

**PHASE ONE HERITAGE IMPACT ASSESSMENT  
OF THE 24G APPLICATION PROCESS, IN TERMS  
OF NEMA, FOR ACTIVITIES LOCATED ON REM  
OF PORTION 1 OF THE FARM OTTOS BLUFF NO.  
13013, OTTOS BLUFF, KWAZULU-NATAL**



**ACTIVE HERITAGE cc.**

**For: Green Door Environmental**

**Frans Prins  
MA (Archaeology)**

**P.O. Box 947**

**Howick**

**3290**

[feprins@gmail.com](mailto:feprins@gmail.com)

[activeheritage@gmail.com](mailto:activeheritage@gmail.com)

[www.activeheritage.webs.com](http://www.activeheritage.webs.com)

**Fax: 086 7636380**

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## **Details and experience of independent Heritage Impact Assessment Consultant**

Consultant: Frans Prins (Active Heritage cc)  
Contact person: Frans Prins  
Physical address: 33 Buchanan Street, Howick, 3290  
Postal address: P O Box 947, Howick, 3290  
Telephone: +27 033 3307729  
Mobile: +27 0834739657  
Fax: 0867636380  
Email: Activeheritage@gmail.com  
PhD candidate (Anthropology) University of KwaZulu-Natal  
MA (Archaeology) University of Stellenbosch 1991  
Hons (Archaeology) University of Stellenbosch 1989

University of KwaZulu-Natal, Honorary Lecturer (School of Anthropology, Gender and Historical Studies).

Association of Southern African Professional Archaeologists member

Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at Rhodes University. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. During this period he also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukhahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18<sup>th</sup> month period.

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 1000 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa', with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he has done background research and conceptualization of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed World Heritage Site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than forty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwa tu San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

#### **Declaration of Consultants independence**

Frans Prins is an independent consultant to Green Door Environmental and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.



**Frans Prins**



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**LIST OF ABBREVIATIONS AND ACRONYMS**

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006)).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000))
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

## **EXECUTIVE SUMMARY**

A phase one heritage survey of Rem Of Portion 1 of The Farm Ottos Bluff No. 13013, Ottos Bluff, KwaZulu-Natal identified no archaeological or heritage sites on the footprint. The greater area is also not part of any known cultural landscape. However, the first phase desktop study indicates that a qualified palaeontologist will need to conduct a desktop study of the area. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act No. 4 of 2008), which requires that operations that expose archaeological or historical remains as well as graves and fossil material should cease immediately, pending evaluation by the provincial heritage agency. It is important to note that all graves in KwaZulu-Natal, including those younger than 60 years, are protected by provincial heritage legislation.

## 1 BACKGROUND INFORMATION ON THE PROJECT

**Table 1. Background information**

Consultant:	Frans Prins (Active Heritage cc) for Green Door Environmental
Type of development:	<p>Flame Lily Investments (Pty) Ltd wishes to obtain retrospective environmental approval, via the 24G Application Process, for various activities which have taken place on Rem of Portion 1 of the Farm Ottos Bluff No. 13013, Ottos Bluff, KwaZulu-Natal (Fig 1).</p> <p>These activities are:</p> <ul style="list-style-type: none"> <li>• Clearance of &gt;1 ha of indigenous vegetation;</li> <li>• The establishment of internal roads;</li> <li>• The establishment or maintenance of a number of stock watering dams; and</li> <li>• A quarry.</li> </ul> <p>The Applicant's intention for the property is to rehabilitate it subsequent to the removal of alien vegetation for the purpose of introducing common game. The infrastructure (dams and roads) listed above are required in order to facilitate and manage the game that will be introduced to the property</p>
Rezoning or subdivision:	Rezoning
Terms of reference	Under Government Notice No R. 326 of 2017, the Applicant, Flame Lily Investments (Pty) Ltd, is required to appoint an independent Environmental Assessment Practitioner (EAP) to conduct the Authorisation process. The Applicant has appointed Green Door Environmental to conduct the processes. Green Door Environmental has sub-consulted Active Heritage To carry out a Phase One Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

### 1.1. Details of the area surveyed:

The project area is located at Ottosbluff, in the northern outskirts of Pietermaritzburg, (Fig 1). The GPS coordinates of the centre of the property are: S 29° 30' 01.86" E 30° 22' 09.14". The property covers an area of approximately 1000m x 800m. The area is covered by dense grassland vegetation with indigenous trees and shrub in places (Figs 4 - 7). The following activities is currently taking place on the property:

- Clearance of >1 ha of indigenous vegetation;
- The establishment of internal roads;
- The establishment or maintenance of stock watering dams; and
- The establishment of a quarry.

## 2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The Ottos Bluff area has been relatively well surveyed for heritage sites by archaeologists of the then Natal Museum and by various cultural resource consultants who have worked in the area during the last two decades. Most intensive surveys have been conducted in the nearby Umgeni Valley Nature Reserve (Maggs et al 1995), but the KwaZulu-Natal Museum data base also indicate the presence various sites outside of the Umgeni Valley Nature Reserve. These sites occur near Albert Falls Nature Reserve and directly adjacent to the Ottos Bluff Hill in the near environs of the project area.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that the greater Ottos Bluff area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include five Early Stone Age sites, three middle Stone Age sites, four Later Stone Age sites, one rock engraving site, fourteen Early Iron Age sites, twenty Later Iron Age sites, and four historical sites.

Stone Age sites of all the main periods and cultural traditions occur within the greater Ottos Bluff area. Most of these occur in open air contexts as exposed by donga and sheet erosion. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources is typical of this tradition. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably dates back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (i.e. *Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably dates back to between 40 000 and 200 000 years ago. The later Stone Age flakes, blades, cores and bone points identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably dates back to between 200 and 20 000 years ago. Two small rock shelters also contained some Later Stone Age remains. They are also important as they may contain the only Later Stone Age material in archaeological context in this area.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa. By 1500

years ago these early Bantu-speaking farmers also arrived in the greater Ottos Bluff area. Due to the fact that they introduced metal technology to southern Africa they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndondondwane (AD 700-800) and Ntshekane (AD 800-900). Most of the Early Iron Age sites in the greater Ottos Bluff area belong to these traditions (Maggs 1989:31; Huffman 2007:325-462). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers below the 1000m contour. These early farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred around the central significance of cattle.

Later Iron Age sites also occur in this area. These were Bantu-speaking agropastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu people (Huffman 2007). Many African groups moved through the study area due to the period of tribal turmoil as caused by the expansionistic policies of King Shaka Zulu in the 1820's. It is known from oral history that Ottos Bluff particularly was inhabited by the Wushe and the Zondo tribes at the beginning of the 19<sup>th</sup> century. However, they were attacked and routed by the Thembu who were fleeing from the Zulu (Bryant 1965). After the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 most of the African groups in the study area adopted a Zulu ethnic identity.

### **3 BACKGROUND INFORMATION OF THE SURVEY**

#### **3.1 Methodology**

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for previous heritage surveys and heritage site data covering the project area. In addition, the available archaeological and heritage literature covering the greater Ottos Bluff area was consulted. Aerial photographs covering the area were scrutinised for potential Iron Age and historical period structures and grave sites. A ground survey, following standard and accepted archaeological procedures, was conducted on 1 March 2019. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

##### **3.1.1 Guidance from Desktop Study**

- The desktop study indicates that Stone Age Sites of all periods and traditions may occur in the Midlands of KwaZulu-Natal including the greater project area.

However, Early Stone Age sites typically occurs close to permanent and prominent sources of water, none of which occur in the immediate environs of the project area.

- Middle Stone Age tools have been found in dongas and erosion gullies at various locales in the KwaZulu-Natal Midlands. These sites are usually out of context and of little research value. Middle Stone Age deposits often occur in deep cave deposits throughout KwaZulu-Natal (including the Midlands). Again no erosion gullies or suitable rocky outcrops that may harbour shelters with deep cave deposits occur in the project area.
- Later Stone Age sites are more prolific in the coastal areas of KwaZulu-Natal and also in the foothills of the Drakensberg to the west. Although Later Stone Age sites have are known from the KZN Midlands they are rather scarce. In addition, there are no suitable rocky outcrops in the project area that may harbour shelters with Later Stone Age deposits. Although rock art occur at Wartburg to the east of the project area there are no shelters or suitable rocky surfaces on the actual footprint that may harbour such.
- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. It is very unusual to find sites above the 1000m contour. The project area is situated above the 700m . It is therefore most unlikely to expect Early Iron Age sites on the footprint.
- Later Iron Age sites do occur in the greater Ottos Bluff area. These sites were occupied by the ancestors of the first Nguni-speaking agriculturists as well as their descendants who settled in KwaZulu-Natal. Ottos Bluff particularly was inhabited by the Zondo and Wushe tribal identities (Bryant 1965). The remains of their stone walled settlements are visible some 2km to the south of the project area.
- Historical buildings, structures and farmsteads do occur scattered throughout the midlands of KwaZulu-Natal. Historical era buildings and structures could occur at or near the project area.

### **3.2 Restrictions encountered during the survey**

#### **3.2.1 Visibility**

Visibility was good. However, the grassland vegetation is dense at places and these areas may obscure potential heritage sites (Fig 4).

### **3.2.2 Disturbance**

No disturbance of any potential heritage features was noted. However, large parts of the property has been cleared of indigenous vegetation (Fig 5).

### **3.3 Details of equipment used in the survey**

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

## **4 DESCRIPTION OF SITES AND MATERIAL OBSERVED**

### **4.1 Locational data**

Province: KwaZulu-Natal

Closest Towns: Pietermaritzburg

Municipality: Umgungundlovu District Municipality

### **4.2 Description of the general area surveyed**

#### **4.2.1 Background**

Although the greater Ottos Bluff area contains a number of heritage sites none occur on the actual project area. This conclusion is based on both the desktop analysis and the actual ground survey of the project area. The desktop study could not find any historical and archaeological within the greater project area. Local residents spoken to had no knowledge of any graves or 'living heritage' sites on the property. The area is also not part of any known cultural landscape (Table 3). The ruins of the former farmstead on the property is younger than 60 years old (Figs 7 & 8) and there is therefore no need for mitigation.



#### **4.2.2 Stakeholder Consultation**

The consultant spoke to the farm manager a Mr Simon Dix and some staff members during the ground survey. None had knowledge of any heritage sites or graves on or within 100m from the footprint. Iron Age ruins belonging to the Zondo tribal unit occur approximately 1km to the west of the project area but none of the local people spoken to had any knowledge of these or other early settlement sites.

#### **4.2.3 Desktop Paleontology Assessment**

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area (including Phase 1 of the proposed pipeline) is of moderate paleontological sensitivity (Fig 4). According to Amafa policy the implication is that a paleontological desktop study will be required before the proposed development may proceed. This study will have to be conducted by an Amafa accredited palaeontologist.

## 5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

### 5.1 Field Rating

Not applicable as no heritage sites are known to occur on the footprint . However, should graves occur on the property then they would be rated as locally significant (Table 2).

**Table 2. Field rating and recommended grading of sites (SAHRA 2005)**

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

No heritage sites occur on or adjacent (within 50m) from the project area. The footprint has no heritage value (Table 3).

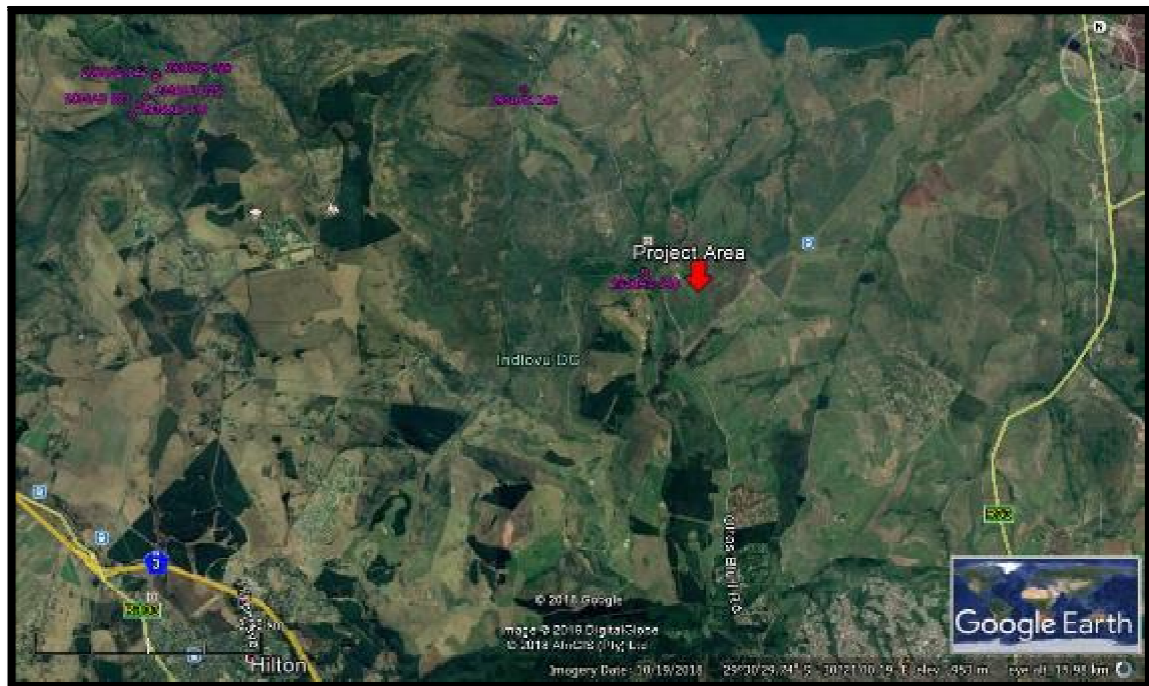
**Table 3. Evaluation and statement of significance.**

Significance criteria in terms of Section 3(3) of the NHRA		
	<b>Significance</b>	<b>Rating</b>
1.	<b>Historic and political significance</b> - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	<b>Scientific significance</b> – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	<b>Research/scientific significance</b> – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.
4.	<b>Scientific significance</b> – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.
5.	<b>Aesthetic significance</b> – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	<b>Scientific significance</b> – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.
7.	<b>Social significance</b> – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	None.
8.	<b>Historic significance</b> – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None.
9.	The significance of the site relating to the history of slavery in South Africa.	None.

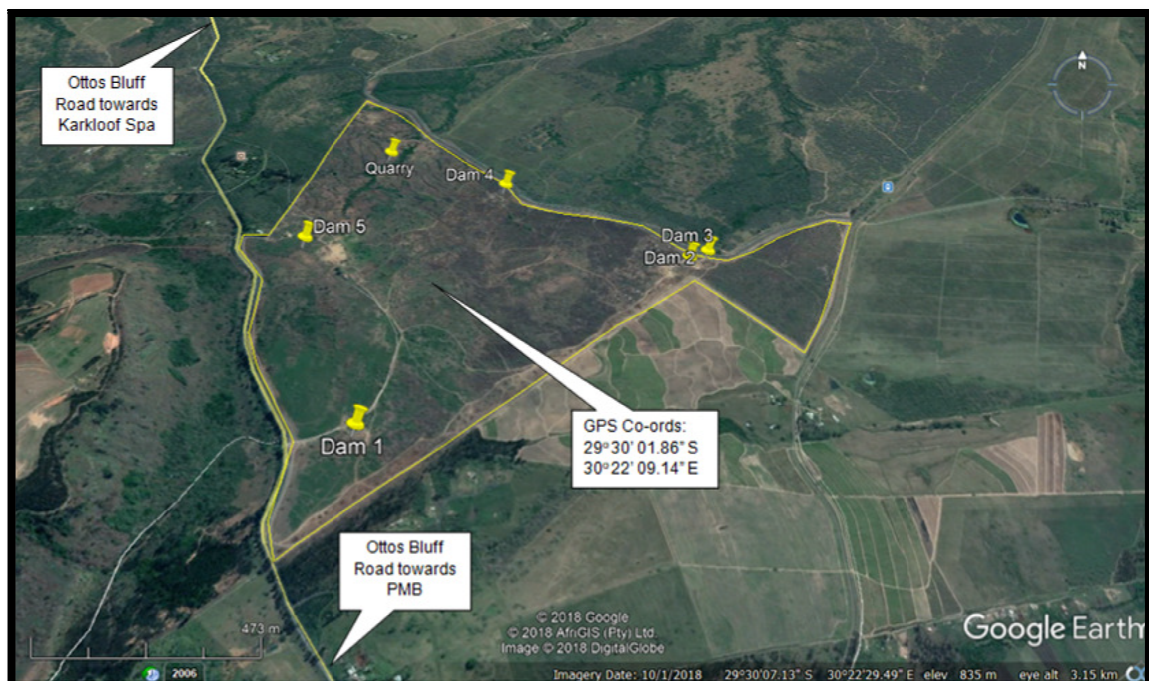
## **6 RECOMMENDATIONS**

As no heritage sites, features or graves occur in the near environs of Rem Of Portion 1 of The Farm Ottos Bluff No. 13013, Ottos Bluff, there is no reason why the proposed development may not proceed from a heritage perspective. It is also probable that no further paleontological surveys may be required pending a final decision by the provincial heritage agency in this regard. It is important to take note of the KwaZulu-Natal Heritage Act that requires that any exposing of fossils, graves and archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

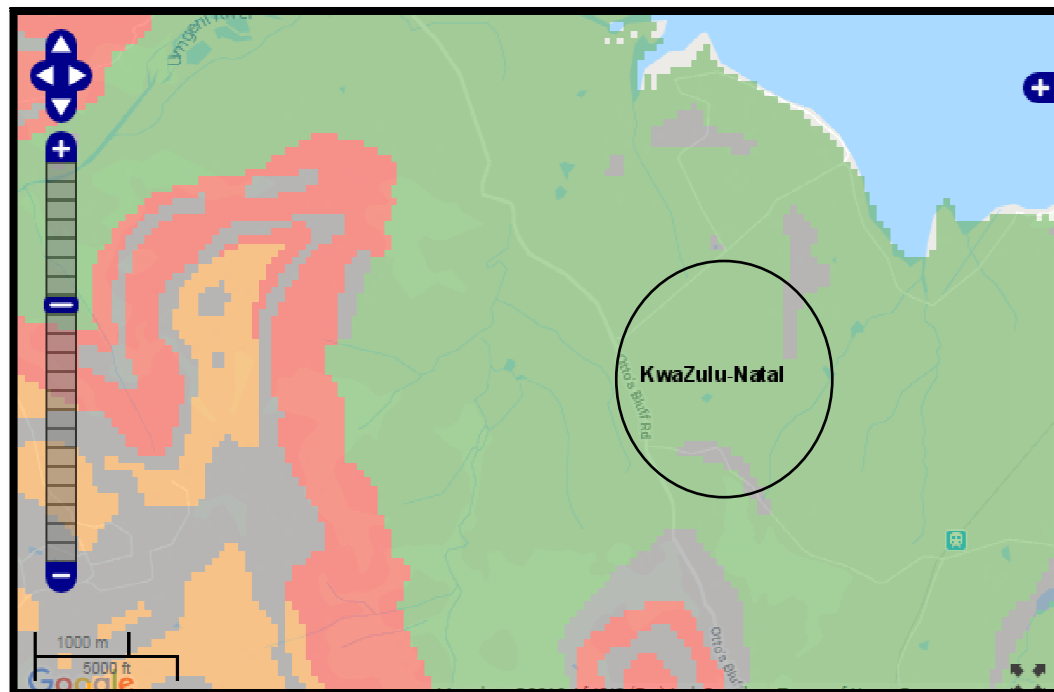
## 7 MAPS AND FIGURES



**Figure 1. Google Earth Imagery the location of the project area at Ottos Bluff to the immediate north of Pietermaritzburg. The purple markers indicate polygons known heritage sites in the greater area. None occur on the actual footprint**



**Figure 2. Google Earth Imagery showing the location of the project area (Source: Green Door).**



1 in 250 000 geological formation layers are courtesy of the [Council for GeoScience](#)

For more information, go to [How to Use the Palaeontological \(fossil\) Sensitivity Map](#)

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 3. SAHRIS Fossil Sensitivity Map of the project area (indicated by the black polygon). The green background colour indicates that a desktop evaluation by a qualified palaeontologist will be required.**



***Figure 4. View over the project area: Dense grassland may obscure heritage features.***



***Figure 5. Roads have already been cut prior to any environmental authorisation.***





***Figure 6. Although vegetation has been cleared in parts the consultant could not find any disturbance of potential heritage sites on the property***



***Figure 7. The remains of the old farmstead on the property is less than 60 years old and has no heritage value.***





***Figure 8. Ottos Bluff Hill is located behind the project area. Later Iron Age Sites are located at the base of this hill, however, these are situated more than 500m from the footprint and no mitigation is necessary.***

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