

REF: 618HIA

28 September 2022

Att: Ms Nokukhanya Khumalo

Archaeological Heritage Impact Assessor
South African Heritage Resources Agency
PO Box 4637
Cape Town
8000

By email: nkhumalo@sahra.org.za

Dear Mr Salomon,

**REQUEST FOR EXEMPTION FROM A HERITAGE IMPACT STUDY: PROPOSED
STORMWATER AND ASSOCIATED INFRASTRUCTURE FOR THE EXISTING
OVERLAND CONVEYER AT THE KUSILE POWER STATION, NEAR DELMAS IN
MPUMALANGA**

Introduction

This letter constitutes a notification of intention to install the necessary controls and infrastructure to prevent environmental pollution, major impacts on surrounding wetlands, and spillage of ash-laden stormwater into the nearby streams associated with the existing Overland Conveyer at the Kusile Power Station in Mpumalanga.

PGS Heritage has been appointed to evaluate the possible heritage impacts by the proposed infrastructure upgrades and determine if a Heritage Impact Assessment will be required.

Project description

The project involves the construction of stormwater drainage and associated infrastructure underneath the existing Overland Conveyer (OLC) at the Kusile Power Station in Mpumalanga. The overland link conveyer 1 & 2 (OLC 1 & 2) system transmits mixed coarse ash and gypsum from the power station to the radial stacker.



The current system is operating without storm water drainage infrastructure to contain ash contaminated water along the conveyor servitudes, and this resulted in ponding and discharge of the wastewater into the watercourse, thereby contaminating the environment. The ash contaminated water has also resulted in environmental non-conformances being issued by the Environmental Control Officers to the Kusile Power Station for its operations around the radial stacker and the OLC.

Therefore, the purpose of project, is to prevent environmental pollution, major impacts on surrounding wetlands, and spillage of ash laden stormwater into the nearby streams. This proposed solution entails stormwater channels to contain and divert contaminated water to the proposed collection sumps for storage. Thereafter, the collection sumps will be emptied by means of pumping, through overland pipelines, to the Radial Stack's collection sump. A new overland pipeline will be constructed from the East Settling Tank to the existing Ash Dump Dirty Water channel for final disposal to the existing Ash Dump Dirty Dam (ADDD). A new gravel road of approximately 6m in width and 150m in length, for operation and maintenance of the sumps and the tank will be constructed.

Description of the receiving environment

The study area is within the already developed ash stacker footprint area of the Kusile Power Station. The Kusile Power station is situated approximately 6.5 km southwest of the Balmoral off-ramp on the N4 Highway (**Figure 1**). Access to the site is gained from the R686 Provincial Roads. The study area for the proposed stormwater and associated infrastructure is provided in **Figure 2**. The study area has been heavily developed and is currently the existing radial stacker and conveyor belt feeding the ash from the plant to the ash dump (**Figure 3 to Figure 11**).

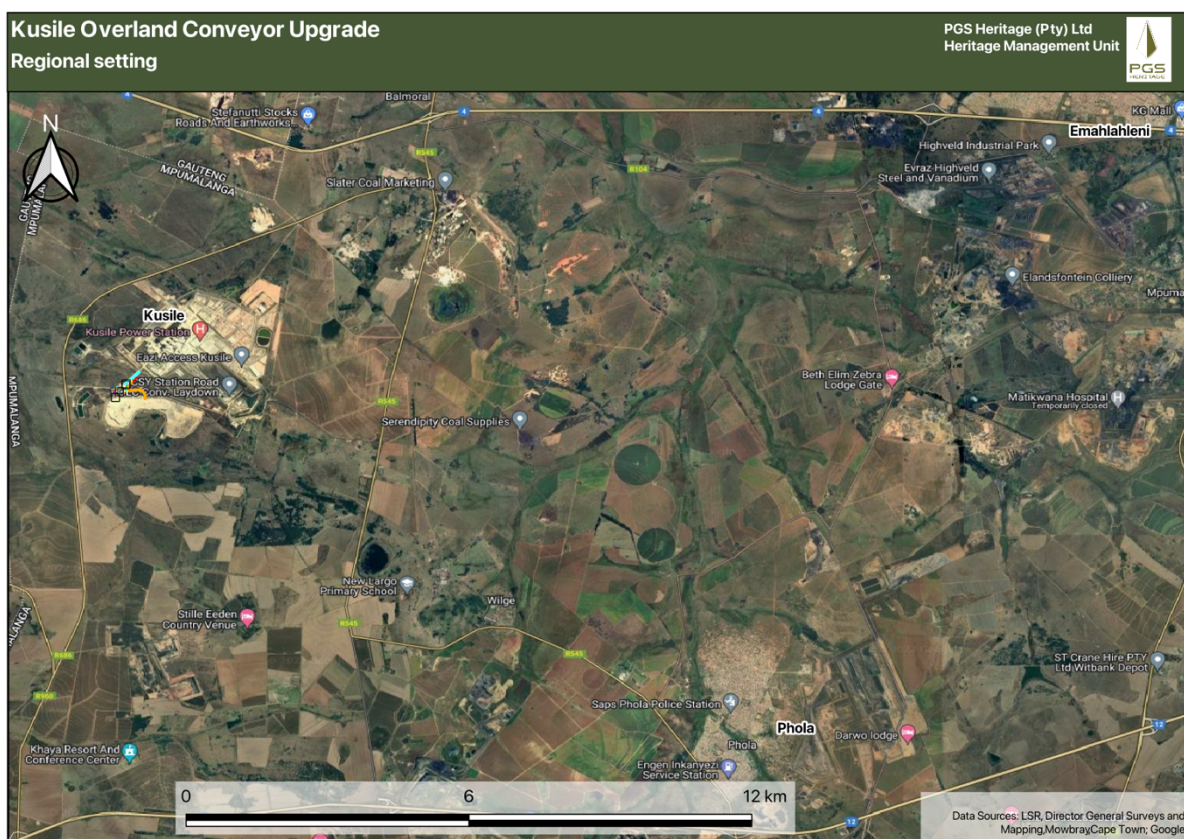


Figure 1 – Regional setting



Figure 2 – Project site for the proposed stormwater and associated infrastructure



Figure 3 – Fine ash mantling surface areas between stake rans ash dump (-25.929519; 28.910650)



Figure 4 – Fine ash mantling surface areas (-25.929325; 28.910619)



Figure 5 – Fine ash mantling surface areas



Figure 6 – Disturbed vegetation towards natural drainage (-25.926642; 28.907867)



Figure 7 – Conveyor towards the radial stacker (-25.926564; 28.907850)



Figure 8 – Disturbed area around ash handling area (-25.926861; 28.907586)



Figure 9 – View of ash dump in the background with silt storage in



Figure 10 – View of radial stacker slab area



Figure 11 – Existing radial stacker and slab area (-25.928200; 28.906444)

Heritage potential

The site is heavily disturbed, due to the development of the Kusile Power Station and the ash dump/conveyer infrastructure. Referring to **Figure 12**, **Figure 13** and **Figure 14**, one can see that the area where the existing infrastructure and proposed additional infrastructure are to be installed, remained open grassland and utilised for farming. The structure (single dwellings) indicated on the 1970 and 1985 topographical maps were removed during the development of the Kusile Power Station and no longer exists.

The site is transformed, and no historic, Iron Age or Stone Age heritage resources were noted during the site visit.

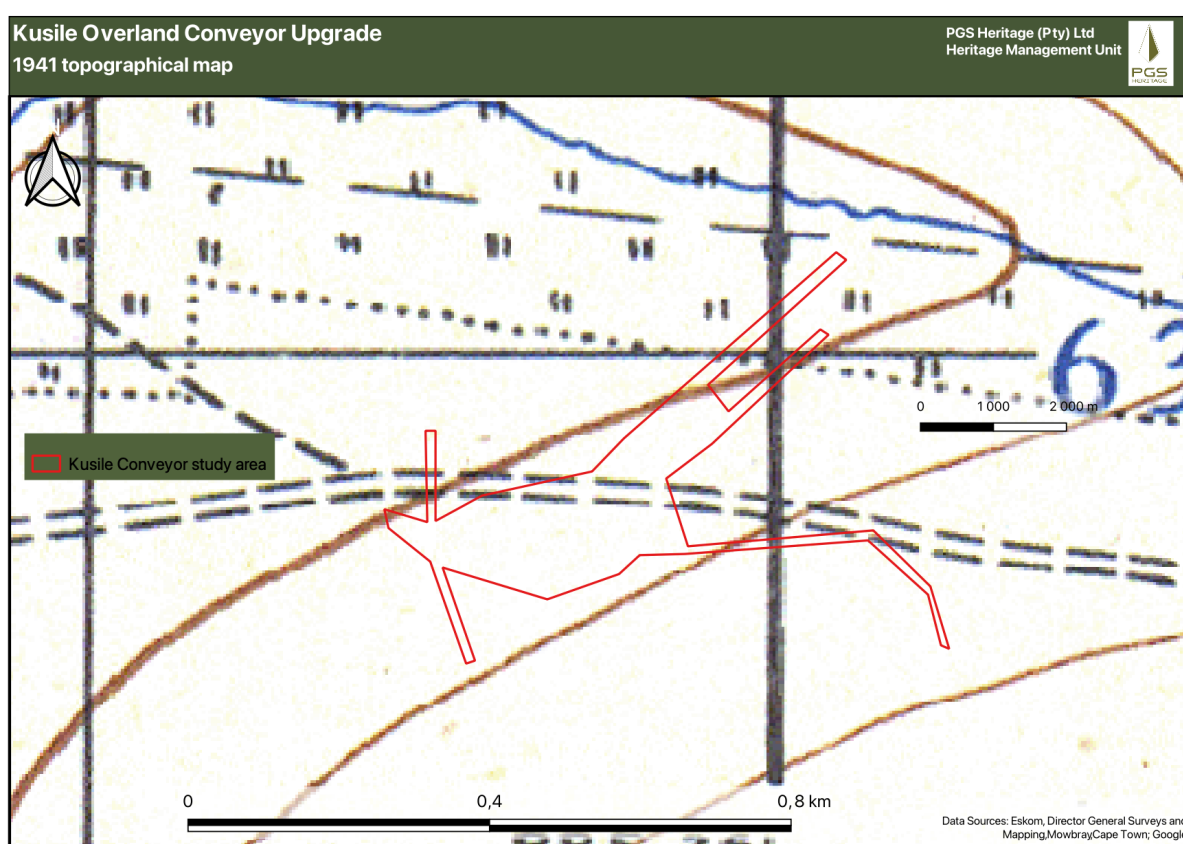


Figure 12 – 1st Edition 1941 Topographic Map (2528DD)

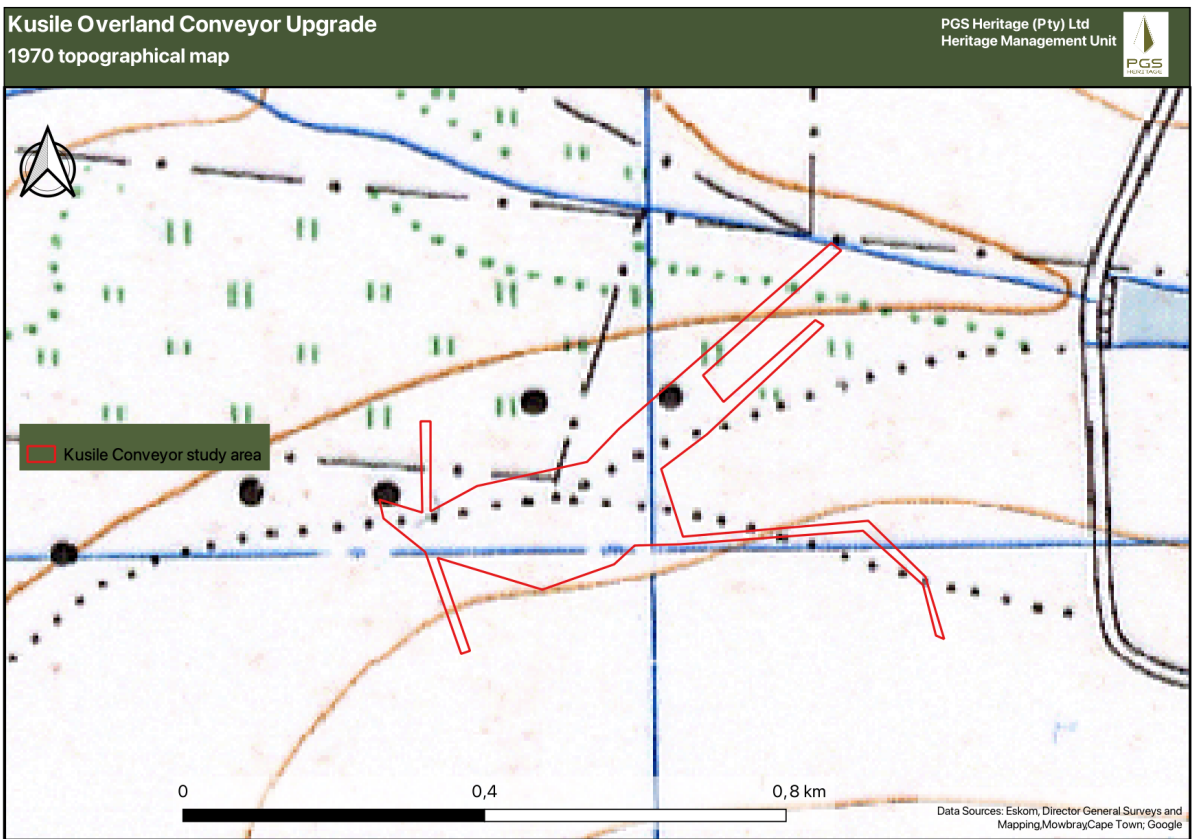


Figure 13 – 2nd Edition 1970 Topographic Map (2528DD)

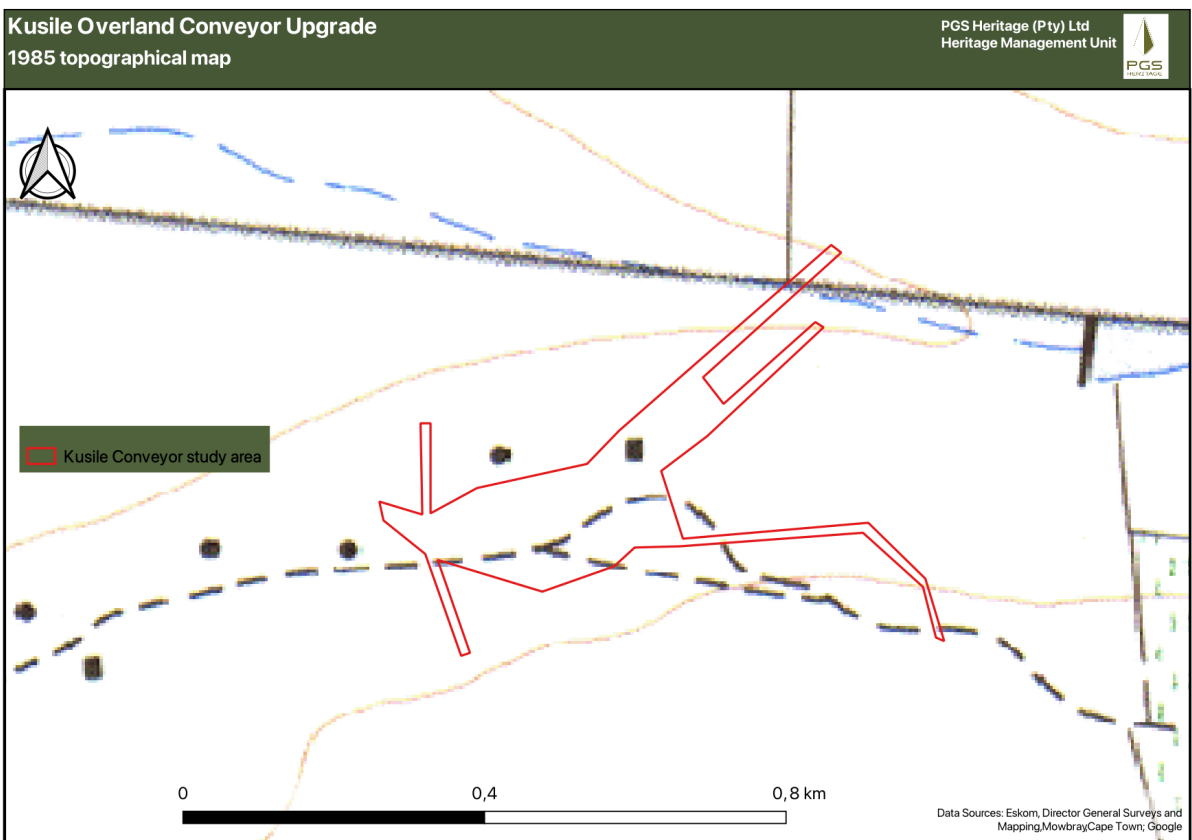


Figure 14 – 3rd Edition 1985 Topographic Map (2528DD)

Conclusions and Recommendations

Concerning the proposed project, the following recommendations are made:

1. No further Heritage Impact Assessment of the study area is required.
2. No fatal flaws were identified.
3. In the unlikely event of unmarked human burials, burial pits, potsherds or stone tools being uncovered during earthworks for the proposed development, these must be reported immediately to the South African Heritage Resources Agency (Ms Nokukhanya Khumalo (021 362 2535)).

Note that a separate Palaeontological Impact Assessment was conducted for the project.

Should you have any queries, please contact Wouter Fourie (email: wouter@pgsheritage.com; Tel: (012) 332 5305).

Yours Sincerely



Wouter Fourie

Accredited Professional Archaeologist (ASAPA)

Accredited Professional Heritage Practitioner (APHP)