

THANDABATHO MANAGERS

**PHASE 1 CULTURAL AND ARCHAEOLOGICAL HERITAGE
ASSESSMENT SPECIALIST STUDY FOR THE PROPOSED
THABINA REGIONAL WATER SCHEME PIPELINE IN
GREATER TZANEEN LOCAL MUNICIPALITY, LIMPOPO
PROVINCE**

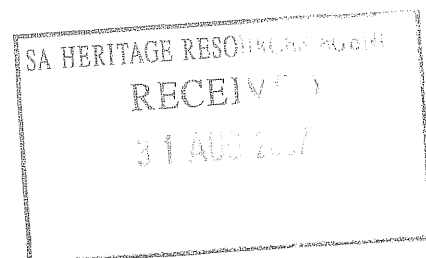
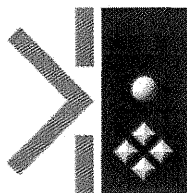
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REPORT DETAILS

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MANAGEMENT SUMMARY

BACKGROUND

Nzumbululo Heritage Solutions (South Africa) (HeSSA) has been appointed by Thandabatho Managers to conduct Heritage Impact Assessment (HIA) study for the proposed construction of Thabina Regional Water Scheme pipeline and associated water distribution infrastructure in Greater Tzaneen Local Municipality, Mopane District, Limpopo Province. This Heritage Impact Assessment (HIA) study focus on potential impacts on archaeological, cultural, and historical heritage resources associated with the proposed construction of the water pipeline.

SUMMARY RESULTS

The field survey covered the route proposed for the construction of the 14km water pipeline and associated water pumping facilities between Thabina dam and Lenyenye reservoirs. No evidence of the existence of archaeological heritage sites of significance was identified on the direct route of the pipeline and within the immediate affected project area. An contemporary Grave yard was identified in Ga-Maphala Village on the direct route of the pipeline. However, since the proposed work involves underground excavations, there is a potential of encountering archaeological materials subsurface during the construction of line.

SUMMARY RECOMMENDATIONS

Should the pipeline be re-routed to avoid the identified cemetery, there would be no archaeological or cultural heritage resources barriers to the proposed construction of a water pipeline. We recommend that a heritage-monitoring program should be implemented to deal with potential chance finds should archaeological or historical finds be found accidentally during digging of pipeline trenches and foundations of pump stations and reservoirs. Should archaeological resources or previously unidentified burials and graves be disturbed subsurface, heritage authorities should be informed immediately.

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ABBREVIATIONS

EIA	Environmental Impact Assessment
HeSSA	Nzumbululo Heritage Solutions (South Africa)
SAHRA	South African Heritage Resources Agency
HIA	Heritage Impact Assessment

DEFINITIONS

Archaeological material remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures.

Chance Finds archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Cultural Heritage Resources same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or *graves* and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

Cultural Significance the complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

Excavation principal method of extracting data in archaeology, involving systematic recovery of archaeological remains and their context by removing soil and any other material covering them.

Grave a place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

Historic material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

In Situ material, material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Material culture buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Site a distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

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1 INTRODUCTION

This Heritage Impact Assessment (HIA) study was conducted to fulfil the requirements of the National Heritage Resources Act, Act 25 of 1999 Section 36 and 38. The HIA study focus on identifying and assessing archaeological, cultural, and historical heritage resources associated with the proposed Thabina Regional Water Scheme pipeline construction project's receiving environment. Aims and terms of reference of the HIA study are summarised in Table 1 below.

Table 1: Terms of Reference for the HIA Study associated with the construction of 8km Water pipeline.

PURPOSE	ACTIVITIES
<p>Fulfil the statutory requirements of the National Heritage Resources Act, Act 25 of 1999, Section 38.</p> <p>To identify and describe (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed water pipeline construction. This study should include the identification of gravesites.</p> <p>Identify and describe impacts to archaeological and cultural resources.</p> <p>Make recommendations on mitigation measures.</p> <p>Identify and describe management measures.</p>	<p>Identify, describe and map sites of archaeological, historical or cultural interest affected by the proposed water pipeline.</p> <p>Identify, where possible, the gravesites affected by the development.</p> <p>Liaise with the local communities (if applicable) with regards to the impact of the development on the heritage resources.</p> <p>Describe the importance or significance of these sites and whether these sites need to be conserved, protected or relocated.</p> <p>Describe the procedures for mitigation or relocation of sites and provide an indication of time required for these management measures to be implemented.</p> <p>Document findings and recommendations.</p>

2. NATIONAL HERITAGE RESOURCES ACT (ACT NO 25 OF 1999)

The proposed development activity has potential to exhume archaeological and disturb cultural resources along the proposed pipeline route or within vicinity of proposed water

pumping infrastructure development. Section 36 of the NHRA states that “No person may without a permit issued by SAHRA destroy, damage, exhume or remove or disturb any burial ground or any part with graves”. Section 38 of the above mentioned act emphasize the need to conduct Heritage Impact assessment in all site proposed for development so as to identify, assess, monitor and manage the heritage resources identified on affected area on a sustainable basis.

3. PROJECT BACKGROUND AND MOTIVATION FOR THE DEVELOPMENT

The general project area is currently densely populated. The area is occupied by village settlements including Thabina Valley village, Galideka village, Uplands village, Moime village and Marumofatse village. The local communities on the project area are predominantly SePedi (Northern Sotho) speaking. (Hammond–Tooke, 1993; Monnig, 1967).

The pipeline will traverse through open grazing and cultivated lands, along road sides and existing bulk water pipeline. Thabina Regional Water Scheme Mogoboya bulk water pipeline will start from Thabina Dam. It will traves through Thabina Valley, Galideka, Uplands, Moime, Marumofatse and will end at Lenyenye Reservoirs. The Water Scheme falls within, Greater Tzaneen Local Municipality of Mopani District Municipality, Limpopo Province (see the attached locality map).

This project comprises of the construction of a 14 kilometres (300mm diameter) bulk water pipeline called Mogoboya within the Thabina Regional Water Scheme. The pipeline links Thabina dam and the Lenyenye Reservoirs. Thabina Scheme covers the southern section of Mopani District. Lenyenye, the intended recipient of the bulky water from Thabina Dam is situated approximately 15 km southeast of Tzaneen town.

The Mogoboya bulk pipeline will traverse through several built-up areas and villages in Thabina valley village, Galideka village, Uplands village, Moime village and Marumofatse village. These villages do not have portable water reticulation services. However, Lenyenye Township was developed first, and the reasoning was that that full water reticulation services should be installed to serve the population of Lenyenye. This has been a point of contention with the residents of villages through which the pipeline will traverse. This resulted in some local communities illegally connecting to the old existing water pipeline. Consequently, this reduced the amount and pressure of water that was being pumped to Lenyenye. As such the authorities proposed that a new additional bulk line from Thabina dam to Lenyenye reservoirs be constructed; the line will be of approximately 14km. The new line will provide

connection with intermediate villages, with the required bulk storage to serve the various villages between Thabina village and Lenyenye Township. This would potentially eliminate act of vandalism on the pipe as has been the case in the past.

The project will improve the provision of portable water to the targeted communities. The new infrastructure will also allow effective cost recovery system to be implemented. The project will facilitate the formalization of water supply to Thabina valley village, Galideka village, Uplands village, Moime village and Marumofatse village.

4 METHODS

The study consisted of standard field surveys covering the proposed water pipeline route and its respective surrounding area. In practice, most archaeological and historical sites are found through systematic survey of the target landscapes. The survey therefore, sought to identify cultural heritage sites including graves, burial grounds and contemporary religious or sacred ceremonial sites associated with borrow pit site. Two HeSSA heritage specialists transect the affected landscape on foot looking for indicators of archaeological and any other cultural materials in the affected areas. In part the field officers also inspected soil profiles (in the donga and cultivated areas) for potential archaeological materials that may still be trapped *in situ* in an area already disturbed by previous agricultural activities. While the project area is easily accessible, some sections had dense ground vegetation cover which inhibited surface inspection (Plate 1 & 2). Nonetheless, such areas are old agricultural fields or were previously disturbed.

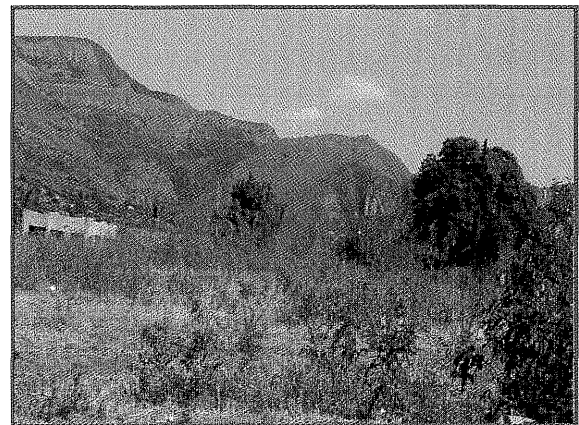


Plate 1 & 2: The water pipeline will traverse through previously disturbed areas, some with dense grass cover [Plate 1] and previously cleared areas along existing pipeline [Plate 2].

5. RESULTS

LOCATION DETAILS

Province: Limpopo

District: Mopani

Local Municipality: Greater Tzaneen

Nearest Town: Tzaneen

Name of Properties affected: Thabina valley village, Galideka village, Uplands village, Moime village Marumofatse village and Lenyenye Township (see Fig. 1).

Proposed development: Construction of 14km Thabina Regional Water Scheme Mogoboya bulk water pipeline linking Thabina Dam and Lenyenye Township.

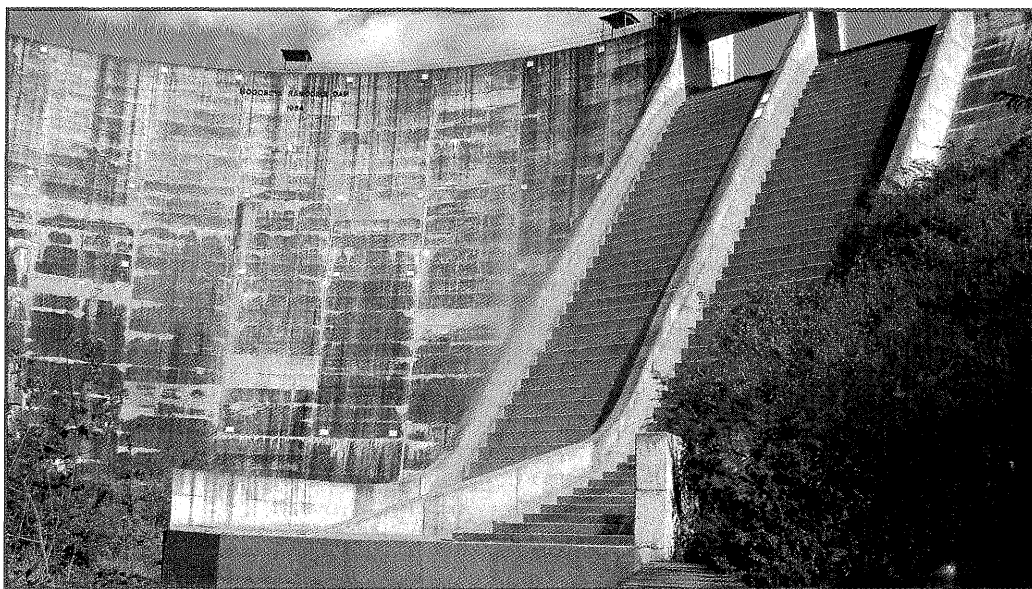


Plate 3: Thabina Water Scheme draws water from the Mogoboya Ramodike Dam.

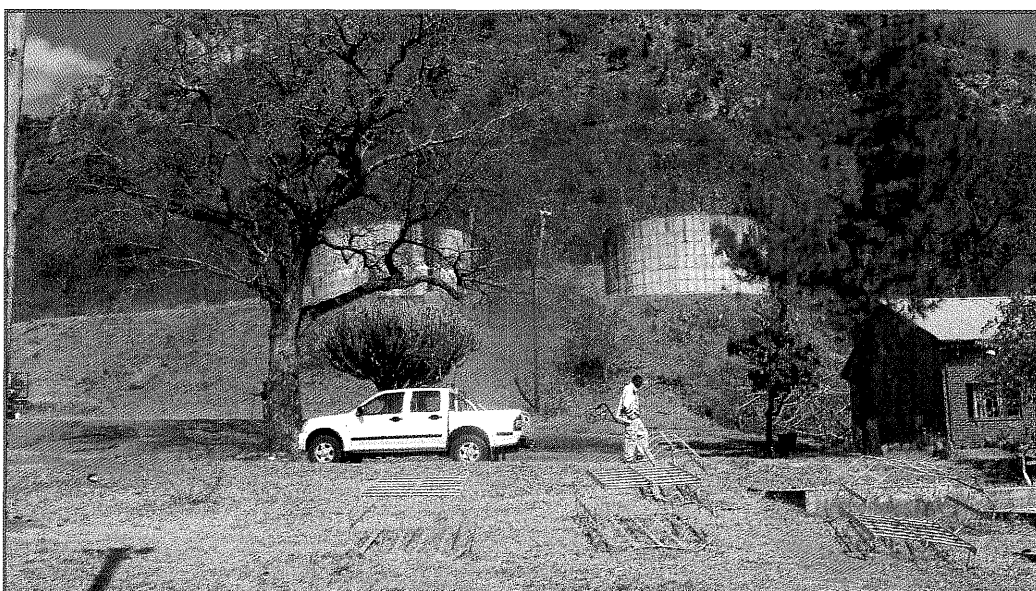


Plate 4: Existing water purification plant infrastructure associated with the Thabina Water Scheme project area.

FIGURE 1: Locality map showing pipeline route and areas affected by project

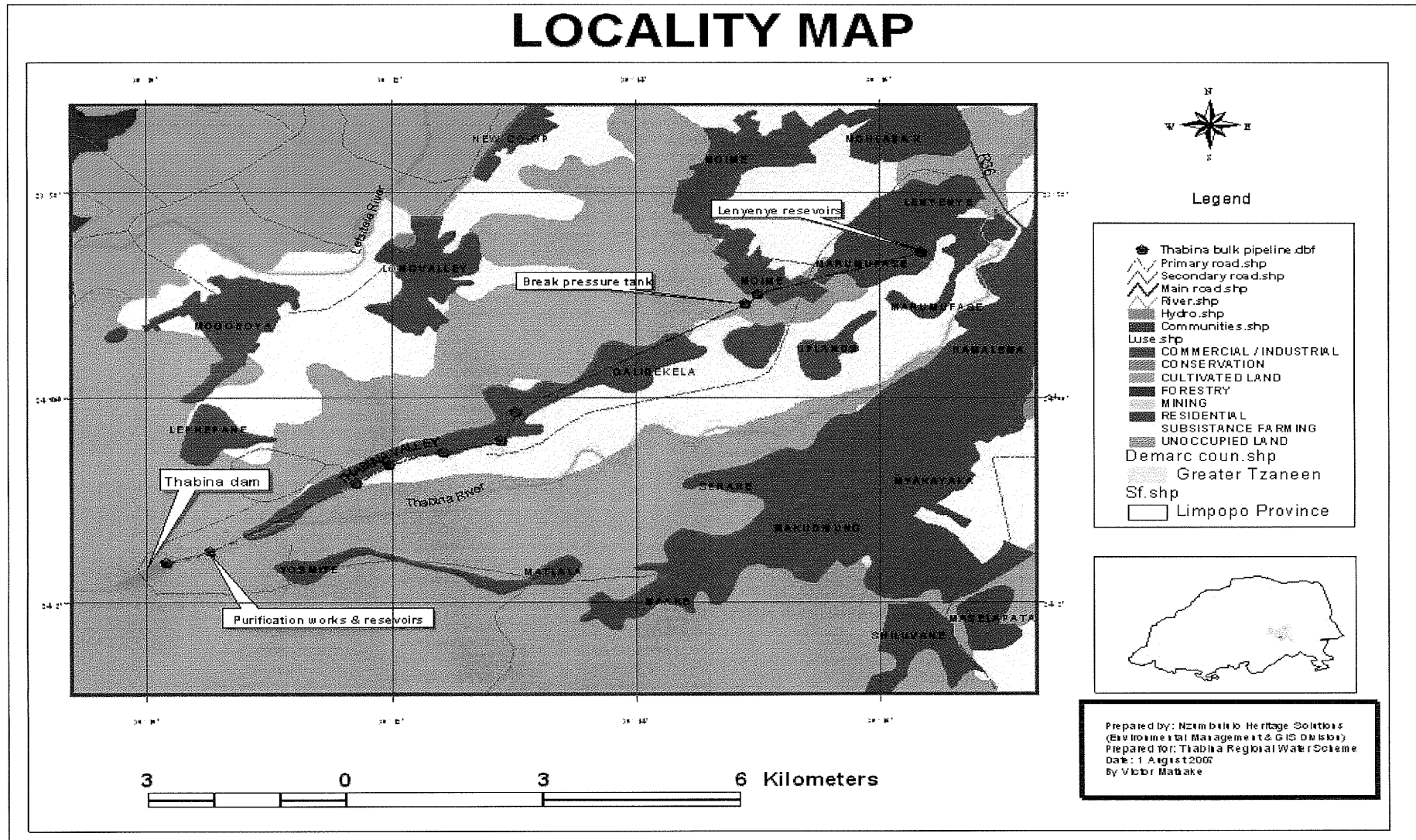


Table 2: Thabina Regional Water Scheme pipeline route coordinates

Position	Latitude	Longitude
Thabina (Mogoboya Ramodike) Dam (Plate 3)	-24.02694	30.16944
Purification works & Reservoirs	-24.02514	30.17528
Pipeline route point	-24.01417	30.19524
Pipeline route point	-24.01117	30.19976
Pipeline route point	-24.00899	30.20714
Pipeline route point	-24.00724	30.21500
Pipeline route point	-24.00241	30.21714
Break pressure tank	-23.98500	30.24833
Pipeline route point	-23.98333	30.25000
Lenyenye Reservoirs	-23.97650	30.27250
Ga-Maphala Grave Yard	S24°01'36.5"	E30°10'35.1"

Pipeline route Description

Thabina Regional Water Scheme Mogoboya bulk water pipeline will traverse 14km linking Thabina Dam and Lenyenye Township. The area is generally hilly (**Plate 5**). The line will pass through Thabina valley village, Galideka village, Uplands village, Moime village Marumofatse village through to Lenyenye Township.

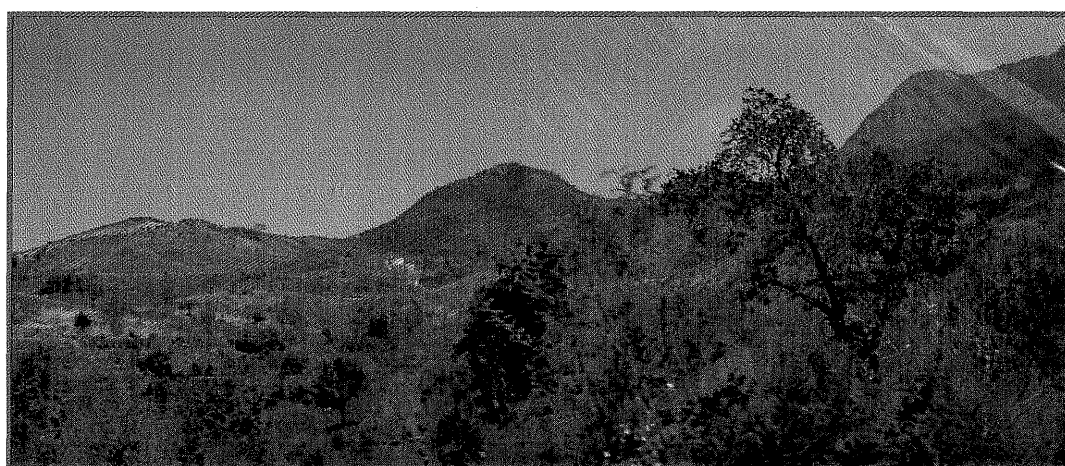


Plate 5: Proposed pipeline will traverse previously disturbed areas with agricultural fields and built up villages in a generally hilly landscape.

Archaeological and Cultural Sites

No archaeological sites or other categories of physical cultural heritage properties or materials were identified along the proposed water pipeline route. Most of the route is disturbed by existing and previous land use activities or is presently built up (Plate 1-6)

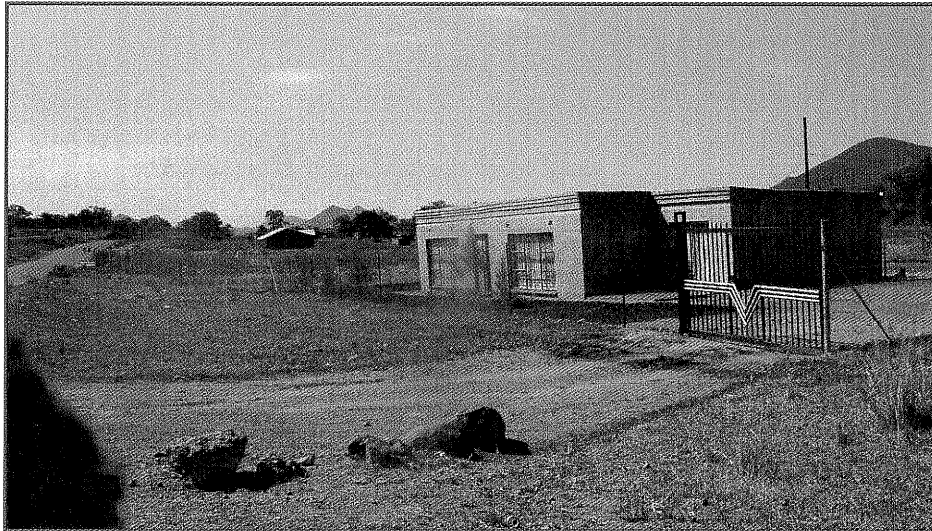


Plate 6: The pipeline and associated infrastructure will be built on areas associated with village and township settlements where there are developments already in existence.

Historic Monuments

No historical sites or features of significance were identified as potentially affected by the proposed construction of a water pipeline.

Cemeteries and burial sites

A cemetery with 10 graves was identified on the proposed route of the pipeline in Ga-Maphala Village at coordinates S24° 01'36.5" E30 °.10'35.1". The graves were identified on the direct route of the proposed water pipeline (Plates 6 & 7). There is an existing pipeline that passes through the grave yard. However, new line along the same pipeline route will disturb the graves.

We recommend that the pipeline route be redirected to by pass the cemetery. Furthermore, should previously unidentified graves or burial sites be disturbed during subsurface construction work on the pipeline, work should cease on affected area to allow the heritage authorities to initiate rescue and salvage operations.

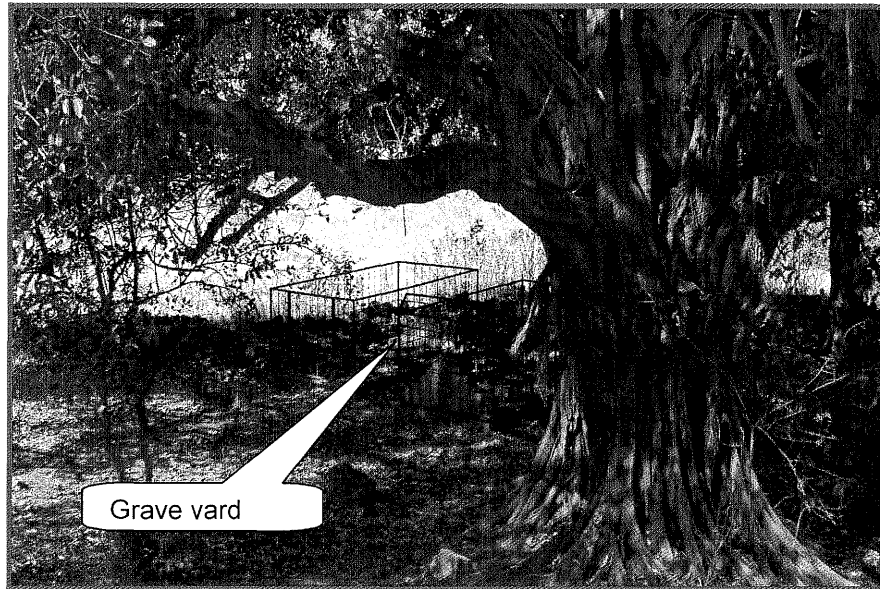


Plate 7: Ga-Maphala Cemetery situated under a tree. The cemetery is located on the planned route of the pipeline. The pipeline route maybe re directed to avoid the cemetery. However, there is an existing pipeline that runs through the cemetery.

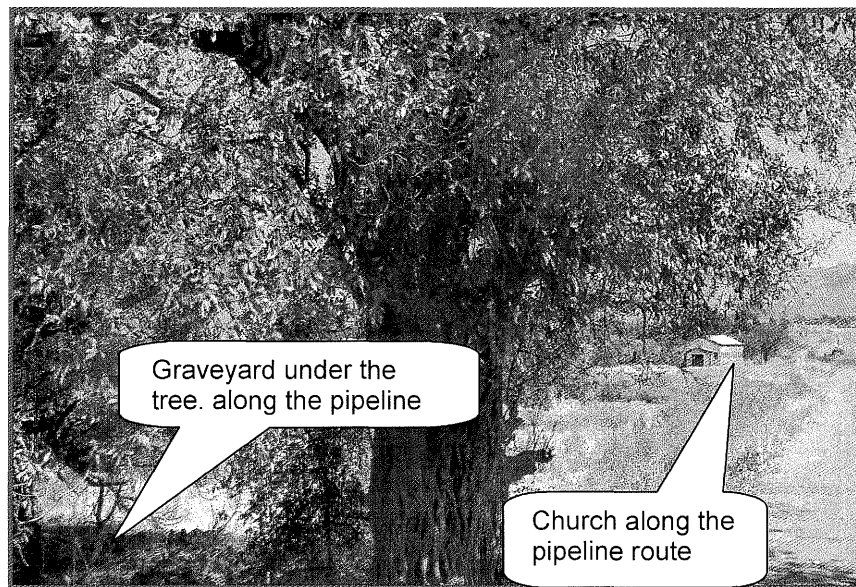


Plate 8: The Ga-Maphala Cemetery is situated under the tree and a church building in the background [Ga-Maphala village] is also located on route of the proposed pipeline route.

6 CONCLUDING REMARKS

No identified sites of archaeological significance were identified on the route earmarked for the construction of the water pipeline. There are no archaeological barriers for the proposed water pipeline construction. The Ga-Maphala cemetery will be affect by the propose^d water pipeline. As such, the pipeline route should be redirected to avoid the grave. Given the nature of the proposed work, should previously unknown archaeological materials be disturbed underground, we recommend that heritage authorities be informed immediately. With these considerations, from a cultural heritage perspective, there are no objections to the

proposed construction of 14km water pipeline to be constructed between Thabina (Mogoboya Ramodike) Dam and Lenyenye Township.

7 REFERENCES

Hammond–Tooke, D.1993. *The roots of Black South Africa* .Johannesburg: Jonathan Ball Publishers.

Monnig, H.O.1967. *The Pedi*. Pretoria: J L Van Schaik.

National Heritage Resources Act (Act No 25 of 1999)