

**PROPOSED RESIDENTIAL / HOTEL DEVELOPMENT,
49 CASUARINE ROAD, TONGAAT, KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

19 February 2019

**Client: 1World Consultants
Roschel Maharaj**

**Author: JLB Consulting
Jean Beater**

EXECUTIVE SUMMARY

The applicant proposes to construct a new residential and hotel development in Casuarina Road, Tongaat, eThekweni Municipality. The development includes the following:

- A maximum 308 residential apartment and hotel block with associated parking.
- Potential widening of a very small portion (approx. 200m) of Casuarina road by 1m to create easy vehicle movement in either direction, and
- On-site waste water treatment.

This report serves as the Phase 1 Heritage Impact Assessment for the proposed development.

The proposed project triggers section 41 (1)(c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments that may require an HIA. The relevant section of the Act refers to the following development/activity: “any development or other activity which will change the character of a site - exceeding 5000m² in extent. The proposed development is 0.54 Ha which is the equivalent of 5400m².

The proposed development will be located at 49 Casuarine Road, Tongaat in KwaZulu-Natal and will be situated on Farm No. 1/620, Farm No. 1/614, Farm No. R/614, Farm No. 612 and Farm No. 613. A site inspection of the project area was undertaken on 07 February 2019. Visibility was good as the property is currently used as a residence with landscaped lawns and gardens.

There are several structures on the proposed development area. The main residence and guest house was built in 1994. There are several other structures situated on the property, three of which could be older than 60 years. One is a house or residence, the second a car port which is currently used for the storage of wood and garden refuse and the purpose of the third structure is unknown. It may have been a guard house or a pump house. The three structures referred to are not in good condition with visible cracks in the house and trees growing into the structure of the carport as well in the third structure.

An inspection of the beach and dunes showed evidence of a shell midden located close to the path used by the applicant to access the beach. The midden consists of shells possibly of brown mussels, oysters and other shell species. Such middens are an indication of the presence of archaeological remains of early inhabitants of the area.

The South African Fossil Sensitivity Map indicates that the project area is situated in an area of very high fossil sensitivity. A desktop palaeontological assessment was undertaken in May 2016 of the property that occurs at the end of Casuarina Road adjacent to the Beach Bums Restaurant.

The fossil sensitivity for both properties is the same as the underlying geology is the same hence the results of the 2016 desktop assessment have been included in this report as they are applicable to the proposed residential and hotel development.

Both properties are underlain by Permian-aged rocks of the Vryheid Formation of the Ecca Group, Karoo Supergroup. The Permian aged Vryheid Formation is a thick sequence of sedimentary rocks dominated by light grey sandstones with interbedded grey shale and thick coal seams. Burial of vegetation in the swamps eventually formed coal which is mined at various localities in South Africa. Very rich assemblage of plant fossils, coal beds and significant trace fossils have been described from the Vryheid Formation. Trenching of more than 1.5m depth will expose bedrock of the Vryheid Formation during excavation for foundations and infrastructure. Management measures recommended in the 2016 study to avoid or minimise potential impacts have been included in this report.

The Built Environment section of Amafa, after perusing photographs of the structures that could be older than 60 years, stated that the windows of the house put the house between the late 1940's and pre 1960's. They also stated that there were features that do not tie in with that period such as the air vents which were required up to 1962. The 1942 and 1969 1:50000 topographical maps of the area were perused and two structures on or in the vicinity of the property under discussion were observed. It is possible that at least one of the structures is over 60 years, and possibly a second structure. It is therefore recommended that client obtain documentation that indicates the date of the structures in order to prove that they are not older than 60 years.

It is also recommended that no activity, developmental or otherwise, take place within 30 m of the beach due to the presence of shell middens that could be damaged by such activity. If development does take place in this area, then prior to any construction activity, the removal of vegetation from the dunes must be monitored by an archaeologist to prevent any damage to shell middens or any other archaeological remains that may be found in the dunes.

The proposed residential and hotel development may proceed once the age of the three structures identified and discussed in this report has been determined. If any of the structures are over 60 years, then application must be made to the KwaZulu-Natal Amafa and Research Institute according to the permit application process.

In addition, all recommendations and additional mitigation measures listed in this report must be implemented prior and during the construction of the proposed residential and hotel development.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
TABLE OF CONTENTS	iv
1. INTRODUCTION	6
2. LEGISLATIVE CONTEXT	6
3. LOCATION	7
4. TERMS OF REFERENCE	7
5. METHODOLOGY	10
6. HISTORICAL BACKGROUND OF THE AREA	10
7. RESULTS OF SITE INSPECTION	11
8. DISCUSSION AND RECOMMENDATIONS	19
9. CONCLUSION	21
10. MITIGATION MEASURES	22
11. REFERENCES	23

FIGURES

Figure 1: Project area outlined in red within wider surrounding area.....	8
Figure 2: Closer image of project area outlined in red.....	9
Figure 3: View of front of main residence.....	11
Figure 4: Side of main residence	12
Figure 5: Back of old house	12
Figure 6: Side of house showing large crack	13
Figure 7: Wooden window frames	13
Figure 8: Interior of house showing scullery	14
Figure 9: Wooden pillar supporting asbestos roof.....	14
Figure 10: Car port.....	15
Figure 11: Tree growing out of car port	15
Figure 12: Old structure with tree.....	16
Figure 13: Interior of structure.....	16
Figure 14: Evidence of a shell midden.....	17
Figure 15: Fossil sensitivity of property to be developed outlined in blue	18
Figure 16: Geology of larger area underlain by sedimentary rocks of the Vryheid Formation (Anderson:37).....	19
Figure 17: 1942 topographical map showing structure indicated with red arrow	20
Figure 18: 1969 topographical map showing structures.....	21

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.

AUTHOR DETAILS

Name	Qualification	Professional Registration
Jean Beater	MA (Heritage Studies) MSc (Environmental Management)	Member of the Association of South African Professional Archaeologists (No. 349) Member of IAIAAsa (No. 1538)

1. INTRODUCTION

The applicant, Mr Anant Singh, proposes to construct a new residential and hotel development at 49 Casuarina Road, Tongaat, eThekweni Municipality. The development includes the following:

- A maximum 308 residential apartment and hotel block with associated parking;
- Potential widening of a very small portion (approx. 200m) of Casuarina road by 1m to create easy vehicle movement in either direction, and
- On-site waste water treatment.

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

2. LEGISLATIVE CONTEXT

The proposed project triggers section 41 (1)(c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments that may require an HIA. The relevant section of the Act refers to the following development/activity: *“any development or other activity which will change the character of a site - exceeding 5000m² in extent”*. The proposed development is 0.54 Ha which is the equivalent of 5400m².

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 (NHRA), 1999 (Act 25 of 1999), heritage resources are described as follows:

- (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 residential and hotel development.

3. LOCATION

The proposed development will be located at 49 Casuarine Road, Tongaat situated on the following erven: Farm No. 1/620, Farm No. 1/614, Farm No. R/614, Farm No. 612 and Farm No. 613. The centre of site is located at 29° 36' 12.42" S 31° 9' 47.96" E. See **Figures 1** and **2** below.

4. TERMS OF REFERENCE

Undertake a Phase 1 Heritage Impact Assessment (HIA) in order to determine the possible existence of heritage resources (as listed above in Chapter 2) in the project area that could be impacted by the proposed development. Provide mitigation measures to limit or avoid the impact of the construction of the project on heritage resources (if any).

Submit this HIA report to the heritage authority of KwaZulu-Natal, namely the KwaZulu-Natal Amafa and Research Institute for their consideration and comment.



Figure 1: Project area outlined in red within wider surrounding area



Figure 2: Closer image of project area outlined in red

5. METHODOLOGY

A survey of literature, including HIA reports deposited onto the SAHRIS database, was undertaken of the area in order to place the project in a historical context.

A site inspection of the project area was undertaken on 07 February 2019. Visibility was good as the property is currently used as a residence with landscaped lawns and gardens.

6. HISTORICAL BACKGROUND OF THE AREA

The proximity of the proposed development to the beach indicates probable occupation of the area by the very early inhabitants of KwaZulu-Natal. Anderson states that there are many archaeological sites in the surrounding area. Most of these sites are the result of systematic surveys. These sites include all types of Stone Age and Iron Age sites. There are six archaeological sites within the vicinity of the proposed area of development that consist of Late Stone Age shell middens and Early Iron age shell middens. A general rule of thumb for the coastal line is that any area within 1km of a beach rock outcrop will have a very high density of archaeological sites. The outcrops have shellfish that formed a large portion of past inhabitants diets. The shell middens alongside these outcrops can be food processing sites and/or living areas and are important when recreating the past (Anderson 2016:14).

Girls and Boys Town occupies the 100 year old Genazzano mission station which has assisted troubled children since 1978 (Showme 2009:1) It was started on 23 October 1895 when the first lot of ground was purchased by the Dominican Sisterhood of Oakford. The second lot was bought on 21 November 1912 by the same Sisterhood (CNC 1914: 184-1914/1510). The institution is situated about 1.5 km south of the proposed development.

In 1979, a South African fishing boat called Ocean Surf ran aground in the vicinity of the proposed development. Information is very scarce about the wreck but it is understood that it ran aground because of engine failure. Possibly one crew member drowned. According to an eyewitness, salvage workers cut the ship in half to try and remove it. The beach was strewn with big chunks of the ship for years and the mast of the ship lay where the parking lot is currently situated (Murugan, 2014:1).

7. RESULTS OF SITE INSPECTION

There are several structures on the proposed development area. The main residence and guest house was built in 1994 according to the architect working on the project. The residence is currently used by the applicant.



Figure 3: View of front of main residence

There are several other structures situated on the property, three of which could be older than 60 years. One is a house or residence, the second a car port which is currently used for the storage of wood and garden refuse and the purpose of the third structure is unknown. It may have been a guard house or a pump house.

The three structures referred to are not in good condition with visible cracks in the house and trees growing into the structure of the carport as well in the third structure. Wooden window frames, wooden supports and asbestos roofing are found in the structures.



Figure 4: Side of main residence



Figure 5: Back of old house



Figure 6: Side of house showing large crack



Figure 7: Wooden window frames



Figure 8: Interior of house showing scullery



Figure 9: Wooden pillar supporting asbestos roof



Figure 10: Car port



Figure 11: Tree growing out of car port



Figure 12: Old structure with tree



Figure 13: Interior of structure

An inspection of the beach and dunes showed evidence of a shell midden located close to the path used by the applicant to access the beach. The middens consists of shells possibly of brown mussels, oysters and other shell species. Such middens can extend inland for several meters and are an indication of the presence of archaeological remains of early inhabitants of the area.



Figure 14: Evidence of a shell midden

The South African Fossil Sensitivity Map indicates that the project area is situated in an area of very high fossil sensitivity as indicated by the red colour in **Figure 15** below with a very small overlap into high fossil sensitivity.

It should be noted that a desktop palaeontological assessment was undertaken in May 2016 of the property that occurs at the end of Casuarina Road adjacent to the Beach Bums Restaurant. The structure that used to be on the property was commonly referred to as “The (Westbrooke) Ghost House” (Anderson 2016:3). The fossil sensitivity for both properties is the same as the underlying geology is the same hence the results of the 2016 desktop assessment have been included in this report as they are applicable to the proposed residential and hotel development.

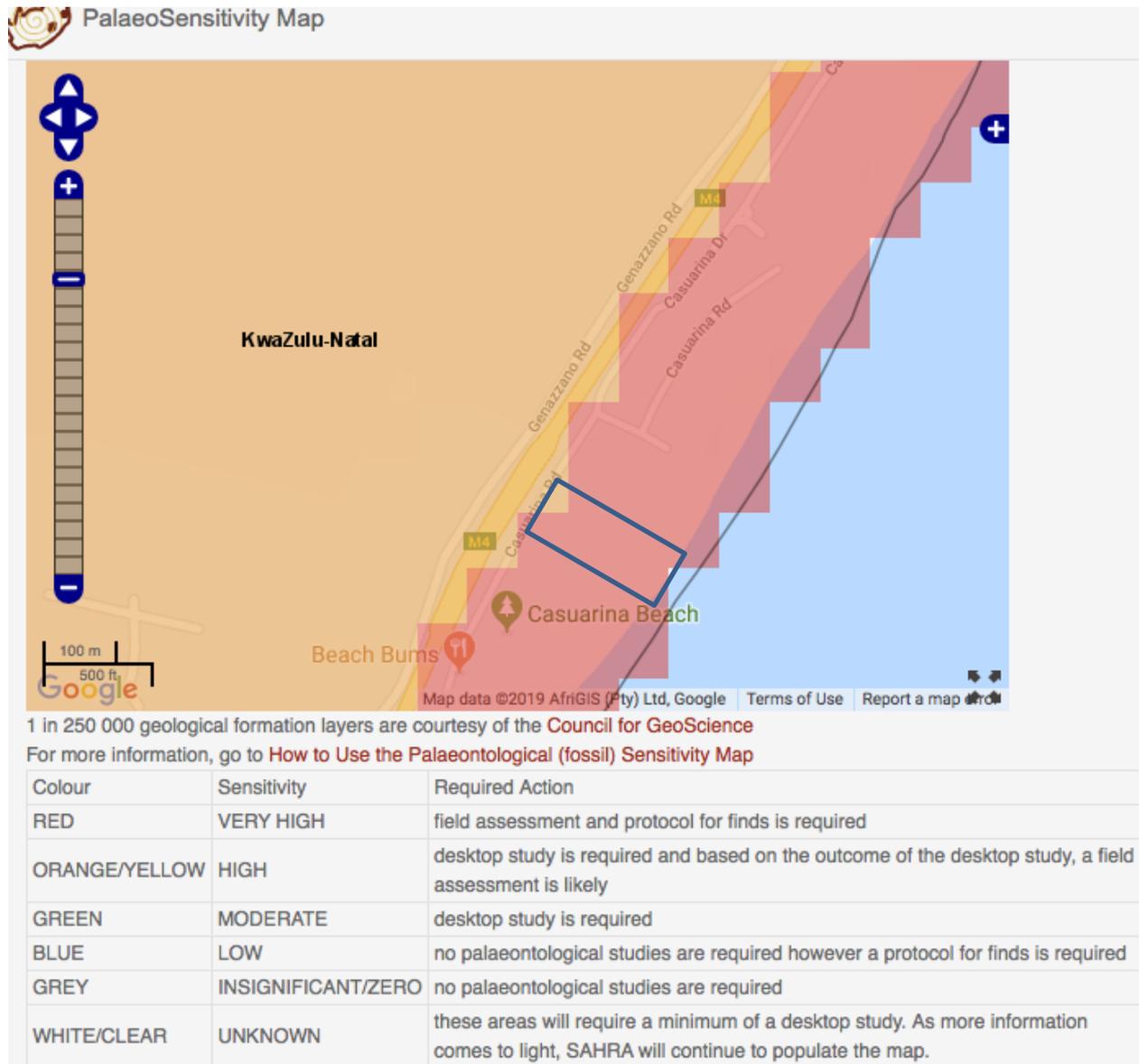


Figure 15: Fossil sensitivity of property to be developed outlined in blue

Both project areas are underlain by Permian-aged rocks of the Vryheid Formation of the Ecca Group, Karoo Supergroup that extends to the north and south of the project area (see **Figure 16** below). The Permian aged Vryheid Formation is a thick sequence of sedimentary rocks dominated by light grey sandstones with interbedded grey shale and thick coal seams. These sandstones were deposited along ancient sandy shorelines behind which lay vast swamplands. Burial of vegetation in the swamps eventually formed coal which is mined at various localities in South Africa. Very rich assemblage of plant fossils, coal beds and significant trace fossils have been described from the Vryheid Formation (Anderson 2016:38).

Although no vertebrate fossils have been recorded from the Vryheid Formation, invertebrate trace fossils have been described in some detail. It should be noted that the aquatic reptile, *Mesosaurus*, which is the earliest known reptile from the Karoo Basin, as well as fish

(*Palaeoniscus capensis*), have been recorded in equivalent-aged strata in the Whitehill Formation in the southern part of the basin that might be correlated with the mid-Vryheid Formation. Therefore, there is a possibility that *Mesosaurus* could be found in the Vryheid Formation (Anderson 2016:38-39).

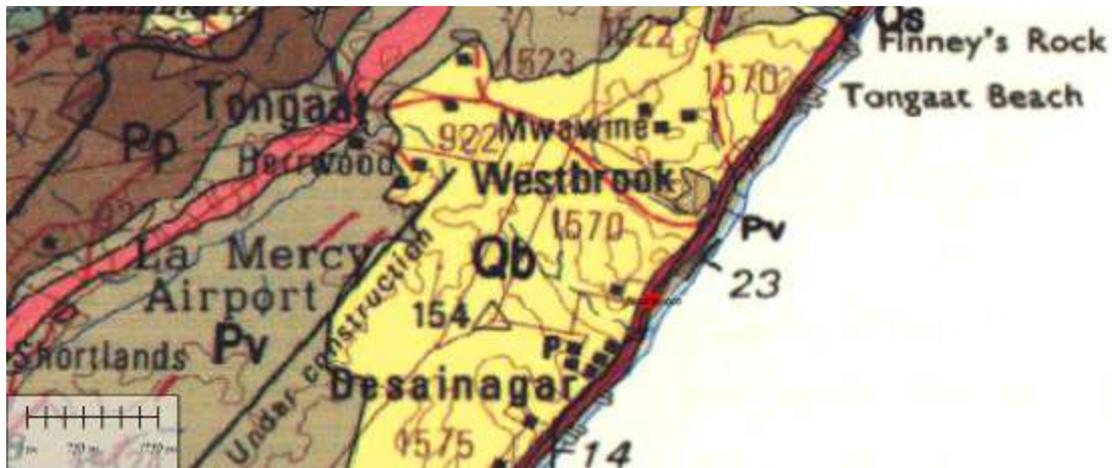


Figure 16: Geology of larger area underlain by sedimentary rocks of the Vryheid Formation (Anderson:37)

The palaeontological sensitivity of the development is related to the specific geology that underlies the development footprints. Trenching of more than 1.5m depth will expose bedrock of the Vryheid Formation during excavation for foundations and infrastructure (Anderson 2016:39). Management measures recommended in the 2016 study to avoid or minimise potential impacts on sensitive fossil finds are provided in the Chapter below.

8. DISCUSSION AND RECOMMENDATIONS

The Built Environment section of Amafa, after perusing photographs of the structures that could be older than 60 years, stated that the windows of the house put the house between the late 1940's and pre 1960's. They also stated that there were features that do not tie in with that period such as the air vents which were required up to 1962. The Built Environment section advised that the applicant make application to Amafa for the demolition of the structures unless it is proven that the structures are not older than 60 years.

The 1942 1:50000 topographical map (2931CA) of the area shows one structure (see **Figure 17** below) on or in the vicinity of the property and the 1969 topographical map shows 2 structures (see **Figure 18**) on or in the vicinity of the property under discussion. No maps from the intervening years could be found. Therefore, at least one of the structures could be over 60 years and it is possible that a second structure could be over 60 years.



Figure 17: 1942 topographical map showing structure indicated with red arrow

According to section 37(1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, no structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the KwaZulu-Natal Amafa and Research Institute having been obtained on written application to the Institute.

It is therefore recommended that if the client does not want to apply for a permit to destroy the three structures, then the client should find documentation indicating the date of the three structures to prove that they are not older than 60 years.

It is also recommended that no activity, developmental or otherwise, take place within 30 m of the beach due to the presence of shell middens that could be damaged by such activity. If development does take place in this area, then prior to any construction activity, the removal of vegetation from the dunes must be monitored by an archaeologist to prevent any damage to shell middens or any other archaeological remains that may be found in the dunes.

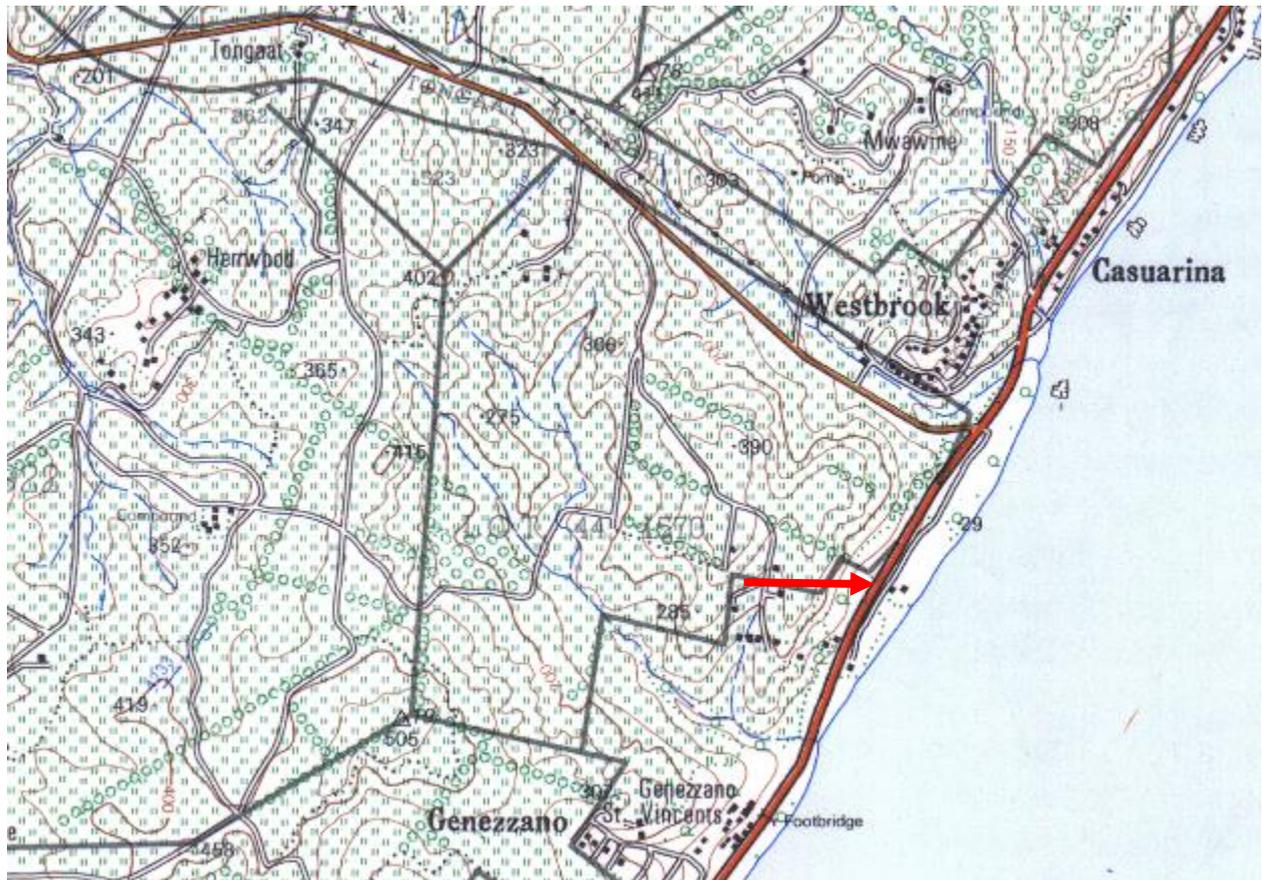


Figure 18: 1969 topographical map showing structures

Due to the property having a very high palaeontological sensitivity, the following is recommended:

- all areas where trenching or excavation for infrastructure will be deeper than 1.5m must be identified during geotechnical surveys. Where the trenches and excavations will reach this depth, a suitably qualified palaeontologist must be appointed to record and collect the fossils according to South African Heritage Resources Agency (SAHRA) and Amafa specifications as part of a Phase 1 palaeontological impact assessment during the initial stages of excavation.
- The ECO of the project must be informed of the fact that significant plant fossils may be found because the area is underlain the Vryheid Formation.
- These recommendations must form part of the EMP for the project.

9. CONCLUSION

The proposed residential / hotel development may only proceed once the age of the three structures identified and discussed in this report has been determined. If any of the structures are over 60 years, then application must be made to the KwaZulu-Natal Amafa and Research Institute according to the permit application process.

In addition, all recommendations listed above and the additional mitigation measures included in Chapter 10 must be implemented prior and during the construction of the proposed residential and hotel development.

10. MITIGATION MEASURES

- The construction team should be made aware that heritage resources, such as archaeological remains, usually occur below the ground surface level. Should any archaeological material and other heritage resources be accidentally unearthed during the course of construction, all such activities are to be halted immediately, and the Contractor will immediately inform the Project Manager. A registered heritage specialist must be called to site for inspection. Amafa must also be informed about the findings.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Written permission must be obtained from Amafa if heritage resources are to be removed, destroyed or altered.
- All heritage resources found in close proximity to the construction area to be protected by a 5m buffer in which no construction can take place. The buffer material (danger tape, fencing, etc.) must be highly visible to construction crews.
- 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 as well as Amafa must be contacted. No SAPS official may remove remains (recent or not) until the correct permit/s have been obtained..

11. REFERENCES

Anderson, G. 2016. *Survey of the Proposed Tongaat Coastlands Hotel, Tongaat, Casuarinas, KwaZulu-Natal*. Unpublished report

Murugan, A. 2014. Shipwreck, Tongaat Beach-Durban. (<https://www.flickr.com/photos/83211466@N02/11927548163>). Retrieved 12/02/2019

Pietermaritzburg Archives Depot. 1914. *Chief Native Commissioner files, Vol. 184, Reference 1914/1510*. Application of Dominican (Roman Catholic) Sisterhood for exemption of Oakford and Genazzano Mission Stations from operation of Native Land Act, 1913.

Showme. 2009. *The most valuable property on the Dolphin Coast*. (<https://showme.co.za/ballito/tourism/the-most-valuable-property-on-the-Dolphin-Coast>). Retrieved 12/02/2019

Urban-Econ. 2008. *Tongaat Local Economic Development Strategy 2008*. Unpublished report submitted to eThekweni Development Unit and KZN Department of Economic Development.