



12 August, 2019

Attention: Mr Andrew Salomon

Dear Andrew

RE: Letter of Recommendation for Exemption of a Heritage Impact Assessment (HIA) for the proposed refurbishment to be undertaken at the existing Bushkoppie Waste Water Treatment Works

Introduction

Johannesburg Water SOC Limited (JW) intends to refurbish the existing Bushkoppie Waste Water Treatment Works, Gauteng Province. The project site (hereafter the site) is located within the existing Bushkoppie Wastewater Treatment Works which is situated on the Farm Misgund 322 IQ in the southern areas of Johannesburg, Gauteng Province (Figure 1 – 3). The site can be accessed via Stockwell Ave which is located on the western boundary of the study area.

The site has been developed from prior to 2000 and has been completely transformed. The existing WWTW has undergone extensive and continuous upgrades and these activities would have impacted on surface indicators of heritage resources if any ever existed within the project site.

Due to the extensive transformation of the study area there is a very low likelihood that any sites of significance will be impacted on by the proposed project and it is recommended that the project can commence without an HIA on the condition that a chance find procedure is implemented as part of the EMPr and based on approval from SAHRA:

Project Description

The project will entail the following:

- Construction of two new 35m diameter Primary Sedimentation Tanks (PSTs):
- Installation of half bridges on all PSTs
- Demolishing and re-routing the existing access road
- Construction of a new flow division box
- Construction of a new Primary Sludge Pump Station
- Construction of new terrace including retaining walls
- Construction of grit drying beds (GDB): ~30m x 120m
- Construction of new wash water pump station (WWPS): ~ 36m x 11m

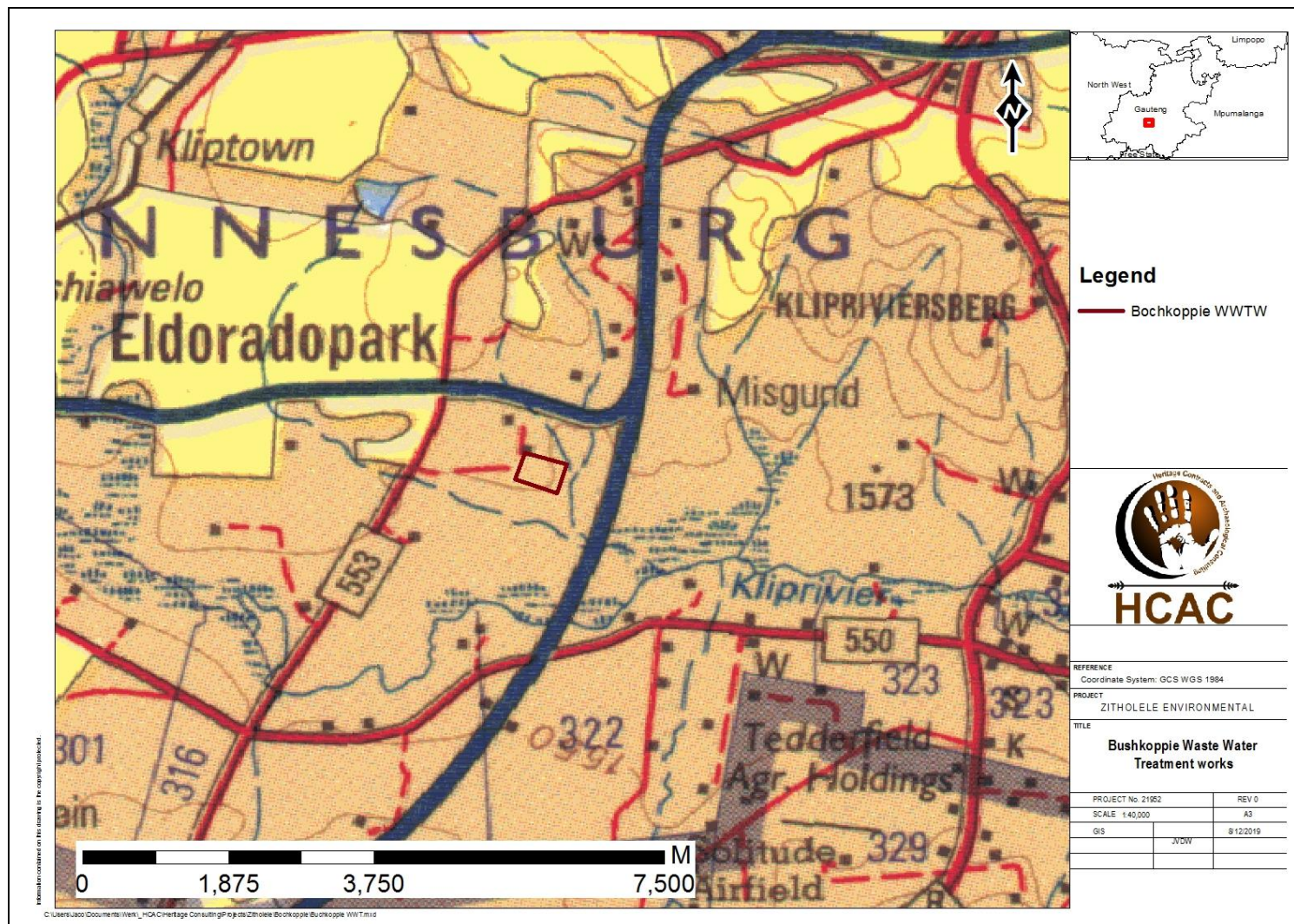


Figure 1. Regional locality map (1: 250 000 topographical map)

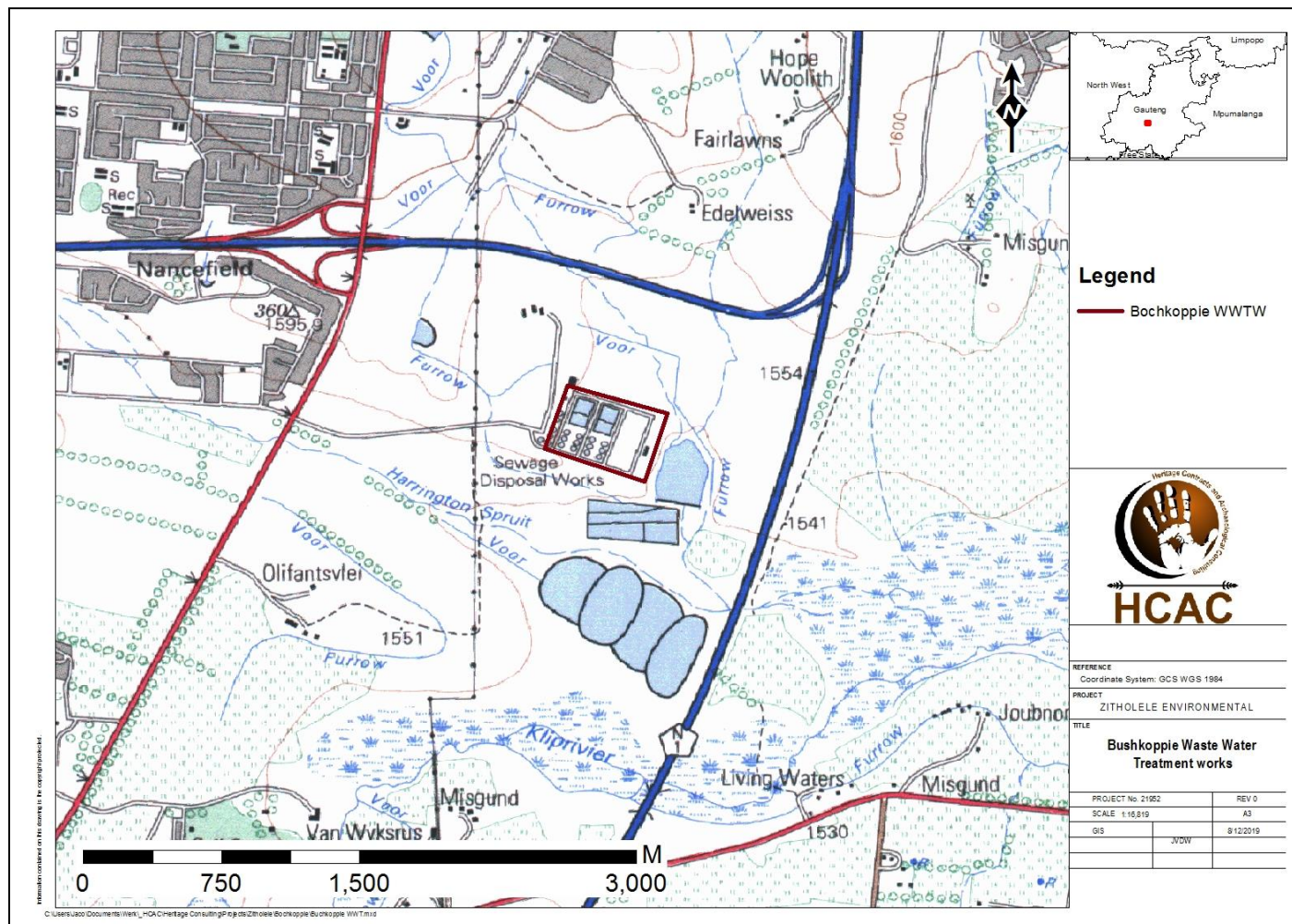


Figure 2. Locality Map (1:50 000 topographical map).



Figure 3. Google Image of the study area.

The Heritage Character of the Study area

Literature review

Wits Archaeological Data Bases

42 Previously recorded sites are on record for the 2627 BD 1: 50 000 sheet at the Wits database. These sites consist of Stone Age (ESA & LSA), Late Iron Age sites as well as Anglo Boer War remains and Historic remains (including graves). None of these sites are located within or close to the project area but provide a background of the sites that can be expected in the area.

SAHRIS

At least 7 previous CRM projects were conducted in the general vicinity of the study area. Du Piessanie & Nel (2014) recorded buildings and structures associated with early mining in the area older than 60 years. Van Schalkwyk (2013) recorded cemeteries. Birkholtz (2013) recorded seven sites. These included three sites that can directly or indirectly be associated with the Jameson Raid and its final battle on 2 January 1896, three buildings and a cemetery. Fourie (2014) completed grave investigations in the area and De Jong (2004) did an AIA on the farm, Zuurbekom, no sites were recorded apart from the pump station, Huffman (2008) recorded two European houses. Van der Walt (2015) recorded no sites.

Genealogical Society and Google Earth Monuments

Neither the Genealogical Society nor the monuments database at Google Earth (Google Earth also include some archaeological sites and historical battlefields) have any recorded sites in the study area. The Historic Zuurbekom pump house (AD 1899) is however indicated and is located 17 km to the West of the study area.

Archaeological Background

Although there are no well-known Stone Age sites located on or around the study area there is evidence of the use of the larger area by Stone Age communities for example along the Kliprivier where ESA and MSA tools were recorded. LSA material is recorded along ridges to the south of the current study area (Huffman 2008). Petroglyphs occur to the south at Redan as well as along the Vaal River (Berg 1999).

Regarding the Iron Age, the well-known Smelting Site at Melville Koppies requires further mention. The site was excavated by Professor Mason from the Department of Archaeology of WITS in the 1980's. Extensive Stone walled sites are also recorded at Klipriviers Berg Nature reserve belonging to the Late Iron Age period. A large body of research is available on this area. These sites (Taylor's Type N, Mason's Class 2 & 5) are now collectively referred to as Klipriviersberg (Huffman 2007). These settlements are complex in that aggregated settlements are common, the outer wall sometimes includes scallops to mark back courtyards, there are more small stock kraals, and straight walls separate households in the residential zone. These sites date to the 18th and 19th centuries and was built by people in the Fokeng cluster.

In this area the Klipriviersberg walling would have ended at about AD 1823, when Mzilikazi entered the area (Rasmussen 1978). This settlement type may have lasted longer in other areas because of the positive interaction between Fokeng and Mzilikazi.

Historical background of the area

J. S. Bergh's historical atlas of the four northern provinces of South Africa is a very useful source for the writing of local and regional history. Interestingly, it seems that the study area is located in the vicinity of the Melville Koppies, which is a Middle Stone-Age site. (Bergh 1999: 4) This area was also important to Iron Age communities, since these people had smelted and worked iron ore at the Melville Koppies site since the year 1060, by approximation. (Bergh 1999: 7, 87)

The Difaqane (Sotho), or Mfekane ("the crushing" in Nguni) was a time of bloody upheavals in Natal and on the Highveld, which occurred around the early 1820's until the late 1830's.

(Bergh 1999: 10) It came about in response to heightened competition for land and trade, and caused population groups like gun-carrying Griquas and Shaka's Zulus to attack other tribes.

(Bergh 1999: 14; 116-119) It seems that, in 1827, Mzilikazi's Ndebele started moving through the area where Johannesburg is located today. This group went on raids to various other areas in order to expand their area of influence. (Bergh 1999: 11)

During the time of the Difaqane, a northwards migration of white settlers from the Cape was also taking place. Some travellers, missionaries and adventurers had gone on expeditions to the northern areas in South Africa, some already as early as the 1720's. One Bain travelled through, or close by the area where the present-day farm was located in 1831 (Figure 2). One Harris also travelled through this area in 1836. (Bergh 1999: 13)

It was however only by the late 1820's that a mass-movement of Dutch speaking people in the Cape Colony started advancing into the northern areas. This was due to feelings of mounting dissatisfaction caused by economical and other circumstances in the Cape. This movement later became known as the Great Trek. This migration resulted in a massive increase in the extent of that proportion of modern South Africa dominated by people of European descent. (Ross 2002: 39) By 1939 to 1940, farm boundaries were drawn up in an area that includes the present-day Johannesburg and Krugersdorp. (Bergh 1999: 15).

Findings

The proposed project is located in an existing WWTW that transformed the study area and it is therefore disturbed from a heritage point of view. The study area has been developed from prior to 2000 (Figure 4) and surface indicators of heritage resources would have been obliterated by these activities (Figure 5 – 6).



Figure 4. The study area has been transformed by development activities prior to 2000.



Figure 5. Aerial photograph of the western portion of the study area viewed from the south.



Figure 6. Aerial view of the study area from the west.

Built Environment

No standing structures older than 60 years occur on site and therefore in terms of Section 34 of the act no mitigation is required prior to development.

Paleontological Resources

The study area is indicated as of low to moderate significance on the SAHRA paleontological map. Due to the existing disturbance of the site it is not expected that surface indicators are still visible. Given the nature and relatively small scale of the development, potential impact on palaeontological heritage resources within the proposed development footprint is considered low.



Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	Desktop study is required
BLUE	LOW	No palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 7. Paleontological sensitivity of the study area as indicated on the SAHRA Paleontological Map.

Archaeological Resources

During the development of the site and the surrounding area all surface indicators of archaeological resources would have been obliterated. No mitigation is required prior to development in terms of the archaeological component of Section 35 of the NHRA.

Burial Sites and Graves

No known burials occur in the study area.

Conclusion

From a heritage perspective the study area is degraded and there is a low likelihood that any sites of significance will be impacted on by the proposed project. It is therefore recommended that the project is exempted from an HIA but that a chance find procedure and a paleontological protocol for finds should be included in the EMP.

Chance find procedure

The possibility of the occurrence of subsurface finds cannot be excluded. Therefore, if during construction any possible finds such as stone tool scatters, artefacts or bone and fossil remains are made, the operations must be stopped and a qualified archaeologist or palaeontologist must be contacted for an assessment of the find. A short summary of chance find procedures is discussed below

This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds as discussed below.

- If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or fossil material, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.
- It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find and confirm the extent of the work stoppage in that area.
- The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist or palaeontologist for an assessment of the finds who will notify the SAHRA.

Any further queries can be forwarded to Jaco van der Walt on Cell: +27 82 373 8491 or to jaco@heritageconsultants.co.za.



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References

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[www.sahistory.com/ places/ Soweto](http://www.sahistory.com/places/Soweto)