

September 14, 2016

**WETLAND IDENTIFICATION AND DELINEATION REPORT WITH REGARDS TO THE APPLICATION AREA OF WHEATFIELD INVESTMENTS (PTY) LTD ON A CERTAIN PIECE OF LAND ON THE FARM ROOIFONTEIN 1722.**

**REF NO FS30/5/1/3/2/10181MP**

***Introduction***

The central portion of South Africa, especially around Kimberley and western portion of the Free State is well known for its non-perennial pans on the almost featureless landscape. These pans are mostly high in salinity and various small-scale salt mines are to be found.

During the wet season these pans get filled with run-off water within the micro catchment areas around these pans. Each pan has an own micro catchment area where run-off water is collected in non-perennial streams that mouth into the lower lying pan. Normally these non-perennial streams increase the micro-catchment area of such a pan to a limited extent.

As the pans are not interlinked or linked to larger drainage systems on surface, the water evaporates and or penetrates to refill the groundwater in the direct vicinity of the pan/s.

Figure 1 is a satellite image of the greater area around Kimberley in which the application area is situated. The various non-perennial salt pans are clearly visible. The only perennial dam, the Kampher's Dam, is north of Kimberley.



Figure 1: Regional image of Kimberley indicating the various non-perennial salt pans scattered over the landscape.

**Locality of the application area**

The application area of Wheatfield Investments (Pty) Ltd is situated on a portion of Rooifontein 1722, southeast of Kimberley. It falls within the Orange Free State Province, as indicated in figure 1.

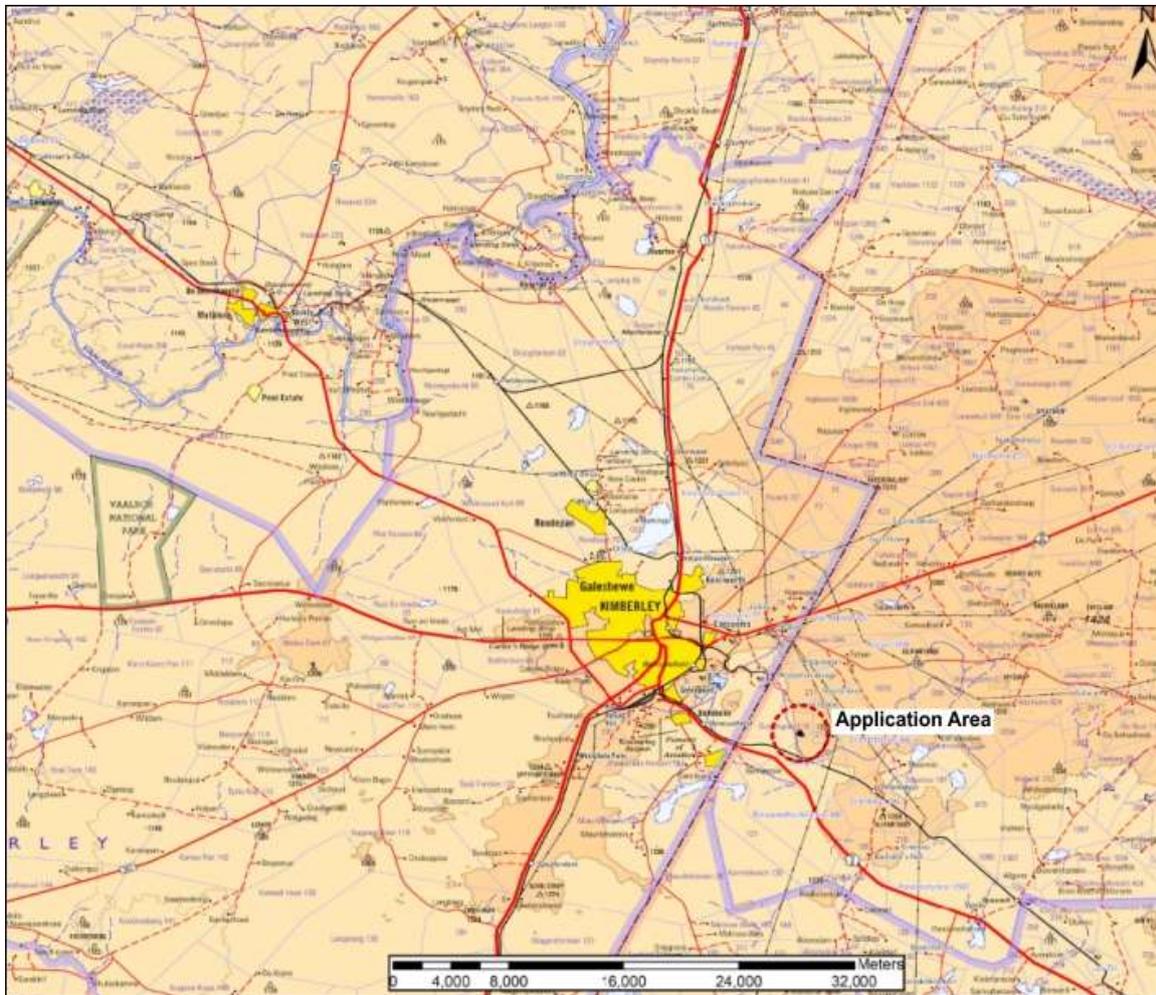


Figure 2: Locality of the 5ha Application Area

The application area is 5ha in extent.

**Topography**

The mine is situated between 1200m and 1220m above mean sea level (a.m.s.l.). The nearest salt pans are both below 1200m a.m.s.l. The salt pan south of the application area is situated between 1160m and 1180m while the further pan to the east is situated between 1180m and 1200m a.m.s.l. This second pan is 5km to the east of the applicant’s area. (Figure 3)

The nearest point of the southern pan’s catchment is just south of the application area. The upper reaches of this catchment of the non-perennial stream is higher than the application area, which causes run-off water in the direct vicinity of the application water flowing towards the southwest, rather than in the direction of the catchment.



Figure 3: Location of application area in relation to the nearest wetlands and their boundaries

## **Conclusions**

Based on the initial desktop study, it is clear that, considering the characteristics of the surface soils and absorption rate of water, none of the water from the direction of the application area, can or will reach the micro catchment areas of these 2 wetland situations identified.

Would the water and waste management plan of the applicant be followed, the project will not influence any wetlands near it.

As is the case, a site visit deems unnecessary to confirm what has already been determined through imagery.

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