

**PROPOSED ZUKA VALLEY RESIDENTIAL ESTATE,  
SEAWARD, BALLITO, KWAZULU-NATAL**

**Phase 1 Heritage Impact Assessment**

**15 March 2019**

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## EXECUTIVE SUMMARY

The applicant, R G Upneck Investment (Pty) Ltd, wishes to develop a residential estate that will form part of the greater Seaward Estate in Ballito. The Zuka Valley Residential Estate will be a sectional title development and will comprise 125 units built in 2 phases that will be a mix of 2, 3- and 4-bedroom luxury units.

The extent of the proposed development is 4.1486 hectares (41486 m<sup>2</sup>) hence it triggers section 41 (1)(c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that may require an HIA. The relevant section of the Act refers to the following development: “any development or other activity which will change the character of a site - exceeding 5000m<sup>2</sup> in extent”.

The affected property is Erf 3305, Ballitoville. The site is currently zoned for residential and is situated east of the R627 road.

An inspection of the project area was undertaken on 07 March 2019. Visibility was fair to poor due to dense vegetation. Access to some areas was not possible due to dense vegetation and steep topography; however, the section closest to the R627 areas had been cleared and terraced and visibility was fair to good. Much of the development area is covered with a mixture of indigenous and alien vegetation.

The site of the proposed development was used for the cultivation of sugar cane at the turn of this century. By 2006, sugar cane farming had stopped, and residential development had started in earnest in the surrounding area. The western end of the project area abutting the R627 shows evidence of terracing for a residential development (which did not take place) whilst the rest of the site reverted to a mixture of indigenous and alien vegetation.

The project area nearest to the R627 was found to be disturbed by previous and current preparations for development. A few pathways had been cleared for access and vegetation was dense in uncleared areas. This area was inspected on foot and no heritage resources were found including along the cleared areas.

Phases 1 and 2 of the development are separated by an existing security fence. The topography of the area south-east of the fence is steep and very overgrown with trees, bushes and undergrowth as it extends into the valley. There were cleared areas along the boundary fence lines of the site that were used to access the area as well as an existing pathway west of the

drainage line on the north eastern side of the site. Phase 2 of the development was inspected on foot and no heritage resources were found.

The South African fossil sensitivity map indicates that the project area falls into an area of high fossil sensitivity. An area of high fossil sensitivity requires, at a minimum, a desktop palaeontological assessment. Although the project site is disturbed, it is recommended that because of construction activities, such as piling for foundations, that may extend into the underlying bedrock, a desktop palaeontological study is undertaken prior to construction to assess if such activities could impact on sensitive fossils.

The desktop palaeontological study established that the site is situated on material described as red sand, subordinate white, yellow, brown and purple sand; and basal conglomerate. The red sand is referred to as the Berea Formation and described as Pleistocene in age. This unit rests on the "Berea Boulder Beds", which is undated but is most likely to be 14 million years old. No significant fossils have been recorded from the Berea Formation or the underlying Berea Boulder Beds hence the site is deemed to be not fossiliferous hence work can proceed on the proposed development.

No visible heritage sites were found during the site inspection. Phase 1 of the proposed residential development is situated largely on a hilltop where archaeological sites or settlements could be found. However, this area has been extensively disturbed not only by sugarcane farming but also by previous preparations for the development of the site hence it is unlikely that intact archaeological sites or settlements still exist.

It is therefore recommended that once the desktop palaeontological assessment has been undertaken and its recommendations implemented, the proposed development of the Zuka Valley Residential Estate can proceed from a heritage perspective. The mitigation measures provided in this report must also be implemented and adhered to where applicable

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I, **Jean Lois Beater**, act as an independent specialist for this project and I do not have any vested interest either business, financial, personal or other, in the proposed activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.

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**AUTHOR DETAILS**

<b>Name</b>	<b>Qualification</b>	<b>Professional Registration</b>
Jean Beater (JLB Consulting)	MA (Heritage Studies)  MSc (Environmental Management)	Member of Association of South African Professional Archaeologists (No. 349)  Member of IAIAAsa (No. 1538)

## 1. INTRODUCTION

The applicant, R G Upneck Investment (Pty) Ltd, wishes to develop a residential estate that will form part of the greater Seaward Estate in Ballito. The Zuka Valley Residential Estate will be a sectional title development and will comprise the following: 125 units built in 2 phases; units will be a mix of 2, 3- and 4-bedroom luxury units with garages or parking for residents; visitors parking, a clubhouse and swimming pool. Associated infrastructure will include internal roads <5m wide, stormwater pipes <200mm diameter, water pipes <110mm diameter, sewer pipes <160mm in diameter and domestic electricity network. The development will fall within the security fence of Seaward Estate but have its own entrance via the R627 road (Hornby Smyly Glavovic 2019:2).

This report serves as the Phase 1 Heritage Impact Assessment (HIA) for the proposed Zuka Valley residential development.

## 2. LEGISLATIVE BACKGROUND

The extent of the proposed development is 4.1486 hectares (41486 m<sup>2</sup>) hence it triggers section 41 (1)(c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that may require an HIA. The relevant section of the Act refers to the following development: *“any development or other activity which will change the character of a site - exceeding 5000m<sup>2</sup> in extent”*.

The project may also impact on graves, protected structures, archaeological and palaeontological resources that are protected in terms of sections 37, 38, 39, and 40 of the KwaZulu-Natal Amafa and Research Institute Act, 2018.

In terms of Section 3 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), heritage resources are listed as:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds, including—
  - (i) ancestral graves;

- (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including:
- (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects;
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and
  - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

The Phase I HIA was undertaken to assess whether any heritage resources will be impacted by the proposed development of the Zuka Valley Residential Estate in Ballito.

### 3. LOCATION

The affected property is Erf 3305, Ballitoville. The project site is currently zoned for residential as part of the Seaward Estate development that was approved in 1997. The site is situated east of the R627 road with the centre of the development at 29°32'08.61"S / 31°11'51.49"E. See **Figures 1 and 2** below.



**Figure 1: Residential development outlined in red**





Figure 2: View of residential development within wider environment

#### **4. TERMS OF REFERENCE**

Undertake a Phase 1 Heritage Impact Assessment in order to determine the possible existence of heritage resources, as listed above, that could be impacted by the proposed residential development. Provide mitigation measures to limit or avoid the impact of the residential development on heritage resources (if any).

Submit the HIA report to the provincial heritage resources authority, the namely the KwaZulu-Natal Amafa and Research Institute (hereafter referred to as Amafa), for their consideration and comment.

#### **5. METHODOLOGY**

A survey of literature, including other heritage impact assessment (HIA) reports completed for the surrounding area, was undertaken in order to ascertain the history of the area and what type of heritage resources have or may be found in the area of development.

An inspection of the project area was undertaken on 07 March 2019. Visibility was fair to poor due to dense vegetation. Access to some areas was not possible due to dense vegetation and steep topography; however, the section closest to the R627 areas had been cleared and terraced and visibility was fair to good. Much of the development area is covered with a mixture of indigenous and alien vegetation. To the immediate north-east of the property, outside of the proposed residential site, is a drainage line and wetland comprising indigenous coastal forest that forms part of Seaward Estate's Private Open Space system (Hornby Smyly Glavovic 2019:2).

#### **6. HISTORICAL BACKGROUND OF THE STUDY AREA**

Archaeological evidence shows that Bantu-speaking agriculturists first settled in southern Africa around AD 300. The earliest agricultural sites in KwaZulu-Natal date to between AD 400 and 550. All are situated close to sources of iron ore, and within 15 km of the coast. From 650 onwards, climatic conditions improved, and agriculturists expanded into the valleys of KwaZulu-Natal, where they settled close to rivers in savanna or bushveld environments. Metal production was a key activity since it provided the tools of cultivation and hunting. The evidence indicates that people who worked metal lived in almost every village, even those that were considerable distances from ore sources (eThembeni 2013:18-19).

Around AD 1000, the preferred village locations of the last four centuries were abandoned in favour of sites along the coastal littoral. In general, sites dating to between 1050 and 1250 are smaller than most earlier agriculturist settlements. This new pattern of settlement was in some way influenced by a changing climate, for there is evidence of increasing aridity from about AD 900. A new pattern of economic inter-dependence evolved that continued into the colonial period nearly 500 years later (eThembeni 2013:19).

In terms of the immediate area, Edmund Morewood became interested in growing sugar cane and in 1849 he bought a farm situated between the Tongaat and Mhlali Rivers which he named Compensation (hence Compensation Beach and Compensation Road in Ballito) on which he started to experimentally grow sugar cane. In 1850, he built a crude sugar mill, the first in Natal, and managed to produce the first sugar from his first crop in 1851. Compensation became a focal point of interest in terms of the cultivation and production of sugar. Morewood also discovered coal on Compensation on the side of a cliff, overhanging the sea. Unfortunately, the coal proved to be very inferior (Bulpin, undated:248-249).

The history of the town of Ballito dates back to 1953, when a group of businessmen began identifying land to develop a township in the Compensation Beach area. Ballito was proclaimed a town in 1954 and reached borough status in 1986 (Showme 2009:3).

## **7. RESULT OF SITE INSPECTION**

The site of the proposed development was used for the cultivation of sugar cane at the turn of this century apart from the drainage line and wetland. The Google Earth image from 2002 provided below clearly depicts this.

By 2006, sugar cane farming had stopped, and residential development had started in earnest in the surrounding area. In addition, the western end of the project area abutting the R627 road shows evidence of terracing (see **Figure 4** below) presumably for residential development (which did not take place) whilst the rest of the site reverted to a mixture of indigenous and alien vegetation.



**Figure 3: 2002 Google Earth image of project site**



**Figure 4: 2006 Google Earth image of project site**

The 1942 1:50000 topographical map (below) of the area shows that the project site and surrounds was under cultivation interspersed with trees and bushes.



**Figure 5: 1942 topographical map (2931CA) with approximate position of site outlined in blue**

The project area nearest to the R627 was found to be disturbed by previous and current terracing of the site in preparation for development. This is understood to be Phase 1 of the proposed development. A few pathways had been cleared for access by prospective buyers. Vegetation was dense in uncleared areas. This area was inspected on foot and no heritage resources were found during the inspection including in the cleared areas.



**Figure 6: Terraced area in western half of project site**



**Figure 7: Cleared pathways and vegetation on site**



**Figure 8: Looking over project site towards development on northern boundary of site**



**Figure 9: Southern boundary fence of project site with dense vegetation in foreground**

Remains of a section of bagging which was presumably used either for erosion control or for the terracing of the site in the early 2000s was found during the inspection as can be seen in **Figure 10** below.



**Figure 10: Remains of bagging used for terracing**

Phases 1 and 2 are separated by an existing security fence. The topography of the area south-east of the fence is steep and very overgrown with trees, bushes and undergrowth as it extends into the valley. Fortunately, there were cleared areas along the boundary fence lines of the project site that were used to access the site as well as existing pathways west of the drainage line on the north eastern side of the site. The path appears to have been part of walking route which possibly formed part of the Seaward Estate's Private Open Space system. Phase 2 of the development was inspected on foot and no heritage resources were found.



**Figure 11: Fencing separating Phases 1 and 2 of development**





**Figure 12: Dense vegetation in valley looking towards the north-east**



**Figure 13: Stand of gum trees**

Stands of gum trees occurring on the south-western boundary of the site were inspected but no heritage resources found. The specialist spoke to a security guard patrolling the fence line about potential heritage sites in the project site. The guard stated that he was unaware of any graves on the site.

A wooden bridge located towards the eastern end of the project site was found that crosses the drainage line mentioned above (see **Figure 15** below).



**Figure 14: Pathway through Phase 2 of development**

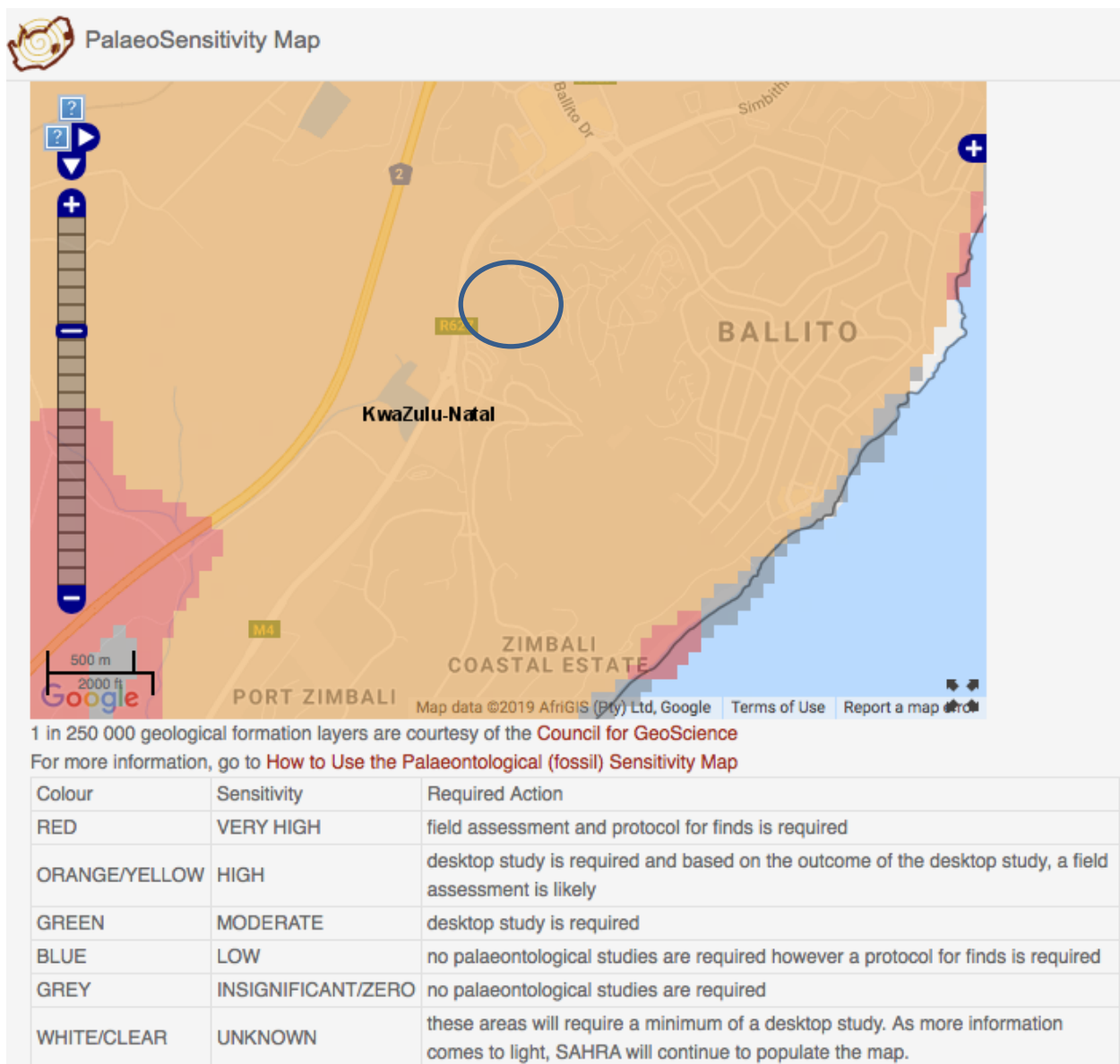


**Figure 15: Wooden bridge over drainage line**

The South African fossil sensitivity map indicates that the project area falls into an area of high fossil sensitivity as indicated by the orange colour in **Figure 16** below. An area of high fossil sensitivity requires, at a minimum, a desktop palaeontological assessment. Although the project site has been impacted, it is recommended that because of construction activities (such as piling

for foundations) that may extend into the underlying geology / bedrock, a desktop palaeontological study is undertaken prior to construction to assess if such activities could impact on sensitive fossils.

The desktop palaeontological study established that the site is situated on material described as red sand, subordinate white, yellow, brown and purple sand; and basal conglomerate. The red sand is referred to as the Berea Formation and described as Pleistocene in age. This unit rests on the “Berea Boulder Beds”, which is undated but is most likely to be 14 million years old. No significant fossils have been recorded from the Berea Formation or the underlying Berea Boulder Beds hence the site is deemed to be not fossiliferous hence work can proceed on the proposed development.



**Figure 16: Palaeontological sensitivity of project site**

## **8. DISCUSSION, RECOMMENDATIONS AND CONCLUSION**

No visible heritage sites were found during the site inspection. Archaeologically, the observed pattern of Iron Age settlement along this coastal littoral is one of hilltop settlements, the dune slacks and valley bottoms being avoided for residential settlement. Hilltops were preferred settlement sites to take advantage of prevailing sea-breezes in a humid sub-tropical climate and wet season drainage. Hilltop winds also lessen exposure to mosquitoes and other biting insects associated with standing water (eThembeni 2017:5).

Phase 1 of the proposed residential development is situated largely on a hilltop; however, this area has been extensively disturbed not only by sugarcane farming but also by previous preparations (terracing, clearing) for the development of the site. Severe damage has taken place and it is unlikely that intact archaeological sites or settlements still exist.

It is therefore recommended that once the desktop palaeontological assessment has been undertaken and its recommendations implemented, the proposed development of the Zuka Valley Residential Estate can proceed from a heritage perspective. The mitigation measures provided below must also be implemented and adhered to where applicable.

## **9. MITIGATION MEASURES**

- For any chance heritage finds, all work must cease in the area affected and the Contractor must immediately inform the Project Manager. A registered heritage specialist must be called to site to inspect the finding/s. The provincial heritage resource agency, the KwaZulu-Natal Amafa and Research Institute (Amafa), must be informed about the finding/s.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Permits must be obtained from Amafa if heritage resources are to be removed, destroyed or altered.
- Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.
- Should any recent remains be found on site that could potentially be human remains, the South African Police Service (SAPS) as well as Amafa must be contacted. No SAPS official may remove remains until the correct permit/s have been obtained.
- All recommendations made by the desktop palaeontological assessment must also be implemented.

## 10. REFERENCES

Bulpin, T.V. Undated. *To the shores of Natal*. Cape Town: Citadel Press

eThembeni Cultural Heritage. 2013. *Phase 1 Heritage Impact Assessment Report: Proposed Greenlands Town Centre at Ballito, KwaDukuza Local Municipality, Ilembe District, KwaZulu-Natal*

eThembeni Cultural Heritage. 2017. *Heritage Scoping Assessment Proposed Mixed Use Development of Ballito Hills Estate by Balwin Properties Ballito Bay, KwaDukuza LM, Ilembe DM, KwaZulu-Natal*.

Hornby Smyly Glavovic. 2019. *Background Information Document for NEMA Environmental Basic Assessment*. Proposed Zuka Valley Residential Estate, Seaward Ballito.

Showme. 2009. *History of Ballito – Dolphin Coast* (<https://showme.co.za/ballito/tourism/history-of-ballito-dolphin-coast/>). Downloaded 11 March 2019