

**CULTURAL HERITAGE IMPACT ASSESSMENT
OF IKWEZI MINING 20 MVA 88/22KV
SUBSTATION AND ASSOCIATED
INGAGANE/UTRECHT/IKWEZI 88KV POWERLINE**



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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A cultural heritage survey of the Ikwezi Mining 20MVA 88/22kv substation and associated Ingagane/Utrecht/Ikwezi 88kV powerline identified no heritage sites on the footprint. There is no archaeological reason why the proposed development may not proceed as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains, including other potential grave sites, should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage) for Ludloko Developments
Type of development:	The planned Ikwezi mine (Pty) Ltd project requires electricity to run its operation. The electricity will be sourced from a proposed Ikwezi substation which will be fed from a proposed 88kV powerline. This powerline will be connected from the existing 1 Ingagane/Utrecht 88kV powerline. The substation is to be located near the mine so as to provide reliable power supply. The proposed powerline from the proposed Ingagane/Utrecht/Ikwezi 88kV powerline will cover a distance of about 5km to link to the new substation. The planned substation will also be able to link to the local electricity network thereby strengthening the capacity in this network which currently experiences low voltage problems.
Rezoning or subdivision:	n.a
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

1.1. Details of the area surveyed:

The study area is situated along a rural area in the Tendeka area in northern KwaZulu-Natal. The GPS coordinates for the study area is broadly given as: E 30° 5' 45.42" S 27° 50' 26.92". (Fig 1). Tendeka is one of the rural areas within the Dannhauser Local Municipality and the Amahlubi Tribal Authority. The Dannhauser Local Municipality is one of the three local municipalities under the Amajuba District Municipality in the province of KwaZulu Natal. The municipality lies adjacent to Newcastle and Emadlangeni Local Municipality to the North-west, Endumeni Local Municipality to the East and Emnambithi to the South.

The study area starts from the edge of the residential area and extends to Ikwezi mine. It comprises mainly of dense rural residential area which is intercepted by planted fields, open areas, secondary road P272, two steel structure powerlines, vleis and a river. The residential area has undulating terrain with a gentle slope towards the river. In some areas particularly along the river the area is distinctively incised by dongas and sheet erosion scars. Steep topography lies west of the study area and the residential area. Most erosion is prevalent on these hills and extends down the valley. No erosion was observed on areas occupied by houses and areas immediately adjacent to the residential area. Road P272 runs south from main road D483 (which links Madadeni and Osizweni in the adjacent Newcastle Municipal Area) down to road D38 and on to Dannhauser to the south-west or alternatively on down to Dundee (in the adjacent Endumeni Municipality) to the south-east. The extension of erosion is of environmental concern in the area.

Four alternative corridors were investigated for the location of the powerline. Location of the corridors was determined by the location of suitable connection points along the existing 1 Ingagane/Utrecht 88kV powerline. The width of the powerline corridor is determined by the availability of open space, terrain, land status and connection points. Preliminary investigations show that corridor 1 as shown in figures 2 and 3 below is the preferred corridor. This is due to availability of open space, availability of suitable connection points along Ingagane/Utrecht 88kV powerline and minimal physical and environmental constraints along the corridor. Corridor 1 coordinates appear in figure 3.

BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Newcastle and Dannhauser areas has never been systematically surveyed for archaeological heritage sites. Only five sites are recorded in the data base of the KwaZulu-Natal Museum. These include two rock art sites with later Stone Age material and three Later Iron Age sites with characteristic stone walling. Oliver Davies, a pioneer archaeologist, has also recorded Middle Stone Age sites to the south of Newcastle. None of these sites occur in the close vicinity of the project area.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa. Around 800 years ago, if not earlier, Bantu-speaking farmers also settled in the greater Newcastle area. Although some of the sites constructed by these African farmers consisted of stone walling not all of them were made from stone. Sites located elsewhere in the KwaZulu-Natal Midlands show that many settlements just consisted of wattle and daub structures. These Later Iron Age sites were most probably inhabited by Nguni-speaking groups such as the amaBhele and others (Bryant 1965). However, by 1820 the original African farmers were dispersed from this area due to the expansionistic policies of the Zulu Kingdom of King Shaka. African refugee groups and individuals were given permission to settle in the area by the British colonial authorities after 1845 where most of them became farm labourers. After the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 many of the African people in the study area adopted a Zulu ethnic identity.

European settlement of the area started soon after 1838 when the first Voortrekker settlers marked out large farms in the area. However, most of these farms were abandoned in the 1840's when Natal became a British colony only to be reoccupied again by British immigrants.

Newcastle started off life as Post Halt Two on the journey between Durban (then Port Natal) and the Zuid-Afrikaansche Republiek and Johannesburg. The city was strategically placed in 1854 by the Surveyor General of the Natal Colony, Dr PC Sutherland. The city was later known as the Waterfall River Township because of the Ncandu River. In 1864, the town of Newcastle was founded on the site, becoming the fourth settlement to be established in Natal after Durban, Weenen and Pietermaritzburg. Newcastle was named after the British Colonial Secretary, the Duke

of Newcastle. In 1876 the Fort Amiel was built to ward off a possible Zulu attack (Derwent 2006). In 1873 Newcastle became a separate electoral division. To commemorate Queen Victoria's Diamond (60th) Jubilee a sandstone construction of a town hall started in 1897, being completed two years later. The town was used as a depot by the British during both the First and Second Boer War. Newcastle functioned as a major transport junction and popular stopover for wagons and post chaises during the late 19th century. British preparation work for the Pretoria Convention of 1881 was done at Newcastle. In 1890, the first train arrived in Newcastle and in 1891, Newcastle was declared a borough. The discovery of coal brought a new era of prosperity and several ambitious building projects were planned.

2 BACKGROUND INFORMATION OF THE SURVEY

2.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for potential heritage site reports covering the area. Aerial photographs covering the study area has been scrutinised. In addition, the available archaeological literature covering the greater Newcastle/Dannhauser areas was also consulted.

A ground survey, following standard and accepted archaeological procedures, was conducted.

2.2 Restrictions encountered during the survey

2.2.1 Visibility

Visibility was good.

2.2.2 Disturbance

No disturbance of any potential heritage features was noted. However, extensive sheet erosion occurs adjacent to a stream and wetland feature in the central section of the study area but no heritage sites have been affected.

2.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

3 DESCRIPTION OF SITES AND MATERIAL OBSERVED

3.1 Locational data

Province: KwaZulu-Natal

Municipality: Dannhauser Local Municipality, Amajuba District Municipality

Towns: Dannhauser, Newcastle

3.2 Description of the general area surveyed

Although the area is potentially rich in Iron Age sites no heritage sites or features were observed on the footprint. The consultant walked all the proposed powerline routes and surveyed the area on either side of the corridors but no heritage sites were observed (Figs 4-5). Particular care was taken to record grave sites but the proposed powerline routes are situated some distance from any rural settlements.

3.3 Heritage sites identified

No heritage sites or features were observed on the footprint.

4 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

4.1 Field Rating

Not applicable as no heritage sites were identified on the footprint

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

5 RECOMMENDATIONS

The proposed construction of the powerlines and associated structures may proceed from a heritage point of view as no sites or features are in danger of being destroyed or altered. However, it should be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues including potential grave sites should cease immediately pending an evaluation by the heritage authorities.

6 MAPS AND FIGURES

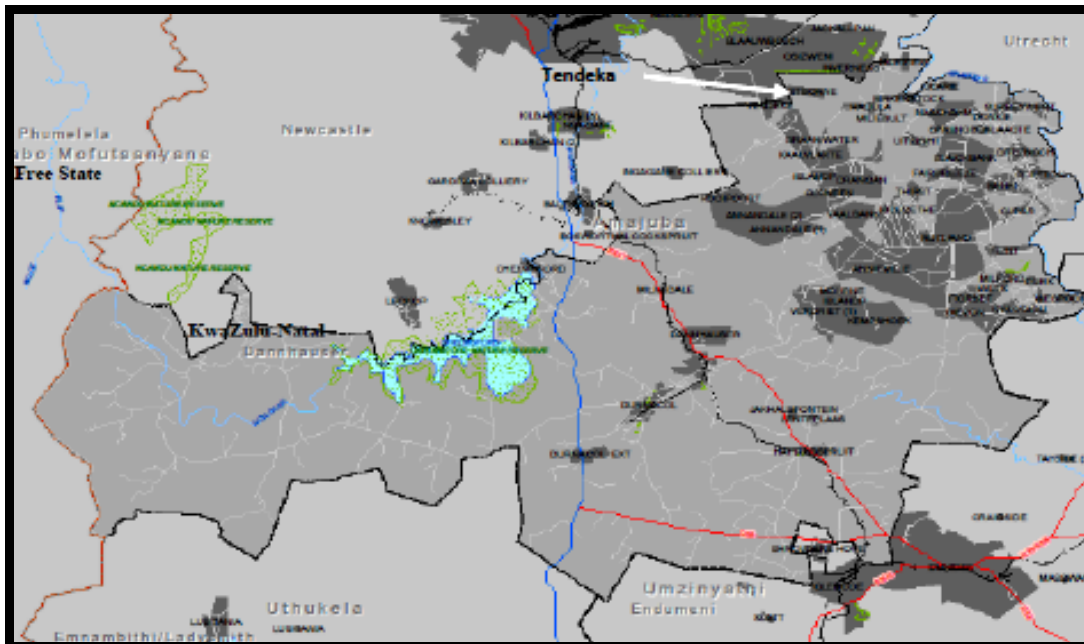


Figure 1. Map showing the location of the study area at Tendeka near Dannhauser

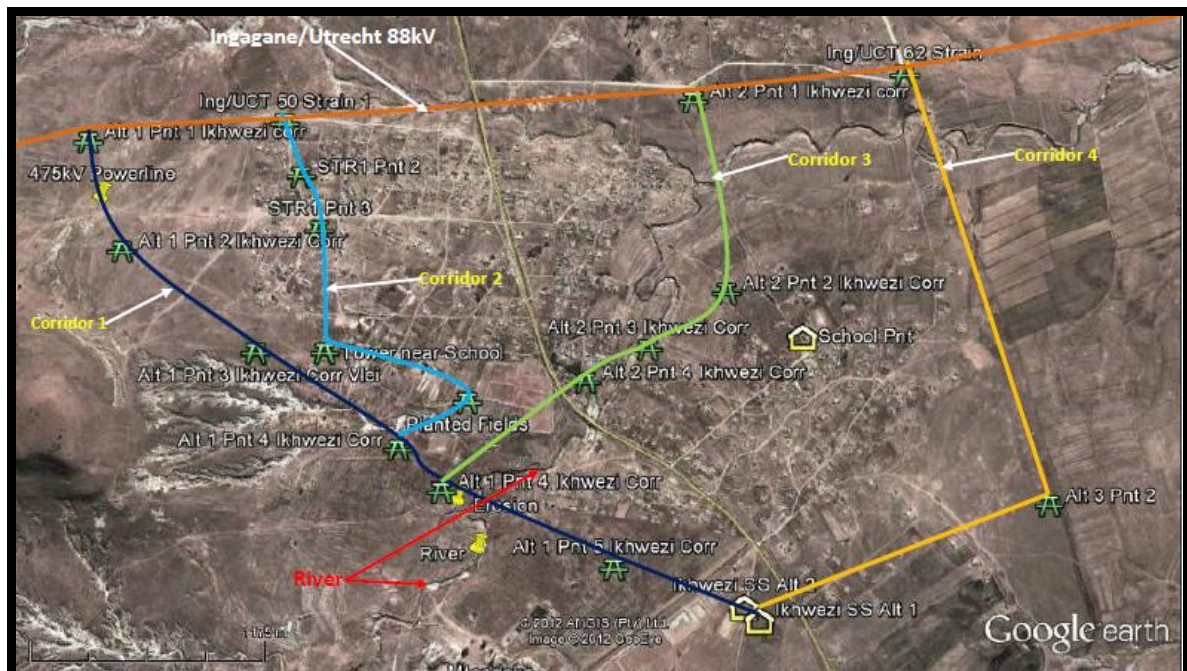


Figure 2. Google aerial photograph showing the location of the powerline corridors and substations within the study area



Figure 3. Photograph taken from the southern section of the footprint including powerline corridors 1 & 2



Figure 4. Photograph showing the northern section of the footprint including powerline corridor 2.

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