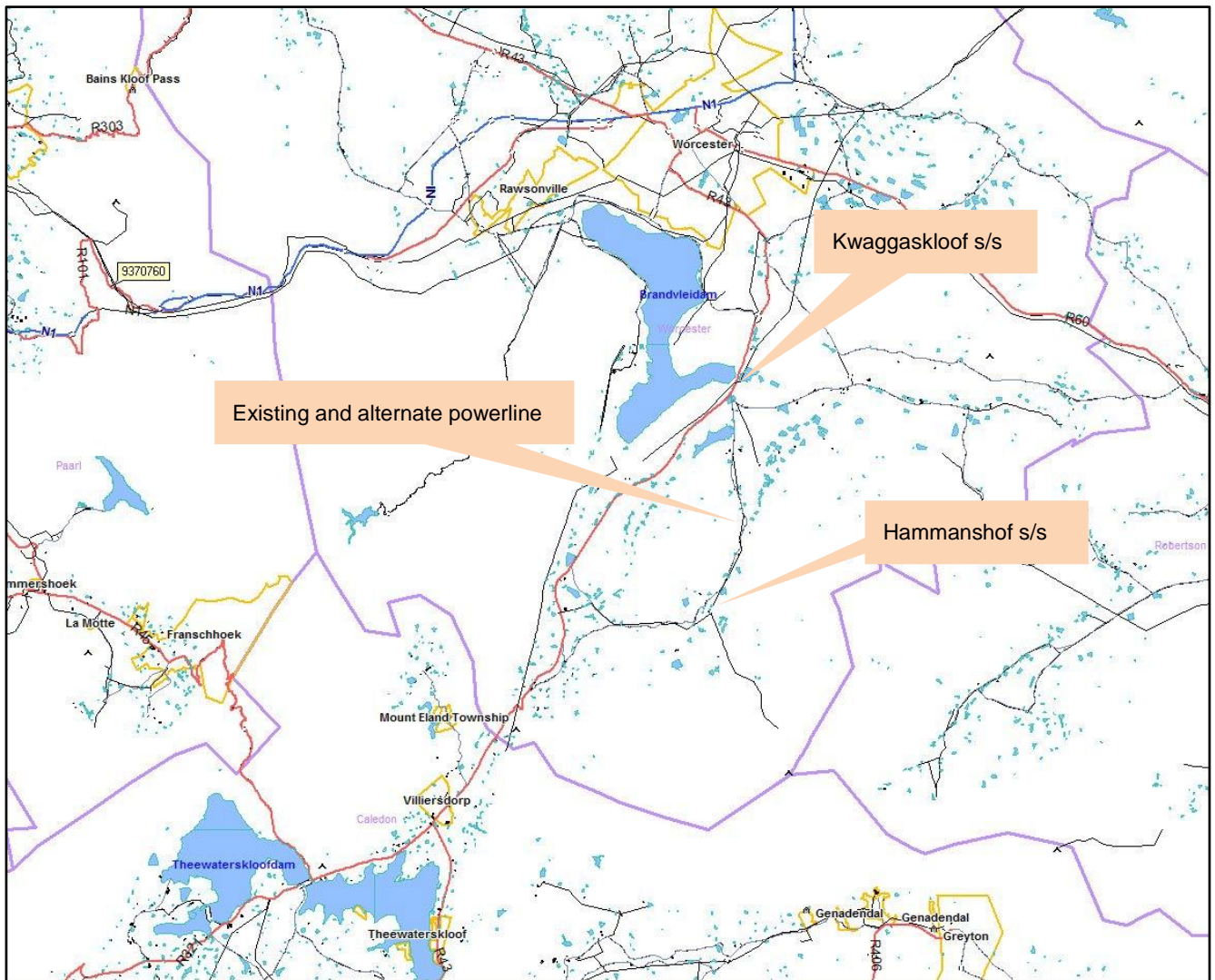


Figure 1: Regional context of the approximately 15km long powerline. (Planet GIS Explorer)

1.1 Project Description and Motivation

The 15.2 km Kwaggaskloof- Hammanshoff 66kV overhead line within Worcester FSA is approximately 44 years old and consists of H-wood pole structures. It is a radial feeder which is supplied from the Hex sub-station to Kwaggaskloof-Hammanshoff-Villiersdorp sub-stations. When supply is lost from the Kwaggaskloof-Hammanshoff line, supply to Hammanshoff and Villiersdorp substations is cut for the duration of repairs. The line needs to be rebuilt due to breaking/failing Fox conductor during stormy and windy conditions resulting from corroded hardware and the bad state of the wood poles. The components of the project are as follows:

- Kwaggaskloof - Hammanshoff 66kV line refurbishment;
- Kwaggaskloof - Hammanshoff 66kV old line dismantling;
- Kwaggaskloof F4 - Install 11kV 200A 2-can Voltage Regulator.

2. METHOD

The proposed upgrade was inspected by driving along the main roads alongside the powerlines to broadly verify the conclusions of the NID desktop study. The main focus was rather on the inspection of the informal farm cemetery alongside the sub-station to determine the potential impact which may result from the upgrade. The site was inspected on foot and a photographic record was made to indicate the situation.

2.1 Other projects in the area

Two other projects in the region to the west of the west of the R43 were indicated on the SAHRIS database. An archaeological assessment (Kaplan 2008) and an HIA (Orton 2004) found little archaeological material of any significance, which was limited to small amounts of both ESA and MSA type stone artefacts. In broad terms, ESA artefactual material is widespread and would be expected from the area.

2.2 Persons consulted

Mr Johann Hamman, owner of Portions 6, 12 and 32 of the Farm De Doorns 552 was asked for information about the age of the farm cemetery on Ptn 32 next to the sub-station, but at the time of submitting the report, he had not yet responded (this information will be included as soon as it is received).

3. OBSERVATIONS

The situation on the ground is best described via Figure 2. The number of graves is difficult to gauge accurately due to circumstances such as bush cover, lack of grave markers, and informal layout, but we estimate that there are approximately of 70-100 graves (visible – semi-visible), with the possibility that additional less prominent graves may be present (see plates 1-6). Graves lie more or less in a north-west to south-east orientation with grave markers placed on the north-western end.

While some graves have formal markers in the form of wooden crosses, some with names and dates of birth and death, the majority contained no information about the deceased. Most graves were identified by distinctive soil mounds, of varying size. The sizes of the mounds is in a broad sense indicative of the age of the deceased. One grave was covered by a cement “mound” reminiscent of a vaulted coffin lid but it was unique within the cemetery. Seashells were noted on a number of graves, while other grave goods consisted of ceramic flower pots and glass jars. Artificial flowers were present on the more recent graves (See for example plates 7-14).

The main area of graves is to the west side of the site while a second small grouping was noted along the eastern boundary (Plate 4). An area between the two areas seems not to contain any visible graves. It would appear that the core of the cemetery was towards the south west corner and the most recent graves lie along the northern edge of the main grave area, where bush has been removed.

The most recent graves date to 2013, and there are a few dating to the 1990's. The majority however contain no information and it is difficult therefore to assess the age of the cemetery. The farmer has not yet responded to messages to this effect. On the balance of probability, it is likely that the majority/all of the graves are not older than 60 years (see table 1).

Existing infrastructure within the fenced cemetery area consists of 1x “H” 66kV timber pole (with stays), 2x 32kV single timber poles (with stays), and 2x single timber telephone poles. None of these appears to have impacted the graves, possibly as a result of graves post-dating the erection of the poles (see Plates 1-3).



Figure 2: The existing Hammanshoff sub-station (grey area) lies to the south of a fenced farm cemetery (red polygon). Areas where identifiable graves were observed are indicated by the blue polygons. The grave areas were determined using a combination of field observations and review of a series of aerial photographs. A number of existing telephone and electricity poles within the cemetery are indicated.

Table 1: Information about some of deceased persons from the grave markers

Name	Date of Birth	Date of Death
Fortuin, April	25.10.1961	22.10.1990
Isaacs, Niklaas	14.06.1946	11.02.1992
Isaacs, Sophia Muggels	10.10.1919	26.07.2001
Minnaar, Raymond	26.09.2001	05.10.2001
Skippers, Adam	20.11.1957	04.10.2006
Smit, Marthinus	17.07.1952	26.01.2007
Juba, Zolile	07.02.1974	05.04.2007
Franse, Hendrik	10.09.1959	15.05.2007
Brinkhuys, Ragel	13.01.1968	15.01.2008
Isacks, Hendrina	03.11.1919	23.04.2008
Muggels, Jacob	09.03.19??	17.10.2011
Franse, Mejane	26.12.1969	30.10.2011
Pienaar, Korneels	15.04.1952	04.09.2012
Besind, Gert	25.10.1954	29.10.2012
Zali, Eric	20.05.1963	06.02.2013
Mohale, Michael	10.05.1953	27.?.?
Meintjies, K	no information	no information
Abrahams, Floors	no information	no information
Van Wijk, Katrien	indecipherable	indecipherable
?, Cereez	indecipherable	indecipherable

4. CONCLUSIONS

A farm cemetery of likely 20th century age exists on a portion of land adjacent to the Hammanshoff substation. The upgrade of the 66kV overhead electrical lines will require generally the removal of the existing poles and erection of new. One of the existing poles lies within the farm cemetery but does not appear to have impacted any graves, in all likelihood due to the fact that the poles predate the graves in that immediate area. Work related to the electrical upgrade specific to the cemetery may impact on the graves, and we have suggested some possible mitigation measures in Section 5.

In terms of Section 36 of the NHRA (Act 25 of 1999), cemeteries falling outside the jurisdiction of local authorities that are older than 60 years, SAHRA would be the responsible Authority. As farm cemeteries are not controlled by local authorities at this time, and due to the fact that on the balance of probabilities, the graves are not older than 60 years, the responsibility for the graveyard would therefore appear to lie with the landowner and descendants of those buried in it.

5. RECOMMENDATIONS

The cemetery continues to be used as indicated by the recent burials dating from 2012 and 2013 and all indications are that all space therein will be taken up eventually. As such, the introduction of new electrical infrastructure into the cemetery is considered most inadvisable. Our recommendation is therefore that:

- No new electrical infrastructure should be erected within the cemetery area;
- The existing 66kV “H” poles in the cemetery area should be cut off at ground level and removed, or the overhead wires removed and poles left in place. The latter may however result in risk down the line due to the poles rotting and falling. We therefore favour the first option. Care must be taken when cutting the poles that they do not fall onto any graves. Personnel deployed to remove the poles must ensure that they do not damage or disturb in any way, any grave in the process;
- As there is already precedent for 66kV overhead wires to cross above the cemetery, it is unlikely that there would be an objection if the new line were to do the same. Supporting

poles must however be outside the cemetery area. The area to the immediate north east of the cemetery is somewhat disturbed and would be suitable for the location of new poles;

- As the 32kV and telephone unipoles already exist, they can remain in place. Any upgrade of those lines in the future must also result in them being removed from the cemetery area;
- The landowner may wish to demarcate small buffer zones around existing poles where new burials should be avoided, to facilitate removal of such poles in the future without negatively impacting any graves.

6. REFERENCES

Kaplan, J. 2008. Phase 1 archaeological impact assessment proposed sand mine on the farm Modder Rivier 499 (Remainder of Portion 8) Worcester. Prepared for Site Plan Consulting. Agency for Cultural Resource Management.

Orton, J. 2004. initial heritage impact assessment for the proposed upgrade of the Bacchus sub-station near Worcester. Prepared for Eyethu Engineers. Archaeology Contracts Office, UCT.

7. PHOTOGRAPHS



Plate 1: Electrical infrastructure within the cemetery enclosure, 66 and 32 kV poles



Plate 2: Electrical infrastructure within the cemetery enclosure, 32 kV pole in foreground



Plate 3: Recent graves along the northern edge of the main grave area, 32 kV pole in the background



Plate 4: A small group of graves lies along the eastern edge of the area



Plate 5: Graves immediately adjacent to the Hammanshof sub-station



Plate 6: Unusual cement grave cover



Plates 7-14: A variety of grave markers are present some of which have information about the deceased. The majority of grave markers have no information on them, and a number of graves have no formal markers at all.

Attachment 1

Case No: 130502RN01E
File No: HM/Worcester & Villiersdorp R43
Enquiries: Ronny Nyuka
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Tel: (021) 483 9691
Date: 04 June 2013

Ms Jenny Barnard
SiVest Environment
Unit 112, Wentworth building
Somerset link & De Beers Avenue
Somerset West
7130



Dear Ms Jenny Barnard

INTERIM COMMENT

CASE NUMBER: 130502 RN01E

NOTIFICATION OF INTENT TO DEVELOP (NID): PROPOSED POWERLINE SEVITUDE BETWEEN WORCESTER & VILLIERSDORP R43, IN TERMS OF SECTION 38 OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

The matter above has reference.

Heritage Western Cape is in receipt of your NID for the above matter, dated 02 MAY2013

You are hereby notified that,

Heritage Western Cape, is requesting a Heritage Impact Assessment to determine the extent and impact on the informal cemetery.

Should you have any further queries, please contact the official above and quote the case number.

Yours faithfully


AB Hall
(CEO: Heritage Western Cape)

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