

Mr Phillip Hine
SAHRA

31 October 2016

Re: PERMIT APPLICATION FOR THE PROPOSED REHABILITATION OF SITE 2, VELE COLLIERY

INTRODUCTION

In the memorandum by Mr John Sparrow dated 30th January 2016: *Heritage site #2 – proposed rehabilitation and protection work to be undertaken within 100m of a water course*, which is attached to the SAHRIS application, it was commented that the purpose of the memo was to outline the proposed work that will be undertaken to rehabilitate and protect the heritage site 2.

The purpose of this letter is to illustrate and clarify the intended work. It also serves to confirm that I was appointed to supervise the process from start to finish, ensuring that no damage is done to the nearby cultural deposit. The appointment letter was also attached to the permit application.

It should be noted that during precolonial salt making, it was not the pond's water that was evaporated to make salt, but the crystallised sodium chloride in the surrounding soil that was scrapped up, place in a strainer and then water from the pond was poured over it to dissolve the salt. The saltwater filtered through the strainer into a container, usually a clay pot. This filtered water was evaporated by boiling it to form salt "cakes" while the soil and any broken pots were dumped nearby. The dumping resulted in the creation of the mound, which is the main component of the site 2.



Figure 1. Example of type of strainer that may have been used at site 2.



Figure 2. Examples of salt “cakes”.

THE DEGREE OF DAMAGE TO THE POND AT SITE 2

In this letter I use the current and historical imagery of Google Earth to illustrate the extent of damage to the pond caused by the flooding of 2012/2013.

Figure 3 is a historical image dating to 2006 before any mining activity. It clearly shows the pond in its natural state. Figure 4 is an image of 2013 after the food events. Here the waste rock dump and fan-like flood debris was outline while logged onto Google Earth. The historical imagery mode was then used to go back to 2006 with Google Earth retaining the drawn lines in place. This is depicted in Figure 5. This sequence together with figures 6 & 7, which respectively shows the pond in 2008 and 2016, clearly illustrates the disastrous effect of the flooding.

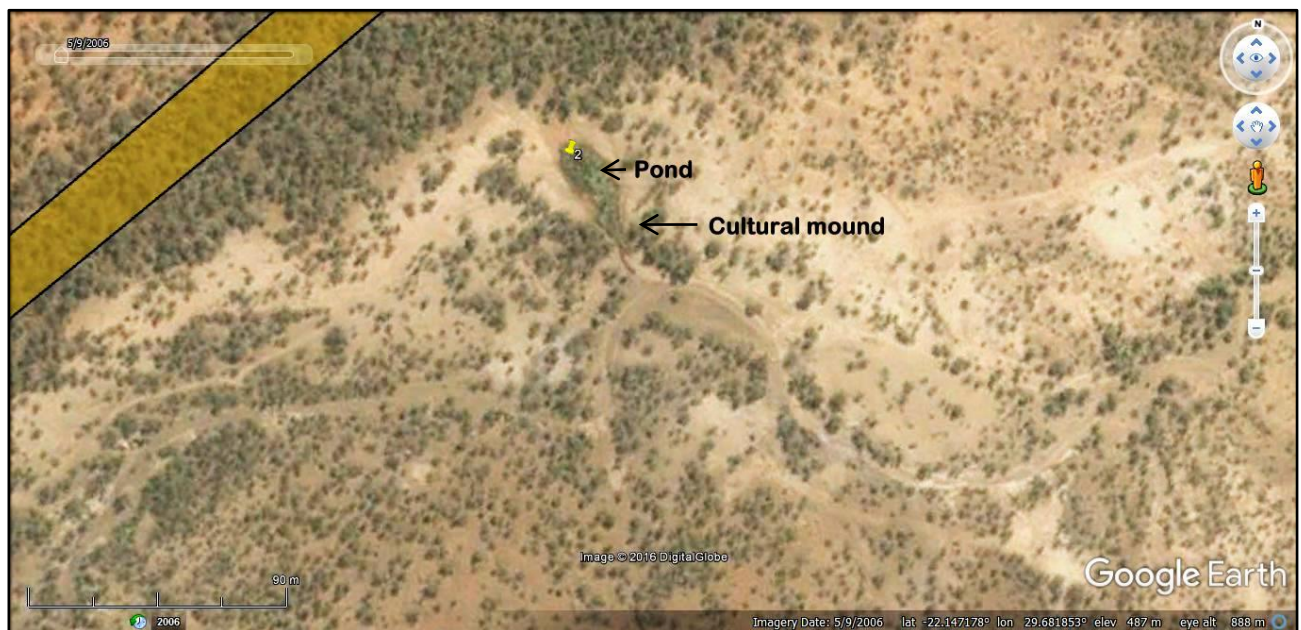


Figure 3. Google historical image, 2006.

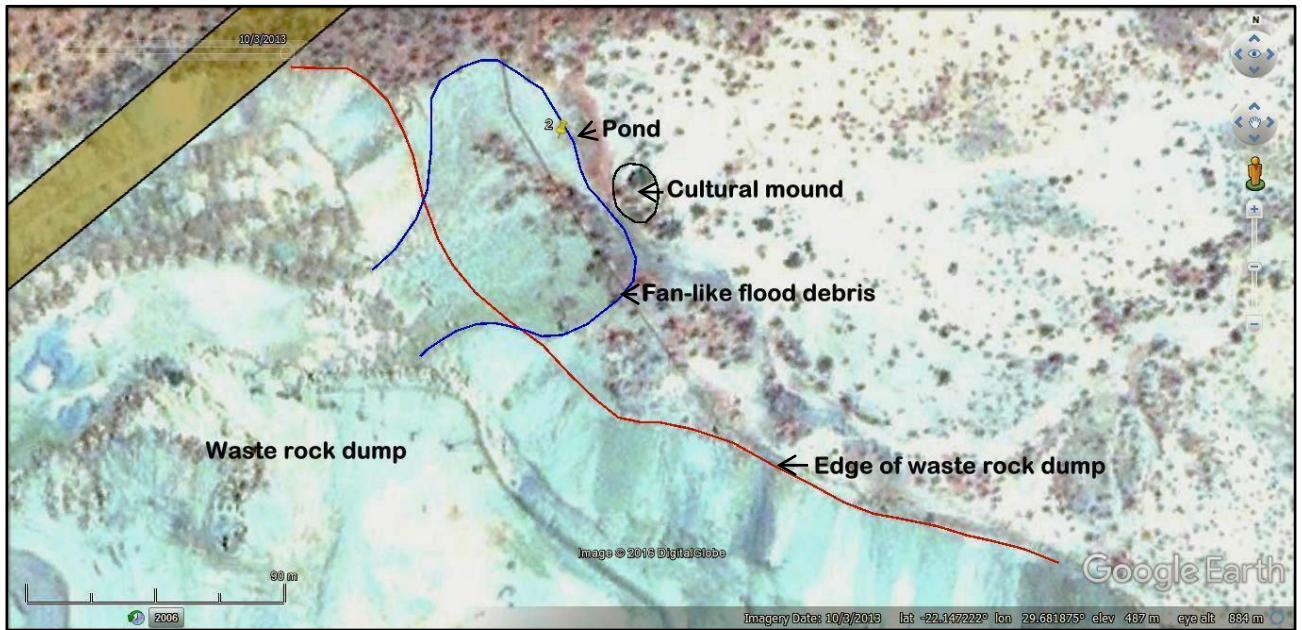


Figure 4. Google image, 2013

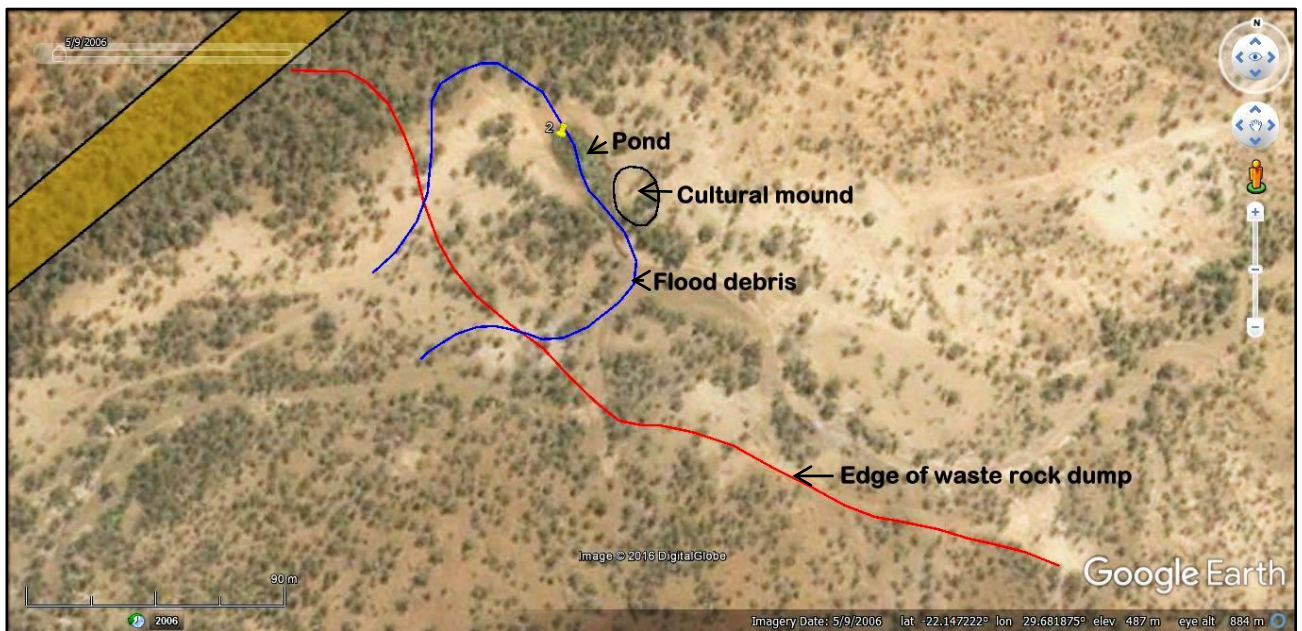


Figure 5. Lines of the 2013 image superimposed on the 2006 image.



Figure 6. The pond in 2008. The arrow points to the cultural mound.

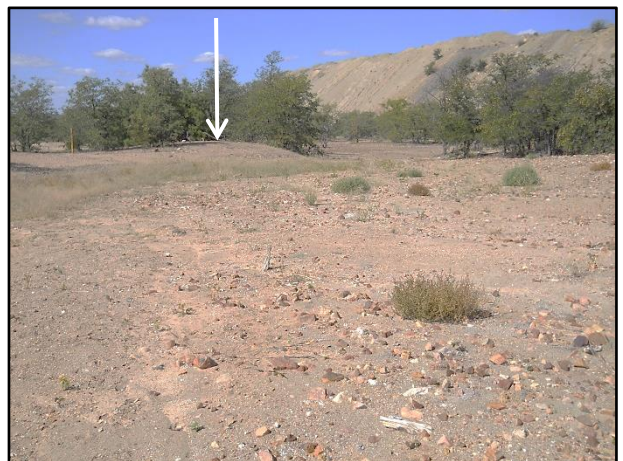


Figure 7. The pond in 2016 standing on the edge of what was the pond in Figure 6. The arrow points to the cultural mound.

THE PROPOSED WORK TO REHABILITATE THE POND

This serves to illustrate the bullets in the letter of Mr John Sparrow mentioned above.

- The use of a TLB to create a toe berm, at the foot of the Overburden dump (see figure 4 – line indicating edge of dump) to redirect any water flow from the dump in an easterly direction and this would also facilitate the collection of silt and overburden material. The berm would be built from material on the site and would be situated some 5m from the toe of the dump and be approximately 3m high.



Figure 8. Example of a toe berm.

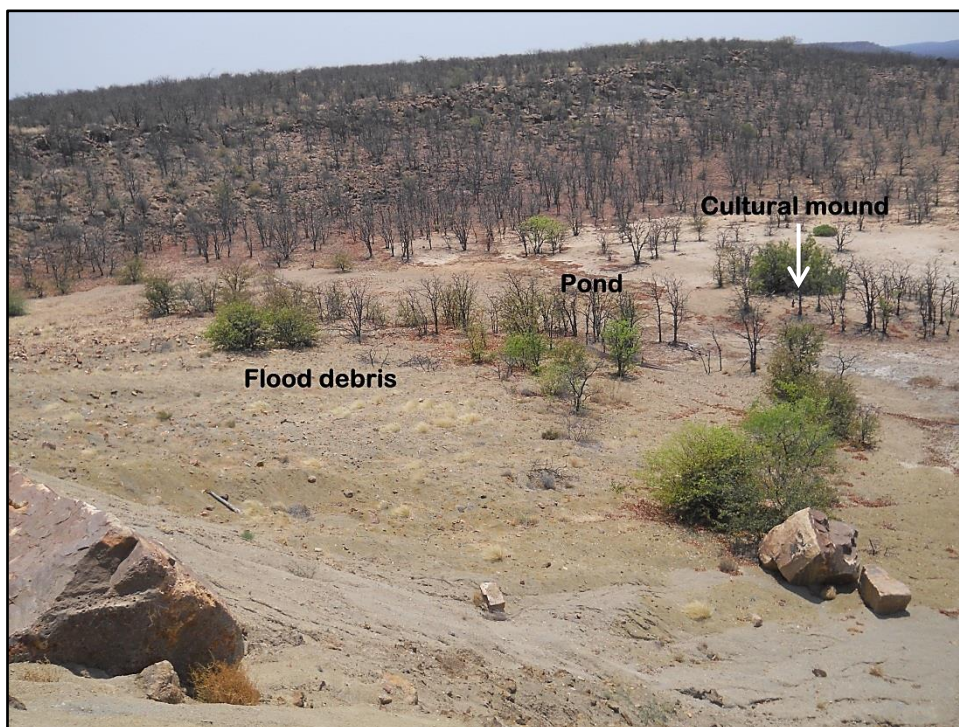


Figure 9. The flood debris is the material to be used for the berm.

- Repair and redirect the existing silt trap fencing at the site to the new proposed position, which would then utilize the existing vegetation as a backing feature to protect the fence and prevent it from being overwhelmed in the future.



Figure 10. Flood damaged silt trap to be moved to the right into the tree line.

- To hand collect the extra silt material that has clogged the spring and use the material to compact the new toe berms.



Figure 11. This photo shows the silt in the pond area that will be hand collected.

- To construct a small concrete wall in the water course to facilitate the impediment of the water flow and thus result in the re-ponding of the spring, which would allow for the regrowth of the sedge grass. This wall would be 6m wide and 90cm high and be constructed some 30cm into the water course bed.

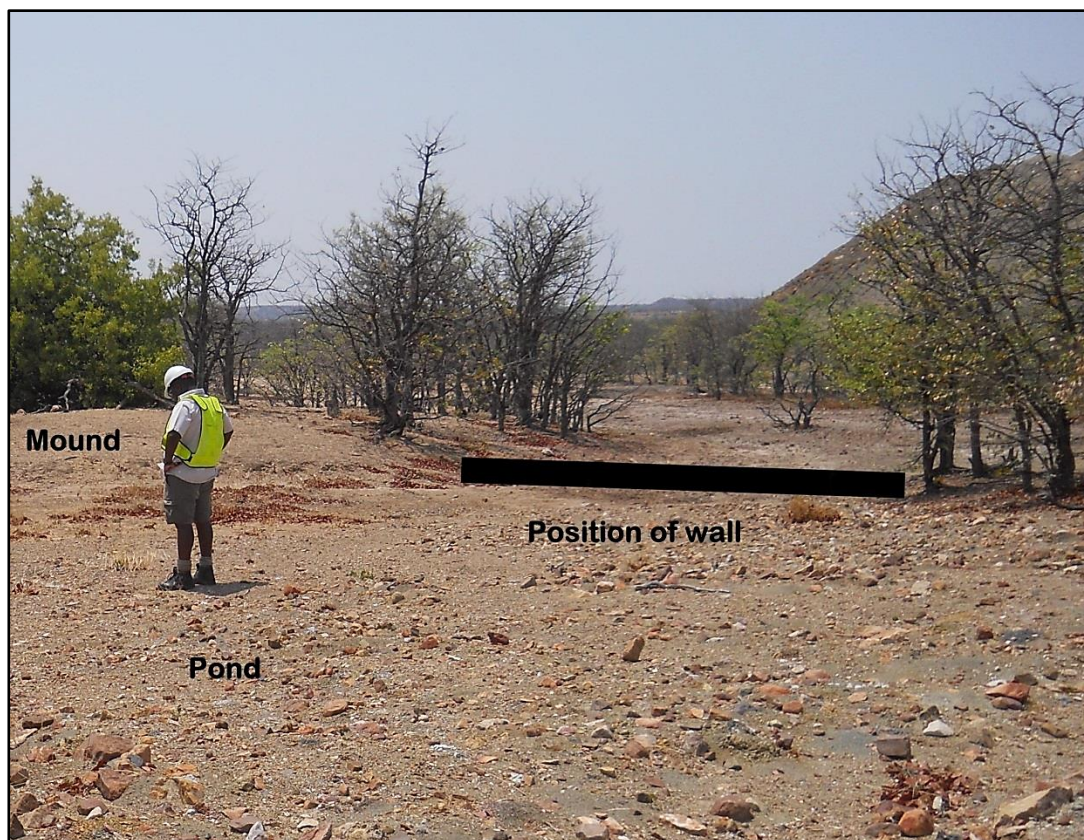


Figure 12. This photo illustrates the position of the retaining wall. Note that the water course beyond the proposed position of the wall had eroded to below the depth of the pond area, which will result in the pond draining without the wall. This erosion was also as a result of the flood.

CONCLUSION

The above work is expected to be sufficient to go a long way to repair the damage that has occurred due to the abnormal climatic events that have occurred, and also to prevent further damage in the future.

The work will be supervised by an archaeologist. The cultural mound will not be impacted on and a temporary barrier will be erected along the perimeter of the mound.

FRANS ROODT