



## **AFRICAN HERITAGE CONSULTANTS CC**

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## **A. PHASE I CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT**

### **(a) PHASE I CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT ON THE SHISHA BRIDGE MOPANI DC THULAMELA LOCAL MUNICIPALITY (LIM 343) WARD 8 KRUGER NATIONAL PARK LIMPOPO PROVINCE**

#### **(b) REPORT COMPILED BY**

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#### **(c) DEVELOPER AND CONSULTANT INFORMATION**

##### **Environmental Consultants:**

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##### **Project Engineer:**

Gibb Engineering & Science

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##### **Proponent (Owner)**

South African National Parks, P.O. Box 394, Skukuza, 1350

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**Date of report: 9 May 2014**

## **B. EXECUTIVE SUMMARY**

The site of the Shisha Bridge was inspected on foot. The area is dense Lowveld bushveld. The bridge is regularly flooded during the rainy season. The proposed new bridge will be at least twice the size of the original bridge. Though the area was worked in detail no impact cultural heritage resources or graves were found.

There is no objection to the construction of a new low water bridge from a cultural heritage resources point of view as no important cultural heritage resources were found.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

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## **D. BACKGROUND INFORMATION ON PROJECT**

### **(a) Whether the report is part of a scoping report EIA/HIA or not**

*The project forms part of an Environmental Basic Assessment Process*

### **(b) Type of Development (e.g. low cost housing project, mining etc.)**

*Infrastructure – Repair and upgrade of a low level bridge*

### **(c) Whether re-zoning and/or subdivision of land is involved**

*No re-zoning or subdivision is necessary*

### **(d) Developer and consultants and owner contact details**

#### **Prepared for:**

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### **(e) Terms and Reference**

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of paleontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

The northern section of the Kruger Park experienced heavy flooding in January 2013, leading to the closure of Shingwedzi Camp and significant damage to Civil Infrastructure in the area. Gibb (Pty) Ltd was appointed by the South African National Parks (SANParks) for the “Provision of Civil Engineering Consulting Services in the Nxanatseni Region in the Kruger National Park in terms of the Shisha and Shingwedzi River Bridge Crossings. Aurecon South African (Pty) Ltd was appointed by Gibb (Pty) Ltd to provide

environmental services for the NEMA Basic Assessment for the proposed repair and upgrading of the Shisha River low level bridge located on the S57 road near Sirheni Bushveld Camp in the northern section of the Kruger National Park.

**(f) Legislative requirements of Act 25 of 1999.**

**Protected sites in terms of the National Heritage Resources Act, Act No. 25 of 1999**

The following are the most important sites and objects protected by the National Heritage Act:

- Structures or parts of structures older than 60 years.
  - Archaeological sites and objects.
  - Paleontological sites.
  - Meteorites.
  - Ship wrecks.
  - Burial grounds.
  - Graves of victims of conflict.
  - Public monuments and memorials.
  - Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette.
  - Any other places or objects, which are considered to be of interest or of historical or cultural significance.
- 1.1 Geological sites of scientific or cultural importance.
- 1.2 Sites of significance relating to the history of slavery in South Africa.
- 1.3 Objects to which oral traditions are attached.
- 1.4 Sites of cultural significance or other value to a community or pattern of South African history

Regulation GN 544, promulgated in terms of the NEMA, lists activities which may not commence without a basic assessment process and environmental authorisation from the competent authority, in this case the Department of Environmental Affairs (DEA).

The relevant listed activities read as follows:

GN 544, Activity 11: “The construction of (iii) Bridges; (xi) infrastructure covering 50 square meters or more; Where such construction occurs within a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.””

GN 544, Activity 18: “Infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from (i) A Watercourse.”

GN 544, Activity 39: “The expansion of (ii) Bridges; Within a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased

development footprint, but excluding where such expansion will occur behind the development setback line.”

GN 544, Activity 40: “The expansion of (iv) infrastructure by more than 50 square metres; within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, but excluding where such expansion will occur behind the development setback line.”

According to Section 21 of the National Water Act 36 of 1998, a Water Use License is also required from the Department of Water Affairs for any activity taking place within a water course. The following Section 21 activities will be applied for:

- c) Impeding or diverting the flow of water;
- (i) Altering the bed, banks, course or characteristics of a watercourse.

## **E. BACKGROUND TO THE ARCHAEOLOGICAL AND HISTORY OF THE AREA**

The area now known as the Kruger National Park (KNP) first came under government protection in 1989 when the then president, Paul Kruger, proclaimed the Sabie Game Reserve between the Sabie and Crocodile rivers (Pienaar 1990). The KNP and surrounds are particularly rich in archaeological sites (Pienaar 1990). One of the most well-known localities is the Zimbabwe-type stonewalled 14th-17<sup>th</sup> century settlement of Thulamela in the northern part of the KNP near the confluence of the Luvuvhu and Limpopo rivers. Initial excavations yielded a broad range of cultural material, including glass and shell beads, oriental ceramics, a range of metal objects as well as gold beads, bangle sections, wire and crucible ceramic potsherds with gold droplets (Grigorova et al 1998; Küsel 1992; Verhoef & Küsel 1992). The glass beads and oriental ceramics demonstrate a link with the Indian Ocean trade network (Grigorova et al 1998). The AARL gold fingerprint profile of Thulamela is remarkably similar to some of the Mapungubwe gold, suggesting a common gold source. Several prehistoric gold mines have been recorded in this area (Pienaar 1990; Küsel 1998). Subsequent archaeological investigations and excavations delivered a metal gong, and also several high-status burials with gold artefacts and other burial goods (Field notes KNP research group 1990-1994; Steyn et al 1998; Meskel 2007). Another Zimbabwe-type ruin that has evidence for gold working is Makahane on the northwestern border of the KNP (Eloff & De Vaal 1965; Pienaar 1990; Field notes KNP research group 1994).

Meyer (1986) in a survey of archaeological localities in the National Kruger Park recorded a firm presence of African farmer settlements from the Early Iron Age (EIA), and numerous localities from the Later Iron Age (LIA) and the more recent historic period. A selection of the recorded sites has subsequently been excavated by several researchers over the years and some current research projects focus on some of the recorded/excavated sites (SAHRIS data base, July 2014).

Ruins along the Shingwedzi River are indicated as locality 56 on the map of historical sites in the KNP (Pienaar 1990). In his extensive survey Meyer (1986 Table 1; 71-72, 87-88, Fig. 4 *Sites in the Shingwedzi drainage*: 90 and Table 2) also recorded numerous settlements (>37) from the Middle (MIA) to the LIA along the Phugwane

and Shingwedzi rivers (the Shangoni, Vlakteplaas and Shingwedzi sites). Archaeological excavations at several of these demonstrated that agricultural activities and herding practices during the EIA were more limited than during the LIA and the historical period (see maps of excavations in Meyer 1986: 114-118). The majority of the Shingwedzi settlements are on river banks or at river confluences.

The generally small EIA settlements were usually situated on high sandy river banks. The occupation deposits at the earlier settlements are generally shallow and associated middens are small, suggesting relatively short occupation periods (Meyer 1986; Plug 1988, 1989a, 1989b). The analyses of faunal remains demonstrate a dependence on hunting with only small numbers of domestic animals. This settlement pattern and lifestyle were also found in the Shingwedzi region at the excavated EIA settlement of SH14a.

An important settlement (Sh26) dates to the MIA or LIA based on a comparison of the ceramic assemblage with a similar facies found at Kgopolwe near Phalaborwa – a Provincial Heritage Site (Site reference SAHRA 9/2/252/0004). The later sites mostly yielded faunal material, ceramics and house remains. A site from the more recent period, SH27.1, has been dated to 1830 ± 45 AD (Pta 3467) (Meyer 1986: 99). A prominent hill in the review area is Dzundwini to the north where several stone enclosures have been recorded. The presence of glass suggests a late settlement (Field notes KNP research group 1992).

The Shingwedzi area was integrated in the pre-colonial trade routes from the East Coast to the interior. Route B on the De Vaal 1984 map included in Pienaar (1990) runs across the Shingwedzi pass. Such a focus on trade could have contributed to a more dense settlement of the surrounding areas by African farming communities to provision travellers along the trade route.

The KNP also has a great many rock art localities, particularly in the southern region (English 1990; Hampson et al 2002; Eastwood & Eastwood 2006). There are also several rock art sites in the research area, including painted panels to the north at the sandstone hills of Shantangalang near Klopperfontein and, more to the south, the engravings on sandstone outcrops at Mooiplaas. The Shantangalang paintings include human and animal figures, all quite worn

From the above it is evident that developments around rivers and drainage lines in the KNP should be undertaken with care and a close monitoring to detect sub-surface archaeological remains.

## **F. DESCRIPTION OF THE PROPERTY OF AFFECTED ENVIRONMENT**

### **(a) Detail of area surveyed:**

- Full location Data for Province, Magisterial District/Local Authority and property (e.g. Farm erf) name and number etc.;

*Limpopo Province Mopani DC, Thulamela Local Municipality (LIM 343) Ward 8, Kruger National Park (SG 21 Digit code –TOMU0000111111100000) Limpopo Province*

- Location map(s)/orthophotos of the general area. These must include the map name and number (e.g. 3313 DC Bellville). Maps must include at least a 1:50 000 and (if available also a 1:10 000 (i.e. most detail possible). Large scale colour satellite photos make a useful addition. Maps should be preferable at least A4 size.

*1/50 000 Map: 2231CC Dzundwini*

- Either the Location Map or the Site Map must have the polygon of the area surveyed marked on it and full geographical co-ordinates for all relevant points and where applicable, indication of the area to be developed (footprint).

*Attached pages 12 & 13*

*Co-ordinates of the bridge area: S22° 57' 32.5 & E31° 15' 02.1*

#### **(a) Description of the Methodology**

The site was visited together with the Vlakteplaas environmentalist and a game warden. The area is mixed bushveld with Mopani trees dominating. The site was inspected on foot. Visibility was good. All documents on the area were searched.

## **G. DESCRIPTION OF SITES MAPPED**

The Shisha Bridge is a modern bridge. The bridge is at present a small low water bridge which is flooded every time it rains. The Park intends to build a new bridge which should be able to withstand flood water. The river bed is at present well exposed because of the 18<sup>th</sup> January 2013 flood. Though the area was searched in detail no Stone Age or other heritage material could be found. There are also no graves present on the study area – see photographs.







**H. DESCRIPTION OF THE ARTEFACTS, FAUNA, BOTANICAL OR OTHER FINDS AND FEATURES**

None

**I. CLEAR DESCRIPTION OF BURIAL GROUNDS AND GRAVES**

None founded

**J. EVALUATION AND RATING (FIELD RATING)**

Not applicable

**K. STATEMENT OF SIGNIFICANCE (heritage value)**

Not applicable

## L. RECOMMENDATIONS

There is no objection to the construction of a new low water bridge from a cultural heritage resources point of view as no important cultural heritage resources were found.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

## M. CONCLUSION

No archaeological, historic sites or graves were found on or near the bridge.

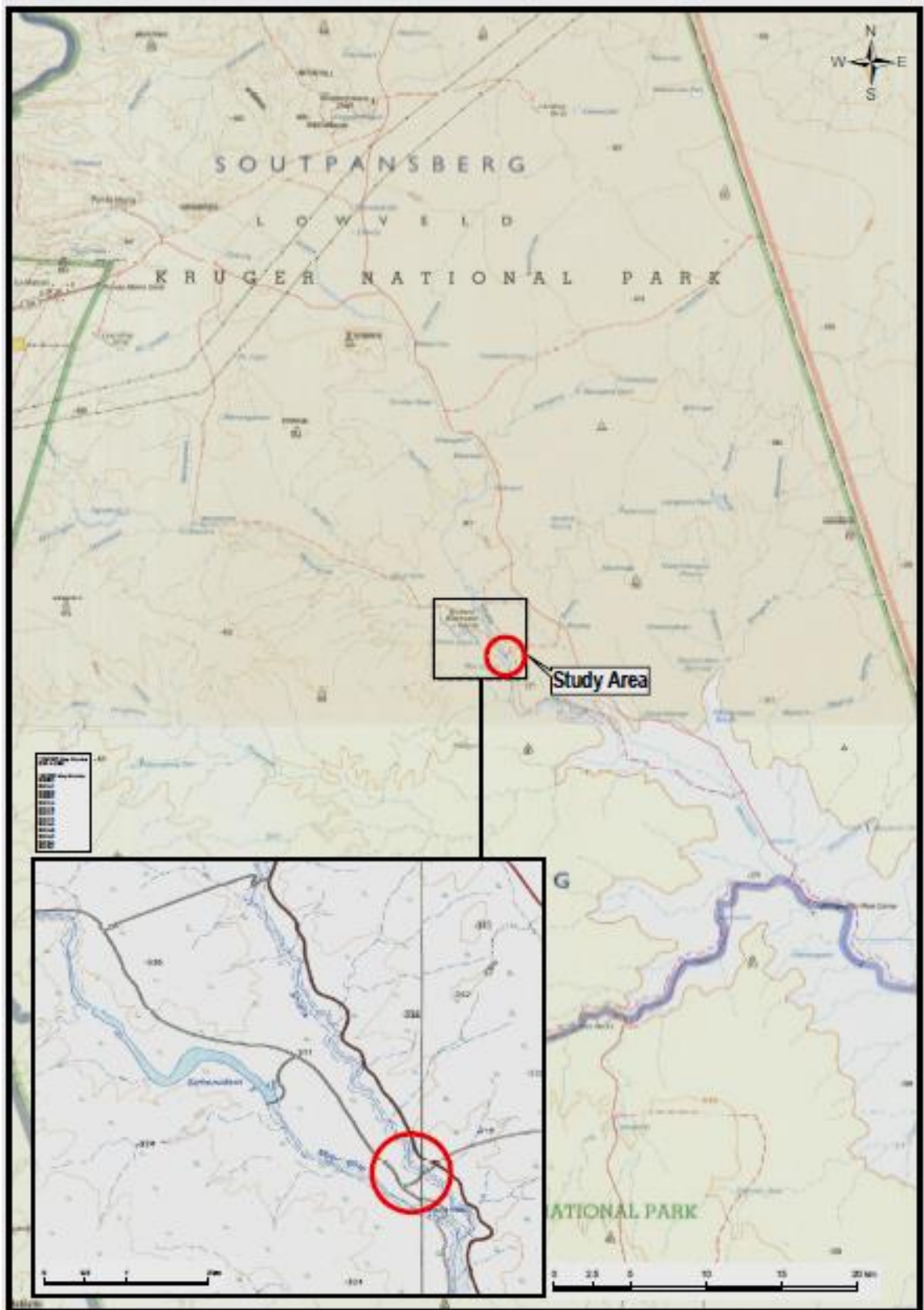
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## **O. APPENDICES**

- Locality Map page 12
- Google Map page 13





Google image of the bridge area  
Co-ordinates:  
S22° 57' 32.5" & E31° 15' 02.1"

*Upgrade of the Shisha River low level bridge on the S57 Road in the Kruger National Park*